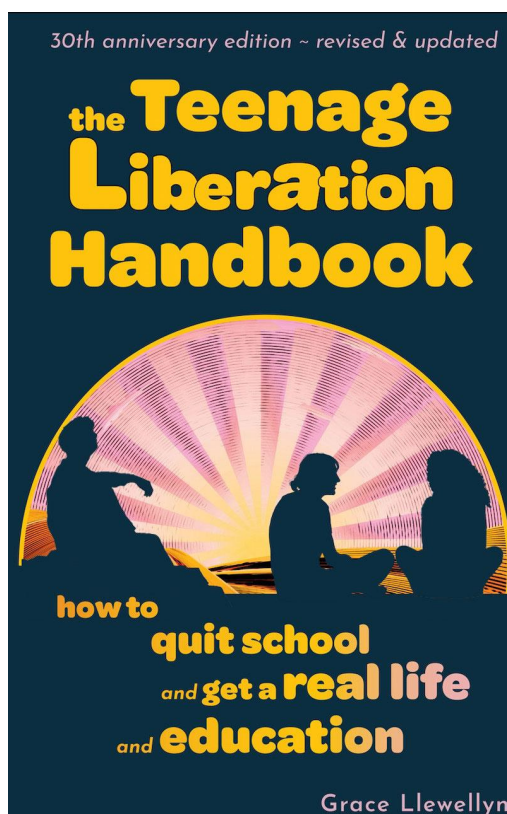


The Teenage Liberation Handbook

How to Quit School and Get a Real Life and Education

Grace Llewellyn



2021

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[Front Matter]

Fresh thoughts for the 30th Anniversary edition

“At MIT, grad students pass *The Teenage Liberation Handbook* around in secret to set our minds free from institutional thinking. Without it, I would not be the founder of a successful electronics company. It lit me on fire, and my learning went from regimented to an out-of-control fire hose. In fact, I assigned readings from this book to my own MIT grad students—in teaching ‘invention literacy,’ self-directed learning is essential to a hacker mindset: a way of exploring knowledge and possibilities beyond the path.”

—Jay Silver, Founder/CEO MakeyMakey, PhD MIT Media Lab

“This handbook shook up my family’s views of learning and life, and gifted us with liberating and exhilarating new ways of experiencing our unschooling journey. Its refreshing rebellious philosophy is infused into our lives to this day. This is a must-read for anyone who is considering the grand adventure of unschooling.”

—Leo Babauta, author and blogger, Zen Habits (ZenHabits.net)

“Three pivotal events divide my life into ‘Before’ and ‘After’ moments: 1) meeting my wife, 2) becoming a parent, and 3) reading *The Teenage Liberation Handbook*. Before reading this book, I was a teacher committed to reforming schools by working my way up the system. After reading it, I was derailed into leaving the system to start a program that would help all of my students use the wisdom and lifestyle described in these pages. . . . I propose this book be handed out to all adults embarking on retirement just as much as it might be shared with teens who are seeking another way to live.”

—Ken Danford, co-founder of North Star Self-Directed Learning and Liberated Learners, author of *Learning is Natural, School is Optional*

“I love that this version of Grace’s book speaks to some of the non-romantic realities of unschooling. . . . I encourage the slow drinking in of this book. . . . Grace offers plenty of madd question-askin’ opportunities, and plenty of invitations to challenge what you thought you knew about the purpose

and power of education, so that you can be a liberation zone for a young person in your life.”

—Akilah S. Richards, Unschooling Organizer | Audio Nerd, Author: Raising Free People: Unschooling as Liberation and Healing Work

“When I was a disillusioned public school teacher, a chance encounter with *The Teenage Liberation Handbook* changed my life. It gave me hope that a better and more meaningful life was possible for the young people I worked with—and for me too. This book is a great starting point for teens (and their parents) who suspect they could learn more and live better without school.”

—Joel Hammon, co-founder of Princeton Learning Cooperative and Liberated Learners, author of *The Teacher Liberation Handbook*

“Grace Llewellyn inspired many teenagers, and their parents, to let go of a schooled mindset and embrace the freedom of life without school. In this spectacular, updated edition we are inspired all over again by her wisdom and work over the past 30 years.”

—Kerry McDonald, author of *Unschooling: Raising Curious, Well-Educated Children Outside the Conventional Classroom*

“Thirty years ago, I cheered loudly when *The Teenage Liberation Handbook* was published and have recommended it to families ever since. This new, updated edition provides parents and teenagers with the best ideas and proven strategies for helping teenagers find their place in the world without conventional schooling. *The Teenage Liberation Handbook* is an evergreen resource for enabling self-directed education.”

—Patrick Farenga, co-author of *Teach Your Own* and publisher of *Growing Without Schooling* magazine

On previous editions of *The Teenage Liberation Handbook*

“This is a very dangerous book. It contradicts all the conventional wisdom about dropouts and the importance of a formal education. It is funny and inspiring. Do not, under any circumstances, share this book with a bright, frustrated high-schooler being ground into mind fudge by the school system. This writer cannot be responsible for the happiness and sense of personal responsibility that might [result].”

—Pat Wagner in *Bloomsbury Review*

“Heartily recommended to every flavor of human being, not just teenagers. . . . Sooner or later you’re going to realize that you’ve been cheated out of a real life by missing a real education—when that time comes Grace Llewellyn’s Handbook will save you a thousand hours of frustration, false starts and missed opportunities. Anyone who follows this clear blueprint is certain to meet the future with courage, enthusiasm, resourcefulness and the abundant love of life that the author has. She demonstrates brilliantly that school and education are two very different things, defining the latter precisely and with such a wonderful zest the reader is left dazzled with his own rich possibilities. Get this book now so it will be on hand for the great emergency when you wake up.”

—John Taylor Gatto, New York State Teacher of the Year, 1991, author of *Dumbing Us Down: The Hidden Curriculum of Compulsory Schooling*

“Bursting with clever strategies, valuable resources and wise guidance on how to design an interest-driven self-education. It was the sole inspiration for our family to take on an endeavor we thought was out of the question.”

—Griff Wigley in *The Millennium Whole Earth Catalog*

“Every teenager, schooled or not—and every parent of a teenager—should get a chance to read *The Teenage Liberation Handbook*. It is a real eye-opener to many of life’s possibilities, as well as a celebration of the personal freedoms homeschoolers enjoy. . . . Llewellyn’s dream, it seems, is to set every teenager free to think and explore for herself, to make her world what she wants it to be. . . . Even as an adult she’s affected my life and encouraged me to new heights. She understands well what it’s like to be a teenager, and she has anticipated every question and every argument that teenagers are likely to bring up. . . . Give copies to kids having problems, anxious parents, everyone you can think of. Do your part to liberate teenagers everywhere!”

—Pam Gingold in the Northern California Homeschool Association Newsletter

“This book could foment revolution. . . . Brilliant and wise, it’s brimming with insight, information and humor. . . . *The Teenage Liberation Handbook* should be required reading (for those who believe in required reading) or simply pleasure reading for anyone who’s ever wondered what they’re doing in school.”

—Kirsten Chevalier in *Merlyn’s Pen*

“The TLH is more than a book. It’s a map, . . . well written and entertaining. Shall I beg you to read it? If I must. . . . Please? Please read this

book . . . it'll help! It's not like other books, this one is only looking out for your best interests. . . . Sometimes funny, sometimes sad, but always thought provoking, the TLH is for anyone who wakes up with pains in their stomach at the thought of another day of rote memorization and pointless busywork."

—Michael Condon in *In 2 Print*

"Uh-oh. State schools keep turning out partially literate drones. . . . I have found the single essential book for those who value learning but not school and want to slap society to its senses. The Teenage Liberation Handbook is a complete tool kit for aspiring human beings. . . . This review cannot convey to you the loopy daring and wonder of Grace Llewellyn's prose, the sheer megatonnage of shock value in her suppositions. . . . Get this book. Order many copies and infiltrate them into school libraries, leave them at bus stops and in plain view of the neighbor's kids and in the Education Department of your local university. . . . I'd lend you my copy, but there is a fair queue of people waiting for it."

—Brien Bartels in *LUNO (Learning Unlimited Network of Oregon)*

"Inspiring and very practical. . . . Llewellyn helps her readers think about what they can do by giving them examples of what actual teenagers have done, so her book is grounded in concrete experience. She answers all of the common questions about learning outside of school and helps teenagers see that they can take control of their lives and make adolescence, instead of the stereotypical period of boredom, alienation, and rebellion that we are accustomed to, a time of interesting discoveries, real learning, and meaningful work."

—Susannah Sheffer, editor of *Growing Without Schooling* magazine, author of *Writing Because We Love To: Homeschoolers at Work*, and *A Sense of Self: Homeschooled Adolescent Girls*

"What a wonderful book! I sat down with it intending to glance through it now and give it more attention later—only to find myself unable to put it down. Everything is there—not only do you have many wise and on-target things to say to the teenagers you wrote the book for, but you've succeeded in putting together a great sourcebook for homeschoolers as well as the best book on education that I've come across in a long, long time. . . . How good it would be if every teacher, every school administrator, and, of course, schoolchild, who knows that there must be a better way, had a copy of this book."

—David Colfax, author of *Homeschooling for Excellence and Hard Times in Paradise*, father of three homeschooled Harvard graduates

“This book will inspire formal school students to leave school and take control of their time; will embolden homeschoolers to be courageously creative about their educations; and will encourage parents to trust their children’s choices. Gives gentle guidance for those who are uncertain about how to make autodidactism a glorious reality. Packed with unschooling philosophy and a wealth of resources.”

—Clonlara Home Based Education Program

“[Llewellyn’s] enthusiasm for learning, her great faith in kids, and the wonderful educational possibilities she presents will make her book tantalizing reading for teens who can’t make it in school but have the discipline and the passion to learn on their own.”

—American Library Association Booklist

“Every autodidact should get down on their knees in gratitude to Grace Llewellyn for her commitment to education in the true sense of the word. Every house that has a teenager should also have a copy of *The Teenage Liberation Handbook*. . . . Important and magical.”

—Kendall Hailey, author of *The Day I Became an Autodidact*

“An irreverent and thought-provoking guide, . . . very thorough and highly entertaining.”

—Home Education Magazine

“Packed with information for young people who want more than schools can offer. . . . An invaluable and unique resource. . . . Llewellyn knows how to speak directly and persuasively to young readers, and even those who do not decide to leave school after reading her book will have a hard time viewing formal education in quite the same way again. . . . Llewellyn presents a credible and appealing case for becoming self-taught. . . . This is a fascinating, frightening, and exhilarating book that is sure to prove controversial among parents and teachers. At the very least it will open eyes and minds. At the most it might open whole new worlds of possibilities for its young readers.”

—Voice of Youth Advocates Magazine (VOYA)

“This is the classic book that changed all of our lives. If you don’t get what we’re doing, it’s because you haven’t read this book.”

—The Self-Education Foundation

“No homeschooling teenager should be without this book, which will get you excited about learning, even if you’re long past your teens.”

—Mary Griffith in *The Homeschooling Handbook*

Dear Grace Llewellyn . . .

"I am (almost) unable to summon words to express my thanks and admiration. . . . I am 28, graduated from Berkeley and have one master's degree and have almost completed another. But it struck a deep chord. . . . There is so much joy for life in your book, such a passion for learning. . . . While reading your book, I decided to unschool myself. I needed to detox, to get some real pleasure out of learning again! . . . You have changed my life."
—M.M., Sunnyvale, California

"I've just finished reading *The Teenage Liberation Handbook* and I really can't find words to tell you how helpful it was to me. You've just dredged all my fears and hassles out, looked at them, and waved them goodbye. . . . The Handbook [gave] me back that faith [in my kids] and [made] me look at them again. And I saw that to take their freedom, inventiveness, curiosity, energy, and joy and bury them in a classroom would be a terrible waste of vital life. . . . Thank you for giving me back that confidence. Thanks for your enthusiasm and trust and love in these kids." —T.S., Ireland

"I originally bought *The Teenage Liberation Handbook* to prepare and encourage myself for my two sons' coming teen years. . . . I came away with a lot more than I had expected. I felt like a teenager again while reading it. . . . It's time to get on with life!"—G.M., Santa Cruz, California

"My heart is so full! So full of excitement, terror, doubt, and possibilities. . . . I'm a 19-year-old college freshman . . . who's just come to the realization that I'm one of the (too) many teenagers in the world who've sat through thirteen years of school squashing our dreams. I never even imagined there was a not only plausible alternative, but an IDEAL alternative . . . but this isn't a letter of regret or sorrow, it's a letter of hope."—J.T., Madison, Ohio

"I have been unschooled all my life, but your book made me want to go to school so I could quit!" —M.O., Conway, Arkansas

"Thank you for your *Teenage Liberation Handbook*. I purchased it last weekend and read it at one sitting. . . . I am a credentialed home school instructor working for a County Office of Education Home School Program. . . . I am recommending to all my families that they read your book, as it has profoundly affected me at an age and point in my life where I certainly didn't expect it! . . . What I really want to thank you for is my own liberation. After reading your book, I have felt the renewed excitement and energy of learning again for myself, my way, without having to make

excuses, apologize for it or wrap it up in an acceptable facade—acts that have wasted too much of my energy. I have visited schools in about thirty countries, looking for ideas, methods, trends and patterns that connect learning and growing with life and the community in hopes of being able to help my students do the same. Your book was the quickest (and cheapest) of those journeys I have yet made.”—R.F.D., Newcastle, California

“I’m 17 years of age. This is my second year in homeschooling and I love it. I’m finding creative ways to learn by experimenting with different sorts of books and materials. . . . Once I picked up [your book] I couldn’t put it down! . . . The way you described what it would be like to leave school was exactly how it was for me. In the morning, now I can wake up happy instead of frustrated and depressed all the time.”—C.J., Goldendale, Washington

“A few weeks ago, my parents bought me your book. It is hard to describe the difference in my life. I no longer feel alone, or as though I am running from captivity. . . . I feel free and, yes, blessed: my imagination has flowered, I am physically, mentally, and spiritually stronger.”—A.E.G., sixteen, Bellevue, Idaho

“Let me start out by saying how much I enjoyed reading your Teenage Liberation Handbook! To say that it was a breath of fresh air is a drastic understatement. . . . It nearly knocked me off my feet (and my career path—I’m a teacher)! I couldn’t put it down until I had completely savored every last boat-rocking word. While it made it difficult for me to muster up the motivation to get back in the classroom this year, your book gave me an inspiring perspective that I’m certain will influence the way I look at education from now on.” —J.S., Seattle, Washington.

“Reading The Teenage Liberation Handbook gave our 14-year-old daughter the last dose of courage she needed to walk out of Waluga Junior High School . . . one morning last May, vowing never to return! It also forced her father and me to open our hearts and minds to hear her, to become her advocates, and fight for her freedom. . . . Each day, the freedom and difference in our lives without school is an incredible gift. I have watched [her] heal from the social assaults she was exposed to on a daily basis, becoming strong, healthy, happy, and an even more thoughtful and delightful person in every way than she was before.”—K.L., Portland, Oregon

“Your Teenage Liberation Handbook really gave me the courage to allow my son, and then my daughter, to leave high school. It is no exaggeration to say that it changed my life, which, as the mother of four young people who were miserable in school and desperate for a new perspective, is no

small thing. I am also untangling my own—mostly boring—mostly useless education . . . and becoming an outspoken proponent of self-education. What an exciting new adventure you helped launch here in my family!”
—M.P., California.

“My son Adam, and I, recently discovered your two books and ‘devoured’ them quickly. What a wonderful vision you have for children, particularly those in their teens. Your words are soothing, encouraging and inspiring and have played a large part in Adam’s decision to resume homeschooling at the age of fifteen. His younger sisters are at home and we are having a marvelous time together. As for myself, I have rediscovered my own conviction that people can be responsible for their own learning at any age.”
—C.W., Portland, Oregon

[Other Books by the authors]

Edited by Grace Llewellyn:

Real Lives: Eleven Teenagers Who Don’t Go to School Tell Their Own Stories
(Lowry House, 2005)

Freedom Challenge: African American Homeschoolers (Lowry House, 1996)

By Grace Llewellyn and Amy Silver:

Guerrilla Learning: How to Give Your Kids a Real Education With or Without School (Wiley, 2001)

[Title Page]

The
Teenage
Liberation
Handbook
how to quit school and
get a real life and education
Third Edition
Grace Llewellyn
Lowry House Publishers
Eugene, Oregon

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The Teenage Liberation Handbook:

HOW TO QUIT SCHOOL AND GET A REAL LIFE AND EDUCATION

Third edition, revised and updated

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[Dedication]

For little cats X, Y, and Z

[Epigraphs]

I recognize June by the flowers, now. I used to know it by review tests, and restlessness.

—Lisa Asher, unschooled teenager, in *Growing Without Schooling* magazine

What is life? It is the flash of a firefly in the night. It is the breath of a buffalo in the winter time. It is the little shadow which runs across the grass and loses itself in the sunset.

—Crowfoot, Blackfoot warrior and spokesman

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Content warning

This book mentions or discusses many topics which can be disturbing or triggering. Such topics include (but are not limited to): ageism, alcohol, anxiety, climate change, depression, genocide, police violence, racism, sex, sexual violence, slavery, and suicide.

U.S. orientation

The commentary throughout this book generally refers to unschooling and other activities in the United States. Exceptions are, for the most part, identified as such. It is hoped, however, that most of this book will also be useful and relevant for readers outside the U.S.

Recommended websites and other internet resources

A number of internet resources have been recommended throughout this book, in some cases with embedded links, and/or with their domain names, URLs, or other specifics. These types of resources (and their locales) often change, so the author and publisher cannot predict whether such references will remain accurate. When knowledge, time, and energy allow, updates and corrections may be posted at TeenageLiberation.space.

About the people quoted in this book

Many homeschoolers and unschoolers are quoted or described throughout this book. Most of this material comes from Growing Without Schooling magazine, and is identified as such—usually abbreviated GWS. Where not specified, the source of these quotes is the author’s personal correspondence.

When a person’s age is mentioned, it refers to the time of writing. (Related: where dollar amounts are mentioned, they too refer to the time of writing—usually the 1980s or 90s, sometimes earlier, occasionally later.)

Caveat emptor

Unschooling is a liberating, life-affirming path for many. For others, it may not be a positive choice. Other peoples' ideas and experiences (such as those shared throughout this book) may be helpful, but ultimately unschooling rests on the ability to cultivate and heed one's own inner guidance. That inner guidance is essential not just while unschooling, but also beforehand: while deciding whether to even set out upon the adventure of leaving school. And, for most youth the best decision will involve thoroughly discussing and considering together with parents.

introduction to the third edition

Hello

again!

I have spent much of these last thirty years—the time lapsed since the first *Teenage Liberation Handbook* went out to make its way in the world—feeling stunned and grateful.

This book—which I once hoped might, if things turned out better than I dreamed, reach one stifled teenager and help them escape—has in fact reached many teenagers and catalyzed them way beyond escape into a dazzling spectrum of adventures I could never have predicted. Perhaps you, who are now reading these words, once placed a copy of this book in a pair of young hands and changed a life. Perhaps you, as a young person, read this book and trusted both yourself and me enough to set out on a path of boldness and originality. Thank you, from the bottom of my heart, to you who allowed my words to nudge you toward great things!

I am also grateful for the personal gifts I've received because of this book. Several of my now-deepest friendships began when kindred spirits read my words and reached out. On a logistical plane, I am grateful that 50,000-some copies were purchased, making it financially possible for me to devote decades to a magical, yet fiscally wobbly, project called Not Back to School Camp. There have been little moments of surprise and delight, such as when, during a long stretch of self-absorbed self-googling, I discovered that a dance company in New England drove a former school bus named "Grace Llewellyn." Upon asking I learned that not only yes, I was the reference, but also that the other Grace was red velvet on the inside. And there have been gigantic moments of surprise and delight, such as when I spent an enthralling weekend at the twentieth anniversary celebration of North Star, an innovative and life-changing center for self-directed learning, which this book helped to inspire back in 1996.

So if I could say only two words here, I wouldn't hesitate: THANK YOU!

I've also, though, over these thirty years, spent an uncomfortable amount of time feeling guilty about all the unanswered letters—first in my mailbox, then in my email inbox. My original introduction ended with an excited request to "tell me where you land." And readers obliged—teenagers mostly, plus an uncanny number of women who, like me, were then in their twenties. Also parents, teachers, school counselors, independent scholars. I was blown away by the outpouring of personal stories, vulnerability, and trust. For six years, rapt, I spent ten to twenty hours weekly answering mail, often

in great depth and with probably too-personal involvement. Many of the exchanges were rich, enthusiastic, and fertile. Some of my closest friends, without whom I'd now hardly be myself, entered my life through those letters. And there were times I learned that my attention made a real difference in a person's life. But eventually I burned out. I had immersed myself in too many and sometimes too-big projects (more books—most of which I never finished, a short-lived unschooling resource center, relationships good and bad, an overly-exuberant garden, a small dance career on the side, plus a summer camp for unschoolers that turned out to require an overwhelming amount of exertion). It grew too difficult to keep up with the correspondence. For a while I paid an assistant to answer letters, but after several disappointed (even indignant!) responses, I let that go too. I've felt sad and guilty about all the people who reached out and never heard back. Had I been able to predict the future I wouldn't have so glibly invited readers to contact me. If you wrote to me and I never wrote back: I am truly sorry. It wasn't you, it was me.

I have also spent chunks of these last thirty years wondering whether—or how much—this book has contributed to pain and suffering. Early on, I got a letter from an ecstatic reader who had quit school. We corresponded briefly, and a few months later she sent another letter, lamenting: she'd been wrong to hurt her parents and cause division within her family by taking my advice. Only two or three readers have actually complained to me, but I have often, while chewing on the gristly conundrums of my own life, wondered if I'd done a disservice with my portrayal of unschooling as such a shiny, free, sparkly planet on which to live. In one sense I knew that every word in my book was true. Yet, I also knew that every word had been selected by a rather naive twenty-six-year-old who really had no idea, yet, how difficult and dark life can sometimes swing.

Back then, I didn't and couldn't know that for some people—especially, perhaps, introverts like me—engaging life in a highly individual, maverick manner can be not only exhilarating, but also debilitatingly lonely. If we're not fiercely intentional about integrating others into our daily lives and setting up supportive rituals—dinner hosting swaps with friends, morning walks with neighbors—those of us who tend toward depression or who isolate ourselves in times of difficulty can slip dangerously close to a steep edge. I've seen this in stay-at-home single parents (like me), I've seen it in solo entrepreneurs or creatives who work out of their homes (also like me), and I've seen it in unschooling youth. In my mid-twenties I had no understanding of these dynamics, and didn't know to offer even a heads up, let alone a solid strategy.

Lest I sound all doom and gloom: I have no reason to think that isolation or depression are significant experiences for most unschoolers. I continue to meet unschoolers who enjoy the best possible social lives: friends of all ages, work and play embedded in their communities and families, plenty of relaxed time to connect with soulmates. But for others, more than the public voices of the movement sometimes admit, depression and isolation do show up, and they can be hard to navigate. Not that giving up on freedom and returning to school is a positive solution for most (and not that depression

and isolation don't also impact hordes of schooling teens), but still: these are real issues that deserve to be addressed in a thorough and non-shaming way. People who live near self-directed learning organizations (like Liberated Learners centers or Sudbury schools) can join up, which can provide rich opportunities for connection. But there are many cities without programs like these. I've pondered this issue and related ones many a night.

I've also felt bad about the message, implied hither and thither in these pages, that quitting school is essential for happiness, and that it's more or less guaranteed to lead to happiness. It turns out happiness just isn't that simple! As my own life has deepened, I've learned that our biggest opportunities to experience joy are not as connected to our circumstances (or to how much "freedom" we have) as I once imagined. I still think we should change bad situations—in society and in our individual lives—but humans seem to have the superpower to create happiness in nearly any situation. And situations don't have that superpower: no situation, in itself, equates happiness. (Those poor lottery winners—a year or so after the fact, most find themselves approximately as happy or sad as they were before.) Unschooling can certainly allow space to build a life of meaningful engagement, which can raise one's happiness quotient, and that is no small thing. But it's not a pill you swallow and then you wake up jolly and stay that way.

If we are eating well, sleeping well, moving our bodies, spending time outside in the sunlight, connecting abundantly with others—and enjoying the privileges of basic health and economic stability—then the freedom to live and learn as we choose can be downright fabulous. Even when there are major unsolved issues in life, unschooling may offer a positive experience. But if we expect unschooling to make us happy when important parts of our lives are awry, it will disappoint.

Moreover: I can see now what I couldn't easily see when I was younger: sometimes, for some people, in some situations, school is the right choice. (Mostly, I would love to see school becoming exactly that for more people—a choice—such that if they go it's because they choose to, knowing they have other legitimate options.) It stands to reason that when a nation pours the vast majority of its youth-supporting funds into schools, youth who need more than what their families can provide may find it in schools. Compromised, yes; strings attached, definitely; stress-inducing, perhaps; largely a waste of time, probably; but still: school is where you get free help. And sometimes that help (whether in the form of Spanish teacher, school counselor, lunch, or the computer you get to use all year) is worth those compromises. I think the right policy would be to continue providing youth with educational resources and—when needed—additional social support services. But I'd unhook the authoritarian controls, and the arrogantly destructive evaluations, that are unnecessarily attached to these things. A girl can dream. Meanwhile, reality is otherwise.

For some would-be unschoolers there's also the challenging question of where to be. If home life is toxic, lonely, depressive, or limiting; or if you live in a town where civic culture has succumbed to meth culture, then perhaps school is the least negative

environment. Even if school is not the best possible situation, occasionally it is the best available situation. (And yet I cannot in good faith move on without invoking the magical word “library”—a solution for many, providing all of the above: help, access to resources, and a safe, positive place to spend one’s days.)

Anyway, too many of my dear readers have hung their heads and apologized to me for choosing school. Please know that—in case my opinion matters—I assume your life includes needs, complexities, and experiences that I don’t fathom, and I don’t judge. On the contrary, I’ve loved hearing from another category of dear readers: those who cheerfully report that they’ve decided to stay in school, using this book as a consciousness-altering device which helps them take charge of their learning within the system. And a few of my own nearest and dearest have opted for school, knowing they have other choices. I don’t consider it any of my business what they, you, or anybody else decides to do with their life—I just want everyone to know about the possibilities.

I don’t want my doubts and apologies to give the wrong impression. On the one hand it feels important to share these thoughts. They are part of the larger picture for me at this point, and I believe they are needed for balance among the intensely bright, lusty-for-life words that suffuse this book. But I still see that unschooling can allow for a fulfilling and even amazing journey. I still observe countless teenagers engaging it that way, even while they also face inevitable shadows. I still think if I could loop around in a time capsule and hand my own sixteen-year-old self this book, I could have soared. Probably crashed a few times too, but mostly soared.

I’ve also spent these thirty years observing. Long ago, I stopped obsessing about unschooling with the focused energy that generated this book—my curiosity has diffused and moved on to other realms. I have no idea what are the current legal requirements for homeschoolers in Texas or France, or who are the most popular unschooling bloggers this year. But in 1996 I started a wild experiment: Not Back to School Camp, a gathering for unschooling youth. NBTSC has thrived, and a bright and boisterous community has coalesced around it, permeating my own life. Many of the staff are themselves grown unschoolers and have become my good friends. And every year, depending on how many sessions I show up for, I spend a week or a month with a hundred or so unschooling teenagers. Also, I’ve spent a few years myself as an unschooling parent to my not-yet-teenaged son. I continue to hear from readers about their lives, and I do follow snippets of the internet-based conversation about unschooling and its cousins. (My favorite way to do so, these days, is through the Alliance for Self-Directed Education.) So to some degree, I remain connected to the universe of unschooling.

When I’m asked, “How has the unschooling movement changed, since you wrote *The Teenage Liberation Handbook*?” I reply: everything has changed, and nothing has.

Everybody now knows a homeschooler or ten, the numbers having exponentialized.

Approximately every five years the mainstream media comes out with a story that begins, “You’ve heard of homeschooling, but now there’s a new, radical kind of homeschooling, called . . . unschooling!”

Most obviously, the internet arrived and changed all of our lives. And then its bizarre anti-social sidekick, social media, arrived and changed our lives again. Although it delivers instant answers to questions big and small, and some people exclaim that they can't imagine how folks ever unschooled without it, it's not like the internet has actually solved the meatier riddles of life (or unschooling), such as how to get out of bed and why. (Not to mislead: I am a fan of the internet.)

It used to be scary and challenging to become a homeschooler (and thus an unschooler), whereas now it is fairly easy—but, fortunately, those who like a challenge keep instigating ever-bolder permutations.

The unschooling movement is still largely white. People of color have always, though, since long before anybody used terms like “unschooling” or “homeschooling,” invented their own versions of self-directed education—out of necessity and out of the wisdom and experience unique to their communities. As their experience evolves, so do their practices, and their stories are increasingly accessible. (I love Akilah Richards' podcast *Fare of the Free Child*, which centers Black and Brown families, and her potent book, *Raising Free People: Unschooling as Liberation and Healing Work*.) The larger Self-Directed Education movement makes attempts to become more welcoming to, and inclusive of, people of color and other marginalized groups. We have quite a ways to go.

As the number of unschooling practitioners grows, so does the number of custom-tailored resources. We have fabulous opportunities that did not exist in 1991: Liberated Learners centers (more on those in a moment) and a kaleidoscope of gatherings, camps, retreats, and adventures. (Of course I'm biased, but I think Not Back to School Camp is particularly wonderful.) New resources show up all the time: blogs, websites, podcasts, conferences, consultants, books. The shadow side of all this is that like any large community we can be viewed as (and behave as) a “market segment.” We can be preyed upon, and it can be disturbingly easy to take up the belief that unschooling has to cost a lot of money. Which it never did, and does not now.

Growing Without Schooling magazine ceased publication in 2001. I still consider GWS the single most useful and abundant resource for unschoolers, packed with inspiring, detailed stories and thoughtful, still-relevant observations. Fortunately, thanks to the ongoing work of Patrick Farenga and Holt Associates, you can now access all 143 issues free online.

As anxiety has, alas, become more widespread among youth, the unschooling movement has welcomed and absorbed many anxious children and teenagers, and expanded and adapted accordingly.

Like any movement that utilizes social media, some pockets of the unschooling community show up as distressingly judgmental, dogmatic, and petty. If my only introduction to unschooling were via Facebook groups, I might sprint away screaming. Fortunately, social media is not the only way that unschoolers communicate. In person, most remain generous and open-minded.

The Covid-19 pandemic, during which I've finished this edition, has generated a fresh wave of curiosity about unschooling, along with a wave of confusion about what homeschooling is. (Even conservative homeschoolers typically range far beyond home and family in the pursuit of life and learning, so the pandemic has disrupted their lives along with everybody else's. Following a conventional school curriculum and schedule while confined to one's kitchen table has little to do with homeschooling, let alone unschooling.)

How this edition evolved

Over the past twenty-three years—the time lapsed since the second edition*—I have jotted down a gazillion thoughts: pebbles of imagined wisdom, things that felt important to say in the next edition. I look back now on this galaxy of notes—way more than enough to fill a book on their own—and I see the story of my own life refracted. When I was working on way too many simultaneous projects, while living in a tiny apartment with too much stuff, my notes were voluminous and chaotic—a futile attempt to encapsulate the entire realm of possibility of what a free teenager might get up to. When I was drowning in a physically and emotionally abusive relationship (don't worry, now in the long-distant past), I made some freakish notes about how submitting to authority and being told what to do had its benefits. (Not that there aren't potential upsides, but the notes are disturbing given the context.) And when I was the exhausted and confused single mother of a five-year-old, resentful of other adults' simplistic and judgmental parenting advice, I scribbled snarky comments about that presumptuous author who had suggested that her teenage readers first celebrate their decision to unschool (with ice cream no less!), and then consult their parents. I mention these moments to give a sense of the filters and crucibles through which this edition has emerged.

But amidst the arc of my own life, which is at least as pitted with mistakes as any other human life, a few themes recur in my notes. Mostly, there is plentiful pondering as to the ultimate definition, value, and purpose of “self-directed” living and learning. I've already alluded to those musings—near the start of this introduction—but for the most part I don't feel they belong in this book. Perhaps I can best sum up by saying that on matters of all kinds, not just education, I'm less of a true believer in my fifties than I was in my twenties. (I like Gretchen Rubin's assertion that “the opposite of a profound truth is also true.”) Other, more nuts-and-bolts, themes from those decades-worth of journals and notes do show up in this edition. They touch on issues like how to engage time and resources, the importance of mindset, and the bedrock necessity of connecting regularly, in person, with other humans.

Mostly, though, the changes to this edition emerged spontaneously. My (amazing) editor, Blake Boles, and I combed through carefully to root out obsolete passages and resources, and it was that close inspection which showed me where I wanted not only to

subtract, but also to add, and to tweak. I ended up adding hundreds of new resources, reorganizing some sections, and making thousands of tiny changes, all of which flew rather shockingly in the face of Blake's and my original intention.

I had set out believing that to thoroughly update this book would require such a deep rewrite that it might make more sense to just write a whole new book, the mere idea of which swamped me in exhaustion. Plus, for better and for worse, I knew I was no longer that bright-eyed and bushy-tailed sprite who sassily threw out utterances like "Avoid attaching yourself to a mentor who wants mainly to 'help you grow up' or some such slobbery vague condescending controlling rot." I had not the slightest idea how to write in her voice, and felt adamantly that a significant update would be a disaster. Blake, who in his own writing excels at concision, also envisioned culling rather than reworking. If I'd stuck to our plan, this book would be a lot shorter and my mirror would display fewer wrinkles. The work would have been ninety-five percent Blake suggesting items to remove, two percent both of us sewing up the resulting gashes, and three percent adding new stuff. Boom, done.

A side benefit of that minimalist approach, I felt, would be to serve as a corrective to the new myth that when we want to learn something outside of school we depend on the internet. The second edition of this book came out in 1998, so the internet made an appearance, but it wasn't center stage. I thought that made for a good reminder that life and learning are so, so much bigger than the little screen in the back pocket of our jeans.

But the changes began. Innocently enough, at first. Wouldn't it be nicer to read under a mulberry rather than a persimmon tree, I reflected, while reviewing the chapter about literature. I think I meant "quintessential," not "penultimate," I said to Blake another day. But once I hesitantly gave myself permission to make a few little word-swaps, I tumbled slickly down the slope. Soon I was engaging the previous edition as if it were an unpublished draft, copy-editing and otherwise ripping around with abandon.

Moreover, I soon realized I'd traveled deep into a quest for not just a few newer books and websites for learning stuff like calculus and history, but for a solidly updated compendium of resources. And so I will remember the coronavirus pandemic not only for the tragedy of lives lost and the lonely abstinence from dancing tango, but also for the dozens of books stacked precariously around my bed. I'll remember the electric clarity of Carlo Rovelli's *Seven Brief Lessons on Physics*, the brave raw beauty of Roxane Gay's *Hunger*, the generous welcome of Edward O. Wilson's *Letters to a Young Scientist*, the sober yet funny illumination of Hope Jahren's *Story of More*. I'll recall the truth-chasing drama of Alice Dreger's *Galileo's Middle Finger*, the world-jumping journey of David Good's *The Way Around*, the perspective deepening of Arlie Hochschild's *Strangers in Their Own Land*. I'll think of the seductive rainbow of Theo Gray's *Elements* trilogy and the heartbreaking inspiration of Patrisse Cullors' *When They Call You a Terrorist*.

A few things I deliberately did not update. Most significantly: the collection of anecdotes that illustrate what unschooling teenagers do with their freedom. I consid-

ered soliciting fresh stories. I imagined adding photos, showcasing the youth I know who make their own paint from rocks, organize marches for racial justice, and contort their way into circuses. I thought of now-grown unschooling friends who fly commercial jets, sing their hearts out on stages around the world, preach sermons, perform knee surgery, help lead the way toward climate justice, design innovative mapping software, lead LGBTQ+ youth toward leadership, and get paid to write poetry. But ultimately I didn't feel that an additional infusion of anecdotes were needed. When you read about a girl who in 1989 mailed a letter to a horse trainer for the Olympic equestrian team (who then responded with helpful advice), I figure it's a no-brainer to make the cognitive leap to "Maybe I'll email that equestrian/chemist/drummer I admire."

There are a handful of new stories. (In the chapter about outdoor adventure, how could I not mention my dear friend Sarabeth Matilsky's cross-country bicycle ride?) For the most part, though, I felt that the rich array of examples assembled earlier, mostly from *Growing Without Schooling* magazine and partly from my personal correspondence, were enough. The point, after all, is to get people thinking about what would make sense in their own lives, not copying what others have done. If you hanker for more recent anecdotes, these days they're not hard to find, online and elsewhere.

A few things I deliberately reduced, such as the last edition's attempts to convert this into an international guidebook. It seemed wisest to concentrate both the space available and my own energy. (I think this edition still works pretty well for an international audience, since local legalities and logistics are best googled anyway, and the majority of resources here should be useful regardless of where one lives—a molecule is a molecule, and $xy = yx$, the world around.) But I'm a hoarder at heart, and it was hard to cut stuff. There were, for example, some delightful anecdotes in the international section of the former chapter called "the Not Necessarily Difficult Legal Issue." Blake, who knows me well, suggested that we set up an online repository for the best of the deleted chunks—international and otherwise. And so it is. You can find these chunks, for the foreseeable future, at TeenageLiberation.space.

There was one more quest, which became obvious the day I overheard myself tell a friend I wanted to "keep the spark but kill the snark." A decade or two back, I had been horrified to run across a review of this book that dismissed it (rather snidely) for its snideness. Horrified, but also ashamed and stung, I knew there was truth in the accusation. One thing I've learned about self-righteousness is that it often springs from perceiving oneself, or one's cause, as a struggling underdog, fighting against insurmountable odds. And in 1991 I felt that the unschooling movement was a tiny, brave David to the Goliath of the System. When I first set out to write *The Teenage Liberation Handbook*, there was absolutely no one in my life who shared my perspective. I thought I needed to shout to be heard, and shout I did. (I also thought I needed to quell skepticism by showing that unschoolers can achieve conventionally-defined success, and so perhaps I overemphasized accomplishments like getting into Harvard and underemphasized accomplishments like growing up into a compassionate adult who

remains curious about life and who enjoys interesting work through which they can afford to feed and house their children.)

Unschooling is still a tiny movement compared to schooling, but that reality no longer fuels my perspective in quite the same way. At this point I'd rather be part of the Michelle Obama club, doing my best to go high rather than low. Self-righteousness can be alienating and life-sapping, and parts of this book originally leaned in that direction. That said, I know there were readers who, themselves young and powerless, felt affirmed and even comforted by the angsty, punkish flavor of the older editions. In toning down some of my language, I certainly haven't meant to withdraw support. I hope it's still obvious that I'm in your corner if you're stuck in school when you yearn to be doing something else with your precious time. (Also, I'm sure you can find a used copy of one of those earlier, slightly more piss-and-vinegar-infused versions.) Perhaps my new readers will be confused: wait, you took the snark out? There was more? Sometimes I'm still befuddled by the distinction between bold and smug. Perhaps this book still hits a sour note now and then. If I've hurt you with my language, in 1991 or 2021, I am sincerely sorry.

All this is to say that what you hold in your hands is both the same old Teenage Liberation Handbook—and also surgically altered from start to finish.

Teenage Liberation, cubed! Liberated Learners centers & other Self-Directed Education centers

After the first publication of this book, I got invited to speak my mind (and sometimes embarrass myself) in quite a few radio and other interviews. Often I was asked: what would my ideal society look like, in terms of education? I could never offer a satisfying answer. I'd mutter vaguely about school becoming non-compulsory, morphed into more of a resource center—or just abolishing schools in favor of a vastly expanded library system available to everyone of all ages. My answers lacked oomph, specificity, and vision. At the time, all I could see to do was to speak to individual teenagers who might pick up my book, telling them that if they felt constricted by school they could walk right out and choose their own adventure. Judging from the feedback, that was fine as far as it went. But it only went so far.

Today, if I were chatting up a radio host and they asked me that same question, I'd lean into the mic and know just what to say. My vision is clear and bright—not because I finally figured it out myself, but because other people did. Those other people built a center called North Star, and then they started helping more people build similar programs, now collectively known as Liberated Learners centers.

Kenneth Danford and Joshua Hornick were middle school teachers who were tired of working with youth in a way that felt disrespectful and controlling. They got inspired by unschooling (partly, I'm honored to say, by reading the first edition of this book!).

They felt that self-directed learning could become a reality for a lot more people if they had access to a center that offered a community and a variety of optional activities. Such a center would also provide focused mentoring from adults who got to know each young person and helped them navigate the path of self-directed learning—and who helped set up opportunities like apprenticeships, volunteer work, or one-on-one tutorials on anything from baking to prison reform. Later, they would help these same young people transition into adulthood—whether via college admissions, paid work, travel, or whatnot. Importantly, this center would not be a school, not even an alternative school—no required attendance, no grades, no diplomas. Ken and Joshua launched their center in Massachusetts. Twenty-five years later, North Star has helped over 500 young people to leave school and claim the opportunity to live (and learn) in their own way, pursuing their specific and personal passions to their heart’s content. (Ken discusses the data on what alumni do after North Star in an article called “What Happens to Self-Directed Learners?”—published on the Alliance for Self-Directed Education’s website.) I’ve visited a few times and I’m tremendously impressed with what they’ve created and by what alumni say about how North Star has helped them. Eventually, Ken and Joshua started showing other disillusioned teachers how to start similar centers, and the Liberated Learners movement was born.

Liberated Learners is not, of course, the only communal development in the world of self-directed learning. There are other fabulous programs such as democratic and free schools (like Sudbury and its replicators), Agile Learning Centers, and independent ventures like Dev Carey’s High Desert Center, everything Blake Boles dreams up, Oregon’s Village Home, and for that matter my own Not Back to School Camp. (A good way to stay aware of such offerings is through the internet-based Alliance for Self-Directed Education.)

I’d be remiss not to acknowledge that money is a thorn in the side of most of these enterprises. There is essentially no public funding available for organizations that offer consent-based, learner-controlled education. Participants, therefore, normally pay tuition. To be clear, Liberated Learners centers are nonprofits and they welcome members regardless of ability to pay. Even full tuition, which includes a stunning amount of individual attention and personalization, is less than at most private schools. Still, Liberated Learners members have parents who are willing to prioritize tuition when they could otherwise avail themselves of public schools, for free. The lack of public money also means that centers can’t always pay their staff—and furthermore, in addition to their work with youth, staff must toil endlessly to raise funds to keep their spaces open. I often recall that bumper-sticker from the seventies—“It will be a great day when our schools get all the money they need and the air force has to hold a bake sale to buy a bomber.” I heartily agree. As long as school is the way our society tries to support youth, I want to see plenty of resources allocated for arts, fresh paint, mental health support staff, gardens and soccer fields, innovative teacher trainings, and up-to-date computers. Yet for a Liberated Learners center director, receiving even half of the usual public dollars (per member or “student”) would allow for near-miracles.

My hope is that sooner rather than later, education policy makers will unearth the courage and humility to make a deeply thoughtful long-term study regarding the outcomes of self-directed education. And that when the data makes obvious that self-directed learners grow up at least as likely as schoolers to live meaningfully and contribute positively to this world, logic will prevail: Liberated Learners and similar organizations will be offered public funding, without needing to become schools or to otherwise change or water down their radically helpful programs. (That is, without needing to compromise their commitment to a consent-based structure, require attendance or class participation, give report cards, or confer diplomas.)

*

Of course, not every community has a Liberated Learners center or a Sudbury school or such. (Maybe your city will have one next year. Maybe you'll be the upstart who starts it up!) And not every unschooler wants an organization to join. The world will be a more delicious place when everyone has access to options like these, but no need to delay life in the meantime. The essentials are here already, awaiting your pleasure:

Mountains. Movies. Museums.

The library. The skate park. The little farm out by the bend in the river. The youth climate justice group that meets on Fridays. The stack of books on your floor. The free online coding tutorial. The inner voice that offers guidance when you take the time to listen. The rousing discussion group you unearthed on social media. The time and the space to unfold in all your wild wholeness.

Your volunteer job at the animal shelter. Your neighborhood. Your cozy bed where you write poetry all morning. Your cousin, your best friend, and your eccentric great aunt. Your dreams. Your callings. Your brilliant and beautiful ideas. Your heart. Your muscles and bones. Your shadows and mysteries. Your questions, your yearnings, your adventuring spirit. Your today, your tomorrow, your luminescent life.



first, a nice little story

On a soft green planet, a smiling baby was born in an orchard resplendent with every kind of fruit in the universe. The baby's parents called her Tanika, and Tanika spent her days roaming the warm wet ground on hands and knees. Spotting a clump of gulberries off in the distance, she'd crawl after it and crush the sweet fruit in her mouth, red juice staining her brown chin and neck. A muavo would fall fatly from the high crown of the muavo tree, and she'd savor its golden tang. Each day revealed new wonders—bushapples, creamy labanas, the nutty crunch of the brown shrombart. The orchard's fruit sparkled in the dew and sun like thousands of living moist jewels against the green fragrance of cushioning leaves.

As her eyes grew stronger Tanika lifted her gaze. The opulent branches above her hung heavy with fruits she'd never dreamed of, globular and glistening. Tanika's mother and father wandered the orchard too, sometimes, and she watched them reach out easily and take a shining cluster here, a single green satinplum there. She'd watch them eat and imagine being tall enough to roam and reach so freely as they.

Sometimes one of them would bend down and give Tanika one of those fruits from up there in the moving leaves. Fresh from the branches, it intoxicated her, and her desire to know and taste all the fruits of the orchard so consumed her that she began to long for the day she could reach that far.

Her longing strengthened her appetite, and the fruit strengthened her legs, and one day Tanika crawled to the base of a mysterious bush at the edge of the stream that watered the orchard. She leaned carefully forward and braced her arms as she positioned her feet. Unsteadily she rose and groped for the shrub's pale fruit. Tugging knocked her off balance and she sat down hard in an overripe muavo, but she barely noticed the fruit squishing under her thighs: in her hands she grasped a fruit thin-skinned and silver, fresh and new. She pressed it to her nose and face before she let her teeth puncture it.

No sooner had she tossed the smooth pit into the stream, than she heard a rustling behind her. A jolly bespectacled face grinned down at her.

"Well, well, well! You're a mighty lucky little girl! I've come to teach you to get the fruit down from the tall trees!"

Tanika's happiness unfurled like a sail. She could hardly believe her good luck. Not only had she just picked and eaten her first bush fruit, but here was a man she didn't even know offering to show her how to reach the prism of treats high above her head. Tanika was so overcome with joy that she immediately rose to her feet again, and plucked another of the small moonish fruits.

The jolly stranger slapped the fruit from Tanika's wrist. Stunned, she fell again and watched her prize roll into the stream. "Oh dear," said the man, "You've already picked up some bad habits. That may make things difficult." The slapping hand now took Tanika's and pulled her up. Holding on this way, Tanika stumbled along behind the stranger.

She wanted to ask questions, like, "Why didn't you just show me how to pick those berries hanging above the bush where I was?" But she kept her mouth shut. If she was going off to pick the high fruit, she guessed it didn't matter where, or that she'd sacrificed her one beautiful moonfruit. Maybe they were going to a special tree melting with juicing fruits, branches bent almost to the ground, low enough for her outstretched fingers. Yes! That must be it. Excitement renewed, she moved her legs faster. The stranger grinned and squeezed her hand.

Soon Tanika saw the biggest, blockiest, greyest thing she'd ever laid eyes on. In quiet fascination she tripped along as they stepped off the spongy humus of the orchard floor onto a smooth sidewalk. "Here we are!" beamed the guide. They entered the building, full of odd smells and noises. They passed through a pair of heavy black doors, and the man pushed Tanika into a loud, complicated room full of talking children and several adults. She looked at the children, some sitting on the floor, some crawling about or walking. All of them had trays or plates in front of them heaping with odd mushy lumps of various colors. Also, some of the children were busy coloring simple pictures of fruits, and some wore pins and tags on their shirts displaying little plastic pears and mistbulbs. Baffled, Tanika tried to figure out what the children were doing in such a dark, fruitless place, what the lumpy stuff was, and above all, why her guide had stopped here on their way to the bountiful tree.

But before she had time to think, two things happened. First, one of the kids took something metal and used it to scoop a lump of dull pinkish stuff into his mouth. Tanika opened her mouth in panic to warn him. Maybe there was something wrong with him; he was much bigger than she was, old enough to know better. But just as she began to yell, a new hand, slick, pulled her up again. "Okay, Tanika," said the cheery woman that went with the hand, "This is the cafeteria. We're looking forward to helping you grow, and we're certain we can help you learn to pick tree fruit, as long as you do your part."

Tanika felt confused. She didn't see what this place could have to do with picking gulberries, and at the moment she was particularly hungry for more of that shining moonfruit. But she had no time to think. The slick-hand woman put Tanika on a cold chair at a table. "Here," she said, and nudged a box of crayons and a black outline of a plum at her. "Today you will color this, and it will help you get ready for eating tomorrow." Tanika started to feel foolish. She'd never guessed that learning to pick fruit would be so complicated. She colored the plum with all the colors in the box, trying in vain to make it round and enticing like the fruits of the orchard.

The rest of the day passed in a daze. Tanika was made to color more of the pictures, and to her disgust most of the children ate the formless mush on the plates in front

of them. Some even asked for more and stuffed themselves. Whenever this happened, the adults ran in and put gold stars all over the kid's arms and face. Many things happened—children fought, napped, sat quietly fidgeting with the stuff. Finally, the jolly man took Tanika's hand and led her out of the dark building. As her bare feet met the orchard grass, she caught the scent of ripe labana. She asked the stranger if he would get one for her, but he merely laughed.

Tanika was far too confused to put any of her questions into words. By the time they arrived at the tree where Tanika slept with her parents, the evening light had turned the leaves to bronze, and she was exhausted. Too tired to look for fruit, she fell asleep and dreamed fitfully.

In the morning Tanika's mind was clear. She still wanted to reach the high fruit, but she did not want to go back to the noisy smelly dark cafeteria. She could already reach the bushfruit; maybe in time she'd grasp the high fruit too.

But when the spectacled person arrived, he told her that she'd never reach the trees without many years in the cafeteria. He explained it—"You can't reach them now, can you?" and "Your parents can reach them. That's because they went to the cafeteria. I can reach them, because I went to the cafeteria." Tanika had no time to think this through, because he'd pulled her to her feet again and they were off. She hadn't had time to find breakfast, and her stomach rumbled painfully.

Tanika went in the room and sat down politely. "Please," she asked one of the adults, "Can you help me pick tree fruits today? That's why I'm here, and also today I didn't have time for breakfast."

The tall lady laughed. "Well, well, well! Aren't we cute! Tree fruit! Before you're ready for tree fruit, you have to prepare!" She disappeared behind a curtain and returned carrying a tray with a scoop of greenish stuff. Tanika jerked back. She looked around wildly for an escape route. Out of the corner of her eye she saw a boy watching with soft dark quiet eyes. The lady grabbed her hand.

"Don't be afraid, Tanika," she laughed. "How will you ever work up to tree fruit if you can't handle plate fruit?" She put the tray on the table, and took the metal thing, spooning up a piece of the stuff and holding it in front of the small girl. Tanika pushed the spoon away violently. Then she put her head down on the table and cried.

The lady's voice changed. "So you're going to be a tough one, Tanika? Just remember, you're only hurting yourself when you refuse to eat. If you want to succeed, you'd better do as we ask." She walked away.

When Tanika stopped crying, her stomach was desperately empty. She sat up and looked at the tray. She was afraid of the stuff. She bent down to smell it and caught a faint, stale whiff of limbergreen berry. The smell, even distorted, was a familiar friend. She picked up the spoon and ate her first bite of cafeteria food.

Tanika was relieved. Although the goop was slimy, far too sweet, and mostly tasteless, it wasn't as bad as it looked. And it did seem to be made from limbergreen berries. She ate it all, and felt a little better. The lady came back. "Very good," she smiled. She

stuck a green star on the back of Tanika's hand. "We'll do some more exercises and then later on you can try something new to eat."

Hours later, Tanika had been the apple in "Velcro the Stem on the Apple," and had drawn a muavo tree and listened to an older student explain what fruits contained vitamins P, Q, and Z. Apparently she had done all these things right, because the lady came back and put more green and gold stars on her hands and cheeks. Some of the children looked at her angrily, though, so perhaps she'd done something wrong.

At this point a man rang a little bell. Immediately all the children sat down at the tables and folded their hands neatly. A girl grabbed Tanika's hand and shoved her onto a chair. Then six children walked into the room carrying stacks of trays. They put one in front of each child, and Tanika saw that each tray contained five purple and blue wafers. "Yum!" said the girl next to Tanika, "Violetberry cakes!" Tanika jumped. She'd seen her parents eat violetberries, and also seen the accompanying ecstasy on their faces. She easily pictured the graceful trees on which they grew.

She picked up a wafer. It was warm, but not with the gentle warmth of the sun. She put it in her mouth. Dry, sandy... she chewed obediently but sadly. This was it? Disappointment sank her stomach and she put the cake down, mentally crossing violetberries off her wishlist forever.

In the end Tanika was made to eat the violetberry cake—all five hunks of it—before the spectacled man would lead her out the door. Her stomach throbbed all the way home. That night she crawled into her mother's arms and sobbed. Her mother rocked her, then whispered something to Tanika's father. He disappeared, and returned a minute later with an armload of tiny, glowing violetberries.

"It's time," said her mother sweetly, "For your first fresh violetberries."

Her father dangled them teasingly above her lips, but Tanika only cried harder. The berries' fragrance, though delicate and sweet, clashed with her distended heavy stomach. She was far too full, and it was violetberries' fault. Both parents teased and offered, but they finally gave up. Her mother laid Tanika down to rest alone, and the two adults stood whispering while the moon rose, worry in their voices.

At the cafeteria the next day the adults met Tanika with an unpleasant stare. "You're making things difficult for yourself," scolded the woman with slick hands, "Your parents have reported that your attitude at home is not meeting standards for girls your age. You need to eat much more thoroughly." A girl brought a plate crowded with dried out, wrinkly little fruits. Tanika ate them, tough and tasteless. Her stomach hurt again. After they dissected a preserved bushapple, she ate another tray full of canned gulberry. Then she went back home and slept.

Days passed, and months. Tanika ate obediently and earned lots of stars. There was a picture of a bright green tree painted on one of the walls, and when the whole roomful of children ate their food quickly, the adults had them play a game. They taped three or four cut-out paper fruits to the tree, and then the kids were made to take turns jumping or reaching to try to take them. Whoever reached a fruit got to keep it, and also was called a winner and plastered with dozens of gold stars.

One day when the spectacled man walked her home he told her the cafeteria would be closed for two days for cleaning. He handed her a little white carton and said, “Be sure to eat all of this while I’m gone, and I’ll pick you up in two days.”

As he waddled away, a strange inspiration seized Tanika’s brain. She touched her swollen belly and flung the carton away. Out of it tumbled cakes, red mush, hard little biscuits smelling flatly of labanas.

When she woke the next morning her stomach rumbled and she got up to look for breakfast. Leaving the clearing, she accidentally kicked a biscuit. Out of habit, she picked it up and almost put it in her mouth, then caught herself and aimed instead for a bush full of gulberries. Furtively she snatched a handful and crushed them to her lips. Sweet and wild, they made her want to sing.

Tanika’s father saw her then, and called excitedly to her mother. Both of them ran to their child and squeezed her. “Look what you’ve learned at the cafeteria!” cried her mother. “My baby is growing up!”

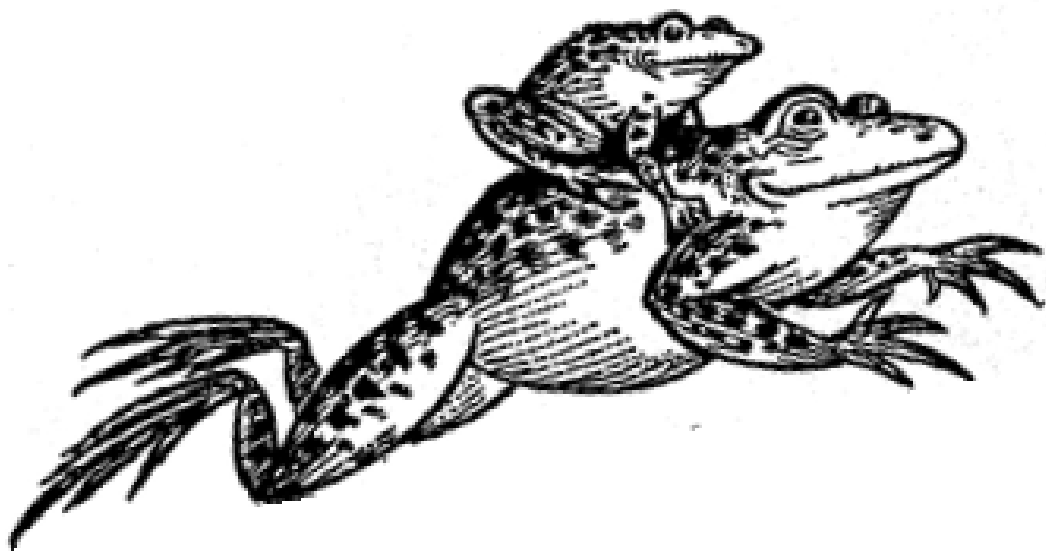
“Be sure to eat all your homefood,” said her father, “So you won’t be behind when you go back.” Then his tone of voice changed. “What’s that?” he said. He sprinted off and grabbed up the white carton. Tanika watched in horror as he searched the orchard floor. A few minutes later he returned with everything—biscuits, cake, mush.

Tanika ate it all.

The cafeteria opened again and Tanika went back. Every day she ate faster, and gradually stopped resisting, even in her own mind. One day she reached the highest paper fruit on the painted tree. All the adults patted her head and she could barely see her brown skin under all the gold stars. She started walking to the cafeteria every day by herself. The adults started giving her food for the evenings, and usually she’d eat it like they said. One day, walking home, she flung her hands to the sky and they touched, accidentally, a muavo hanging down from its branch. Tanika jumped back. “I can pick it,” she said slowly, “It worked.” She thought for a minute. The cooks had said it would happen, someday, if she ate what they gave her and jumped as high as she could during the tree game.

Tanika gracefully severed the muavo from its stem, examined it, and tossed it neatly into a shadow.

She wasn’t hungry.



the note to parents

Respect the child. Be not too much his parent. Trespass not on his solitude.

—Ralph Waldo Emerson

Against the advice of lots of people, I didn't write this book for you. I wrote it for teenagers. I wrote it for teenagers because I wished that when I was a teenager someone had written it for me. I wrote it for teenagers because my memory and experience insist that teenagers are as fully human as adults. I wrote it for teenagers because I found an appalling dearth of respectful, serious nonfiction for them. In short, I wrote it for teenagers because they are the experts on their own lives.

No, I have not forgotten your child's "place." I know that if you want to, you can probably prevent him from leaving school. I have written this book anyway, in the hope that after careful thought, you will see fit to honor the choice he makes.

Yes, if your child leaves school, it will change your life. If the experiences of previous homeschoolers can predict your future, you will see family relationships deepen; a teenager without eight daily hours of school and homework has time to make friends with her parents. You will see family relationships heal, uncomplicated by displaced anger about school. You will feel less harshly evaluated according to pop culture standards. Depending on your own background and schooling, you may undergo a period of depression, anger, and bitterness. You went to school, after all, and in contrast to your child's unexpected freedom you may feel overwhelmed by a sense of loss—all the things you could have done with that time, all the choices you never thought you had, all the labels that stuck when schools put them on you. This funk, if you get it, will eventually give way to a new sense of freedom—at least mine did. You can't change the past, but you can change the present. You can peel the labels off, you can start making real choices, you have the rest of your life to live.

Homeschooling parents of teenagers are rarely teachers, in the school sense of the word, and this book never suggests that you forsake your own career or interests in order to learn calculus (etc.) fast enough to "teach" it. Healthy kids can teach themselves what they need to know, through books, online resources, friends, mentors, thinking, and other means. (A freshly unschooled person may at first be a lousy learner; like cigarettes, passivity can be a slow habit to kick.)

Nevertheless, you will probably find yourself more involved than before with your child's education. If you have helped with or supervised homework, or stayed in close touch with teachers, homeschooling need not drain your energy more than that. Your role, however, will change. No longer is it your job to nag or lecture; instead, you answer questions and help find people or resources to answer the questions that you can't

answer. When your daughter starts sketching castles, you introduce her to the architect you know or tell her about the lecture on medieval life that you saw advertised.

If an unschooled teenager doesn't need teaching from you, what do they need from you? Parenthood, of course, and all the love and stability therein.

Also, help with logistics. Few people can immediately take complete responsibility for their education after being forcefully spoonfed for years. Please be willing to make phone calls to set up meetings or lessons, to tell your kid about events or resources they might not otherwise know about, to describe the planetarium or explain how to use the university library. You will need to accompany your child through your state's homeschooling legal requirements. (Every state has support groups to help you make sense of this process.)

Also, trust. When you tell your daughter about that lecture on medieval life, make it clear that you are simply passing along information, not giving an assignment. If you don't believe in her, it won't work. If you give up on her, snoop, push, or frequently anxiously inquire into the status of her algebraic knowledge, you will undermine your relationship with her, and you will send her right back to school, where there is so much less to lose.

Part of trusting means respecting your teenager's need to transition. As Chapter 11 points out, new unschoolers often need time to work through a flood of feelings about school and life before they can attend to things intellectual or academic. Ride out the storm with your child. Offer your support, your ideas, your arms. Don't rush.

Do I expect you to swallow all this? Not now; not by reading this short note. Later, perhaps you'll change your mind in favor of unschooling by:

- having a look at John Holt's books, which remain unsurpassed as the classic texts of the modern unschooling movement, or Blake Boles' *Why Are You Still Sending Your Kids to School?*, destined to become a new classic, and/or

- reading books and blogs by parents who have unschooled their teenagers—Akilah Richards' *Raising Free People* will take you deep into rich and raw territory; there are plentiful others that for the most part swim closer to the surface, and/or

- reading essays and blogs by now-grown unschoolers (try Idzie Desmarais's wonderful *I'm Unschooler*. Yes, I Can Write blog), and/or

- getting to know unschoolers online or near you (they come in all varieties; don't give up if you're put off at first), and/or

- perusing *Growing Without Schooling* magazine (no longer publishing, but all 143 issues are available free online), and/or

- reviewing your own adolescence and your present life,

- ...and humbly observing your teenaged child, allowing for the possibility that his self-knowledge is as significant as your understanding of him.

As for the rest of this book, you are a welcome guest. From time to time, you will find the words of other parents and adults, some of which may reassure you. Depending on your perspective, you may detect a tone of intoxicating hope or dangerous insubordination. Mostly, you will find piles of information you do not need: stuff that is

common knowledge to adults but not so familiar to teenagers who have spent most of their lives secluded from the world and its array of wonders.

Finally: if you are already disillusioned by your child's education, or even sympathetic to the cause of unschooling, and if you live with a stuck or depressed teenager, I hope this book can be your ally in offering a vision for something new.



about this book

Let the beauty we love be what we do.

—Jalaluddin Rumi

Did your guidance counselor ever tell you to consider quitting school? That you have other choices, quite beyond lifelong hamburger flipping or crack dealing? That legally you can find a way out of school, that once you're out you'll learn and grow better, faster, and more naturally than you ever did in school, that there are zillions of alternatives, that you can still go to A Good College and even have a Real Life in the Suburbs if you so desire? In case your counselor never told you these things, I'm going to. That's what this book is for.

What it's not

This is not a book about the kind of homeschooling in which you stay home all day and hang a chalkboard in the family room and write essays designed by your father and work geometry problems assigned by your mother.

There are some good things to say about that kind of homeschooling, especially for young children who haven't yet acquired basic reading, writing, and math computation skills. There are also some bad things to say about it. In this book I will say little about it.

Most people who do fantastic unschoolish things with their time call themselves homeschoolers, because it keeps them out of trouble and it doesn't freak out the neighbors. Anne Brosnan put it well in a letter to *Growing Without Schooling* magazine:

When an adult comes up and asks, "Why aren't you in school?" you're supposed to soften it by saying, "My mom (or dad) teaches me at home." If you say, "I don't even go to school. So far, I've taught myself everything I want to know," they think you've run away from school or are a lunatic. Whereas the other way, they think your parent's a teacher and you get private lessons. The usual adult person in America thinks it's terribly hard to teach yourself something, and if you want to learn something, you've got to find somebody to teach it to you. This leads to the idea that kids are dumb unless taught or unless they go to school.¹

If you quit school, you too will probably wish to call yourself a homeschooler, at least when you talk to the Authorities. But that doesn't require bringing school into your home, or transforming your parents into teachers. Nor, for that matter, does it require that you stay home. The idea is to catch more of the world, not less. To avoid

these connotations, I usually use the term unschooling. But many people who talk about homeschooling mean the same thing I do when I say unschooling.

What it is

This book is a wild card, a shot in the dark, a hopeful prayer.

This book wants you to quit school and do what you love. Yes, I know, that's the weirdest thing you ever heard. Hoping to make this idea feel possible, I tell about teenagers who are already living happy lives without school, and I offer lots of ideas and strategies to help you get a real life and convince your adults to cooperate.

"Excuse me?" you interrupt, "Quit school? Right. And throw away my future and pump gas all my life and get Addicted to Drugs and be totally lost in today's world. Right."

If you said that, feel free to march straight to the nearest school and receive a bushel of gold stars and extra credit points. You've learned exactly what you've been taught. After you get tired of sticking stars to your locker, I hope you'll come back and read further.

This book is built on the belief that life can be wonderful and schools are often stifling. It is built on an impassioned belief in freedom. And it is built on the belief that to a large degree, schools do the opposite of what they say they do. They prevent learning and they destroy peoples' love of learning.

Of course, there are already hundreds of books with similar premises. Some of these books go on to suggest that if certain changes were made, or brighter teachers were hired, schools would be good places. Other books say compulsory schools are fundamentally bad places and society, or at least individual people, should abandon them—and replace them with something way more humane, consensual, and effective. This book agrees with that, but it doesn't stop there.

This is a practical book—a book for individual teenagers, a real-life handbook meant to be used and acted on. I have no hope that our education system can change enough to make schools healthy places, unless it makes school blatantly optional and then adapts to students' actual needs. But I have plenty of faith that people—you, your friends—can intelligently take greater control over their own lives. So this book bypasses the rigid, uncreative red tape of that system and instead speaks directly to you.

Finally, this book is about access: how to do this thing, find out that thing, what your choices are and how to take advantage of them.

Who it's for

As the title gently implies, this is a book for teenagers, though parents and little brothers are welcome too. If you are nine and want to use this book to get free, more power to you. If you are eleven and think of yourself as a teenager, that's fine with me

too. If you're older, know that plentiful college students and other adults have made themselves at home in earlier editions.

Is this book for all teenagers?

If you are like me, this book is definitely for you. When I was in school, people asked me if I liked it. Sometimes I said yes. Sometimes I said no. I didn't think about it much, because I figured it didn't matter. Whether I liked it or not, I knew (or thought I knew) there were no other options. I believed in school in an abstract sense—education, learning, great writers and poets and thinkers and all. My grades were good. I hated homework and rarely did any, but I felt constantly guilty about that. I wasn't offended by the disrespect my peers and I lived with, because I'd never imagined it was possible for adults to treat me differently.

Usually, I thought I'd be fine if only I was a senior instead of an eighth grader, or if only I went to some artsy boarding school instead of boring Capital High School. I liked about half of my teachers, but felt no enthusiasm for their classes. I craved Friday afternoons and June. Except for choir, my life in school was dreary and uninspired, but I had nothing else to compare it to. I'd never heard of homeschooling, let alone unschooling, and dropping out was not on my list of possibilities in life. I wonder now, sometimes with bitterness, how things might have been different if I had heard then of the possibilities beyond school. The first wave of the unschooling movement caught some people about my age, and I envy them.

This book is emphatically not just for people who are labeled “gifted.” I make this point because in these pages you will run into examples of unschooled teenagers who do rather impressive things with their time. I don't want you to be intimidated, only inspired. They don't live brilliantly because they are more intelligent than you; they live brilliantly because they have the time and encouragement they need. Many did badly in school before their parents set them free.

This book is for you whether you live in California, Wales, Peru, South Africa, or anywhere else. Most of these pages reflect the experiences of U.S. citizens. But unschooling is a growing movement around the planet, and you can be part of it.

If you have already considered leaving school—as a dropout or anything else, of course this book is for you. If you've been feeling guilty or inadequate because of your “failure” in school, perhaps I can knock some optimistic sense into you. Perhaps I can get you to think of yourself as rising out instead of dropping out.² The way we think of ourselves makes all the difference.

If you truly enjoy school and all of its compulsory paraphernalia more than anything else you can imagine, this book is probably not for you. Please pass it on to somebody who looks distracted, bored, sad, mad, or stressed, and carry on living your best life.

Or maybe you don't exactly love school but the idea of taking responsibility for your education sounds burdensome and unappealing. For you, this book might or might not be a match. I'd certainly encourage you to find something more fulfilling than your current reality. That could turn out to be classic unschooling—perhaps you'll find ideas in these pages that bump your verdict from “burdensome and unappealing” to

“freeing and enticing.” It could turn out to be signing up with a Liberated Learners center or other Self-Directed Education (“SDE”) organization, so you’re in charge of your learning but need not figure out plans or details on your own. If you go the SDE organization route then yes, this book is definitely for you—readers affirm that it helps them make the most of such opportunities.

Your more-fulfilling solution could turn out to be school, but a version of school that you find more engaging—maybe a microschool, an alternative or charter school where you feel connected and respected, a magnet school where you can hone your talents, or an early college program. That topic—switching schools—is beyond the scope of this book, but I wish you well finding a situation that better meets your needs.

Finally, perhaps “more fulfilling” will turn out to be staying exactly where you are—but with one major shift. Perhaps you’ll change the way you think about school. From that revolution, more will follow. You may transform how you relate to your peers and your teachers, how you interact with everything from homework to selecting your classes, what you envision for your future, and how you live your outside-of-school hours. I’ve been thrilled to hear that many readers do find this book a sanity-boosting companion for the brave adventure of staying in school with eyes wide open. (So, yes! Strangely enough, this book is definitely for you.)

Why I wrote this book

When I went to college, I knew from the start that I wanted to be an English teacher. I had always loved to read and write, but rarely enjoyed any of the work I had done in my English classes. In my naïveté, I blamed this on my teachers. Several were obviously intelligent, interesting, and creative people, but their classes were nevertheless dull, and I thought this was their fault. I knew I would be a different kind of teacher.

My own classes would be dynamic, entertaining, and always engaging. I would love the stimulation of being around “learning” all my life, and my students would shower me with continual gratitude for rescuing them from the brain-death of their previous existence.

Student teaching took some of the sparkle out of that arrogance, but I chalked up my victims’ lack of complete enthusiasm to my inexperience and lack of adequate time to prepare. (Somehow, I assumed that later I’d have more time to prepare.) A few said I was the best teacher they’d ever had. Most just turned in most of their homework on time and looked at me funny when I rhapsodized about writing. I did not find a real teaching position for the autumn after college graduation, and I ended up substitute teaching in the public schools of Oakland and Berkeley, California.

Subbing put me in the position to see the ugliest aspects of school, and my lifelong tendency to rebel against or make fun of authority surfaced and grew. In between sending students to the office for calling me a “white bitch” or for pinching me or for loudly interrupting too many times, I’d sit and despairingly ponder the meaninglessness of these huge urban schools. I still felt that with determination, I could make a

difference. I began to realize, however, that working with the kinds of administrators I often encountered could only be an uphill battle. Furthermore, for many of these students it was probably too late—schools had so crushed their “love of learning” that I could hardly hope to inspire them to write or think or discover wonderful things.

After that school year, I took a break to travel in Peru and then spent three months substituting in the homogeneous, well-behaved schools that I grew up in in Boise, Idaho. I still felt that I wanted to teach kids to read and write but I began to yearn to escape the rigidity and dullness of public schools. I began contemplating starting my own tiny, inexpensive, independent school. I imagined a group of about ten students who spent their time taking field trips and hanging out in someone’s basement making movies or writing novels. While I was brainstorming and researching the logistics of setting up something like this, I stumbled across the writing of John Holt. By then I’d heard of homeschooling but dismissed it, as most people seemed to during that era, as the activity of fanatics afraid their kids would find out about evolution and condoms if they went to school. John Holt’s writings threw a bright new light on the subject, and on the entire concepts of school and learning.

Holt argued that learning is a natural process that happens to anyone who is busy doing something real for its own sake, and that school confuses and destroys this process. Although most of his ideas had never occurred to me, they immediately made so much sense that I felt as though I’d thought of them myself. His books were eloquent yet simple, by far the wisest words I had ever found about education. I realized that although a tiny school like the one I’d envisioned might be a good alternative for students, I wasn’t equipped to start it—I didn’t have any real expertise, and I didn’t know anything worth teaching besides how to embroider, go backpacking, bake bread, dance, play the piano, and write. I realized how few skills I had, and that the few skills I did have hadn’t come from school. I knew about a lot of things from reading and keeping my ears open, but few of the books that had shaped my mind had been assigned or recommended in school. I felt freshly angry about having given up ballet (instead of school) when I was fourteen, and about having pushed that biggest love of mine, dancing, into a mostly-neglected cupboard.

Mainly, I felt flooded by a sense of loss and bitterness—all that time I’d wasted sitting and staring out windows when I could have been out traveling, learning, growing, living. I determined to start living my life, then and there. I packed up and migrated to Taos, New Mexico, where I slept on the mesa in a house made of bottles and wind*, and feasted every morning on sky and space and sage-scent. I supported my little sister’s decision to quit high school. I spent as much time as I could dancing.

I continued to read John Holt, but I eventually decided to teach anyway. After all, school was going to exist whether I wanted it to or not, and I figured I might as well jump in and make it the best experience I could. Anyway, I didn’t know how to do anything that I wanted to do more. I still felt that public school was a horrendous institution, but I daydreamed about finding a private school that was humane and lively.

I found a position teaching seventh and eighth grade language arts at a small independent school in Colorado. I was thrilled. It believed firmly in experiential education—learning by doing—and my colleagues and the administrators were wonderful people: flexible, enthusiastic, imaginative, intelligent, funny, and warm. With only nineteen students, I'd have the chance to know each of them well. It seemed so different from public school that I looked forward to it with great excitement.

The year did go smoothly in most regards. However, I began to feel that this small school was not essentially healthier than ordinary public school for most of its students. Naturally, they received more individual attention than they would have in public school, but some experienced an uglier flip side of that individual attention: we teachers seemed to see or otherwise find out nearly everything about students' lives, and then to hound them endlessly about things that were none of our business—missing homework assignments, social conflicts, messy notebooks. Even when we were not inclined to pry or push, students had little privacy, no way to escape our eyes.

Furthermore, this small, "caring," "creative" school was fundamentally the same as any ordinary public school, because it controlled students' lives. It continually dictated to them how to use their time. So what if they were role playing the lives of early colonists instead of just reading the dry words of their American history textbook? These cute "experiential" activities we teachers took pride in had the same effect any schoolwork does. They stole kids' time and energy, so that John-the-math-genius-and-artist had no time to build his geometric sculptures, so that Andy couldn't pursue his fascination with well-made knives and guns, so that Kris and Chris and Rick and Young didn't have enough time to read, so that Shira—a brilliant actress and talented musician—was threatened with having to drop out of her outstanding chorale group if she missed any homework assignments.

In some ways, in fact, it seemed more harmful than public school. Homework was excessive, leaving students little freedom even at home. Lots of parents expected the school to help turn their offspring into lawyers and Successful Executives, and the school catered to this image enough that it put tremendous pressure on kids.

But despite all this, I decided to stay with teaching, and I brainstormed ways to make my classroom as healthy as possible. I wanted to give my students as much freedom within the realm of language arts as I could, so I devised an independent study program complete with an innovative "All A's" grading system borrowed from Richard E. Koop of Gulf Middle School in Florida. The assistant headmaster, a courageous, warm woman, gave me her blessing, saying that since I obviously had the kids' needs and growth foremost in my mind, she'd support my experiment.

I began my second year of teaching with high hopes that soon plummeted. Four or five people who loved to write (enough to do so in their spare time and vacations) thrived in the program. It gave them official time to do what they wanted to do anyway—write novels or collections of short stories or long long essays—rather than drain their energy with arbitrary assignments of arbitrary lengths fit into arbitrary schedules. But most of my students saw it as just another way to make them do

something they really didn't want or need to do, at least not every day. So much for freedom.

After I had felt dismal for a while because my curriculum hadn't dramatically changed the nature of school, we went on a week-long field trip to Washington, D.C. Conflict was inevitable; the teachers who designed the trip naturally wanted to take advantage of all the things to see and do, so our schedule was hectic and demanding. At one point, the students were scolded for slouching and whispering during a dull evening lecture after a particularly exhausting day. As they exploded in their own defense, and one of my favorites said sincerely that he wanted to go home, my mind reeled. It was perfectly fair, I thought, to expect people to behave wonderfully in any situation they chose freely to be part of. If I went to a movie and talked all through it, I'd deserve to get kicked out. If I didn't feel like sitting quietly, I shouldn't go in the first place. But our students hadn't been given any choice as to whether they wanted to sit through a lecture, or even whether they went to Washington, or, for that matter, whether they sat in English and science class every day.

That night I lay in bed agitating till 4:00 a.m. Although I hadn't upbraided our students on that particular evening, I had certainly done so countless other times, for similar and sometimes less justifiable reasons.

I called Holt's writings up in my mind and admitted to myself that he was right—school was a bad place, a controlling place, and I wasn't going to change anything by being there. I could see that some of my students were fed up with school, but I knew they had no clue as to other possibilities. And so the seeds of this book sprouted in my brain. Also, in the back of my head I knew I could not continue to teach, but at first I refused to look this knowledge in the face. The prospect of life without my "career" was frightening and uncertain. However, I started looking at the world with a fresher, more honest perspective. While bustling along the sidewalk and scolding students for dawdling, I thought longingly how I would enjoy spending a leisurely week in D.C. with a few of my students, talking with the homeless people who camped across from the White House, roaming the Smithsonian for days, taking time out for skateboarding and sky staring.

Back in Colorado, my convictions strengthened daily. I noticed an Emerson quote on the Civil War bulletin board, and I shivered: "If you put a chain around the neck of a slave," it said, "the other end fastens itself around your own." The final catalyst came the Friday I read Thoreau with my classes. Nearly everything he said seemed to pertain to the whole school issue, but one fragment in particular of "On the Duty of Civil Disobedience" lodged itself in my brain. After explaining that he would not pay his taxes as long as they supported such evils as slavery, Thoreau had written:

If any tax gatherer, or any other public officer, asks me, as one has done, "But what shall I do?" my answer is, "If you really wish to do anything, resign your office." When the subject has refused allegiance, and the officer has resigned his office, then the revolution is accomplished.

That was that. Forced to face my own responsibility, I resolved first to quit teaching, and then to write this book. John Holt and a few others had written a stack of excellent books on unschooling, but I felt that teenagers needed their own book, one to tell them they weren't wrong to hate school, and to make them aware of alternatives.

The rest of the teaching year was horribly difficult and odd. In the classroom I vacillated between the easy going, honest human being I wanted to be, and the businesslike teacher I knew I had to be if my class was to function. One day I'd sit laughing with my students, talking about a story one of them had written, ignoring their gum (against school rules) or "off-task" behavior. The next day I'd hand out detentions for "swearing," tardies, and of course any rude, sarcastic, or otherwise "inappropriate" statements. In my confused inconsistency, I imagine I was a more frightening authority figure than a military-style teacher would have been; sometimes it seemed that no sooner had students let down their guard and begun to relate to me as a real person, than I would snap nervously back into teacher mode and scold them for "disrupting."

I couldn't tell my students about my raging opinions with a clean professional conscience, but I couldn't not tell them with a clean moral conscience. A friend sent me a button that said "Free the Kids," and I wore it. Some days I was afraid that by writing I'd lose all my friends and even the trust of my students themselves. I finally told two students what I was up to, and had some guilty professional twangs about doing so. But I desperately hoped that I would finish, and that my book would find its way into my students' hands, in time for them to decide whether they wanted it to make a difference in their lives. June came; I hugged my students and colleagues goodbye amidst plenty of tears; I moved to Oregon and set up camp with my computer. Then, with a shiver and a grin, I hunkered down to write these pages for you.

How to use this book

Notice that it's divided into four main parts. The first tells why you might consider leaving school. The second offers big-picture advice for setting out on the adventure of self-directed learning. The third and fourth suggest ideas (academic and otherwise) for what to do once you're out. (Some material from earlier editions has been removed, but the best bits are available online at TeenageLiberation.space. There you will also find a few notes, and some new morsels which almost made it into this edition.) I put it all in the best order I could, but read it diagonally if you'd rather.

Don't forget to share this book with your friends, or suggest that they find themselves a copy.

I recommend hundreds of books, as well as other resources. A few of the books are out of print but still available in libraries and used bookstores. I have put a great deal of thought into the recommendations and I often hear from readers that my suggestions are helpful. But don't feel that you need a book to start a project (like making a zine, or starting a discussion group, or studying the ants in your kitchen). If you can't easily find the resources I suggest, you'll generally do fine with others on the same subject.

And obviously, this handbook, revised most recently in 2021, can't tell about anything published afterward, nor do I have room to list most of the discoveries I've made since the first (1991) edition.

There is a lot of information in your hands. Don't feel obligated to follow up on all of it, or most of it. Don't let it overwhelm you. Let it guide you to a few important things and let the rest go. The silences and spaces in your education are as necessary and beautiful as your activity. And on the other hand, this book does not tell everything that's possible. Don't be limited by my suggestions, just use them as beginning points.

One more thing. We rise or sink to others' expectations. Our society seems not to believe in teenagers enough to expect much of them. This book may shock you, therefore, when it tells how to plan a trip around the world, or when it suggests you start a business or get seriously involved in an academic field you love. But you're no imbecile. I'm certain because at fifteen I wasn't an imbecile. I didn't know much, but if the right information and freedom had come my way, I could have soared. I hope that this book can provide some of that "right information" for you, and that it helps you find your way to freedom.

So enjoy your flight... and tell the world where you land!

Part One: The Decision

1. sweet land of liberty

The most potent weapon in the hands of the oppressor is the mind of the oppressed.
—Steve Biko

How strange and self-defeating that a supposedly free country should train its young for life in totalitarianism.

“No, David, wait until after class to use the bathroom.”

“Unfortunately, your son would rather entertain the class than participate appropriately.”

“Good morning, class. Please open your textbooks to page thirty. Thank you. Jane, you need to open your book to page thirty.”

“Carter, if I have to ask you again to sit down, you’ll be taking a trip to the office.”

“Miguel, you are not in math class. Please put it away. Remember, fifteen percent of your grade in my class comes from participation and attitude.”

“Ladies! Gentlemen! Let’s keep the noise down in the halls.”

“I’d love to hear what you have to say, Monty, but you need to raise your hand first.”

“Tonight you need to finish the exercises on page 193 and read the next section.”

“Marisa, I need a written explanation as to why you didn’t turn in your homework.”

“Laura, put away the book. If I catch you again it’s a zero for the day, and that’s not something you can afford.”

What do you think of when you hear the word freedom? The end of slavery? The end of the Berlin wall? A prisoner tunneling his way out of solitary confinement in Chile with a spoon? An old woman escaping her broken body in death? Gorillas dancing in the jungle instead of sulking behind bars? When I hear the word freedom, I remember the sweetest sunlight pouring over my teenaged cheeks on the first sleeping-in mornings of summer vacation.

Do you go to school? Yes? Then . . .

You are not free.

The most overwhelming reality of school is control. School controls the way you spend your time (what is life made of if not time?), how you behave, what you read, and to a large extent what you think. In school you can’t control your life.* Outside of school you can, at least to the extent that your parents trust you to. “Comparing



me to those who are conventionally schooled,” writes twelve-year-old unschooler Colin Roch, “Is like comparing the freedoms of a wild stallion to those of cattle in a feedlot.”³

The ultimate goal of this book is for you to start associating the concept of freedom with you, and to start wondering why you and your friends don’t have much of it, and for you to move out of the busy-prison into the meadows of life. There are lots of good reasons to quit school, but to my idealistic American mind, the pursuit of freedom encompasses most of them and outshines the others.

If you look at the history of “freedom,” you notice a frightening thing: people who are not free often learn to take their bondage for granted, and eventually even to accept this bondage as normal. In fact, people within an oppressed group sometimes internalize their oppression so much that they are crueler, and more judgmental, than the oppressors themselves. There was a time, for example, when most women believed—or talked as if they believed—that they should obey and submit to their husbands. They raised their daughters to do the same, relying as needed on punishment and shaming to quell sass and independence.

Women eventually grabbed hold of a greater vision, and change blazed through minds, through laws, through public attitudes. All is not yet well, but society is far kinder to girls and women than it was a hundred years ago. What’s more, we are kinder to ourselves. We dream bigger dreams, and we flesh out grander lives.

Now, a lot of you are helping history to repeat itself; you don’t believe you should be free. Of course you want to be free—in numerous ways, not just free from school. However, society imparts so many condescending, false, and harmful messages that it’s hard to trust yourself. This is complicated by the fact that the people who infringe most dangerously and inescapably on your freedom are those who say they are helping you, those who are convinced you need their help: teachers, school administrators, perhaps your parents.

Why should you have freedom?

Why should anyone? To become human, to live fully. Insofar as you live what someone else dictates, you hardly live. Choice is a fundamental essence of life, and in the fullest life, big choices are made deliberately—and then savored.

Another reason you should be free is obvious. You should learn to live responsibly and joyfully in a free country.

Recently, schools talk a lot about “experiential education.” Educators have wisely realized that the best way to teach anything includes not only reading about a subject, but also practicing it. For example, my colleague Gary Oakley taught science by having students rehabilitate a polluted pond. Learning this way sinks in deeper than merely reading, hearing lectures, and discussing. It means participating—being a scientist rather than watching from the outside.

What the educators apparently haven't realized is that experiential education is a double-edged sword. If you do something to learn it, then what you do, you learn. All the time you are in school, you learn through experience how to live in a dictatorship. In school you shut your notebook when the bell rings. You do not speak unless granted permission. You are guilty until proven innocent, and who will prove you innocent? You are told what to do, think, and say for six hours each day. If your teacher says sit up and pay attention, you had better stiffen your spine and get Bobby or Sally or the idea of spring or the play you're writing off of your mind. The most constant and thorough thing students in school experience—and learn—is the antithesis of democracy.

When I was in sixth grade, I had the good fortune to learn that democracy in the “real world” is not a crime, at the same time that I learned (not for the first time) that democracy in schools is a crime. Two of my friends and I were disgusted by the state of our school lunches. After finding mold on the rolls one day and being generally fed up with the cardboard taste of things, we decided to take action. Stephanie and Stacey started a petition. Its purpose was a bit misspelled and unclear, but at the top it said something that meant, “Sign below if you are tired of revolting lunches, and put a check by your name if your roll was moldy on Tuesday.” People signed the petition during lunch; we had three or so pages of sloppy signatures on wrinkly notebook paper.

Apparently some teachers got wind of what we were up to, and Miss Petersen (fake name) told Stephanie to give her the petition. After Miss Petersen looked at it through stern eyeglasses, she said she'd have to turn it over to the principal. Stephanie and I panicked. We held a secret meeting that afternoon in the hills and looked at each other with sick scared faces. We tried to convince ourselves that young criminals got off easily.

The next day Miss Petersen was moving a piano down the hall. Our brave friend Kelly walked by in his line on the way in from lunch. He saw the petition sitting on the piano, and he snatched it up. Miss Petersen didn't see him. He returned the petition to me. Go, team.

Stephanie and Stacey were summoned to the principal. He demanded to have the petition back, but since they didn't yet know about the Recovery, they said earnestly that Miss Petersen had it. He lectured them for their disrespect of authority, and said there was nothing wrong with the lunches, and that he didn't want to ever hear anything about petitions again, was that clear?

I took out my sky blue stationery with the mushrooms on it and wrote a letter to the governor of Idaho. I apologized for not typing and for the wrinkliness and bad spelling of the petition. Then I explained why it was important that our lunches improve. I didn't say anything about the trouble we were in at school; I didn't want him to know how bad we were. I looked up his address in the phone book, guessed on the zip code, and sent it off. I was afraid he would report me to the principal, but I was ready to sacrifice myself for the cause.

The week after school was out for the summer, my father brought in the mail with a strange expression on his face. “Grace,” he said, “Are you personally acquainted with Cecil Andrus?”

I tore the letter open. The governor said not to worry about my handwriting, that he would have responded sooner had I mailed the letter to his office instead of his house, and that he sympathized with my plight. He told me that school lunches weren’t in his control, but he gave me the address of the people who could make a difference. Best—and most surprising—of all, he congratulated me on my “good citizenship” and encouraged me to keep on speaking up when something wasn’t right in the world. During the next six years, the memory of that experience helped me keep my hope and sanity while my friends and I were silenced, subtly and blatantly, again and again, by “authority.”

Ah yes . . .

Authority.

Regardless of what the law has to say about this, you are as human as anyone over the age of eighteen or twenty-one. Yet, “minors” are one of the most oppressed groups of people in the U.S.

It starts at home. Your parents can require you to do almost anything and forbid you to do almost anything. Fortunately, most parents try not to abuse this power. Yet, from a legal standpoint, the reason schools have so much tyrannical power over you is that they act in loco parentis—in place of the parent. As legal parental substitutes, they can search your locker or purse, tell you to be quiet, read your mail (notes), sometimes hit or “spank” you, speak rudely to you, boss you around, and commit other atrocities—things I hope your parents would not do with a clean conscience, and things no sensible adult would do to another adult, for fear of losing a job or ending a friendship.

Many teenagers, of course, do clash with their parents to some extent. But most parents like and love their children enough to listen to their side, grant more freedom as they grow, back off when they realize they’re overbearing, and generally be reasonable. The schools may do this with some “rebellious” students, but not usually, and not after a second or third “offense.” Schools are too big, and the adults in them too overworked, to see “rebels” as people—instead, they get a permanent-ink “bad kid” label and unreasonable treatment. Even in a small private school, authority is often unyielding and unfairly judgmental.

When I was substitute teaching in Oakland, California, one day they told me I could have a month-long job teaching choir and piano while the regular teacher had a baby. As it happened, I did have a fairly substantial musical background and could have handled that aspect of the job just fine. But the administrators showed no interest in my musical knowledge—all they wanted was someone who could maintain order. When

the principal introduced me to the choir class, one of the students raised his hand and asked, “Since she’s not a music teacher, what are we supposed to do if she’s not any good?”

The principal launched into a tirade about how it doesn’t matter what you think of her teaching, you’ll do exactly what she says and I don’t want to hear about any problems from any of you; the state board of education decided she was good enough to be certified and that’s all you need to know. Etc.

One of the worst things about this sort of arbitrary authority is it makes us lose our trust in natural authority—people who know what they’re doing and could share a lot of wisdom with us. When they make you obey the cruel and unreasonable teacher, they steal your desire to learn from the kind and reasonable teacher. When they tell you to be sure to pick up after yourselves in the cafeteria, they steal your own natural sense of courtesy.

Many times, I have heard teachers resort defiantly to the proclamation that “The bottom line is, they need to do what we tell them because they’re the kids and we’re the adults.” This concept that teenagers should obey simply because of their age no longer makes any sense to me. I can’t figure out what it is based on, except adults’ own egos. In this regard, school often seems like a circus arena full of authority-craving adults. Like trained animals, you are there to make them look good, to help them believe they are better than you.

But maybe you’re not yet convinced. The sudden proclamation that you deserve to be free sounds too glib, too easy. Let’s turn the question upside down:

Are there any reasons you shouldn’t have freedom?

Since schools supposedly exist to help you learn, the only legitimate answer they could offer is that you have to sacrifice freedom for the sake of learning. If learning and freedom were incompatible, having to choose would be tragic. But learning is not dependent upon school or upon control. If this doesn’t strike you as obvious, I hope it will by the time you’re finished reading the next chapter.

A wise friend of mine, who grew up in Germany under Hitler and later spent time in American prison camps, startled me with a different reason you shouldn’t have freedom. First, he agreed that schools are the antithesis of freedom. Then he said, but how can you appreciate the freedom that comes with adulthood in a democracy, if you never know what it’s like to live without it? I thought a lot about what he said, but I ended up deciding that a twelve-year experiential lesson in bondage doesn’t make freedom seem precious; it makes it seem impossible. It also misrepresents the nature of learning. After school, too many people continue to slap chains on themselves. Before school, few people are so self-hating. Maybe after we abolish compulsory schooling we can set up voluntary month-long camps where people sit at desks and obey, so they

realize how lucky they are not to live their lives that way, so they promise themselves to always live in celebration of their freedom.

Maybe you believe you aren't ready for freedom?

On some level, no one ever is; it's not a matter of age. People of all ages make mistakes with their freedom—becoming involved with destructive friends, choosing college majors they're not deeply interested in, buying houses with rotten foundations, clearcutting forests, breaking good marriages for bad reasons. People cause tremendous pain and disaster, and you will never be so wise or perfect that you don't do stupid things. Sure, teenagers make mistakes. So do adults, and it seems to me adults have a harder time admitting and fixing theirs. While you are young, perhaps you are more likely to break your arm falling off a horse, but you are less likely to cause an oil spill or start a useless war. The only alternative to making mistakes is for someone to make all your decisions for you, in which case you will make their mistakes instead of your own. That's not a life of integrity. Might as well start living, rather than merely obeying, before the age of eighteen.

Part of my work in writing this book involved contacting all the unschooled teenagers I could find. I asked them, each, as part of a questionnaire, what they considered the greatest advantages of unschooling. Almost unanimously, they agreed: freedom!

"You can spend your time and energy doing things you like."

"I don't have to raise my hand to speak."

"Not being forced to do certain uninteresting subjects. Not sitting around for six hours doing something I don't like."

"Having time to do what I want."

"[In school] you had to have permission to go to the bathroom!"

"I feel sorry for the kids who have to go to 'prison' for six to eight hours a day. I felt like we were the victims of a mass production enterprise."

"We are able to do so many things (go to the zoo, ride bikes, etc. etc.) while other kids are just sitting in classes and desks being bored." (One reason this unschooler's parents kept her out of school was they "didn't like the idea of kids staying inside on sunny days.")

"Time, Time, Time. I have my life back for my own use. I am no longer having to wait and wait and wait for everyone else. I can concentrate on what I want to learn. I can work on my computer as long as I like. Or if I want to spend a lot of time diagramming sentences one day and no time again for two days, it's all right. Also we can travel and in general control our own lives! It is great!"

"I'm free!"

John Taylor Gatto, former New York Teacher of the Year, put it this way in his book *Dumbing Us Down*: "It is absurd and anti-life to move from cell to cell to the sound of a gong for every day of your natural youth in an institution that allows you no privacy and even follows you to the sanctuary of your home demanding that you do its 'homework.' "

And in GWS #65, Lisa Asher writes about a day spent visiting her old high school:

Despite the freedom that I have now, I feel limited by my past. I spent a total of 86 months in public schools, attending for at least part of every grade but seventh. There are still two years before I would graduate, but I don't plan to go back. I am angry with society for the time they made me waste. I wish I could have the time back again, and learn the way I feel I should have.

Near the end of the day, the hallways empty as the kids leave early to go to the beach. They have to come back tomorrow, and I don't. I don't have to get up at five to catch a bus at quarter to seven. I don't have to stay up 'til one studying for a test on something I don't care about, don't need, and am going to forget the minute the bell rings. I will not have to struggle with locks that the school is allowed to open anyway, fight my way through throngs of kids who once spent hours learning how to walk quietly in line, eat a sixty-cent lunch not fit to feed to pets, let alone growing teenagers and children. I won't be fighting for space in a tiny mirror mounted on a graffiti-plastered wall in the girls' room, where the door has been taken off the hinges to expose any tell-tale cigarettes. I won't be sleeping through classes where I am supposed to be learning math, doodling through classes where I am supposed to be learning history, or daydreaming through classes where I am supposed to be learning French.

I'll be sitting at home reading a book. Since I am not in school, perhaps I will learn something.

2 school is not for learning

We are shut up in schools and college recitation rooms for ten or fifteen years, and come out at last with a bellyful of words and do not know a thing.

—Ralph Waldo Emerson

My schooling not only failed to teach me what it professed to be teaching, but prevented me from being educated to an extent which infuriates me when I think of all I might have learned at home by myself.

—George Bernard Shaw

Schools and schooling are increasingly irrelevant to the great enterprises of the planet. No one believes anymore that scientists are trained in science classes or politicians in civics classes or poets in English classes. The truth is that schools don't really teach anything except how to obey orders.

—John Taylor Gatto

Men are born ignorant, not stupid. They are made stupid by education.

—Bertrand Russell

I very strongly believe that no homeschooler, or anyone else for that matter, has a prejudice against learning something, until someone makes them learn it.

—unschooler Anne Brosnan

An average second grader is a person slightly smarter than an average third grader, because they've had a year less of school.

—an eighth grade middle school student

The consensus is overwhelming. After dozens of nearly identical, eventually predictable conversations with friends and acquaintances, I'm no longer certain this chapter is necessary.

"Do you think you learned a lot in school?" I'd ask.

"Oh no, of course not," came the typical reply, "I mean, I memorized a lot of facts for tests, but I don't remember any of it except a few things I was really interested in."

The unschooled teenagers who responded to my questionnaire offered similar comments. "The one thing I didn't do in school," wrote Jason Lescalleet, fourteen, "was learn."

Becky Cauthen, fourteen, remembers school: "I had to sit and wait for others to complete their work."

Patrick Meehan, fourteen, said, "Many teachers seem to dislike students who ask questions."



Benjamin Israel Billings, sixteen, said, “I have never had a liking for regimented things and school is so strict that I found more pressure to get good grades (cheating, copying and lucky guessing) than to learn my subjects.”

Indeed, many of these teenagers had quit school because of “lack of learning” or intellectual boredom.

Once out of school, things improved. I asked unschooled teens how they would rate their “academic” knowledge and skills in comparison to that of their schooled peers. Most felt like Kevin Sellstrom, fourteen, who said, “Far superior. More knowledgeable in most subjects including common sense.”

Several teenagers angrily complained that school had wasted their time. Without it, they said, “you learn more in less time.”

Why don’t people learn in school?

The most basic and overwhelming reason shoots us right back into the last chapter. Our brains and spirits are the freest things in the universe. Our bodies can live in chains, but our intellects cannot. The mind will be free, or it will be dead. It can be numbed, quieted, and restrained so that it memorizes names of Portuguese explorers and plods through grades one to twelve. If it is fiercely alive and teamed up with a forgiving spirit, it may find a way to be free even in school, and stay awake that way. But these strategies are defenses against a harmful system, not unfettered learning. Albert Einstein, as compassionate and insightful as he was brilliant, said

It is, in fact, nothing short of a miracle that the modern methods of instruction have not yet entirely strangled the holy curiosity of inquiry; for this delicate little plant, aside from stimulation, stands mainly in need of freedom; without this it goes to wrack and ruin without fail. It is a very grave mistake to think that the enjoyment of seeing and searching can be promoted by means of coercion and a sense of duty.☒

There are other reasons, too, that the world of school (and our relationship to it) prevents learning—fear of bad grades, lack of confidence (often due to previous unpleasant experiences with grades—including A minuses), an occasional uninformed teacher, illogical or dull teaching methods and books, lack of individual attention, oxygen-starved classrooms.

These problems are the ones the educators can see. They exhaust themselves seeking solutions—hiring the brightest teachers they can get, searching the ends of the earth for easier ways to learn spelling, providing counseling services, buying textbooks packed with vivid images, working hard on “anticipatory sets” (the beginning part of lessons which are supposed to grab students’ attention). Most of these educators do some good. If lots of people continue to go to school, I hope the idealists continue their efforts. Such efforts make school more pleasant, the same way that clean sheets and warm blankets make a prison more pleasant than do bare scratchy mattresses.

Their efforts cannot, however, make you free. Even if they encourage you to write research papers on topics that interest you, even if they reduce the amount of homework

they assign, they cannot encourage you to joyfully follow your own intellectual mysteries, except in your spare time after your homework. To do so would be to completely undermine the basic structure of school.

Because they can never make you free, schools can never allow you to learn fully.

Love of learning

If you had always been free to learn, you would follow your natural tendency to find out as fully as possible about the things that interest you, cars or stars. We are all born with what they call “love of learning,” but it dives off into an elusive void when we go to school.

After all, school does not help you focus on what you love, because it insists that you devote equal time to six or so subjects. While interviewing an unschooled actress for GWS #73, editor Susannah Sheffer made an astute observation: “It’s funny that people think kids should be well-rounded but don’t seem to have the same expectations of adults. Adults seem to realize you can’t do everything.” In *Walden*, Thoreau laments, “Our lives are frittered away by detail,” and admonishes, “Simplicity, simplicity, simplicity! I say, let your affairs be as two or three, and not a hundred or a thousand.”

Of course, quitting school doesn’t guarantee that you are going to learn more in every subject than you did in school. If you hate math in school, and decide to continue studying it outside of school, it’s possible that you won’t enjoy it any more or learn it much better, although being able to work at your own speed—without ridicule or pressure—will help. You will see a dramatically wonderful change in the way you learn about the things that interest you. What’s more, you will find out that you are interested in things that haven’t yet caught your attention, and that you can appreciate at least some of the things which repulsed you in school.

Beyond the love and pursuit of something specific, there’s another quality you might also call love of learning: curiosity, which kills more tired assumptions than cats. Some people move around with their ears and eyes perked open like raccoons, eager to find out something new. Do everything you can to cultivate this characteristic; it will enliven your life immeasurably.

Curiosity, however, is another stubborn quality that thrives on freedom; therefore, school squishes it. Curiosity is an active habit—it needs to explore and move around and get its hands into lots of pots. It needs the freedom to watch TV and flip through the channels impulsively. It needs the freedom to thumb or scroll through *Science News* and stop only where it wants to. It needs the freedom to browse through your library’s whole shelf of poetry. It needs the freedom to visit a museum solo, spending an hour with the birds of prey exhibit and walking right past the collection of seventeenth century embroideries, or vice versa.

Curiosity puts itself on hold when it isn’t allowed to move at its own pace. I am thinking of the week-long field trip our middle school took to Washington, D.C., and

of how my own curiosity took a nap during most of our guided tours, even at the “fun” places like Williamsburg and Jamestown, and how I raced around excitedly when we had an unleashed day at the Smithsonian.

On the up side, the ironic truth is that everyone loves to learn—or at least did as a baby, and can get to be that way again. As John Holt points out, “Children do not need to be made to learn about the world, or shown how. They want to, and they know how.” In fact, it could all add up to a great opening line the night you decide to break the news to your parents: “Mom, Dad, I’d like to quit school because I want to spend more time learning.”

Report cards vs. freedom

Schools do have a few substitutes for freedom. They know that if you dry up people’s love for learning, you will certainly dry up their learning itself, unless you come through with a handy replacement: Pressure. Threats. Bribes. Tests. A’s, B’s, C’s, D’s, and F’s. Yes indeed, school does have one way to make you learn that you might not easily duplicate in a free life. Without an exam on Friday, maybe you wouldn’t learn how to solve differential equations. Without a twenty-five dollar prize from Mommy, maybe you wouldn’t memorize the periodic table in order to get an A in chemistry. Maybe the pressure of grades and all the expectant hoopla surrounding them do help you to learn more.

Temporarily.

The day after the test, or the week after school’s out, will you even take time to kiss your fact collection goodbye as it floats off on the breeze? In the long run, pressure is an ineffective substitute for curiosity and freedom to pursue those things you love, because people only remember and think about things they use or care about.*

A lot of teachers believe learning depends on grades, because they are used to seeing education take place only in the forced environment of school. Physicist Frank Oppenheimer had a clearer head, pouring massive energy into non-school learning environments such as the Exploratorium, an innovative museum in San Francisco. About learning without grades, he said, “People built fires to keep warm long before Galileo invented the thermometer. . . . Why do we insist that there must always be a measure for the quantity of learning? By insisting, we’ve excluded from the educational process those things that we feel are important but for which we have no measure.”☒

Furthermore, the emphasis on grades prevents healthy learning, even if it coaxes you into quickie learning:

Report cards vs. learning

Bad grades start a vicious circle. They make you feel like a failure. A sense of failure cripples you and prevents you from succeeding. Therefore, you continue to get bad grades and continue to be stifled. (Of course, bad grades are relative—in many

families B's are bad grades, especially if the First Born Son did better or Uncle Harold went to Yale.) Feeling like a failure is a self-fulfilling prophecy, which is why dropouts make statistics that the establishment loves to quote. Would you continue to enjoy (and improve at) skateboarding or hiking if someone scrutinized your every move, reported to your parents, and acted as if you'd never succeed in life if you didn't finesse your double kick flip before Friday, or add ten pounds to your backpack and reach the pass by noon?

We all need both privacy and respect to enjoy (learn) any activity. By privacy, I don't mean solitude. I mean freedom from people poking their noses into your business or "progress."

People assume that grades tell how intelligent you are, but they don't. They mostly reflect how well you cooperated by doing what your teachers said. They also reflect whether your teachers like you. (This is usually unintentional, but inevitably it does sometimes happen.) Grades don't prove you can't read, write, or think. They don't show whether you can find out how to do something you believe in and then follow through and do it. They don't show the most fundamental aspect of intelligence—whether you learn from your experiences and mistakes. They don't show whether you live with courage, compassion, curiosity, or common sense. Even in an objective scientific sense, grades and test scores are not accurate measurements of your intelligence.*

The world and its complex terrible wonderful webs of civilization are far bigger and older than our nineteenth-century factory-style compulsory schooling system. There is room for all kinds of smart people—those who love books, and those who'd rather build things and take them apart all day, not just for an hour in woodshop or autoshop class. There's room for those who would rather wander dreaming on a glacier, and perhaps awaken the rest of us with words in the tradition of Thoreau, Ed Abbey, Annie Dillard. There's room for those who want to bake bread and apple pie all day. None of these callings mean failure as a human being, but they may cause "failure" in a dull system that you never asked to be part of in the first place.

Furthermore, bad grades and other consequences of not doing your "work" punish you for what you do (making friends, reading extracurricular novels) as much as for what you don't do. Tell me why, if you want to spend two days following badger tracks, you should be penalized for your choice with "zeroes" in five or six gradebooks and a truancy to boot.

Good grades are equally dangerous. They encourage you to forsake everything worthwhile you might love, just to keep getting them. When schools give you good grades, you give them your unquestioning loyalty in return. It makes me think of the Algonkian Indians who gave Manhattan Island to the Dutch in exchange for six dollars' worth of trinkets. We are not talking here about fair bargains; we are talking about manipulation and colossal rip-off.

Good grades, moreover, are addictive. You start depending on them for your self-worth, and it becomes nearly impossible to do anything that will jeopardize them. When you have good grades, you have something to lose, so you stop taking risks. The

best things in life come from taking risks. My little sister, who is smarter than I am, always got bad grades. She also has an easier time being honest and direct than I do. I think these two bits of data are closely connected. The system never gave her any gold stars, so she didn't feel obligated to give it any false silent agreement in return. (On the other hand, she ended up with plenty of failure complex to work through.)

Finally, grades confuse the meaning of education. Patrick Meehan, fourteen-year-old unschooler, wrote me, "Giving grades puts the wrong focus on learning. It points a student toward competition and learning for the wrong reasons: to make grades rather than to become educated."

More ways that schools prevent learning

Schools require passivity. When I taught language arts and history, I learned far more about them than I ever had in school and—in some ways—even in college. That's because teaching is an active role: seeking out and selecting readings, designing assignments, evaluating others' work. Doing those assignments and receiving those grades is the bottom rung of the learning ladder.

Schools cram you too full too fast. I don't mean they challenge you. I mean they throw too much busywork in your face. Being in school is like being incredibly hungry and sitting at Burger King eating too much, too fast to be satisfied, and puking it up. Good learning, like good eating, is not only mental and physical, but also spiritual. If you don't have sufficient time or peace to digest knowledge, it only gives you a headache.

Schools often care more about appearances than about learning. Before a field trip, an administrator I worked with talked to students about "expectations." "We just want you to look nice," she said, "that's the most important thing." I don't think she heard herself, or quite meant to say that, but I couldn't forget it—as it says in the Bible, the mouth speaks what the heart is full of. In my own classroom, I forever harped on the way students sat. It didn't matter how well they could concentrate curled up on the couch; I was petrified that another adult would walk in and decide I was incompetent. So most days my students sat with their feet flat on the floor, stiff-spined, uncomfortable and trying to learn anyway.

School isn't challenging enough if you're academically inclined. It's not merely that school is too easy; you are not necessarily a straight-A student and in fact may feel overwhelmed by piles of homework. But so much of it is busywork with no connection to the molten cores of physics, mythology, philosophy. It also doesn't help that most of your fellow students would rather not be reading Milton.

Schools present learning backwards, emphasizing answers instead of questions. Answers are dead ends, even when they're "correct." Questions open the galaxies. "It is better to know some of the questions than all of the answers," said James Thurber. In *Organic Gardening*, October 1982, Robert Rodale wrote:

I've been out of school for over thirty years, yet no matter how I manage to arrange my life, I still keep learning. In fact, I seem to learn faster the further in time I get from my school experience. . . . When you are in school, you are asked the questions, and are expected to be able to find the answers. Presumably, when you are sufficiently filled up with correct answers, you are educated, and then released.

I now believe, though, that real learning occurs when you become able to ask important questions. Then you are on the doorstep of wisdom, because by asking important questions you project your mind into the exploration of new territory. In my experience, very few people have learned how important is the asking of good questions, and even fewer have made a habit of asking them. Even in my own case, I had to wait until I'd almost totally forgotten the experience of schooling to be able to switch my mind into the asking as well as the answering mode.☒

School asks you to get stressed out attaining mediocrity in six or so subjects rather than be amazing at one or two you love. Some schools and educators, in theory, believe in cultivating students' uniquenesses. But without structural changes, they can't. As long as focusing on algebra means you get a C in psychology, or as long as you get lectured for falling asleep in history class on mornings after late gymnastics meets, you are being pushed away from excellence toward anxious shoddiness.

Schools are overly obsessed with—and manipulative of—the learning process. Take lesson plans, for instance. A proper lesson plan is supposed to include things like an “anticipatory set” (attention getter), a purpose statement, a diagnostic check (questions to see how many people already know how to organize a five-paragraph essay, or whatever), “input” (lecture, video, etc.), monitoring (“Johnny, now that I’ve explained how to organize a five-paragraph essay, please remind the class what your first paragraph should accomplish”), modeling (reading the class a five-paragrapher that got an A), guided practice (students begin essaying while you stroll around and answer questions), and independent practice (they finish the essay that night instead of watching the sparrows on the windowsill).

This kind of planning reflects some logic, I admit. But two danger signals zap my little brain. First, all this strategy is just a mild substitute for pressure. It's not necessary to manipulate someone if they already want to do or learn what you want them to do or learn. All this strategy is only necessary because educators know how unpleasant it is to sit in school all day. So they mix your head around a little to make it work.

Second, I suspect that messing with your mind this way might even be foolishly harmful—the same way that it can be foolishly harmful to manage nature. After centuries of idiocy, people are finally learning to respect the complexity and self-regulation of the natural world. No longer does America assume that we can help deer by killing off all the wolves, or help forests by putting out all of their fires. We are beginning to acquire a bit of necessary humility, beginning to see that when we interfere, we often ruin.

We need to develop a similar respect for the natural processes of human minds. One of the most difficult and complex things most people ever learn to do is talk. Yet everyone learns on their own, without a teacher or a briber or a threatener or props or games. In families where adults read to children and read in front of them, leave all kinds of books lying around to look at, and answer questions about reading, people learn to read with the same pleasure and confidence that accompanies their acquisition of speech. Most people tend to learn and grow as long as they are not prevented from doing so.

School won't answer the door when real chances to learn come knocking. There's nothing wrong with planning and setting goals—they help us accomplish big things like writing books or pulling off a bike trip across Turkey. But life is unexpected. Sometimes it offers something more glorious than what we've planned, and we lose if we're not ready to drop our agenda. Christians call it surrendering to the will of God. Zen practitioners call it letting go of attachment. Whatever you call it, school has little room for it.

For example: on our middle school field trip to Washington, D.C., our self-imposed schedule demanded that we visit the Capitol for a predetermined length of time and then proceed directly to the next attraction. This schedule left no time for what might happen on the way into the Capitol. What did happen was that on the steps, five students and two teachers stopped to talk to a Vietnam vet fasting for U.S. reconciliation with Vietnam. He'd swallowed nothing but juice for seventy days. We listened to him with awe. At one point he asked, "Do you know what constitutional amendment guarantees me the right to sit here and talk about this?" Young, who always had the answers to all the questions, said, "The first!"

"Very good," pronounced another teacher, who at that moment had arrived on the scene. We all jumped. What did "very good" have to do with anything? She continued: "And which amendment prohibited slavery?" "The thirteenth," answered Young. "Exactly! And with that, let's be on our way," suggested our chaperone brightly. The rest of us looked at each other in vague incredulity; the disruption of learning was more awkwardly obvious than usual. Then we trudged up the steps behind her.

(By the way, this event also makes a perfect example of the way teachers and administrators are not allowed to be themselves in school, being required instead to fulfill ridiculous authoritarian roles. The woman who disrupted our fascination was as curious and human as any of the rest of us, but at the moment she felt a particularly strong responsibility to keep us on schedule. Later she told me she wished she could have encouraged a longer conversation. I understood her position exactly, thinking of all the times I'd told students to come away from the window and sit at their tables, knowing whatever they saw or dreamed out the window was more important than writing a short story they didn't want to write.)

School screens us off from reality—no matter how we define reality. Is reality to be found in books, in the intellect? School censors more than it reveals. Does reality

lurk in raw adventure? In religion? In culture? In friendship and community? In work? School just gets in the way.

Not only does your actual time in school block out learning, but it also prevents you from learning outside of school. It drains your time and energy. After you write your descriptive essay and review your Spanish verbs and it's time for bed, how are you supposed to write the poem you were imagining during history class? How do you find the energy to go look at the new buds on the cottonwood tree?

School wouldn't be nearly so oppressive if it didn't demand center stage in your life. More times than I can count, I've heard adults tell teenagers, with appalling arrogance, that if they don't start getting their homework in on time they'll have to quit drama, or chorale, or hockey, or their job, or sleeping over at friends' houses, or whatever it is that they love. Imagine a concert pianist getting ready for a performance. As she throws on her coat, her husband blocks the doorway. "Oh, honey," he says, "I'm afraid I can't let you go. You haven't prepared next week's menus, and you've left the music room in a mess. Until you get your priorities straight, you'll just have to stay home."

And schools play a nasty trick. They make "learning" so unpleasant and frightening that they scare many people away from countless pleasures: evenings browsing in libraries, taking an edible plants walk at the nature center, maybe even working trigonometry problems for the hard beauty and challenge of it. Luckily (and ironically), lots of things we learn from are not called "learning experiences" by schools, so we don't attach that schoolish learning stigma to everything. But by calling school "learning," schools make learning seem like an excruciating way to waste a nice afternoon.

Okay, you might say, Maybe you're right that I don't learn much in school. But I do learn a little, and if I quit, I won't learn anything.

Forgive my rudeness, but that's upside-down thinking. As John Holt said, if it's the medicine that makes you sick, more medicine will just make you sicker. If you quit taking it, you'll get well.

You wouldn't suggest that you can't learn without school, if school hadn't already torn your faith in yourself. Before you went to school, you taught yourself to speak. After you leave school, you will teach yourself how to live on your own and how to find out answers to questions that interest you. Even now, you learn on your own every time you do anything of your own free will—kicking a soccer ball, falling in love, playing on computers, riding horses, reading books, thinking, disobeying rules.

In school, too, you already teach yourself; you just do it in the company of people who take the credit for your progress. I talk a lot with my brother Ned about education. He got marvelous grades in high school, won a city-wide contest sponsored by Hewlett-Packard, and went on to graduate from Caltech with a degree in electrical engineering. He learned in school, he says, because of the reading he did and the questions he thought about. Teachers had little to do with it. If the lab equipment in our high school had been high quality, it could have helped immensely—but it wasn't, so it

couldn't. He was in school, but in school he taught himself. And he learned more at home, on his own—building a computer, taking things apart, messing around.

Yes, when your teacher talks he shares his knowledge, which may be high quality fascinating knowledge or low quality dull knowledge. But your teacher cannot bridge the gap between what you know and what you want to know. For his words to “educate” you, you must welcome them, think about them, find somewhere in your mind to organize them, and remember them. Your learning is your job, not your teacher's job. And all you need to start with is desire. You don't need a schoolteacher to get knowledge—you can get it from looking at the world, from watching films, from conversations, from reading, from asking questions, from experience. As John Holt says (in GWS #40), “The most important thing any teacher has to learn, not to be learned in any school of education I ever heard of, can be expressed in seven words: Learning is not the product of teaching. Learning is the product of the activity of learners.”

In fact, in our information-laden world, anyone who has acquired basic skills in reading, writing, asking questions (researching), and math computation can learn nearly anything through their own initiative. Books, libraries, generous and knowledgeable people, the internet, and other resources make this possible. Young or old, anyone can become an expert in a field they love, if they are not restrained and occupied by the petty nonsense of school or meaningless work. Part of learning is often contacting and receiving help from others, but learning does not require a boss, a rigid schedule, a schoolroom, punishments and rewards, or most of the other things schools provide. Until school destroys the joy and naturalness of learning, young children revel wide-eyed in the intricacies of their world, learning to talk without teachers, asking questions, growing. In her book *Wishcraft*, Barbara Sher says:

All the people we call “geniuses” are men and women who somehow escaped having to put that curious, wondering child in themselves to sleep. Instead, they devoted their lives to equipping that child with the tools and skills it needed to do its playing on an adult level. Albert Einstein was playing, you know. He was able to make great discoveries precisely because he kept alive the originality and delight of a small child exploring its universe for the first time.

Well, but what about all the things school has to make me learn?

What about them? The good things schools have are equipment, your friends, and teachers. The bad things they have are schedules, unasked-for and often-fallacious evaluations, compulsory attendance, arbitrary authority, dull textbooks, busywork, a sterile atmosphere, too much homework, your enemies, and teachers. You do not need to go to school to have teachers (or helpers, tutors, mentors) or equipment. If you want school teachers and equipment but without the rest of school, maybe you can swing it. (See the “School as a resource” section in Chapter 18.)

What about all the mysterious techniques and scientific approaches they use to make me learn? Don't teachers know a lot more than I do about learning?

Most teachers know a lot about classroom management—how to threaten, manipulate, or cajole a class into quietly doing its work. Many can explain things clearly,

and may also possess a helpful understanding of cognitive strategies or different modes of learning. Some even overflow with true enthusiasm for their subject, so that a few students are infected with a love of that same subject. All this, however, is a sorry substitute for the recognition that you have a mind of your own and are capable of using it. Teachers would be infinitely more helpful if they knew a lot and cheerfully answered questions, dispensed wisdom, engaged in conversation, and pointed out resources—but only when you asked them to.

As for all those mysterious techniques, relax. Nothing happens in school that can't happen elsewhere, and in fact most of what happens there is nothing but a shadow of real world learning. After all, nothing complicated takes place in school. In order to “learn,” you are made to read, write and receive criticism on written work, do exercises or solve problems and have them corrected, listen to a teacher talk, discuss ideas or information with teachers or with classmates under teacher supervision, conduct lab experiments, receive individual attention, and “do” things, fashionably called “experiential education.” Almost all of these school things you can do on your own. Substitute “wise adult” for “teacher,” and you don't need school for any of them. Let's have a quick analytical look at these schoolish methods, one by one.

Reading

Which has more books, a school or a library?

Which has better books, a school or a library?

Where are you made to read deadly textbooks?

a) the library, b) school, c) while exploring a bog

Where can you read at your own pace, for your own pleasure, without being tested and tricked and otherwise disrupted?

a) the library, b) school, c) a bog, d) a and c

Writing

Perhaps you've always bought your pens and pencils from a machine at school. I'm here today to tell you that they can also be found at the corner drugstore. Paper too. Yes, it's true. And what more do you need to write without school?

In school, you write five-paragraph persuasive essays (although who ever heard of a five-paragraph persuasive essay showing its face in Harper's or The Atlantic?) and short stories and essay test answers and poems and whatever else your teachers demand of you. Out of school, you can do all of the above and whatever else you demand of yourself.

Don't you need a writing teacher to write? Well, no, probably not. If you read frequently and you have something to say, most of the logistics will take care of themselves. If you don't have something to say, you don't need to write. (I'm not being sarcastic. Why chatter just to chatter?) The reason many teenagers struggle violently

with writing is that like most people, they are not burning with desire to communicate something particular in writing on a weekly basis.

Even if they are burning with that desire from time to time, they know their five-paragraph essay is destined for their teacher's and maybe classmates' eyes only. When you're communicating with just twenty people, it often makes more sense to simply talk.

Sure, you may be confused about grammatical rules or mechanics. Books, people, and online helpers can clear it all up for you. You don't need six years of English class to make sense.

On the other hand, if you are an aspiring novelist or journalist, you might want to enroll in a writing workshop or course—but you will more likely find the quality and seriousness you seek in a college or independent program, rather than in school.

Doing exercises & having them corrected

Many courses—especially math—consist mainly of working problems and having them checked. Sometimes—especially in math—working these problems is necessary for absorbing course material. In others, exercises are busywork, assigned arbitrarily so you don't feel you're “getting away” without doing anything.

When exercises seem valuable, take heart. Doing algebra problems in bed at ten a.m. produces exactly the same effect as doing them at ten a.m. in a classroom. Decent math textbooks are clearly written. Most have answers in the back. And the internet abounds with practice opportunities that provide immediate feedback.

Listening to your teacher talk

When you have a knowledgeable, wise, or funny teacher, listening to her weave stories and lectures can be delightful—assuming, that is, that she feels allowed to be herself and say what she truly knows and thinks. Unfortunately this is seldom so, since teachers are expected to fill narrow roles and stick to the curriculum rather than show up as the unique, opinionated individuals they are. Your teacher can't say, “Wait a minute. What's fueling this so-called war on drugs?” because Johnny's mother will call the principal outraged in her assumption that a teacher (of all people) is “encouraging drug use,” and the principal will worry about public opinion and ask the teacher to please not talk about drugs in a deviant way. Your teacher probably can't say, at least not with force and conviction, that the United States is far from perfect or that the government still cheats Native Americans, or that children have no rights in this country or that Thoreau, Gandhi, Martin Luther King Jr., and many other heroes all believed in and acted on one's duty to peacefully break unjust laws. Ridiculous as it seems, schools would rather keep your head and mouth empty and uncontroversial than risk the status quo by giving teachers free rein. “No one is fired for hiding the truth

from children,” writes John Holt, “But many are fired for telling the truth.” Journalist Jessica Vitkus puts her finger on a lot of it when she describes a day substitute teaching:

We’re talking about the upcoming marriage of Romeo and Juliet. And this girl who keeps pulling fuzz balls off her sweater points out that it’s kind of gross that a fourteen-year-old girl would be getting married. “Had you even kissed a boy when you were fourteen?” she asks me. Obviously, part of me would really love to take off my shoes and sit on the floor and tell the class how my first kiss (I was in eighth grade) was nothing like Juliet’s and that I don’t think people fall in love at first sight. Those are some of the things I think about when I read. But they’re the kind of thoughts I save for my friends. And in the classroom, I can’t act like a friend because it’s hard (and not too effective) to tell a friend to be quiet or that she may not go to her locker. Harsh as it may sound, teachers and students are not equals, and I have to maintain a certain distance. This also means that I can’t one hundred percent act like myself—which to me is the hardest thing about teaching. I smile at the girl to let her know that I heard her question, but I don’t answer it. She gets the hint. ☒

When your teacher is not so knowledgeable, wise, funny—or confident that she can both keep her job and maintain her authenticity—listening to her lecture lag along is worse than watching *A Nightmare on Elm Street* for the ninth time.

Anyway, I bet you have figured out by now that people lecture in other places besides your high school history classroom. If you like, go listen to one or ninety talks outside of school. There are lectures at colleges and universities, libraries, museums, and complete courses to be audited at colleges and universities. (Most college professors are expected to be controversial or at least original.) You can now freely access many lectures online, not to mention TED talks and the million other brilliant presentations you’ll find on YouTube.

A hunch, however, tells me that although most people are moved and enlightened by an occasional dynamic or profound speaker, few want to spend lots of hours every day on their butts soaking in someone else’s words. It’s not only too passive for most of us—more passive than reading—but also too slow.

Class discussion

Exploring ideas with others is undoubtedly one of life’s finest wines, as well as a stimulating way to “learn,” and thus please all the adults who need you to do that in ways they understand. When you want to clarify, resolve, or broaden your opinions, you must talk. Many of the best books, projects, and organizations begin (and grow) in conversation. For example, J.R.R. Tolkien and C.S. Lewis met regularly to talk about their work in a writers’ group they called *The Inklings*.

Unfortunately, the difference between most classroom discussions and real conversation is equivalent to the difference between stale Wonder Bread and the rich warmth, sweetness, and complexity of homemade cinnamon rolls. Imagine: you and your friends in front of a fire, feet on the sofa, planning how to get plastic grocery bags banned

in your city. Inventing an ideal society. Improvising haiku on the spot. Debating why Hamlet did what he did. Deciding what kind of research to carry out with your shared science lab. Considering the pros and cons of gun control. Why settle for a dismal school version of the real thing?

Experience

“Experiential education” is an inflated, fancy term referring to a simple concept: learning by doing. School examples are learning government by experimenting with student governments and courts, or learning about literature by hosting a poetry reading that features students’ own sonnets. The school where I taught deservedly attracts students because of its experiential emphasis, consisting mainly of purposeful travel. Obviously, learning Spanish by staying with a family in Madrid beats learning Spanish by merely drilling in a classroom. Learning architectural design by sketching adobe buildings throughout the Southwest beats learning architectural design by merely reading textbooks.

The educators are on to something here. They figured out that life and the world are exciting, so they should squeeze a little more of it in between desks, chairs, walls, schedules, limited resources and transportation, and standardized tests. Lucky for you, if you quit school, you are automatically swimming in that whole big world that you call living and they call “experiential education.”

By the way. An absurdity in the concept of experiential education is that “doing” has to be organized in some particular scientific-schoolish way in order for “learning” to take place. Worse, teaching this way implies that the experience would be unimportant if it were not engineered to generate “education” also. As you and I know, there would be little meaning in building and programming a computer solely to learn about electronics or math. Rather, knowledge about these subjects would emerge naturally as a by-product of all the fun you were having if you just happened to want to build and program a computer. But some educators hang on to an awful habit of thinking that school is reality and the universe only exists to make school more educational. Instead, of course, the big wet world is reality and school should serve only to help us live better lives in that reality, not to block it off.

Individual attention

If you attend a small school, or enroll in small classes, you may also be lucky enough to receive frequent individual attention from teachers. Everyone has their own learning style, and many people prefer to learn directly from others. “When I want to learn something,” says my friend Lesly, “I don’t like to go read a book; I want someone to show me how to do it.” Private conversations, whether they focus on your next screenplay, on why you messed up half the equations on yesterday’s algebra, or on how to sew a straighter seam, can be truly helpful.

One of the things that kept me going when I taught school was my class schedule, in which I met daily with most of my students to discuss their writing. Though these conferences rarely strayed from the “point,” they also enabled me to know each student well, making the whole thing a lot more human and a lot more fun.

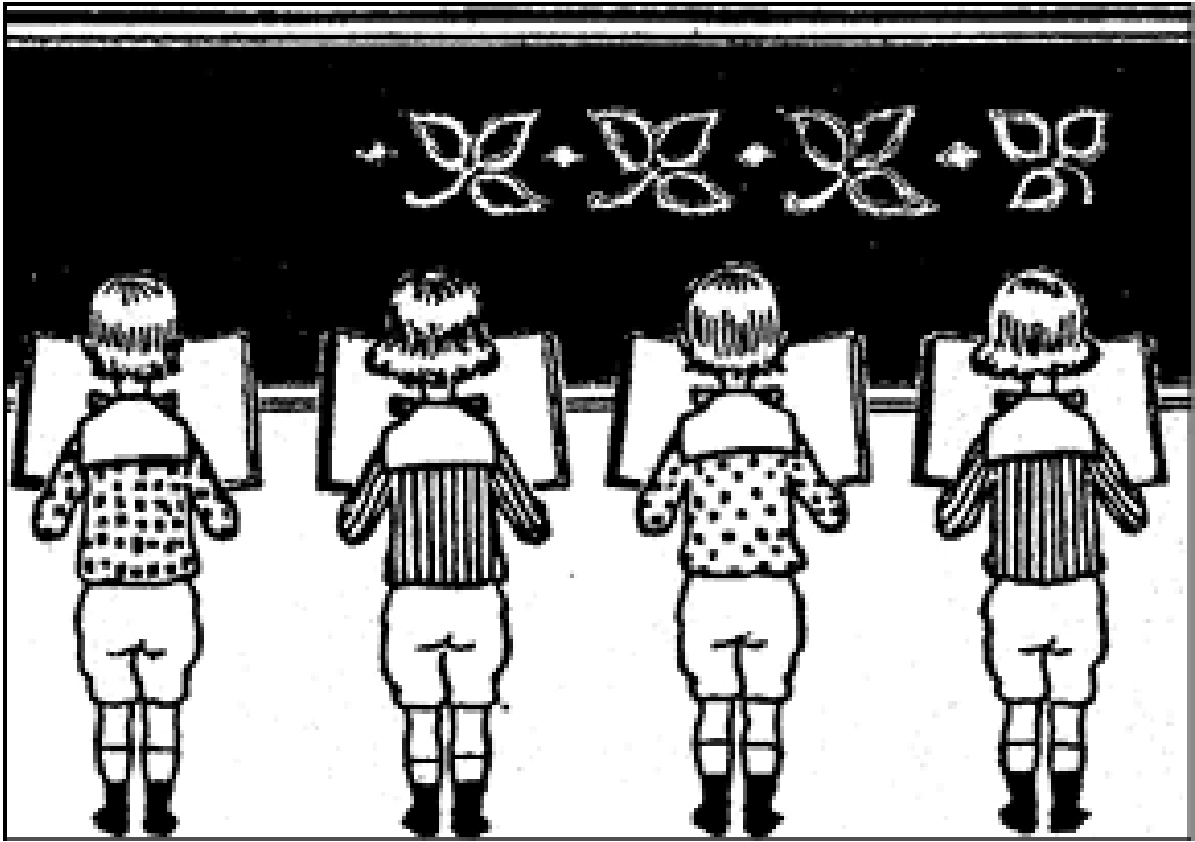
If you attend a typical public school, as I did, your teachers can only fantasize about having personal contact with all their students. But if you’re accustomed to it and you like it, you will like a full-blown relationship with a mentor better. And if there are particular teachers you especially like, maybe you can stay connected with them, informally or perhaps by hiring them as tutors. When adults aren’t giving you grades, it’s easier to learn from them and enjoy their company without guilt or anxiety.

*

End of analysis. School did not invent these activities and does not own them; they can be found outside of school in fresher, juicier form. Schools have no monopoly on learning, or even on “school” methods of learning.

In the end, the secret to learning is so simple: forget about it. Think only about whatever you love. Follow it, do it, dream about it. One day, you will glance up at your collection of Japanese literature, or trip over the solar oven you built, and it will hit you: learning was there all the time, happening by itself.

3. what school is for



Almost all education has a political motive: it aims at strengthening some group, national or religious or even social, in the competition with other groups. It is this motive, in the main, which determines the subjects taught, the knowledge which is offered, and the knowledge which is withheld. It is this motive also which determines the mental habits that the pupils are expected to acquire. Hardly anything is done to foster the inward growth of mind and spirit; in fact, those who have had most education are very often atrophied in their mental and spiritual life, devoid of impulse, and possessing only certain mechanical aptitudes which take the place of living thought.

—Bertrand Russell

If schools get in the way of learning, why do we have them? Why did anyone ever think they would work?

Compulsory schooling in the U.S. started because of some lofty, beautiful hopes for democracy, unfortunately mixed up with a lethal dose of arrogance and tainted with other impurities. Thomas Jefferson, John Adams, and other early American leaders argued that in a democracy, people needed to have knowledge and wisdom to make decent decisions together. Also, they hoped America could be a country where “everyone” (meaning all the white boys who hadn’t immigrated too recently) had an equal chance to succeed. Thus, they all needed a chance to learn and read and grow as children, rather than be packed off to factories for hard labor, rather than be shut off from the world of books and ideas.

People hadn’t always thought this way. In most of the old kingdoms of Europe, no one particularly wanted Johnny to learn to read, because Johnny’s purpose in life was to herd cows and do what the king said. In England, compulsory school for poor people had started in the fifteenth century, but not in support of democracy. Instead, the idea was to train the destitute for jobs so rich people wouldn’t have to support them.☒

In other words, the ideals that led to American public education were noble and revolutionary ones. How wonderful if the people who held them could have been democratic enough to trust others to make the most of an opportunity.

If so, we might have had one bonanza extravaganza of an educational system, one in which children were legally guaranteed their basic material needs—shelter and food—until a certain age—sixteen, eighteen, twenty-two, whatever—and allowed to freely explore the physical and cultural worlds. Libraries and books could have been accessible to all. Tutors and academic specialists could have been paid by the government to answer questions, and to engage more intensely when a student wanted that. Apprenticeships could have been available, as well as open laboratories staffed by scientists ready to let young people assist in their research. Children and teenagers could have roamed around sticking their hands into frog ponds, bread dough, and art supplies. They could have invented gadgets, cataloged fossils, and written poetry at will.

Instead, the people who thought up American education believed in no one but themselves. They did not trust children to learn, and they did not trust the “lower classes” to want their children to learn. I doubt any kind of intellectual freedom even occurred to them. They believed that in order to have education, it would have to be forced. Thus came compulsory schooling. They modeled the American system on the Prussian one, which never pretended and was not intended to create a democracy.

Another reason we have schools even though they prevent learning is that schools are intended not only for learning. They have other purposes too, somewhat less charming. Although compulsory schooling was begun partly in hopes of educating people worthy of democracy, additional goals also embedded themselves in the system.

Factories needed a new kind of employee

Schools took on the goal of creating obedient workers who did not waste time talking to each other or daydreaming. Historian Lawrence Cremin writes, “There was

one educational problem that proved ubiquitous wherever factories did appear, and that was the problem of nurturing and maintaining industrial discipline.” Cremin goes on to explain that before the industrial revolution, people had scheduled their lives in harmony with the seasons, holidays, and their preferences. But factories

required a shift from agricultural time to the much more precise categories of industrial time, with its sharply delineated and periodized work day. Moreover, along with this shift in timing and rhythm, the factory demanded concomitant shifts in habits of attention and behavior, under which workers could no longer act according to whim or preference but were required instead to adjust to the needs of the productive process and the other workers involved in it. . . . The schools taught [factory behavior], not only through textbook preachments, but also through the very character of their organization—the grouping, periodizing, and objective impersonality were not unlike those of the factory.☒

This industrial indoctrination continues full force in schools today, turning out people who conveniently obey authority, don’t think too much, and work hard for little reward. Yet, having hurtled into the information age, it now makes even less sense for people to spend twelve years training for factory work. As Daniel Greenberg, visionary co-founder of the Sudbury free school movement, points out:

In the post-industrial society there is essentially no place for human beings who are not able to function independently. There is no room for people trained to be cogs in a machine. Such people have been displaced permanently from the economic system. The economic demands of post-industrial America are something that you hear from personnel directors in every industry and company today, small or large. The demands are for creative people with initiative, self-starters, people who know how to take responsibility, exercise judgement, make decisions for themselves.¹☒

Religious indoctrination

In 1642, the first compulsory education law was enacted in Massachusetts, one of the strictest Puritan colonies. According to the Puritans, “that old deluder Satan” kept “men from the knowledge of the Scriptures.” Though we no longer officially learn to read in order to read the Bible, schools preserve some rather smelly leftovers from this influence. The Puritan assumption that everyone would emerge from school with the same religious beliefs gave way to the secular idea that school should produce people who all think alike in a general sense. (The middle and southern colonies, which were not as religiously zealous or homogenous, did not have compulsory education until centuries later.)

Cultural indoctrination

Schools eventually started educating girls, Native Americans, new immigrants, and the descendants of enslaved Africans as well as white boys. But for all of its ideal-

ism about democracy, America wasn't ready to treat everyone respectfully or equally. Schools took on the task of stamping out "minority" and other differing cultures. "The Indian schools were like jails and run along military lines, with roll calls four times a day," says Sioux medicine man Lame Deer. He goes on to lament:

The schools are better now than they were in my time. They look good from the outside—modern and expensive. The teachers understand the kids a little better, use more psychology and less stick. But in these fine new buildings Indian children still commit suicide, because they are lonely among all that noise and activity. I know of a ten-year-old who hanged herself. . . . When we enter the school we at least know that we are Indians. We come out half red and half white, not knowing what we are.¹¹

Maintaining the status quo

Schools have long reinforced the darker sides of society—colonialism, racism, and other forms of oppression. I think it's safe to say, at this point in the twenty-first century, that very few of the people who choose to work in public schools want to perpetuate such things. Quite the opposite—many teachers and administrators devote their careers to noble pursuits like equity, anti-racism, and culturally responsive pedagogy. But at least two key obstacles stand in the way. First: American public schools (and individual classrooms) are not agile, independent entities that can do as they like; they're part of a gigantic system that was originally built within a context of white supremacy and settler-colonialism. Over the centuries, schools have reflected this context in ways ranging from overt (racially segregated schools in the Jim Crow South) to hidden in plain sight (curriculum that ignores perspectives other than "white"). Like most gigantic systems, school is extremely slow to enact real change.

Second: there's also the fundamental structure of school, in which one group of people (paid adults) holds power over another group of people (youth, who are given no meaningful choice whether to participate). "If we can accept any form of oppression," writes Akilah Richards in *Raising Free People*, "we are susceptible to all forms of oppression." I'm not going to glibly pronounce that by quitting school you'd automatically escape evil forces like racism which permeate our entire society—but by deciding with care what books you read, where you point your attention, and how you spend your time, you'd be off to a good start.

Sequestering youth

Schools provide babysitting: preventing teenagers from competing in the job market or running loose in the streets. Like other school purposes, this goal stands smack in the way of learning; it translates into an unforgivable waste of time. If we could scrap it, school could surely teach everything more efficiently, not "reviewing" year after year, and you'd finish in half the time. When adults go to workshops, there is little of the educational hanky-panky and muddle and time wasting you get in school. Unschooler

Jessica Franz, twelve, wrote told me, “I feel that I am about at the same level as the kids at my grade although I do ‘school’ only occasionally as opposed to six or seven hours a day.” Her comment is echoed by the experiences of thousands more unschoolers who spend little formal time on academics and yet perform about the same as schoolers on standardized tests.

Contrast school’s use of time with the way people study for the GED. The GED (General Educational Development) actually tests a higher level of knowledge than what school often teaches; research shows that around thirty percent of high school graduates can’t pass it.¹² Nevertheless, when high school dropouts want to take it, they are typically coached for sixteen to twenty-four hours over a period of a month or two. A popular online GED test-prep provider says that for many people, one hour daily for four to six weeks suffices.¹³ That’s all they need, not years sitting at a desk with someone else’s bubble gum stuck underneath.

I am reminded of a conversation my colleagues and I had with a parent when I was teaching. We had suggested that this man’s son skip the eighth grade and go directly into the ninth, since he was extremely bright, competent, socially adept, and responsible. The father had some qualms. He worried that his son would miss “building blocks” of courses such as math, science, and foreign language. No, said the teachers, Jasper (fake name) would miss nothing important by skipping a grade.

That information was good for Jasper, since he was allowed to skip eighth grade and save himself a year of “nothing important.” But the implications of that conversation are horrendous. Year after year, you attend school for many reasons. You may think the most important reason is learning, but in reality you are receiving “nothing important” in exchange for your twelve years of drudgery. Sure, schools teach some potentially helpful skills and information. But the amount of good stuff is insignificant next to the piles of inanity, and the essence of many year-long courses could be covered in a solid two- or three-day session.

Jobs

Schools didn’t begin in order to provide millions of jobs for teachers, administrators, and staff, but since they provide those jobs now, that has become one of their main purposes. I don’t mean to be callous—it would be tragic for all those good people to be out of work. But why must you provide their livelihood with the skin of your soul? The government pays them to work in schools; it could pay them for a better cause—help in libraries and museums, tutor people of all ages who ask for it, read to blind and elderly people. In the meantime, this genuine challenge should not be your burden.

Why do we stand for it? Why do people believe unquestioningly in compulsory education?

Because they are mystified, shamed, and intimidated into believing in it, that’s why.

Educators talk in specialized, complicated language, as if learning were a specialized, complicated process. “Mastery learning,” they say. “Criterion-referenced testing,

multicultural education, prosocial behavior, expository teaching, and stanine scores. So there.” They pretend—and believe—that what they do is all very tricky and difficult.

Teachers take themselves very seriously when they design courses and lesson plans. They try to sound scientific when speaking to students and talking about students. (I know because I was a teacher. I didn’t just see it, I did it. It’s a tremendously addicting power trip, though mostly an unconscious one.)

All those complicated undertakings are probably necessary to induce forced learning. But none of it should intimidate you. Much of what teachers know about teaching has largely to do with classroom management (a.k.a. “discipline”)—a topic that wouldn’t matter if you were learning what you want to learn.

And schools go beyond intimidation; they shame you into believing you need them. By giving out grades, they cancel people’s faith in their perfectly good brains. Once you accept a report card’s verdict that you’re not so bright, you’re hardly in a position to say you don’t need school. If they happen to decide you are intelligent, you have the opposite problem—your ego is addicted. You succeed in school, so why risk leaving it for a world where you might not get straight A’s?*

It boils down to something called “blaming the victim”: school blames you instead of itself for your intellectual influenza. After first grade, you forget about your heaping supply of natural curiosity. When they tell you the reason you don’t do your schoolwork properly is that you have no drive, grit, curiosity, or love of learning, you start believing them. By the time they tell you that if you can’t make it with school, you certainly can’t make it without school, you’re really lost.

Schools need you to believe you can’t learn without them. Once they convince you of that, it’s over. You submit without argument to twelve years of it. You become susceptible to the illogical kind of line one of my colleagues fed his students when they didn’t finish their math: “Okay, don’t turn in your homework. Grow up and be a junkie.”

The good news? Once you recognize that game for what it is, you can think about it clearly and start, again, to trust yourself.

4. schoolteachers ~ the people vs. the profession

I am always ready to learn, although I do not always like being taught.

—Winston Churchill

This book has no intention of lessening your appreciation for the people who teach school. It is rarely teachers' fault that school stinks—although if they all quit, there would be no more school.

Most teachers are generous, intelligent, beautiful people. Some are talented or knowledgeable in their fields and would make great mentors or tutors outside the constraints of school. Many have given up chances to make lots of money because they believe in teaching even though it pays relatively poorly. Especially if they are men, they sometimes endure years of being hassled by their families—"Can't you find a better job?" In any grip-on-reality contest, your average schoolteacher would win nine times as many trophies as your average fossil fuel corporation executive.

Teachers believe they are doing the right thing. They are not preventing democracy, freedom, and education on purpose. Or rather, when they do purposely prevent freedom, they believe that's in your best interest, so that you'll be ready to work hard and succeed in your afterlife.

A few teachers are amazing enough to conquer all the forces of the opposition. In their classes, something strong and beautiful happens. A classic example is Eliot Wigginton, who started an oral history program in Georgia. The Foxfire books and magazines written by his students have enlightened the whole world—regarding both the richness of Appalachian culture and the capabilities of teenage journalists.

Jerry Vevig, my own high school choir director, is not so famous but was also an extraordinary teacher. Whenever I entered his room—for 6:30 a.m. practice, jazz choir, or concert choir—I forgot I was a high school student and instead became a serious artist in likeminded company. He wasn't always nice, and usually made us sing fifteen minutes into our lunch break. But he treated us like musicians, not kiddies, and he knew his stuff. I remember once when our jazz choir performed for a huge business Christmas banquet—one of twenty gigs that month. The adult audience ignored us while we set up microphones. But when Carl rolled the first lush chords over the piano, all the talking hushed, and when Ronelle sang the first ripe note of the opening solo, a man dropped his fork. We were for real. Mr. V brought out our best, and we loved him for it. I don't deny that some teachers can make wonderful things happen in school. I just know that the odds are way against them.



Also, just because someone teaches doesn't mean they're consciously in league with the system. Many people start teaching precisely because they think school is a bad place and they hope to make it better. Unfortunately, most of these individuals end up either quitting or compromising their ideals—the system is so much bigger and stronger than they are. Still, they may have a few years of passionate vision in them. So don't assume, when schools squash you, that teachers want to squash you. For most teachers, as well as students, the world will be a more chocolate place when school is no longer compulsory and full of bureaucratic backwash.

Which brings me to a different point. Not all teachers want to run your lives, but they have no choice. They must “manage” you. It is their responsibility to give you F's if you don't do “your” work, to report your absences, to make you be quiet, to assign homework, to enforce rules they don't personally believe in, such as Hats Off in the Classroom and No Leaning Back in Your Chair. No teacher could keep her job if she said, “It doesn't actually matter whether you do the homework tonight. If you'd prefer to spend your time doing something else, please do. You won't get a zero, and I won't be disappointed in you.” Teachers' job descriptions leave no way for them to treat you with the respect they would show their friends.

Something that surprised me when I started teaching was that my fellow teachers were terrific people. Almost all of them. That hurt my brain a little. I remembered having a lot of mean, stupid teachers in school—was I wrong? Or had the teaching profession changed radically in five years?

The truth didn't strike until I substitute taught in my own former junior high and high school, rubbing my adult shoulders with the very same individuals who used to grade my tests and ask me not to read novels during their brilliant lectures. All of them were terrific people too—in my adult company. From the glimpses I caught of their classes, and the student conversations I overheard in the halls, some were apparently still mean and stupid in their classrooms.

I started wondering how many teenagers thought I was mean and stupid when I stood in front of a classroom. And over the next few years, I came to believe firmly: the majority of teachers are amazing, intelligent, generous and talented people. But the role they are forced to play keeps them from showing you these sides of themselves. Their talent and energy is drained instead by their constant task of telling people what to do.*

Not everything about teachers is terrific, of course. Like everyone else, they have their weak points along with their awesome qualities. And some of the things for which we praise teachers most loudly are the ways they cause the most harm.

For instance, many teachers seem to have an inborn desire to run other people's lives (also known as “help people”). It makes sense that controlling sorts of people would gravitate toward teaching. Me, for example. When I was six or so I loved to play school. I was the teacher. I called it Pee-Wee. My brothers, the students, were usually unenthusiastic but I was older and I could bribe or force them into it. I choreographed dances and made them learn, pinching them when they lost the beat. I didn't feel my

own life was enough territory—I wanted to design theirs too. (Just like my teachers got to design my life, I might add.) It is this controlling and designing quality that disturbs me again and again in teachers—including myself—and in administrators. The most dangerous people are often those who want most to help you, whether or not you want their “help.” “She’s the sort of woman who lives for others,” wrote C.S. Lewis, “You can tell the others by their hunted expression.”

Some teachers thrive not on money, but on the brownie points they get for staying up all night to grade quizzes, for bringing their classes Halloween candy, for earning abominable salaries, for driving across town in a blizzard to pick up supplies, for explaining fractions thirty times to Suki on Friday afternoon, for neglecting their own favorite sports in order to coach basketball. Unfortunately, many people who are good at suffering in public are also good at giving others guilt trips.

One of the most dedicated, popular, and brilliant teachers I’ve known worked hard to arrange a weekend outdoor-film festival for his boarding school students. It was optional, and few went. The teacher was sad and disappointed in students for showing so little enthusiasm. I wondered how he would feel if his boss expressed disappointment in him if he missed a free U2 concert. Another teacher responded to his frustration with wisdom: “We have to provide a wide array of activities for them,” she said, “But not be so personally invested that we get hurt when they’d rather do something else.”

What do we need instead of people who sacrifice themselves? We need people who do what they most love, and do it well, and let others hang around or join in unforced, and share their knowledge instead of hoarding it. This behavior requires true generosity, because it allows others to be equals, not helpless victims.

There is nothing wrong with teaching itself, only with the conditions of compulsory school. Lots of people do learn certain things best by being taught or shown. So don’t limit yourself by assuming that a teacher in school is the same as a teacher out of school. A teacher out of school—in a martial arts studio, a book discussion group, or a community education French class—can be himself and teach from his heart. Also, since you are not required to undergo his teaching, you will stay only if his method works for you.

When choice, freedom, and individuality are introduced into a teaching situation, it can be great for everyone involved. After I quit teaching school, I eventually started teaching dance lessons—and I loved it. If people wanted to learn belly dance and swirl sequined veils, and if they liked my teaching and my dancing, they paid me to teach them. If they stopped liking it, they quit, or perhaps looked for a different teacher. I didn’t stress out or take it personally—I understood that everybody learns in their own way. No one took my ex-students to court for truancy or gave them an F. Those of us who stayed in class were empowered by our common goal and our common success.

5. the power & magic of adolescence vs. the insufferable tedium of school

Youth is the time to go flashing from one end of the world to the other both in mind and body; to try the manners of different nations; to hear the chimes at midnight; to see sunrise in town and country; to be converted at a revival; to circumnavigate the metaphysics, write halting verses, run a mile to see a fire, and wait all day long in the theatre to applaud ‘Hernani.’

—Robert Louis Stevenson

If you ever read any anthropology, one of the first things you notice is that primal cultures simmer up all their mystery and magic and ask their teenagers to drink deeply.

A sixteen-year-old Dakota boy fasts until an empowering vision overtakes him. A newly-menstruating Apache girl becomes the goddess White Painted Woman in an intense, joyful ceremony which lasts four days. All over the planet, traditional cultures provide ritual experiences to adolescents, bringing them into contact with the deepest parts of themselves and their heritage.

There is danger and pain, as well as beauty and exultation, in some of these traditional ways of initiating people into adulthood. I don’t want to make a shallow statement that we’ve got it all wrong because we don’t ask pubescent boys to endure three days of biting wasps. But I’d like to reflect for a minute on the contrast between the way our society initiates its young and these more traditional undertakings.

What do you get instead of vision? You get school—and all the blind passivity and grey monotone it trains into you.

For an institution to ask you, during some of your most magical years, to sit still and be good and read quietly for six or more hours each day is barely even thinkable, let alone tolerable. How do you feel when the sun comes out in March and makes the most golden Saturday imaginable, but you have to stay in and clean your room?

In case you’ve lost touch with your burgeoning beauty, let me remind you that that’s exactly what’s going on. Adolescence is a time of dreaming, adventure, risk, sweet wildness, and intensity. It’s time for you to find yourself, or at least go looking. The sun is rising on your life. Your body is breaking out of its cocoon and ready to try wings. But you have to stay in—for such a long time—and keep your pencils sharpened. School is bad for your spirit, except the pep club kind.



It's no accident, I'm sure. The way our society is set up now, something's got to prevent visionary experience. People who are fully and permanently awakened to the wildness and beauty in and around them make lousy wage-slaves. People who are not distracted by a wellspring of yearnings can briskly assemble automobiles, or focus their intellects on monthly sales charts.

And unawakened people are less likely to question the things in our society which are horrifically dull, ridiculous, or wrong. The point of visionary experience is to see. When vision comes, eternity is its black velvet backdrop. Everything else comes out on the stage to sing and dance. Some of it fits in with the grandeur of that backdrop, and some of it only clashes, looking ugly and cheap. You end up wanting to adjust your life so that it's full of stuff that fits in with eternity, and not crammed with things that don't matter.

Perhaps one reason some cultures confidently guide their young toward vision is that they're not worried. They don't expect anybody's vision to reveal anything horrible about the society itself. If there is something going wrong with the cultural state of affairs, maybe they want to know, so they can fix it.

But when you have a dirty house, you don't offer a magnifying glass to your guests. You probably don't even open the curtains and let in the light. If we did teenaged visions, democracy would get a boost—but consumerism, injustice, and other ignominities would take a dive. We would see that far too much of what we accept as "reality" is a blasphemy against true reality. Maybe we don't invite our young to seek visions because those visions would disrupt the status quo and force an uncomfortable change.

No force of dullness and ignorance is strong enough, however, to stop you from seeking. Eternity, the Mystery, Truth, God, Goddess, whatever you call it—is too powerful. It will get in, though it has to battle school and other strongholds of society. Writers and artists bring us inklings, though when school introduces us to them, it nearly destroys their potency. And the mystery creeps in around the edges of life: in early morning bird voices, in late night drum beats, through your fascinations with anything strange and unknown.

Visionary tendencies come in dark and light, or a combination thereof.

Some teenagers want dark experiences. They walk in cemeteries at night. They write stories about suicide. They obsess on black clothing and Pink Floyd lyrics. None of it means they are misguided or twisted. When they are finished playing with the dark, they will better understand the light. If they are ignored or ridiculed, perhaps they will do something drastic, but their search is usually only an attempt to understand the depths.

Others gravitate toward the light—daytime psychedelic colors, long solitary hikes. They determine to become a dancer or artist instead of something "realistic." If their family is sedately Catholic, maybe they go to the Assembly of God and speak in tongues. If their family goes to the Assembly of God, maybe they climb a hill and offer flowers to Apollo.

Schools—and many parents—lie a lot at this point, telling you you're out of touch with reality. The truth is, you're out of touch with the expectations and patterns of an unreal, industrial society. You are in touch with the reality that counts. Look at the Milky Way tonight and think about it. In *Lame Deer, Seeker of Visions*, a Sioux medicine man talks about the reality of “the white world” versus the reality of artists and Indians:

Artists are the Indians of the white world. They are called dreamers who live in the clouds, improvident people who can't hold onto their money, people who don't want to face “reality.” They say the same things about Indians. How the hell do these frog-skin people know what reality is? [“Frog-skins” are dollar bills.] The world in which you paint a picture in your mind, a picture which shows things different from what your eyes see, that is the world from which I get my visions. I tell you this is the real world, not the Green Frog Skin World. That's only a bad dream, a streamlined, smog-filled nightmare. Because we refuse to step out of our reality into this frog-skin illusion, we are called dumb, lazy, improvident, immature, other-worldly. It makes me happy to be called “other-worldly,” and it should make you so. It's a good thing our reality is different from theirs.¹☒

Furthermore . . .

Schools—and the society they represent—go beyond blocking your visionary tendencies. They further incapacitate you by making fun of you. Every hierarchical society seems to need somebody to put down, and women and African Americans won't take it anymore. When someone puts you down, you want to put somebody else down. Dr. Seuss, reliable social commentator, wrote a story called “King Looie Katz.” King Looie Katz makes Fooie Katz carry his long proud royal tail around. So Fooie Katz sticks his own nose in the air and makes another cat haul his tail. Soon everybody is walking around carrying the tail of the cat in front of them . . . except the last little cat, who doesn't have anyone to carry his.

That little cat, who is a bit like you, takes action. He yells “I Quit!” and slams down the tail in his paws. Everybody else follows suit. The story concludes:

And since that day in Katzen-stein, All cats have been more grown-up. They're all more demo-catic Because each cat holds his own up.¹☒

Another reason adults make fun of you is that they're jealous. Teenagers are beautiful and fresh. Yes, many teenagers are also awkward, pimples, or strangely tall and thin. Far more adults, however, are awkward (having forgotten how to use their bodies), sallown-skinned (too much sitting in air-conditioned offices), and lacking in energy (not enough skateboarding).

A healthy adult society would acknowledge the beauty of youth, make up some good poems about it, and then not think about it too much. There are certainly activities more productive than fixating on the rosy cheeks you'll never have again. But since we do not have a healthy adult society, we get all bent out of shape over it, create a cult of young-stunning-people-in-magazines, and punish real live teenagers by telling them they are ugly.

Just in case you do realize that you are beautiful, we make sure you can't savor that knowledge, by telling you that you are confused and overly emotional during these traumatic years, and for Pete's sake don't go and make any decisions for yourself, and don't let loose and have any free wild experiences with life. Dogs in mangers, we turn the power of adolescence into a weak disease. Teachers sit in the teachers' lounge and laugh about you behind your backs.

Isn't he cute, they say. Poor Kristy, with no idea of how she sticks out in that magenta skirt. This, from people who are in ruts, out of touch with their dreams, insecure, and otherwise at least as imperfect as the subjects of their conversation. Thank god I'm not that age any more, says Mrs. Wallace, leaning her double chin over her desk. We read tacky cute articles in Family Circle called "How to Survive the Terrible Teens: An Owner's Guide." The owner being the parent, of course. School, yes, is something to survive, but being a teenager is something that flies.

We force you to act younger than you are, legally withholding your ability to control your own life. The World Book Encyclopedia says, "Most teenagers mature psychologically at the rate set by their society. As a result, psychological adolescence normally lasts at least as long as the period of legal dependence." Certainly, there is no biological limitation to teenage independence. In other times and places, teenagers have commonly married, raised children, held jobs, operated businesses, and occasionally ruled countries.

It seems you're talking about more than just schools here. Aren't you getting off the point?

School is not the only bad guy in the war against whole adolescence, that's true. But it is our culture's primary substitute for more potent experiences. It is the way we take your time so you don't explore your own inklings of truth. It is where you learn to be passive instead of proactive. Quitting school won't guarantee you a healthy, passionate, adventurous youth—but it just might remove the biggest obstacle to that birthright.

6. and a few other miscellaneous abominations



School days, I believe, are the unhappiest in the whole span of human existence. They are full of dull, unintelligible tasks, new and unpleasant ordinances, brutal violations of common sense and common decency.

—H.L. Mencken

School is age segregated

If you don't like being shut up with your peers all day, that doesn't mean you're socially maladjusted. Adults have been around longer than teenagers. They have experience and perspective that teenagers lack. When adults aren't your schoolteachers (and therefore have no control over you), most will treat you like real people. Outside of school, if you're busy doing something, most adults won't think of you as a "kid"—at least not for long. You will learn from them, and they will learn from you. Also, you can have friends younger than yourself.

School socializes you into narrow roles

Girls wear makeup. Boys play football. Girls giggle. Boys stammer and grunt. All teenagers are incapable of serious thought—unless they're nerds or "different."

School destroys self-esteem

Jenny Smith, fourteen, writes:

How is it that going to school can often stomp out our self-worth, especially in girls? Our dreams and aspirations are literally knocked out of us. I feel school turns out students who aren't in touch with their dreams, their values, or their spirit. They don't learn to think for themselves; they are led along by the television and by the school. We're told when we can go to the bathroom (I peed my pants in first grade thanks to this!), when we can talk to our friends, when we can eat (as if we don't know when we're hungry), what version of history we shall read, if we are "smart" or if we are "dumb." Overall, this leaves people feeling angry at the lack of control in their lives and they don't trust themselves anymore.

According to Educator's Newsletter, eighty percent of us have high self-esteem in first grade; by twelfth grade only five percent of us still feel good about ourselves. As the Luno newsletter comments, those statistics raise "the possibility that school is the biggest mental health problem we've ever known."¹☒

School labels people, putting them into limiting categories

Schools have lots of people. When we have to deal with large quantities, sorting things into categories helps us make sense of them. Most people tend to use this survival mechanism in school, so everyone ends up with hundreds of conveniently labeled

acquaintances. According to the unspoken rules of most schools, you are one thing or another. You are an artsy drama freak or a cheerleader-type, not both. Your school life is autoshop class or college prep, not both. It's not easy to cross these boundaries, so many people never try. Out of school, you can forget them.

School teaches frenzy

When adults get turned loose after college, they often buy self-help books that coach them to unlearn the lessons of school. Slow down, these books say. Concentrate only on the important things. Don't guilt yourself for not doing everything. Live your life the way you want to live it. If you quit school now, maybe you can reclaim this childhood wisdom before you sprout wrinkles.

School is toxic

As Doris J. Rapp, M.D., points out in her book *Is This Your Child's World?*, school environments are filled with substances that cause chronic headaches, violent mood swings, learning disabilities, and allergies.

In school it's hard not to be rude

Often, you pretty much have to be a jerk to other people, to yourself, or both. When other people are jerks, life loses a bit of its sheen. When you are a jerk, life loses a lot of its sheen. Yet school sometimes gives you no choice.

While I was teaching, one day we went on a field trip to a natural history museum. The students were told to sit quietly and listen to the tour guide. The tour guide stood in front of the exhibits, blocking them. She rambled dully, as tour guides are prone to do. The exhibits themselves were stunning and infinitely more "educational" than any dry-rot lecture or textbook.

Our students had two options. They could show the expected "respect" to the tour guide and sit quietly, bored as bureaucrats, disrespecting themselves. Or they could show "disrespect" to the guide and stand up, walk around, look and learn. Andy quietly slipped out the back of our little crowd, and I surreptitiously watched his face light up as he gazed upon an array of dinosaur fossils. His absence was soon noticed, whereupon he was hastily retrieved and harshly scolded. The memory, though it represents ordinary everyday school reality, still makes me wince.

Schools create meaningless, burdensome problems for you to solve

School claims to be a system which is accountable to the larger world around it. What you learn in school is supposed to help you make sense of the rest of life. In good moments, you do learn useful stuff.

But much of your time is spent simply learning how to get along in school. Schools impose elaborate homework policies, consequences, and language—"You're earning an F. That's a problem. How are you going to solve it?" They call things like grades and homework your "responsibility," without giving you the slightest choice in accepting that responsibility.

Schools justify such actions by saying they're teaching you to be responsible and "follow through" later in school and later in life. But all of this is ridiculously different from real life. In real life, you choose what to take responsibility for. Under circumstances of freedom, following through is a completely different game.

Schools guilt trip you

When I taught school, we all watched a video about getting good grades. You should get good grades, the speaker kept saying. If you are capable of an A, he said, but you only get a C, that ought to be unacceptable to you. Maybe, he added, not quite joking, you ought to make yourself sleep on the floor that night.

In a parent-teacher conference, a wealthy, successful father complained about Jill's (fake name) C's and B's. "I wouldn't care if she couldn't do the work," he said, "I'm just angry that she doesn't. Why does she throw her talent away?" As if C's and B's mean that one is doing nothing with one's life. It all boils down to a guilt trip if you spend your energy on what you care about, and pats on the head if you forget who you are and do what you're told.

Schools blame victims

They inflict all manner of nasty experiences and expectations on you, and then tell you it's your fault for not liking it. They blame you for their problems. An advice column in *Scholastic Choices*, March 1990, ran this letter:

I'm thirteen and I want to quit school. I think it's boring. Besides, my teachers are all mean. I think I could get a job on a farm and make a living that way. What should I do?

Easy enough to answer—"Quit school, of course. It is boring. Teachers are mean, though it's part of their job to be that way. Work on a farm if you want, but as a thirteen-year-old you shouldn't have to worry about earning a living." The king of the advice column, however, had different ideas:

The way you write and express yourself tells me that you are smart, though unhappy, and are blaming your dissatisfaction on things outside of yourself. [In other words, you should be blaming your dissatisfaction on yourself.] You don't feel bored because school is boring or teachers are mean. You don't feel secure or comfortable with yourself. If you can't settle these feelings in a year or so, counselors can help you learn to understand your feelings more clearly.

There's more to life

You know: life is not the color of linoleum halls or the drab hum of industrial lighting or the slow ticking of the clock. Look at the stars. Look hard at the faces of people throwing frisbees in a park, singing in church, passing the potatoes, planting tomatoes, fixing a kitchen table or the engine in an old pickup. Look at a baby or a piece of handcarved furniture or a three-hundred-year-old tree or a pebble or a worm or the sweater your grandmother knitted for you. Perhaps school's greatest danger is that it may convince you life is nothing more than an institutionalized rat race.

School is not the only mechanism that sucks the spirit out of people. Hospitals, big office buildings, streets dominated by cars instead of humans, consumerist culture, poverty, oppression, manipulative social media algorithms, and numerous governmental interferences pull the same trick. But school wears down our resistance to the others. It makes them seem normal; it makes us feel greedy or idealistic or stupidly poetic when we hear our hearts telling us, "It shouldn't be like this! I'm better than this! I was made for more wonderful things."

School conditions you to live for the future, rather than to live in the present

In GWS #39, Marti Holmes, mother of a sixteen-year-old, wrote, "Homeschooling has not closed any doors that I can see, and has provided rich, full years of living (rather than 'preparing for life')." Contrary to the teachings of school, you are not in dress rehearsal. More than anything else, this book is about being alive—now, as well as twenty years from now. "We are always getting ready to live, but never living," wrote Emerson. Don't let anybody write that on your tombstone.

7. but Miss Llewellyn . . .

Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less.

—Marie Curie

Panic strikes your hungry

heart.

I want to be free . . . But I also want to go to college and get a good job! My friends are all in school, and what would I do without football?

Yeah, there are a lot of buts. Let's look.

But I want to go to college and get a good job!

Neither depend on graduating from high school. For college, flip to Chapter 30. As far as jobs go, yes, there is plenty of prejudice against “dropouts,” and if you refer to yourself as one, forget it. If, on the other hand, you call yourself a homeschooler or explain exactly what you did instead of school, intelligent employers will smile approvingly. (One academic study of adults who had been homeschooled found that none were unemployed or on welfare; the majority were self-employed or had professional careers; all were satisfied with their work.¹☒)

Be prepared, however, to change your thoughts about what you want out of life. School shapes so much of your mind that when you leave it, you may no longer feel certain that you want college—or you may feel more certain. You may develop new ideas as to what kind of work you want to do, and your definition of a “good job” may change. Furthermore, by quitting school and beginning to make independent choices, you run the risk of turning into a person who sculpts creative, fulfilling ways to earn money without reporting to a boss.

Does school prepare you for the world of work? If you plan to scrub floors or sell plastic toys all your life, then yes, school will break your spirit ahead of time so you don't fight when you get nothing wonderful out of adulthood. For that matter, school will condition you to accept any kind of work you don't love, whether as an M.D. or a secretary.

School, however, does not prepare you to identify your own dreams and make them come true.

But I have to learn school subjects—math, history, literature, science—because they will make me into a Proper Citizen!

Yes, investigating all those subjects will make you a better citizen.



Going to school all day and obeying authority as if you live in a dictatorship will make you a worse one.

What's a patriot to do? Quit school, learn all that juicy stuff, and do your best to prevent bad stories (histories) from repeating themselves. Read widely and thoughtfully. The more you do, the less all of us will need to worry about our future. Education should make you a more intelligent voter, and more importantly a good leader in any situation—serving on a city planning committee, nudging Aunt Marcia to recycle her beer cans, striking up a long conversation with Uncle Jack when he tells a joke based on cruel stereotypes. Certainly, the more informed and thoughtful a group of citizens are, the wiser decisions they ought to make as a group.

True, people who don't go to school might end up knowing different types of things from school-goers. This, too, is a sign of good citizenship. A community is made more intelligent if its people bring multiple perspectives and a wide expanse of knowledge. If you wind up knowing more about Jacques Rousseau than Martin Luther King Jr., or Hopi farming practices instead of the structure of DNA, or motorcycle engines instead of computers, your citizenship will be as intact as the Joneses'. More intact, actually, because you'll like what you know, and you'll keep it in mind whenever you think about anything.

Anyway, lots of heavily educated people are rotten citizens. So read to feed your hungry head, not to fulfill some pinched sense of duty.

But my school has a good choir!

I live to play football!

And what about me? I want to be Miss Dance Drill Team U.S.A.!

This one's tough. Some schools do offer outstanding performing arts and sports opportunities that are difficult to find elsewhere. My own melodious memory of singing with and playing piano for two outstanding choirs in high school almost compensates for the lackluster hours I spent enduring everything else. If you value your opportunity to belong to a school team or performing group, consider two things:

First, perhaps you can leave school and continue to participate through an outside program, or even at school. The "School as a resource" section in Chapter 18 discusses the potential of participating in school exactly as much as you want to—say, marching band and photography but no math, English, or anything else. This is possible in some places, though not in others. And Chapter 26 discusses athletics and sports specifically. In some states homeschoolers are legally entitled to join school teams.

Second, if you can't replace the activity with a non-school equivalent or participate without enrolling full-time, is it terrific enough that it makes up for the drudgery of the rest of school? If you hope to eventually play professional football and homeschoolers can't play school football in your state, maybe so. Everyone makes trade-offs; millions of adults live somewhere they don't like because it offers them work they do like. But if you'd have almost as much fun playing hockey with an independent league as playing school football, get clear. Cash in your shoulder pads for freedom.

But in school I learn lots of facts!

It's easier to get them from Trivial Pursuit cards or the internet.

But I'm learning disabled!

If indeed you are, unschooling should help magnificently. You'll be able to make plans and choose resources that support your best ways of learning. At least one study has concluded that learning disabled homeschoolers experience more "academic engaged time" and greater "academic gains" than their schooled counterparts.¹☒

For some people, it is also useful to question the label "learning disabled." Consider the perspective that there are many ways to learn, that each person is naturally inclined toward particular ways of learning and less inclined toward others, and that some of these ways coincide with conventional school-style activities, while others do not. I recommend the booklet *Everyone is Able: Exploding the Myth of Learning Disabilities*, edited by Susannah Sheffer, and Thomas Armstrong's books *In Their Own Way: Discovering and Encouraging Your Child's Personal Learning Style* and *Seven Kinds of Smart: Identifying and Developing Your Many Intelligences*.

In general, it seems that in school, "learning disabled" can be a helpful label for many students (if it doesn't wreck their self-esteem), since it helps them get individual instruction and helps explain why they have difficulty despite working hard. Out of school, the label often becomes irrelevant.

But what if all I want to do is lie in bed mindlessly staring at a screen?

I would be heartsick if this book led to a cult of passive screen parasites, and I personally would rather be stuck going to middle school all day than force-fed video for six hours straight.

But I don't worry. If you think what you want most is endless screen time, probably all you really need and want is the mandatory vacation described in Chapter 11. Soon you'll feel restless and ready to move on. Furthermore, I'm convinced that screen addiction is often a by-product of schooling. Once you get used to sitting passively all day, it's hard to connect with a sense of initiative. But school doesn't actually kill your brain; it only sends it into deep freeze. After it thaws, you'll want plenty out of life.

But what if I don't get along with my parents and don't want them to be my teachers?

or

But what if my parents both work and can't stay home to homeschool me?

If unschooling or homeschooling depended on parents acting as teachers, I'd never write a book about it. Lots of teenagers get along with their parents (especially teenagers who don't go to school), but lots don't, too. And no matter how well you get along with your parents, that doesn't mean you'd like them to direct your education. I would have hated for my parents to be my teachers. The conflicts and power struggles we already had could only have intensified.

I would have loved, however, to be in charge of my own education. If my parents and I had known about unschooling and tried it, I think they would have been wise and trusting enough to let me explore independently. Likely, our relationship would

have improved since I would have felt better about my own life. But I would have fiercely resisted any well-meant attempts to control my learning.

So let's get this straight: I am not talking about turning your parents into your main teachers, unless that is specifically what you and they want to do. Your teachers can be yourself, books, basketball courts, adults you talk or write to, your friends, museums, plants, and rivers.

I know of many teenage unschoolers, by the way, whose parents both work away from home. Not only that, but GWS prints occasional letters from parents with younger children who stay home without adults during the days—and like it, and don't die. More importantly, the majority of teenaged homeschoolers who wrote me said that their parents played a minor role in their educations. They answer questions when asked, relaxedly converse about all kinds of things, and share their expertise when the teenager is interested. In other families, the parents do get highly involved, learning right alongside their kids, but that's more common when children are younger. Both the parents and teenagers who contacted me seemed to share an understanding that a teenager is old enough to direct their own education and activities.

To be sure, there are families where parents take over the roles of teacher and principal—sometimes in an authoritarian way. The idea repels me, but if you like it that's your business.

But I love outsmarting authority!

I sympathize. There's great satisfaction in beating someone at their own game. If you're a fighter and a rebel, however, there are worthier causes than school. Outsmart the big businesses who destroy rainforests. Outsmart the lying politicians. Get out in the world where we need you.

And understand this: petty though school is, it has more power to break your spirit than these bigger forces do. That's because its business is breaking you. The more you rebel, the more they'll tell you you're a failure with F's and suspensions and other dings on your permanent record. When they do, no matter how tough you are, you'll have a hard time believing in yourself. Out in the real world, the opposite comes true. No matter how hard you work against a wrongdoing corporation or government, they can never flunk you. Instead, the madder you make them, the more successful you know you are.

Understand this, too: the ultimate way of outsmarting school is to leave it and start learning in your own way. (Of course, quitting school doesn't necessarily mean you're anti-authority. Lots of authority-respecting Christians do it. It just means you're anti-abuse of authority, and perhaps anti-fake authority.)

But I'm lazy! If no one makes me learn, I won't.

How do you know you're lazy when you've never had the chance to choose what to work at?

If you call yourself lazy, your biggest job will be remembering, glimmer by glimmer, how much you used to love to learn. Frogs, wheels, words, blocks, dogs—when you were

a little kid, the world dazzled you. You will need to allow yourself to admire (“learn”) the things that still sparkle in your kaleidoscope, whatever they are.

And laziness shouldn’t be confused with tranquility—“lazy” travelers who hang out in a little Peruvian village for a week will soak up the life and ambience of Peru more than the typical tourist who in that same week sucks in Macchu Picchu, four museums, three market towns, two ancient ruins, and one horseback ride along the Urubamba river. People who find ways to get out of the obscene commercialism attending Christmas improve the quality of their lives by deliberately avoiding frantic, mindless activity. The same goes for learning: watching the sky for two hours will do more for anyone’s cortex than a harried afternoon of longitude worksheets.

But my friends are in school!

Ah yes. The big one. So get your friends to quit with you. See your school friends on evenings or weekends when they’re finished with their homework. Make new friends through your interests. (Jeff Richardson, fourteen, comments, “You don’t need to go to school to have a lot of friends. I meet a lot of friends through skateboarding. Even if you don’t know a skater that’s going down the street you say ‘Hey dude! Come here!’ You automatically have something in common. I’ve met a couple of homeschooling skaters before too.”) Read Chapter 13, which exists to coach you along in the social department.

We are social creatures, absolutely—but not institutional creatures. How much communication do you usually have with your friends in school? Except at lunch and potty breaks, you are rarely supposed to talk with them. If you have friends in your classes, you see them—but I’m not sure this is the way to build trust, compassion, generosity, and other qualities integral to healthy friendship. In some classes you compete for A’s with the other students. Your discussion is overseen and censored by a teacher. Working together is called cheating. What really gets cheated is your opportunity to help each other climb.

And remember: your enemies are in school too. Adults control and humiliate teenagers, and teenagers even things out for themselves by controlling and humiliating each other. Few people emerge from school’s obsessive popularity and conformity contests without scars.

But it’s so scary to think about suddenly quitting school forever!

So quit school temporarily. Take a year off to do what you love, and at the end of that time you can either decide to keep doing what you love, or go back to doing what you maybe don’t love. The worst case scenario is that you would pick up at the grade level where you left off, like foreign exchange students often do when they return home. In some cases, though, homeschoolers who return to school enroll in a higher grade level than their peers, since they learn a lot while their brains are out on parole.

But there’s nothing better to do!

One of my favorite and usually most profound students gave this sloppy slogan as the reason he’d stay in school even if he didn’t have to. He explained by saying that he was too young to have a job and anyway all his friends were there, so he could neither

work nor socialize. Indeed, without a meaningful alternative and good company, school might seem the least of several evils.

Yes, this society is hostile and unwelcoming to teenagers, and laws do prevent teenagers from working for money in certain situations. However, with a small carton of creativity and confidence, you'll dream up an infinite number of enjoyable and enlightening alternatives. That's what the rest of this book is for.

But it's easy to go to school—I don't have to think for myself!

To you, I have nothing to say. Stay right there at your graffiti-adorned desk. When you turn eighteen, proceed directly into the army. Be all that you can be, according to somebody else.

Miss Llewellyn, you're not being nice.

Sorry. You're right. By the way, you can call me Grace.

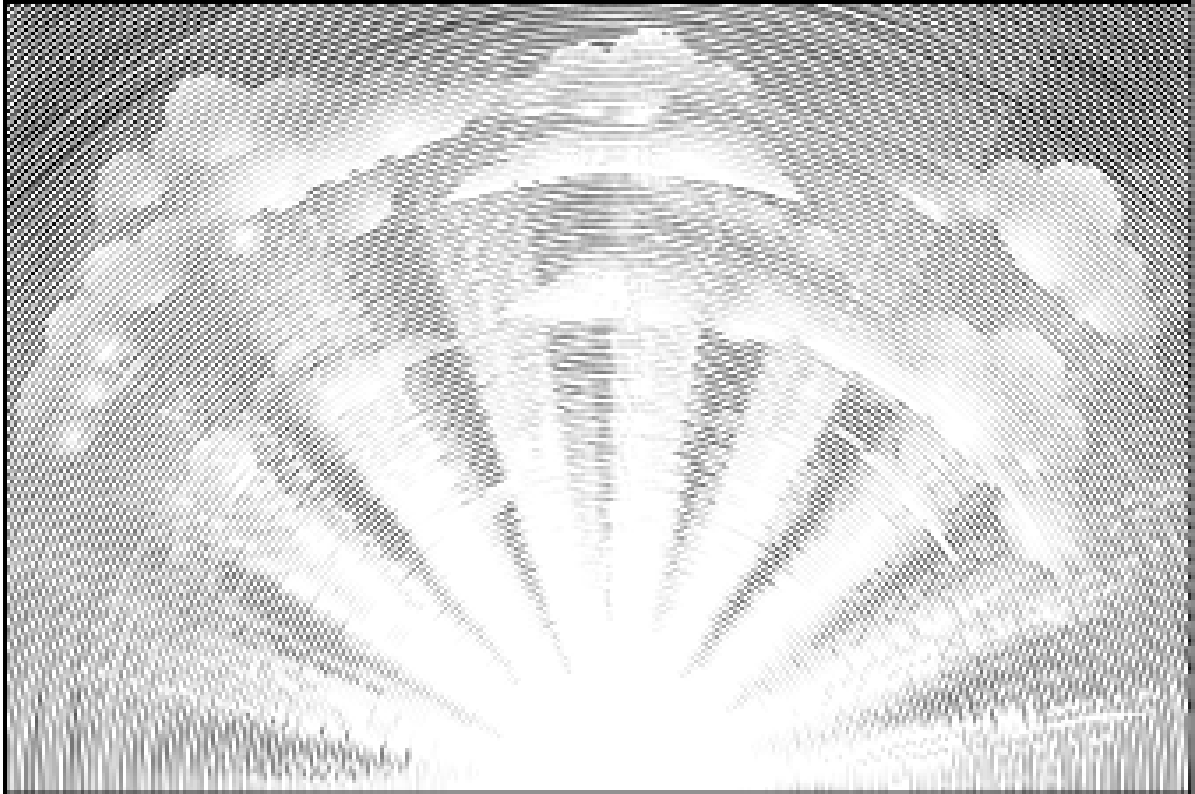
Who would consciously stay in school just to avoid thinking for themselves? No one, probably. And if everything we did was based on conscious, rational choice, life would be simple indeed.

But we are not such rational creatures. Until we acknowledge them, fears from our subconscious can run—and ruin—our lives. If you don't tingle at the thought of quitting school, you're not alone. It's natural to be scared of independence, of facing the drums in your own dancing shoes. If you think for yourself, you have no one but yourself to blame for your successes and failures.

Adults, too, hide from the chance to direct their own lives and minds—which is why many stay in safe jobs they detest, idly fantasizing about the career risk they will take when the kids are grown, or the adventures they will seek once they retire.

When we live in dreams, we can imagine our futures in tissue-wrapped perfection. When we get out of dreams into the present, we find no such perfection. Instead, we find life. It's scary stuff. Terrifying, sometimes. But it's real.

8. class dismissed



The universe is full of magical things, patiently waiting for our wits to grow sharper.
—Eden Phillpotts

Tanika has been in the cafeteria a long time now. She is heavy; she feels clogged; her cheeks are greasy; but she understands that these conditions are part of life.

She helps to serve the trays of food now. Sometimes she is asked to assist in convincing a reluctant new pupil to eat. She is especially good at this since she can testify how she felt the same way once, but now realizes how wrong she was. She enjoys telling how she has learned to take control of her eating habits.

Tanika takes considerable pride in her achievements. Last year, for instance, she won a prize during testing week for eating a pint of processed moonfruit strips in less than a minute. It is true that she threw the prize—a jar of gulberry puree wrapped in pink paper—into the stream, but no one else knows and Tanika never thinks about it.

“You are a fantastic eater!” the spectacled man said to her just last week.

At home she barely notices the trees and their fruit. She has so many more pressing, important things on her mind—planning the welcoming picnic for children who have moved to the orchard from other parts of the planet, inventing a creative new way to serve gulberries, eating her homework.

Today she is coaching an annoying little girl who has so far refused to eat. However, Tanika knows she didn’t have time for breakfast, and she patiently lifts a spoonful of limbergreen berry pudding to the child’s face.

But the little girl does not open her mouth. Instead, she pushes the spoon away violently, so that its contents splat on the floor. Then she puts her head down on the table and cries as if everything, everything is lost.

Something unfurls inside Tanika. Life comes fast sometimes. She looks up. She notices there are no windows in the cafeteria. Out of the corner of her eye she catches a boy watching with soft dark quiet eyes. She turns her head and watches him back. He stands, and she sees that he is lean, as if he has not eaten all of his food. He asks her something with those eyes. She trembles in limbo.

Tanika swallows. A strange inspiration has seized her brain. Touching her swollen belly, she grabs the small girl’s hand and walks quickly toward the door. The boy is at her side in an instant and swings the little one to his hip. In the blurred background, a cook lifts a confused, suspicious mouth. They race through the dark hallways. They push the heavy black doors open and burst out onto the spongy humus. They escape their shoes. It has just rained; the sky is dark and translucent but streams of sunlight catch the glittering leaves and soak into their hair.

Tanika runs forward, slipping her brown body out of its cafeteria smock. She gracefully severs a muavo from its stem, and, kneeling, gives it to the little girl.

The boy laughs. He leaps like a gazelle and captures a cluster of mazina berries. He hands them to Tanika. She smiles and hands them back. She had a big lunch, and she isn’t hungry. But there is tomorrow, and a whole orchard resplendent with every kind of fruit in the universe.

Part Two: The First Steps

9. your first unassignments



The difference between a life lived actively, and a life of passive drifting and dispersal of energies, is an immense difference. Once we begin to feel committed to our lives, responsible to ourselves, we can never again be satisfied with the old, passive way.

—Adrienne Rich

I did it. i decided not to go to school anymore. Now what???

First, celebrate your audacity with deep chocolate ice cream.

Second, consult your parents. You might get this over with after dinner tonight, or acclimate them slowly to the idea. See the next chapter for some thoughts on that topic.

Third, decide what legal or official steps to take.* The laws vary, so find an online unschooling or homeschooling support group for your state (or country)—there might be several to choose from—and see what the rules are where you live. (Don't ask teachers or school officials about homeschooling regulations. It's not usually part of their job to know, and they are often misinformed.) Chances are excellent that it will be easy, quick, and legal for you to get out of school. If it does turn out you live in an area where the statutes are murky or challenging, perhaps you should continue to attend school until you've taken care of business. In other areas, all you'll need to do is get your parents to fill out a simple form announcing your decision. In most states and in many countries, the bothersome requirements are few, and should produce only one short annoying headache. If you're legally old enough (sixteen in most states), you can simply quit. If this stuff is overwhelming and you want to just get on with it, or if you or your parents want the sense of security that comes with earning an accredited diploma, sign up with the Clonlara Off-Campus Program or another good umbrella organization and let them deal with your red tape.

After you've settled with parents and legalities, you're free! The fun begins! The first big thing you probably need is a vacation, but that needs a whole chapter to itself. Here are a few smaller suggestions for the beginning of your unschooling career.

Find out about local homeschooling organizations

Perhaps one will be a good fit for you. While these organizations are often dominated by families with younger children, some can connect you with other teenagers. If your group needs help (with their annual conference, for example), consider volunteering.

Connect with unschoolers online

There's no single unified directory, but a search and scouring of social media will reveal whatever online communities exist at the moment. As with all things social media, groups vary widely. Don't settle for one that doesn't feel right.

Does your city have a Self-Directed Education center?

Every few months I hear of yet another small program in which a few adults (often former teachers) organize classes, study groups, and other opportunities. For many teenagers, these programs provide a helpful transition between school and completely self-directed learning. They're useful for people who want more adult guidance than their parents can give (or who don't want guidance from their parents) but who still want the freedom of unschooling. The good ones are operated by people who share your unschooling point of view and want to support you in taking charge of your own education—unlike teachers in many alternative schools. (Typical alternative schools don't offer deep freedom or a consent-based structure. Instead, they offer classes, political viewpoints, and/or teaching methods that differ from those in conventional schools. They can be great places, but they don't usually have much to do with self-directed learning. Exceptions include Sudbury-model schools and other democratic free schools.)

I often hear about these centers because their directors order numerous copies of this handbook for their clients, or refer to people such as John Holt, John Gatto, and myself as their influences. The organization that inspires me most is North Star, co-founded by former teachers Joshua Hornick and Kenneth Danford, in Massachusetts. North Star has inspired so many people, in fact, that it has spawned a whole movement called Liberated Learners, with centers popping up around the U.S. and beyond.* Liberated Learners centers are non-profit organizations that exist to support teens in self-directed learning—members pay very reasonable tuition in exchange for numerous opportunities ranging from optional classes to one-on-one mentoring to camping trips to assistance with college applications.

Inspire your friends

When you start to wish they had more time to spend with you, become a pernicious influence. Get them a copy of this book. Propose that they help you start a science co-op or a bakery. Invite them on a two-week roadtrip . . . in April.

Think about your space

You don't necessarily need any new or fancy equipment, but you do need a place where you feel comfortable, happy, and organized. Maybe you already have a desk or homework corner in your bedroom. Take the time now to make it wonderful. Hang posters. Find a place to keep notebooks, library books, and other paraphernalia. Put a cozy chair by a window where you can read or write. Consider potential lab space, workshop space, studio space, a corner for a museum or collection. Sacrifice a few dollars to an office supply store for a dozen file folders or whatever keeps your world in order.

Later, as your interests develop, your space can also. Perhaps you'll add a map of South America, a colorful periodic table of the elements, or a timeline of transgender history? Your mind map for starting a soap-making business? A handlettered copy of your favorite poem?

What will you call yourself?

Think about the words you will use to talk about yourself. The potential vocabulary includes “self-taught,” “self-directed learner,” “self-schooler,” “autodidact,” “rise-out,” “doing independent study,” “tutored at home,” “dropped out,” “dropped in,” “home-schooled,” “home educated,” “unschooled,” “lifeschooled,” “worldschooled,” “not going to school, just living my life . . .” Each term has different implications and connotations, as you will discover when you start talking about your new life.

One of my students noticed my ears perk up when she said she had a friend who didn't go to school. When she explained that her friend “went to school at home,” writing reports and reading books prescribed and overseen by her mother, my ears plunked down again.

“I am not really interested in that sort of homeschooling, but in unschooling,” I told her.

She stared incredulously. “Unschooling?” she sneered, “There's a name for that. It's called dropping out.”

On that term—“dropping out”—John Holt wrote, “It is interesting to note that even the people who hate school most, get the least from it, see it most clearly as a profoundly stupefying and alienating experience, still use this word to describe leaving this unreal and useless situation. I urge them to stop using this phrase, and point out that it is twenty-eight or so years since I was last in an educational institution, and I have not been out of the world; one does not disappear into outer space when one steps out the door of a school building. Indeed, it might make more sense to speak of dropping in.”¹☐ Herb Hough, in GWS #79, observed, “Self-learning upwardly mobile students . . . do not drop out of school—they rise out.”

A mother wrote me about neighbors who snooped into her family's unschooling: “People were often nosy, insensitive. [The kids] learned to deal with it by saying that they were tutored. People shut right up!”

Ben and Theresa Billings, sixteen and thirteen, felt slighted by the term “unschooling.” Theresa wrote me, “I don't like it when you call homeschooling ‘unschooling’ because we do schoolwork just like all our peers.”

A mother and father told me that although they thought of themselves as unschoolers, they had friends who taught school, and therefore called themselves homeschoolers to lessen any defensiveness.

As I've said, I don't care for the term “homeschooling”—it makes me imagine people who keep a chalkboard and a flag in the living room. But there's nothing inherently wrong with the term “school.” In the beginning it was a Greek word—“skholē”—that

meant leisure. Learning in Greece (for boys, anyway) was so pleasant—spending free time strolling along and talking with philosophers—that the word for leisure came to have educational connotations.

Advice for new unschoolers

From the teenagers who wrote to me:

“Relax! . . . Don’t think you aren’t learning enough if you aren’t sitting for seven hours in a desk.”

“If school is your problem, start by taking a six week vacation.”

“Get rid of any guilt feelings—unschool yourselves psychologically first—expand, the sky is the limit.”

“Enjoy what you are doing now and you will truly ‘learn’!”

“Do things you are interested in. Explore your interests. Try to use yourself as a guide.”

“Sometimes when kids start homeschooling they’re a little overcome by their freedom and spend it mostly watching television. . . . I just say that an unschooling life has got to grow on you, and when you get out of school take advantage of your freedom and do the things you wanted to when you were in school and thought you didn’t have time. (Hopefully that’s not watching television!)”

“Try to find the things you like to do the most and then pursue them and forget about academic subjects for awhile.”

“Don’t get locked in the house—no matter how much you love your parents, you need to get out or the days will get longer.”

and finally . . .

“Party on!”

10. the perhaps delicate parental issue

All you need is the courage to visualize what should be, and then give yourself to its creation. The result may not be what you expected, but it will be right.

—Gabrielle Roth

Most unschooled people have, in the past, been out of school because of their parents' beliefs. This is where the book in your hands tries to dream something new—that you, because of your initiative and your yearning, march in front of your own parade.

Lovely, you say, but that means I have to convince my parents that unschooling is a good thing for me and for them.

Yes.

With a little care and planning, I hope you'll be able to help them see the light. Ideally, it will go well enough that your parents support and encourage you without entangling themselves in your hair, and become so inspired by you that their own lives become richer and braver.

First, though, let's confront some fears you might have.

What if I don't get along with my parents? Won't unschooling make it worse?

Unschooling often seems to make parents into allies and friends rather than disciplinarians and authority figures. At least, dozens of unschooling parents and teenagers have told me so. Kacey Reynolds, sixteen, shared a typical comment: "I must have missed something in junior high, because there was a turning point somewhere where my peers have stopped loving and started hating their parents. I'm glad I missed it."

Joel Maurer, thirteen: "My mom likes me better than when I was in school."

Tabitha Mountjoy, fourteen: "My parents and I have a really good relationship with each other. I think that being home educated helps and I love having them around."

A mother: "Most of our friends with teenagers seem to either not know their kids very well, or else to not like them very much. They seem to think of the teenage years as something to endure, or survive. I'm very thankful to both know and like [my son]."

Another parent wrote in GWS #26:

Have other parents noticed a very easy adolescence with unschooled kids? I think that my fifteen-year-old son's early acquaintance with responsibility for his own actions has made it unnecessary for him to rebel and fight for independence. He is willing to accept my judgment at times because it is offered as one adult to another and not as a restriction on a kid who doesn't know anything.



A Canadian father told me that homeschooling “has greatly improved family dynamics since we have less time pressures and those we have are of our choosing. Both kids are really happy . . . come to think of it my wife and I are not too glum ourselves!”

Judy Garvey wrote in GWS #70, “Homeschooling is so much easier than having to deal with children who have been in school all day.”

Many unschoolers told me that once they left school, all kinds of family arguments and hostilities disappeared. It makes sense—no more quarrels about grades or homework, no more need to take revenge on parents for what happens at school.

If you still have doubts, think of activities you would enjoy away from home—volunteering, apprenticing, babysitting while you read or do math.

My parents have always hounded me about my schoolwork. I’m afraid if I quit school they’ll be even worse, since they won’t have any teachers to help “control” me.

When you first discuss unschooling, make sure they understand your need for independence. Later, make a point of talking with them frequently about your activities. Show them what you accomplish, or keep a daily log that they are welcome to read. If you admit your concerns as well as your joys, they will see that you are in touch with reality, and won’t need to preach constantly. Ask their advice when you can—they will feel valued and it will encourage them to give up their controlling role in favor of a softer advisory one. You set the tone.

The gentle art of persuasion

You know your parents. I don’t. What causes laughter in one family might cause door-slamming in another. Perhaps your relationship with your parents is warm and trusting enough that you can casually bring up your ideas at the dinner table with confidence that they’ll understand and support your decision to quit school. Or maybe you hide this book under your mattress and know they’ll say no before you finish your first sentence. Most likely, you fit somewhere between these two extremes, and I hope you’ll find ideas in this chapter that enable you to convince your parents and then live happily with them.

Unless you know that your parents will easily agree, I suggest a bit of structure and planning. There are lots of ways to organize this. You might start by asking them to attend a homeschooling event with you, or by leaving books about unschooling lying around conspicuously. What follows is a detailed outline for one way to do it. It is rather formal, because formal procedures get most adults to sit up and pay attention.

Before you talk to them, know what you’re talking about

Do some background investigation so that you can discuss unschooling with confidence and expertise. Read at least one recent top-notch book, such as Blake Boles’ *Why Are You Still Sending Your Kids to School?* or Kerry McDonald’s *Unschoolled*. Have a look at some of the research on but-what-happens-when-they-grow-up. (See

Kenneth Danford's 2017 "What Happens to Self-Directed Learners?" and Peter Gray and Gina Riley's 2015 "Grown Unschoolers' Evaluations of Their Unschooling Experiences." Both of these are accessible through The Alliance for Self-Directed Education's website.) You might ask a local homeschooling support group for their suggestions as to legal and logistical procedures, or perhaps acquaint yourself with an actual unschooled teenager, preferably a fairly independent one.

Write a proposal

Even if you're not sure exactly what you want to do once you're free, your parents can't help but be favorably impressed by a thoughtfully written plan of action. Writing will also challenge you to think about important questions, which will not only prepare you to talk with your parents but also clear your vision for your new life. Include some or all of the following:

Your reasons for wanting to leave school. Tell stories from your own school experience, without exaggerating. If you don't think your perspective is enough, quote other people too. John Holt is always good.

What you would like to do instead. Don't commit to anything too concrete—your mind will open and change after you're accustomed to freedom. Do, however, present a specific possible plan of action, so your parents know you've thought about it. For example:

I recognize that when I'm out of school, I might find new interests or goals, which might lead me to change my activities. But since I am very interested right now in dance, this is what I'd like to start focusing on. My ideas are to

- keep taking ballet lessons

- start Guinean dance lessons

- volunteer at the Center for the Performing Arts in exchange for free passes to dance performances

- read the following books: Doris Humphrey, *The Art of Making Dances*; Isadora Duncan, *My Life*; Sally Banes, *Dancing Women: Female Bodies on Stage*; Thomas DeFrantz, *Dancing Revelations: Alvin Ailey's Embodiment of African American Culture*; Tomie Hahn, *Sensational Knowledge: Embodying Culture Through Japanese Dance*.

- practice at home one hour daily

- audition for the next musical sponsored by the Little Theater

- apprentice or intern at my dance studio, preferably as a teacher of pre-ballet classes

- learn about my muscles, skeleton, and ligaments by coloring Wynn Kapit's *Anatomy Coloring Book*

Your academic plans. You might handle this in two ways: say that you want to keep studying all the major academic subjects—math, science, literature, social sciences, perhaps foreign language—because you want to go to college, or whatever. Explain how you might study each. Or, say that you would prefer to discontinue the formal study of some or all of these subjects, to have more time for your interests. Sweeten

this by saying that you are willing to compromise, if you are. Point out ways that your interests encompass academics. If your plan is to ride horseback through the ghost towns of Idaho, you will be doing history, geography, and “gym” class all day long. If you write a newsletter article or a blog post about it afterward, you are doing English. If you make sketches or take thoughtfully composed photos, that’s art. If you plan how far to ride each day and how long it will take, that’s (basic) math. If you ask questions and read up on the lay of the land you pass through, that’s geology. If you cook your meals on a campstove, that’s home economics or nutrition. The bigger you live, the more “academics” get automatically kneaded into your days.

How you see your parents’ roles. This will be important, since most people think of homeschoolers as being taught by their parents. If you want to work independently, say so. If you want their help with finding resources or making decisions, say so. If you expect to need a lot of help from them, say so. Obviously, be considerate of their own needs. If they lead busy lives, suggest alternate ways of getting help—from other adults, former teachers, tutors, online resources, books, relatives. You may want your parents to be heavily involved or barely involved. Your parents themselves may be excited and flattered at your including them, or they may feel burdened and frightened. If both your parents work outside your home, assure them that other unschooled teens do fine that way. If they don’t like the thought of your being home alone, share your ideas for apprenticeships, volunteering, or other away-from-home activities. Likely, this won’t be an issue; teenagers, after all, are the nation’s babysitters. Dori Griffin describes her working relationship with her mom in GWS #115:

I’m not simply floating around doing whatever strikes my fancy. My mom isn’t uninvolved in my education. True, she doesn’t outright teach me when it comes to school. But we work together. I keep her up-to-date on what I’m doing. We discuss my ideas, and her ideas. I tell her what I’m planning on doing in the near future. . . . If Mom and I talk about some projects I want to do, and it takes me a month to finish those projects to my satisfaction, then it’s a month before we really discuss anything else. If an idea only takes a few days for me to complete, then I might confer with her again after a short amount of time. . . . Usually, I’ll do a project first and then think about its educational value later. Sometimes Mom points out to me that what I’ve been working on counts as “school.”

A statement that you will need to begin with a vacation to recover from school. If your parents are difficult to convince, you don’t want to shock them by sleeping through the first two weeks of unschooling. If you plan to take a purging break (and I hope you do—see Chapter 11), let them know from the outset.

A tentative outline of the legal steps you will need to take together. Depending on what state you live in, you may need to think these procedures through carefully later, but for your parents’ introduction you can be somewhat general. Use the information you’ve found online, perhaps supplemented with advice from local unschoolers.

A projection of how much money unschooling might cost, and how much it might save. List equipment, books, lessons, courses, etc. you think you’ll need or want with

cost estimates for each. List the school-related expenses that will decrease. (Lots of clothes? Cafeteria lunches?) To give your parents a broader sense of costs and savings, include other factors—like money you might earn in a job or business, which could help fund your new activities.

A bibliography. It need not be fancy, but include a short list of books or articles they might like.

Role play

Imagine the questions and arguments your particular parents might come up with, and consider how you could honestly and thoughtfully respond. Also, imagine the secret fears that might prevent them from supporting you. The more you understand about your parents' values and lives, the better.

Here are some of the obvious questions parents might bring up:

“You’ve never done well in school, even with all those teachers to prod you along. How am I supposed to believe you could quit and actually learn anything on your own?”

If you’ve ever been interested in anything—in school or out—and gone after it in an independent way, remind them. If you’ve had an interest but not developed it due to lack of time, point out that more time will help you to follow through. Explain that in order to learn, you must have the freedom to explore things that interest you. Ask them if they are good at learning things on command. Ask them to think about the ways they learn—now, not in their ancient pasts.

Acknowledge that unschooling would require them to trust you to learn and grow independently, and that at first this might be difficult for them. If you wish, tell them you could unschool on a trial basis. You might share other parents' experiences:

Bea Rector wrote from Arizona while her twelve-year-old daughter Aurelia was performing in Yellowstone with a singing and dancing troupe called Kids Alive. “Trust kids to want to learn,” she says, “They don’t need to be forced. If given a good example and encouraged to follow their own interests, they’ll work for the knowledge needed to be ‘successful’ adults.”

A formerly frustrated Brooklyn parent wrote in GWS #32:

[My daughter] wouldn’t let me tutor her and she wouldn’t do all the educational things I had planned, like go to museums and stuff. She hung around in her bathrobe and drew pictures all day. For nearly three years. Summers, too. Well, you should see her art work today. Fantastic!

Gwen Meehan wrote me a year after she’d taken her son, then thirteen, out of school:

Pat had asked me after fourth grade to please, please let him stay home and learn. My reaction was the same as most people’s: (1) I didn’t dream that it was, in fact, a legal option, (2) I couldn’t imagine his not having daily, active social interaction with the other students, and (3), selfishly, “there goes any time I might have for my

own projects.” I’m not even mentioning the sheer terror at the idea of being his official “TEACHER.” Parenting is responsibility enough. (Turns out I was only spooking myself all the way around! It has been a piece of cake!). . . . I should have listened then. If I had, we could have avoided so much pain and so much lost self-esteem. I don’t know if I’ll ever see again the relaxed, happy, confident, healthy young person who went so happily into kindergarten.

“I’m not qualified to teach you,” or “I don’t have time to teach you.”

Point out that you’re not asking them to be your teachers (unless you are), that you can pursue your interests on your own and in the company of others who share those interests. Remind them that you know how to read, make friends, use phones and computers, write emails, conduct internet searches, and look up books at the library. Ask them if they always need teachers when they get interested in a subject. If you currently ask them for help with homework, and expect to continue to ask for a similar amount of help, acknowledge this. Tell them that most unschooling parents do not teach their children, but rather allow them to learn on their own. Here are some comments:

“[My parents] used to be very involved but this year I have mainly been doing my own work with just a little help and lots of encouragement from them.” —Tabitha Mountjoy, fourteen.

“We’re available whenever she needs us or is searching for answers. We suggest, support, make things available but trust her to search for herself what she’s interested in.” —Linda J. Savello, mother of thirteen-year-old Andrea.

Maria Holt wrote in GWS #35 after ten years of homeschooling her sons:

The most important thing I want to impress upon people about our family school is this: WE NEVER TAUGHT ANYTHING. My husband refused to allow it. The closest I came to “teaching” our four sons was during the evening reading-aloud session. We’ve waded, mulled, or stormed through the Old Testament, War and Peace, and Moby Dick, among many, many other classics. It was never required to come and listen, and one of our sons gave it up, preferring to read to himself. We provided for and supported the boys—never taught them. Their studies grew out of their own interests. They used all the local libraries and we sent for books from the state library. At one time, they spent months just fixing up an old fishing boat. We never really know what they were learning! My husband says we won’t know the success or failure of our home schooling for a very long time, if ever. We always said they’d “graduate” from the home school when the direction of their lives was outward from home. And that is what has happened.

[Maria tells about the two who decided to go to college, and then continues.] The youngest . . . worked during his last two years at home at a local restaurant to earn money for flying lessons. (He had taught himself to read through a stamp collection and magazines about flying. He is a good historian. His specialty is the American Civil War, which, for him, developed from the stamp collection.) Now, at eighteen, he

has been hired as a flight instructor at a respected flying school at Bradley Field in Hartford, Connecticut.

On a similar note, Ruth McCutchen writes in GWS #52:

The most frequent response that I get nowadays to the statement that my children are homeschooled is, “Really? How wonderful! I admire you, but I could never do that! I just don’t have what it takes, etc. etc.” When I tell them that I don’t do it, the children do and explain a bit what I mean, I’m met with incredulity . . .

Now that Deborah, Rebekah and Abigail are seventeen, fifteen, and twelve, I find more and more that they really are doing it on their own. They long ago reached the point of asking me more questions that I don’t know than ones that I do.

Ruth goes on to describe her girls’ interests—geography, math, anatomy, quilting, clarinet, writing to pen pals, Bible prophecy, ancient history, physics, Latin, drawing, maps, and current international events.

Jade Crown, fourteen, whose mother is a single parent, says:

When people ask me if my parents teach me at home I tell them that my mom works full-time and my dad lives on the other side of the country. My mom doesn’t have extra time to tutor me in algebra because she works and cleans and cooks dinner every day (almost). One of the main reasons my mom was opposed to unschooling at first was because she was scared to leave me alone so much of the time. She often said, “In a two-parent family, I might consider it. But it’s not a choice for you right now.” I have proved her wrong. I have gained a lot of independence from unschooling alone, but I’ve also gotten better at finding the help I need. I have built a social structure outside of school . . . and found teachers and mentors to help me with the things I can’t learn, or have no desire to learn by myself. I’ve also hooked up with other unschooling teenagers and built relationships with their parents. When I’m inspired to do something, I do it, and my mom is usually thrilled to hear about what I’m learning and who I meet. She once said to me that unschooling was the best decision she ever made as a parent. That made me feel really close to her. It’s certainly one of the best decisions I ever made. She’s become a big advocate (I never expected that) and we are both proud of each other.

In the Oregon Home Education Network Newsletter, longtime homeschooling parent Vivienne Edwards says, “Many parents get worried that they will not be able to teach high school. All you can do is help your children find environments where they can learn. This could be an apprenticeship, tutor, job, correspondence course, travel, neighbor, college, pen pal, library, local business, volunteer job, museum, sport, vacation, ethnic neighborhood, church, family project—the list is endless, but all of these are valuable learning opportunities.”

David and Micki Colfax, in their classic book *Homeschooling for Excellence*, write: “In homeschooling, the children typically teach themselves, with the parents appropriately relegated to the job of suggesting courses of study and being available to answer questions—an uncomplicated process.”

Finally, in her book *And the Children Played*, Patricia Joudry writes, “Some people think that if you’re going to educate your children at home, you have to be constantly at the ready with blackboard and pointer. Not a bit: you have to do something much harder than that. Mind your own business.”

“I can believe you’ll do fine in science and history because you’ve always liked them, but what about learning Spanish?”

You might promise to do Spanish first every day, to relieve their anxiety, or you might help them understand that you don’t need to learn Spanish now, that if and when you want it, you can learn it then. You may decide to compromise in the beginning, by conventionally structuring your academics, but chances are good your parents will mellow in time. Ideally, they will be able to share the perspective of Rachel Diener, who writes about her thirteen-year-old son:

His education is entirely self-directed—that is, he chooses what he wants to learn and how and when he wants to learn it. As a result, if compared with his peers, he is far ahead in some areas (computer knowledge, electronics, vocabulary) and behind in some others (math computation, handwriting skills). He and I are both satisfied with this. I think if he is allowed to focus on his strengths and pursue them to the limit rather than plodding along trying to remediate his weaknesses, he will be a happier and more successful person.

More important than the fears your parents will express are the fears they won’t express. Your job is to imagine what these fears might be, think them through, and gently bring them up without accusing your parents of harboring such attitudes. Here are some things your parents might feel but not be able to say:

“I had to go to school and suffer. It would be too painful to see you go free when it’s too late for me.”

Realize that if your parents agree with your feelings about school, that might force them to admit to themselves that a lot of their own schooling was a waste of time. They’re likely to feel a rush of despair and sense of loss, and may avoid these feelings by denying that there’s anything wrong with school—yours or theirs. Homeschooling father and psychotherapist Ken Lipman-Stern says, in GWS #113:

I ran a men’s group for three years. It was a therapy and support group—and I’ve seen that the toughness of some men is really a wall or a defense system. The man who says, “My child should have to go through the same tough experiences that I did, because those bad experiences build character,” is, I think, holding onto the exterior wall of toughness without examining the pain he felt at going through experiences that were unwanted and harmful.

The solution is grand and beautiful, though perhaps difficult. Unschooling is a statement of faith in human nature. By living your life as proof that you can learn and grow without an institution’s control, you show them that they can do the same. If they had childhood interests which they’ve squelched, it’s not too late to reclaim them. In a report by the Washington Homeschool Research Project, one parent comments, “I have my master’s degree, so I am well schooled, but I didn’t have the zest or energy

to learn new things. Homeschooling has awakened in me a desire to discover and learn that I had never had (though I had always been a good student)."

If your parents hate their jobs, they can find ways to replace them with work they love. In GWS #113 Joe Kelly, publisher of New Moon magazine, says:

For me, there's a way in which my daughters' liberty from school and its constraints taught me how to be free, too, and gave me the permission to take risks I hadn't taken before. Starting New Moon was a big risk for us. Both Nancy (my wife) and I worked in management positions at established organizations, and were finally making decent salaries after years of living in poverty. Somehow, despite this, we took the risk of following a dream. Although it wasn't conscious at the time, I'm not sure we would have taken that risk if we hadn't been unschooling for several years. By experiencing how unschooling worked for the girls, it was possible for us to say, "We can do that too. Like the girls, we can follow our own interests and passions where they take us. We can stay home and enjoy each other's company and do something worthwhile together." And that's what we did! Just one more way unschooling has radically changed our lives.

Don't preach or condescend to your parents, of course, but do find ways to support their interests. If your mom says she always wished she had time to plant a flower garden, bring her library books full of lilies and roses, or offer to help with weeding.

"I'm afraid you'll be so independent that you won't need me. That makes me feel insecure."

Convey that you value and need your parents' support, that you can't succeed without their blessing, that unschooling helps to destroy barriers in many families and likely will in yours too. Assure them that you'll keep them in the loop so they know what you're up to. Tell them you'll need their advice and help in certain areas. Make them feel important. They are.

"I'm afraid of what my friends, boss, or colleagues will think."

Don't force your parents to bring this one up; they won't want to sound mundane or insecure while discussing the lofty principles of trust, freedom, and learning. And obviously, you mustn't say you know they want you to stay in school so they can avoid shame and embarrassment. That's an accusation, and then they have to defend themselves against you instead of supporting you. (Anyway, you don't know this, any more than they know the inside of your brain.) Instead, take away their fear without ever mentioning it.

Tell your parents about people who have been successful without school. (Not that fame is a necessary component of success, but try googling "famous homeschoolers.") You could agree to use terminology that your parents find comfortable—perhaps "doing independent study" rather than something brash like "unschooling" or, god forbid, "dropping out." If you plan to (later) go to college, tell your parents they can say so to anyone who asks.

Once you are an actual unschooler, keep making it easy for them by being presentable, funny, intelligent, interesting, and expert—that is, as much as you can be

these things without compromising yourself. Give them every authentic opportunity to be proud of you and the unschooling movement.

Schedule a meeting

In choosing a time, ask yourself: when are your parents in the best mood? When are you most refreshed and articulate? When are they most likely to trust you? (Just after they see your report card? Just before they see your report card? After you scrub the toilet? After you read *Paradise Lost* even though your English teacher never even mentioned it?) It might be best not to tell them exactly what you'll be discussing. Don't sound too mysterious or choked up, though, or they'll have nightmares. Try, "Could we set a time this week to talk? There's something I'd like to discuss with you."

Hold your meeting

In everything you say, give your parents the benefit of the doubt. Believe that they want the best for you, and that therefore they'll probably cooperate as soon as they truly understand. Don't put them on the defensive by assuming they're going to fight.

Introduce the subject, not by immediately asking if you can unschool yourself, but by saying you are interested in homeschooling and would like to share your ideas. Tell them you won't expect a response during this meeting, but that they are free to ask questions and bring up any points for discussion. Throughout the meeting, continue to focus on presenting information rather than asking permission.

Give them each a copy of your proposal, keeping a copy for yourself also. Read through it together, stopping as needed for discussion, questions, and comments. (If you decided not to write a proposal, you should have still carefully thought through the issues so you can lay out your ideas clearly. Consider preparing at least an outline, or a simple PowerPoint or other visual presentation.)

Be ready to take notes. If they ask a question you don't have an answer for, don't panic or fake it. Write it down and tell them you'll think about it and get back to them. You strengthen your case by following through.

Bring evidence of your interests to vividly remind them that you are more than just a student. This evidence could be photographs, books you've enjoyed, ski poles, rocks, vintage clothing, scrapbooks.

Capitalize on your talents. If you are an actor or storyteller, present scenes from a typical day at school. If you are a writer, write a poem or story that expresses your plight.

If you don't have any talents, capitalize on that. Everyone has talents, of course, but if yours are hidden or underdeveloped, point out that unschooling will allow you to discover and build them. Talk about the ways you want your life to change when you are out of school.

Have library books on hand for them to look at. Pull up an online essay or article from The Alliance for Self-Directed Education that you think they'll like. Choose a passage to read aloud during your meeting. Help them realize that in letting you out of school they have intelligent company and moral support.

If you've already met unschoolers through local support groups, consider inviting a parent and/or unschooled teenager to part of your meeting. (Make sure your parents know you'll have guests.) Or invite these people to your second meeting, by which time your parents are likely to have lots of questions.

A low-key way for your parents to "meet" others would be to watch Jeremy Stuart's wonderful film, *Self-Taught: Life Stories From Self-Directed Learners*. You might relax with it after your meeting, or plan to watch it together a day or two later.

Encourage questions. Do not be glib or patronizing. In asking to unschool, you are asking your parents to honor your uniqueness and to take you seriously. Return the favor.

Conclude by asking them to think about your ideas, and scheduling another meeting about a week later.

Hold a second meeting

Ask them for their response to your ideas. If they say yes, great. If they say maybe, work through their hesitations until you get to yes.

What if worse comes to worst and they say no? Grieve and moan on your best friend's shoulder. Throw darts. Do whatever you do in the face of disaster.

When you're ready to deal with it, here are some strategies for round two:

Beyond no

Ask your parents why they said no. See if you can strike a compromise. Ask if there's anything you can do that would get them to say yes.

Suggest a trial run. You might start unschooling in August, so they have a few weeks to see how you manage (but after you've had time to recover from the previous school year). If they're not satisfied with your way of educating yourself, assure them you'll march back to school in September as usual.

A drawback is that you may feel cheated out of your normal summer vacation, and thus not as exhilarated as if you quit in, say, October. Also, the whole idea of being watched and evaluated runs contrary to the idea of pursuing interests because you want to. Still, you could maybe psyche yourself into it and make it work.

Request that they visit a self-directed learning center with you. See if there's a Liberated Learners center, a Sudbury-style or other democratic free school, an Agile Learning Center, or another Self-Directed Education project in your area. And if there's not, ask if they'd be willing to go on a family road trip.

Several wins could result—you and they might agree that such a center would provide needed structure and support, get you signed up, and voilà, you're free! But even if the center you find isn't a good fit—it's too far away, or serves younger kids, or just doesn't feel right—going on a tour and chatting with the director may provide your parents with tremendous reassurance and perspective.

Continue to read up on unschooling and self-directed education, and keep giving your parents articles and library books. On your birthday, give them a book about unschooling. Read aloud to them or find podcasts and audiobooks they can listen to in the car.* Zillions of families have stories of one parent convincing the other parent to unschool after enough exposure to good resources.

Ask them to attend a homeschooling conference with you. Search online to find one that supports unschooling, or at least offers multiple perspectives rather than simply advocating "school-at-home."

Help them feel what you feel. Ask them to attend school with you for a day, and to take notes and do the homework as if they were students. Or, without sounding threatening, ask them to think about how they want to be treated when they are powerless. When they get old do they want their choices to be taken seriously?

Befriend unschoolers and their families, whether online or through local conferences and networks. When you meet people your parents might like, invite them to dinner. Be sure everyone knows what they might be getting into.

When you have a choice of topics for school research papers or essays, write on unschooling. Show your parents your work.

See if any of your parents' friends or relatives can understand your side. If they can, ask them to intervene on your behalf.

Ask your parents again to think about their own ways of learning and their pasts, whether they believe school was truly good for them, and how much they learned there.

Watch *Dead Poets Society* together. At heart, it's a movie about unschooling; at heart, unschooling is all about "seizing the day."

Survive emotionally by focusing on your life outside of school and not worrying about your grades. I know, from the mail I receive, that some parents do say no—sometimes just for a few months, sometimes until birthday #18. Sometimes people quit without their parents' permission, and the guilt trips that result can make unschooling miserable. So if your parents do say no, your best choice might be to accept that decision and consciously take control of your education as much as you can while still going to school. Or, your best choice might be to stand up assertively for your right and your need to leave school. It depends on you, your relationship with your family, and the intensity of your desire. You may also want to see if you can switch to an alternative school or to a magnet school related to your interests.*

When you sense the timing is right, ask them to reconsider. Many a life, and many a family, is blessed now and then by a major change of heart.

Beyond yes

After they say yes, you want to live together in harmony. Be tolerant of your parents' worries, especially at first. If they are a bit overbearing, don't panic—if they're like most, they'll soon relax. If they ask you to study in a fairly rigid way, try to cooperate—many unschooling families start this way and then slowly come to their senses, abandoning arbitrary structure. You might share this bit of wisdom, written by Donna Richoux in GWS #52:

Over the years I've had a few long phone calls from parents who are concerned about the lack of academic interest shown by one of their children. Among other things that cause them worry is the fact that the child will show an interest in something and the parent will arrange for a chance to follow up on it—lessons, a visit—and shortly thereafter the child loses interest.

Somewhere in these conversations I've said something like: how would you feel if someone older than you—say your mother, or mother-in-law—lived with you now and always worried about whether you were OK, whether you read too little or too much, and whether she should do something to fix you up? Suppose she got upset because you signed up for a course somewhere and then dropped out? Suppose she made you continue?

The parents laugh ruefully in recognition. "That would be awful. I'm always signing up for things and dropping out," they say.

There are many good reasons for dropping out of an adult education class—the brief exposure was enough to satisfy one's curiosity, something about the teacher turns one off, one has less time than one expected because of other changes in one's life. Aren't we lucky that, as adults, we can quit? Nobody tells us we have to finish what we begin, or worries about what that says about us. So maybe it's reasonable to extend that same privilege to our children.

Or show them Gwen Meehan's comment on working with her son Pat, fifteen:

I was all full of the things I was going to help Pat explore academically this year, but it has been abundantly clear that that route would lead nowhere. He might cooperate wanly in order to placate his father and me, but he wouldn't really learn anything.

If your parents just can't relax, find yourself a compatible adult advisor, mentor, or tutor whom your parents respect. Chances are, once they see that this adult doesn't get bent out of shape over your choices, they'll back off.

If they still watch too closely, turn the tables with a friendly sense of humor. Watch them back. Take notes on how well they seem to be learning, and how well they use what they learn. Give them progress reports. Once they get the message, stop.

And mostly: do all you can to support and encourage their dreams. If your independence inspires them to dramatically change and grow, don't freak out. Stand behind them and beam.

11. the importance of the vacation



Every day I went to school was a constant attack on my self-worth. I learned not to believe in myself. It was bombardment from all directions; the teachers were saying how bad I was doing in their classes, my family was ashamed of my grades, and the students were attacking me about everything under the sun! I was like a plant trying to grow in darkness—it doesn't. It all left me afraid to dream my dreams—afraid to be my true self! Who wants to show their true and beautiful face if they're just going to get a rock hurled at it?! The real question is: how do we undo the damage done?

We have to take time to dream again. Like the sculptor who removes everything that is not a part of the sculpture, we have to remove everything that is not a part of us. We have to dream our dreams again, not other people's, but our own precious dreams that mean everything to us. Our dreams are our life maps.

—unschooler Jenny Smith

We start out thinking of what we won't have to do when we stop going to school, and it takes a while for us to think about what we do want to do.

—unschooler Eva Owens in *Growing Without Schooling* magazine

Before you start your new life, you have to let go of the old one.

There are loud cruel voices you must banish, before you can hear the faint sweet muses. There are harsh schedules you must cancel, before you can coax your natural rhythms into place.

Learning in school is swimming upstream against the current of your energy and curiosity. It takes exhausting effort, but it can be done. Unschooling is swimming downstream, still kicking and paddling and crossing over to investigate the shores, but without fighting. If you don't give yourself time to turn around in the river, unschooling will be a miserable confusion. If you don't give yourself time to adjust, this book will not work for you. Still facing upstream, you'll drift downstream. You'll be neither here nor there . . . and maybe you'll end up wanting to be back there, in school, because at least you know it's someplace.

The vacation I suggest is your time to turn around—and rest—before you make an effort to steer your course. If you don't take a vacation, you may start unschooling with the same frenzied guilty complexes you've been schooling with. Jessica Gray, thirteen, who convinced her mother to let her out of school in fifth grade, writes in *GWS* #93:

My original hopes for homeschooling were that it would allow me to be free, to grow, to expand my knowledge of what really existed in this world through my own experiences. During that first year, as we traveled the bumpy path of having to keep the school system content and carried with us my old thoughts and beliefs that education consisted of books, pens, papers, early mornings, bad food, and at least six hours of sitting at a desk, I lost the sense of what homeschooling really meant to me and what I had wanted it to be from the beginning. Out of insecurity and fear of being "not enough," I spent a whole year working with a program that was set up exactly like school. The program had many textbooks, tests, a requirement of six to eight hours of work each day, and an incredible amount of stress. The one year I spent with this program dragged itself out to feel more like five dreadful years. I came out of that program with not much knowledge except for one valuable piece, which was that I would never put myself through that again. . . . When I received the books and curriculum from the program at the beginning I thought they looked fun, but that's because they looked safe. . . . I felt pretty miserable for a long time, and that robbed me of any remaining energy. Once again I was judged only by tests, not by the hike I took in the mountains or the research I did on a subject that meant something to me.

After Jessica figured out that she did not want to waste her youth doing school at home, she changed her approach completely. Among many other things, she volunteered with Habitat for Humanity and she traveled widely with her mother.

Your vacation

When you quit school, do nothing academic for at least—at the absolute minimum—a full week. If you wish, write stories or journal entries about your past and your future. Dream, dream, dream. If you crave TV, watch it. If you crave sleep, indulge. Allow yourself to go through withdrawal. Pass no judgments. If you want to work on anything, work on forgiving and forgetting. Forgive yourself for everything. Forgive your teachers for everything. Forgive your parents for everything. Forget the lies school taught: that learning is separate from your life, that you can't teach yourself, that you are defined by your grades, and all other such nonsense. Detoxify. Purge.

Obviously, your parents need to know this vacation is coming. If not, they may anxiously pile textbooks around you and assign essays on *The Reign of Queen Elizabeth*. I don't know about you, but that sort of well-intentioned concern would drive me right back to school. If they don't think they can handle watching you do nothing for a week or so, go visit your grandmother.

And after the vacation

Unfortunately, I can't promise that all your school wounds will heal in one short week. The complete process of deschooling your spirit could take a month or even years—not that you should wait months or years to get on with life. Anthony J. Hermans, seventeen, reflects, "It's not easy to learn to deal with excessive freedom—especially when you're used to something else." Judy Garvey, homeschooling parent and author of *How to Begin Homeschooling*, calls the transition process "flushing out." She points out in GWS #70 that it can involve a period of hating anything remotely connected to academics, or even a temporary lack of interest in everything.

Enemies may lurk in your gut, waiting to make life difficult. Fear, for example, may overwhelm you at first. Most of the structure in your world has suddenly evaporated. Your time is now yours, and you may feel dazed by the responsibility of that concept. Expect to be afraid; just don't give in to that fear. Where there's fear, there's power. No one feels afraid when they walk into a boring job for the fourteenth year, which is a sorry reason to do a boring job for fourteen years.

Another enemy is the guilt that blocks your natural curiosity. Many of us, while we're in school, develop negative attitudes toward exploring the world. This is no cause for blame. It's not your fault if you don't immediately want to run out and watch ladybugs with a magnifying glass. It might take time before your desire surfaces from beneath the layers of guilt—the voices insisting I should learn this, I have to learn that. Give yourself that time. Don't push. You'll recover. Homeschooling father Dan

Raymond told me he thought it would take a year before a new unschooler could do anything “real” and start going forward on their own.

Impatience, too: in Chapter 3, I pointed out that schools helped eighteenth- and nineteenth-century factory owners by forcing people to shift from a seasonal, agricultural way of scheduling their lives to an artificial, industrial way. Quitting school, you can ease into a healthy tempo, but you’ll have to be more patient with yourself than factory owners are with their employees. Allow yourself to find a natural pace, slow down if needed, stare into space more often, breathe easier. You won’t necessarily accomplish less—many homeschoolers accomplish far more than they did when they were in school—but it’s okay if you do accomplish less. The meaning of life has to do with quality, not quantity. After Adrian Deal, fourteen, quit school, she created a wonderful pamphlet entitled, “Isn’t there school today?” Part of it goes like this:

What do you do all day?

I hear this from my grandmother who wonders if I just “flop around all day eating chocolates.” Well, no I don’t. But I also don’t do as many things as they do in school: for example, in one day I might do one or two things enjoyably at my own pace instead of cramming in huge amounts of seven different “subjects.”

After being out of school for a short while, I realized that a day is not very long—you just can’t do that much in a day. Therefore, it is impossible to fully absorb (much less enjoy!) large amounts of algebra, chemistry, history, English, Spanish, biology, and health in one day. My point? School teaches you that you must do, do, do all day. So the first thing you must do when you quit school is relax, don’t make yourself do anything, and realize that it’s okay if you don’t do those seven subjects every day.

Now, on to some of my daily activities: reading a book (fiction or nonfiction), watching a movie, writing to one of my many pen pals, doing office work for my mom, listening to music, working in my scrapbook, making this brochure, cooking something delightful, painting with watercolors, making jewelry, taking art classes, browsing the library, and just having fun.

The worst thing that can go wrong is lack of trust

If your parents don’t trust you, they will nag or look like they want to nag. If they see you watching TV they may assume that’s all you’ll ever do. It will drive you crazy. You’ll wish you were back in school, where everyone expects you not to want to learn anything. Tell them how important their trust is. Continue to educate them about unschooling. Share the stories in this chapter with them. Introduce them to other unschooling families.

If the local or state school authorities don’t trust you, that’s not so bad because you don’t have to see them every day. Still, their rules can force you into more structure and more subjects than you think are healthy. Don’t worry too much about the school authorities. Learn to be diplomatic. If you must interact with them, nod and smile and then go right on doing the right thing.

The worst disaster by far is you refusing to trust yourself. If parents and teachers have not trusted you through a lot of your life, it's not your fault that you finally stopped trusting yourself too. It's their fault, but there's no point in revenge. Instead, work through it. If you find yourself continually tormented by guilt, school nightmares, or an inability to relax, get some help. Perhaps all you need is contact with other unschoolers. Or perhaps you need more intensive care, such as working with a therapist.

One relatively uncomplicated solution to some of these difficulties is suggested in GWS #76 by Judy Garvey and Jim Bergin, who have a thirteen-year-old son. An apprenticeship or job outside the home, they say, is the best way to make the transition to unschooling. Because it is a structured use of time out in the world, it combats any feeling of "dropping out" or "failure."

If it's so complicated and difficult for some people to heal from school, why are you so optimistic? How do you know I can recover?

Partly because I've heard enough success stories. Partly because like many adults, I have recovered too. It wasn't until I was in college, but my brain did finally boomerang back from the land of high school grades, SAT scores, harried paper writing, boredom, and busywork. The revival, by the way, happened mainly through conversations with friends, and mostly not because of any official college curriculum.

These stories and comments illustrate the process:

Katrina Dolezal, fifteen, writes in GWS #76: "I think the best way to make the transition from public school to homeschool is to be allowed plenty of time to forget some of what was learned in school about how you should learn."

Sylvia Stralberg describes her vacation in GWS #80:

Things finally got so bad this year in eleventh grade that I said, "That's it—I'm not going back to school anymore," and I didn't. I had a few months of recuperation, which meant doing whatever I felt like doing, be it baking, reading, cutting recipes, or watching a movie. I had a lot of guilt feelings during that time about not being in school, but fortunately I have wonderful parents who reassured me that what I had done was OK.

Rosemary Risley writes about her daughter in GWS #76:

Lora only read what she was forced to read when she was in school, and I would sometimes coerce her by reading one chapter out loud to her and then having her read the next to me. All of a sudden, during the summer between school and homeschool, she became an avid reader. . . . I don't know how many books she read that summer, but I was amazed—it was as if now that she didn't have to, and she was free, she wanted to read. She has read over sixty books in each nine months of homeschooling. If we did nothing else these two years, I consider that a major accomplishment.

Judy Garvey writes in GWS #76:

Before children go to school in the first place, all of their natural learning systems are intact. This is what we can see in families who have homeschooled their children from the very beginning. However, once children are in school for about three years, they are forced to shift over to a very unnatural system to survive the emphasis on

memorization and the daily stress, rigidity, and humiliation of classroom life. . . . Most children are very hurt and angry about what has happened to them and to their peers in school. As long as they stay in school that anger must remain under control. When they come home, it all begins to come out. It may show up in extreme highs and lows, negative emotional outbursts, or long periods of apparent depression.

Kathleen Hatley writes in GWS #45:

A change that pleases me very much this year was to watch our son Steve (twelve), who spent four years in public school, and who spent his first year of homeschooling asking for “assignments,” become a more self-motivated learner. He became interested in mechanical drawing when I gave him a beginning drafting set and he spends a lot of time designing cars and space ships. He has discovered science fiction and reads Asimov, Bradbury, Heinlein and others with great enjoyment (he has always read a lot, but despises the school-type reading programs where one must answer questions to prove comprehension). We both enrolled in [a] computer course at the state Vo-Tech school and he thoroughly enjoyed that—the perfect classroom situation, in my opinion, no tests, no grades, just people voluntarily coming to learn about something which they were interested in, from a helpful expert in the field. Since Steve’s career goals tend toward the technical at this point, he works real hard at mathematics, and at his request we added the Key Curriculum algebra and geometry series to his regular sixth grade math. He surprised me this year by informing me that he didn’t want to take a summer break from his schoolwork!

Darlene Graham, a mother, started to feel like homeschooling was working after three years. In GWS #37, she advised, “Don’t feel discouraged if your school program doesn’t work like magic from day one. We have found that the longer our children were in public school, the harder it was for them to re-develop their own natural curiosity and creativity.”

In GWS #64, editor Susannah Sheffer relates a conversation with Emily Keyes, fifteen. When Emily was in school, she hated it and always got in trouble for not doing her homework. After eighth grade, her parents decided to try homeschooling with Emily and her younger brothers. After her mom took a class in homeschooling, she decided to try “natural learning,” with no curriculum. Emily was lost:

I still didn’t know what to expect, or what I would want to do with the time, because back then I wasn’t interested in much of anything. We decided to start homeschooling on the day that school started, and it should have been like any other day, except we didn’t know what to expect of one another. We didn’t know what mom was going to do, if mom was going to assign lots of stuff. My attitude was still so rebellious. I was so fed up with school that I felt I didn’t want to learn anything. There was so much tension that first week.

The change was very gradual. Your whole thinking changes. In school, everything’s programmed for you, this is how you have to think, and then all of a sudden you’re on your own, and you don’t know what you want to do. It was so hard at the beginning,

but I knew there was no way I would go back to school, and I think we all knew it would get better if we stuck it out.

Emily goes on to explain how eventually she discovered that she thinks mechanically and logically, and how she learned to fix machinery, to work with sound equipment, and to enjoy early American history.

Arlean Haight writes in GWS #28:

When we took the children out of school nearly two years ago, we had advice from several people, among them Dr. Pat Montgomery [director of the Clonlara Off-Campus Program]. She told us if we would let the children follow their own interests, and just help them when they needed help, they would learn more than if we put them on a pre-planned curriculum.

I respected Dr. Montgomery, and was grateful for her help. But I just couldn't see any glimmer of hope in Becky [fourteen]. It seemed that seven years of public school had successfully stamped out any inclination she might have had to learn. By her own admission, she had learned to cram for tests, make A's and B's on her report cards, and promptly forget almost everything she had "learned." Whenever I allowed her free rein on "school," her one interest was mindless fiction—nothing of any value that I could see. Pat tried to encourage me, but I had the misgivings and insecurities that I see in so many other parents new to home-schooling. I was afraid Becky would learn nothing at all. So—we embarked on a "curriculum." It turned out to be just a duplication of the old public school pattern. So I went pretty easy with it, still allowing her freedom, and limiting her fiction reading to what I felt was least objectionable.

But, Pat was right. It finally happened. This year Becky progressed from Louis L'Amour Western fiction to an interest in Western history, then to the history of the United States, and is now in the process of memorizing the Constitution word for word.

Fifteen-year-old Maya Toccata, of British Columbia, says:

Most of my time is taken up by living. Which involves rock climbing, writing, reading, working at a hat store, researching massage, aromatherapy, shiatsu, reflexology, and doing the layout and editing of a teen section in a small home learning newsletter. I have been home schooling for two and a half years now and it has been an interesting process. Now I feel comfortable with what I'm doing and feel I'm doing enough, but I didn't feel that way at first. I had a hard time persuading my parents to let me unschool. So when I started I was trying really hard to make it look like unschooling was working for me and that I was learning a lot, but I didn't really care about what I was trying to learn so I just sort of hung around all day. I felt like I was a big fake. I thought I wasn't learning anything, but now when I look back I see that I learned more about myself in those few months than I have in nine years of school, in fact in school I was trying to ignore my true personality to be like every one else.

How not to get stuck in la-la land

After I published the first edition of this book, I began to feel that there was something incomplete and simplistic about my advice on vacations. Jennifer Loudon's *Woman's Comfort Book* helped me understand what was bothering me. In a chapter called "The Shadow Side of Comfort," she says:

It is possible to use comfort and being comfortable as excuses to limit or negate ourselves. . . . For instance, when I started paying attention to how I comforted myself, I realized that staying home weekend nights and ordering Thai food and watching videos was comforting and safe, but it also could be limiting and boring. It made me uncomfortable at first, but I found when I made unusual plans for the weekend, I almost always came away stimulated and enriched.²☒

It may not always be enough for a new unschooler to simply take a vacation from academia in which absolutely anything is permissible—any amount of TV, any number of potato chips. I'm still certain that most people need a relaxed time in which to heal from the pressures of school, and to reclaim their internal motivation. But some ways of vacationing are healing and rejuvenating, while others may actually worsen the feeling of being out of control of one's life. I now think the deschooling process requires not just two essential steps (vacation and then do something), but three.

I still think an "anything goes" period in which you indulge some of your petty cravings is crucial. But it's just as crucial to recognize when you've had enough of that—and move on to phase two which is still a vacation, but a more lively one, and probably needs to last anywhere from a week to a year.

During this time, do not strive to meet academic goals, but do actively experiment and play—no more excessive TV, eating, sleeping, video games, or hanging out with unexcited people. You might experiment with transition rituals—see the suggestions that follow this chapter. Or find other ways to engage with the world, such as making new friends, changing your wardrobe to reflect your true personality, messing around with art supplies or Lego, or visiting a variety of religious services. Such activities can take you beyond both 1) the pressure, chaos, and stress of being schooled, and 2) the boredom and self-loathing that can result from too much lounging around, from a lack of creative release.

All of this restoration and exploration will, at some point, bring you to the cusp of step three: ready to focus, set goals, roll up your sleeves, and dive in.

*

Unschooling Transition Rituals

These suggestions are based mostly on my own experiments; the concept is inspired by *The Woman's Book of Comfort*. I hope they'll spark you to make up your own activities.

Try these rituals when
you've just quit school
you feel guilty or nervous about being out of school
you believe you should be doing academic work, but you feel unmotivated
you have no desire to learn about anything
you've been out of school for a long time but still don't feel in control of your education
you think of yourself as unintelligent because you got bad grades in school
you've been stressed out preparing for a test or working on a difficult project
you are still in school and not happy about it.

Reclaim your past

Get out your favorite childhood toys, hobbies, collections, books, and old photos—whatever evidence remains of your early life. Arrange these things around you and take some time looking at or playing with them. Does any of it still entice you? How might you invite your past interests into the present? How could you pick up where you left off?

Purge school

Throw darts at photos of your school, or build a bonfire with useless worksheets or homework assignments, or take a report card and rip it to shreds and stomp on it. Write down the ways school has harmed and limited you. Burn the paper . . . and then write down the ways you want to grow beyond the limits of your past. Post your list by your bed or computer.

Make a scrapbook

Supplies: Back issues of National Geographic or other magazines (from thrift shops, garage sales, etc.); postcards, photos, or other flat paraphernalia; a scrapbook or loose-leaf binder, cardstock or construction paper, and a three-ring hole punch.

Play around with any topic that intrigues you, by collecting and arranging pictures, postcards, poems, quotes, maps, whatever. National Geographic alone is a great source for many topics—I have one scrapbook showing the traditional clothing of different cultures, another one in the works showing vernacular architecture worldwide, and still another called “pastorality”—worldwide markets and farming practices. Let your scrapbook remind you to always keep your education beautiful and personal.

(Make a digital scrapbook if you'd rather—but engaging hands-on with actual paper can be fun.)

Comfort with children's books

Host a children's book party. Invite friends to bring stacks of their favorites. Ask each person to describe the books they bring, and to read a chapter aloud from one. Then put pillows on the floor and let everybody hang out and read all afternoon. Serve bread and jam. Finish with a pillow fight.

Or give yourself a day at the library. Take a notebook to the children's non-fiction section and skim lots of books. Make a list of topics that intrigue you. Make another list of questions that your reading generates. You don't have to follow up on either list . . . but you can if you want to.

Report Cards

Find an old school report card or progress report. (If you quit school recently, use the freshest one.) Read it carefully and notice your feelings. Are you proud? Depressed? Competitive? Angry? Nervous? Ashamed? Confused? As the feelings subside, invite your logic-brain to join in. Think about what your report card is: a subjective evaluation of your tests, papers, and "participation" in classes which you didn't freely choose to take, given by people who don't know you well, are overworked, have too many students, don't have nearly enough information to judge you accurately, and are themselves perhaps not perfect examples of joyful, purposeful learning.

Ask yourself: which of these subjects are important to you? Why? How successful was each course in helping you learn about its subject? (Grades deflect the pressure off of the school, onto the student. In the dance classes I taught, if a student didn't get something it was up to me to explain it in a different way—and of course up to her, also, to go home and practice, and to articulate her questions as clearly as possible. At school, the emphasis is on evaluating you, but sometimes it would make more sense for students to thoughtfully grade their teachers.) How much do you really know and understand about the subjects you got good grades in? What subjects do you feel you would be good at, if only you had more time or if the material were presented differently? What things are you good at that aren't even listed on the report card? What things would you like to be good at that aren't taught in school?

Write your own report card based on your knowledge, skills, and personal qualities. Include not just grades, but explanations. Then project yourself into the future and write a report card for where you'd like to be a year from now.

Inspiration Cards

Cut out magazine images you like or that inspire or haunt you. Use rubber cement or a glue stick to attach them to heavy paper or cardstock. On their backs, list the questions and activities they suggest. Play with them, sort and arrange them in differ-

ent ways, make patterns or mosaics. Put them in a bag and draw one out whenever you feel sluggish.

Keep an unschooling journal

Starters:

The time I got an F

I am curious about . . .

Why I cheated:

A list of questions:

I hate math/science/history because . . .

I love math/science/history because . . .

I feel alive when . . .

What I want to contribute . . .

Learn with your body

Take a day for each of your senses: explore with your ears, eyes, hands and skin, nose, tastebuds.

*

12. money, bicycles, & other technical difficulties



We've got no money, so we've got to think.

—Lord Ernest Rutherford

If your parents were paying full tuition at some gourmet private school before you quit, no problem. You can have plenty of one-on-one lessons, lab equipment, a library all to yourself, a high fashion set of drums, and cash left over to vacation in Jamaica.

But you needn't be rich. Some homeschoolers spend under a hundred dollars per year on supplies. That's less than many schoolers spend on school supplies.

If money is scarce at your house, you might not get lots of toys and the high fashion drums. On the other hand, you won't clutter up your life with extraneous things which you then feel obligated to use. The best advice I can give, in fact, is to use your lack of money to help you. Let it help you focus your life around a few things that matter most. If you decide to be a naturalist and a photographer, spend your money on a solid pair of boots and a good macro lens, not on a bunch of fancy math books you don't need. That way, you won't end up wasting time doing more math than is optimal for you.

Another way scarce money can be a blessing: you will be more creative and develop a clear understanding of what is necessary and fundamental to your interests. By figuring out what you don't need, you will also figure out what you do need. That's some of the best learning you can do about anything.

By quitting school you may lose a stingy little pond-full of "free" resources—use of textbooks and equipment and such—but you get an ocean of time in exchange. If you like, look at time as money. Use it as a financial investment in your future (by volunteering in a field you dream of working in later) or a way to get cash now (a job).

Strategies to make money go far

Avail yourself of free resources whenever possible. It's wonderful to watch more free stuff show up year after year, especially on the internet. Many of the absolute best online resources—Khan Academy, TED talks, YouTube tutorials, MOOCs (open online courses offered by entities like Harvard and Yale)—are intentionally, marvelously, even stubbornly free. "Our mission," says Khan Academy, "is to provide a free, world-class education to anyone, anywhere." (Later, when you have the chance, consider donating to or volunteering with generous organizations like these.)

Use school facilities and equipment. This is easy in some places, challenging in others, and occasionally impossible. You may encounter the least resistance if you work out an arrangement where the school gets to officially enroll you (so they get money for you) in exchange for providing equipment and even allowing you to take individual classes or attend events. For more on this sort of arrangement, see the section "School as a resource" in Chapter 18.

Buy only books you will use again and again. Use the public library, and access all the old classics for free online. Sometimes homeschoolers can borrow textbooks from

their school districts (not just from specific schools). Sometimes an individual teacher is willing to informally loan a textbook. Also, search out free textbooks online.

Trade your time for lessons or equipment. Try to do work that you learn from and enjoy. Seth and Vallie Raymond earned free pottery classes by running a kiln. Their mother told me, “Art and music teachers usually like kids who barter for lessons. If they’re willing to work, they’re more invested in what they’re doing.” Along the same line, GWS #70 mentions a violin student who “is cataloging his [teacher’s] records in exchange for the lessons the man is giving him.”

See Barbara Sher’s classic book *Wishcraft* for great ideas. One is holding a barn-raising, where people get together to tell what they have and what they need, and team up to make each others’ dreams come true with minimal cash.

Use someone else’s equipment for labs that require microscopes or other expensive items. (See Chapter 20 for access to lab equipment.) About half the labs in most science textbooks, however, don’t require expensive equipment, just beakers, graduated cylinders, graph paper, etc.

If you want to learn to play the piano and don’t have one, practice in a school or university practice room, or at someone else’s house. Electronic keyboards, though not the same as real pianos, can be had for cheap or free.

The same general principles (borrowing, visiting, substituting) can be applied to other musical instruments—or, more broadly, to any pursuit that requires supplies you don’t possess.

Earn money in a way that brings you into closer contact with what you love. Finance your photography education, for example, by offering portraits of elderly people to their children. If you take this approach rather than working fast food, you win doubly—you not only earn money, you also gain experience. That way you won’t feel resentful about having to pay for your own education—paying for your education can be part of it.

Find used books and equipment at university and college used book sales, thrift stores, flea markets, garage sales, and online platforms like Craigslist and Ebay.

Consider working for legislation that would give tax credits (thousands of dollars per student per year) for education outside public schools, including homeschooling. This type of legislation is controversial, for good reason—many people oppose it because in the school realm it can discriminate against people whose parents couldn’t afford to send them to private schools even with a major discount. But for homeschoolers, this money would make a tremendous difference, especially for poor people. Such legislation gives your parents money to be used for equipment and resources for your homeschooling.

(Meanwhile, in some states you can sign up for a public charter school that supports homeschoolers and includes a cash allowance for supplies and lessons. These programs vary widely and change often, so see what’s available where you live.)

If you’re serious about a field, apply for a grant. A grant is when someone else gives you money to carry out a project. Look up “grants” on the internet, or ask your

librarian for help. The government (that is to say, your parents' and friends' tax dollars) is one source of grants.

Or consider a Kickstarter, GoFundMe, or other crowdsourced fundraising campaign—not to boost your general unschooling budget, but for a specific undertaking, ideally one that will benefit the world or at least your contributors.

Transportation

If you are not old enough to legally drive:

ride your horse, bicycle, skateboard, or feet.

if your area has good public transportation, use it.

carpool with unschoolers and others.

if you volunteer or work on a regular schedule, ride with an adult who works at the same place.

put up notices at the places where you spend your time, explaining that you need rides. Contribute gas money. If strangers offer rides, be sure you know enough to trust them before you accept.

invent an alternate means of transportation, preferably one which will not contribute to climate change and lung cancer.

speak up for your right to drive.

If you are old enough to legally drive:

If you live in a state with one of those disgusting laws preventing “dropouts” from driving until they’re eighteen, do what you can to change it. But don’t worry on your own behalf—the law shouldn’t affect you if you’re a “homeschooler.” Kathryn Blount, fifteen, in Texas, found that all she needed was a letter from a parent or tutor saying she was homeschooled (see GWS #73).

Adults only

Vita Wallace writes in GWS #73:

I am in a figure drawing class for adults . . . partly because I just couldn’t stand the idea of being in a class labeled “for teenagers.” My mother called the teacher before the class began to see if it would be all right if I signed up for it. He said that as long as I thought I could concentrate for two hours straight, I was welcome to try it. No one there has ever asked me how old I am, and I don’t think they’d mind if they knew.

To be a Compleat Self-Schooler, develop assertiveness. You will need it as you look for unorthodox ways to find things out, get things done, and join classes or groups that teenagers aren’t usually part of. Realize that rules are usually flexible.

A Middle Eastern dance troupe I belonged to had a rule that members had to be at least twenty, but a nineteen-year-old danced blithely in our midst, and no one ever thought about it. When we got around to reviewing the troupe’s constitution, we canned that rule. Many organizations have obsolete rules that no one cares about.

If you set about your business believing (politely) that anything is possible, you will often prove yourself right.

If you do run up against a firm age-based wall, don't hesitate to courteously ask "Why?" Sometimes in the name of liability or safety or another abstract worry, organizations exclude. Such barriers are often not only ageist, but also unnecessary. The more people are asked to consider their purpose, the more likely these roadblocks will dissolve. Social change often begins in respectful conversation.

And other Technical Difficulties

One GWS reader had kids who were hassled when they hung out in the world during school hours. "Why aren't you in school," everybody's cousin wanted to know. The mom solved the problem by printing up passes that explained the kid was on an independent educational errand, complete with her administrative signature at the bottom. No more harassment.

Chapter Summary

Where there's a will, there's a way.

13. getting a social life without proms

But, good gracious, you've got to educate him first. You can't expect a boy to be vicious till he's been to a good school.

—Saki (H.H. Munro)

Whenever I mention this book, hardly anyone says, “But how would people learn anything without school?” Instead, they say, “But how will they make friends?”

The question kills me. Teenagers make friends in spite of school, not because of it. There is only one reason schools can claim to enhance social growth: thanks to compulsory education, schools are full of people.

Well. A quality slice of birthday cake surpasses its beginnings in flour, sugar, milk, egg, and vanilla extract. Likewise, friendship and community goes far beyond mere contact.

A healthy social life requires much more than indifferent daily acquaintanceship with three hundred humans born the same year you were. It starts with a solid sense of self-esteem and self-awareness. It builds in time—time to spend with others in worthwhile, happy activities where no one loses, no one is forced to participate, and where conversation and helping one another are not outlawed. School fights hard to keep your social life from happening, though the conventional wisdom proclaims that school is important for socialization.

(Actually, it is. While school has little to do with social connection, it has everything to do with socialization. I think it was in GWS that I read someone's clear explanation of that term: socialization means bringing an individual under the control of a group. School-style socialization makes a group of people obedient and easily manipulated by peer pressure or “authority.”)

As for romance. Affection, intimacy, and passion really are not encouraged to take root in a fluorescently-lit room smelling of chalk dust. A mystery-relationship belongs out in the big mystery-world.

So school is detrimental to friendship and other social joys, insists your author. But where does that leave you? To have a social life, you do have to start with raw material—human beings. Since most of the people near your age are shut up in school, you face a challenge. Now, you are not alone in your aloneness—most of the social structures of our society have broken down. Streets are seldom neighborhoods; family members may not know each other well; work environments often require so much conformity that people cannot see who their colleagues truly are. Friendship and community do



not happen automatically. But with a little effort you can make them happen, just as adults do. Don't sit home and mope, and don't be unimaginatively convinced that you need school to have friends.

Create a new & better social structure

Some people connect so easily and automatically that these next few paragraphs may not be necessary for them. But for others—certainly for introverts like me—this might be the most valuable section of the book in your hands. I hope you'll read it, adapt it for your own situation, and build a life that is rich in community and friendship.

When school is the structure of your life, you run into people all the time. When school is not the structure of your life, you can build a recurring social calendar instead of inventing each day from scratch. This approach frees you from having to make a continual effort: if you always meet Josefina and Nazir to play music on Thursdays, then on Thursday you don't have to say to yourself, "Hmm. I feel like spending time with someone but I don't quite know who, or what I feel like doing, or who might be available." It's extremely important to invest careful time and thought setting up this structure. Our brains have limited energy each day to make decisions and to plan stuff out, and you don't want to waste that energy on things you can automate.

It's also extremely important to maintain this structure and to update it as often as necessary. Maybe you'll be fortunate and your arrangements will turn out to be unusually stable. Maybe for the next three years you'll meet Chaya pretty much every Wednesday afternoon at the library, walk together to the park or taqueria depending on weather, and show each other the past week's worth of cartoons, sketches, and graphic novels you're both working on. Life is full of change, though, and most arrangements like this tend to last for a few months (or weeks) rather than a few years. Either you or Chaya might gravitate toward different interests, fall in love (a frequent culprit in upending routines), get a job that takes over Wednesdays, or move away.

Sometimes, connections are disrupted unexpectedly and suddenly—and when that happens it can also disrupt your happiness, so be ready for it. Don't shy away, of course, from setting up standing dates with individuals or groups. These can be incredibly rich and rewarding, one of life's greatest treasures. But since they can also be fragile, it's essential to cultivate back-up opportunities. Watch for people who share your interests or who you enjoy talking with. Try pushing yourself to invite them out for coffee once or twice, and then later when a gap opens up in your regular schedule you might float the idea of a weekly or monthly meetup. And keep a list of activities that you can drop into but need not attend regularly—organized things like a blues dance jam or church youth group, and informal things like that uncle or neighbor who always welcomes you to show up and chat while helping in the kitchen or garden.

I worry that I might sound a bit preachy here, but I have reason to be emphatic. I speak from my own hard-won lessons. As an introvert and a self-employed person often

immersed in independent projects, I know it can take effort to maintain connections. I know that life can quickly go dark when I don't make that effort. I also speak from twenty-four years of listening to youth at Not Back to School Camp. As a generalization (there are exceptions of course), it's my perspective that unschoolers who have a solid calendar of social activities are doing pretty well, and those who mostly stay home by themselves tend toward depression. (They might spend a lot of time on social media, but that can make depression worse.) When I say a "solid" calendar I don't mean "packed"—some people need near-constant contact, others mere microdoses.

The good news is that for most of us this domain need not be difficult—we just have to give it the attention and energy it requires, and then it will more than pay us back in the energy and joy it adds to our lives. Here are a few ideas:

Start a project with schooled or unschooled friends and make a plan to work together two or three times per week. This project could be anything—writing a book, cleaning up a beach, starting a health information blog, making a music video, rebuilding the engine of an old pickup. This is one of the best ways to give yourself regular, scheduled contact with friends.

If you prefer to work independently, you can still share space with friends. Your arrangement could be simple: school friends coming to your house to do their homework while you do your own academic work, unschool friends bringing a novel and lounging on your bed. Or more complex: set up a coworking space in one of your homes where each of you keeps projects. Work in the warmth of each others' company, with sunlight streaming through the windows and music in the background.

Start a business that puts you in contact with people—like tutoring Spanish or custom-painting skateboards. Or find another work situation (job, apprenticeship, etc.) that connects you with the kind of people you like to be around.

Take a class outside of school—dance, martial arts, bicycle repair.

Join clubs or organizations based on your interests. There are infinite possibilities, especially in a city: the Society for Creative Anachronism (see the "Living History" section in Chapter 22), activist groups, outdoor programs of universities, performance guilds, ultimate frisbee teams, drum circles, hiking meetups, city planning committees.

There are worthwhile organizations specifically for teenagers, too. Look into 4-H, YMCA activities, youth chapters of political or activist groups, sports teams, scouts, youth symphonies and other musical groups, support groups, and youth groups associated with a church, mosque, or temple.

Or start your own club or organization—to work on environmental issues, cook desserts, undertake big projects, whatever. A simple way to begin: host a weekly study circle or salon to explore a subject (perhaps Zen Buddhism, Bollywood films, or the history of your bioregion).

Don't succumb to a worse social structure! (Don't let social media run your life.)

Many of the worst aspects of school explode into even more insidious, harmful form on social media networks. To seek a life of freedom and self-determination, but meanwhile chain yourself to others' constant judgments, approval, pettiness, and outrage, is counterproductive. When we do use social media, it's essential to stay alert in hopes of furthering our own goals—rather than be used by social media to further the goals of the people who pay to exploit us. It's not really clear, though, that such a feat is even possible for mere mortals. I hope you'll take some time to learn, from now-penitent-and-concerned algorithm designers, about what's going on behind the scenes. Jaron Lanier's work is a good place to start—read *Ten Arguments for Deleting Your Social Media Accounts Right Now*, or watch his TED talk, “How We Need to Remake the Internet.” (From that talk: “We cannot have a society in which, if two people wish to communicate, the only way that can happen is if it's financed by a third person who wishes to manipulate them.”)

Bond with other unschoolers

Adrian Deal, fourteen, writes, “It's so easy to make friends with unschoolers! There's no popularity contest to win and you don't feel like you're being graded for your looks, the makeup you do or don't wear, and the number of guys you've gone out with.” Sarabeth Matilsky answered a classified ad in GWS and then spent a summer with a homeschooling family in Alaska.

Join or organize a retreat or trip. Selina Hunt and Emily Houk of New York planned a weekend for seven adults and twenty-six teenagers at a Victorian mansion on a nature preserve. They played music, talked, walked along the beach, went hiking at night, cleaned up part of the salt water marsh, and made waffles for brunch.²¹

Corinna Marshall, Zoë Blowen-Ledoux, and Damon Holman of Maine planned a weekend gathering at Corinna's house, for about ten unschoolers. Corinna writes:

A lot of people don't know how many options are open to them, and we thought that if we all talked to each other about what we were doing with our lives, each of us could make our own lives more exciting as we learned about our opportunities. Another goal we had was to spread the word about unschooling, because it's a very misunderstood concept.²²

Join or organize an unschooler's club or study group. Emily Linn, of Michigan, organized a long-term older homeschoolers' group. At first, the group got together for monthly events, which included private workshops at a science institute, swimming and dining at a yacht club, skiing, attending a Pow Wow, camping, and attending a member's harp recital. Over a period of several years, it evolved and added academic activities. They organized a five-session French class, with the participants sharing the

cost of the teacher. Later, they set up programs in biology, physics, a Great Books discussion group, and more. Emily's mother, Diane Linn, reports in GWS #94:

[Emily] sent out a survey to the group, listing some topics that she thought were interesting, and asking for feedback. Every September the group gets together for a business meeting, and at that meeting last fall they brainstormed a list of things that they wanted to study but didn't feel they could easily study on their own and would enjoy studying with a group. Many people mentioned foreign language, but they wanted different languages, so that wouldn't work well. The two other topics that emerged were science and the arts. So that led us to organize a fifteen-session biology program, and then we had a ceramics program at a century-old historic pottery in this area. . . .

There are about forty kids in the group all together, and they come from within about an hour's drive of Detroit. Of course, not everyone participates in every activity. Some activities have to be limited in size, and not everyone is interested in every activity anyway. Sometimes we only get three or four people, and that can be fun, too. A lot of friendships have grown among kids in the group. Emily now feels that she has a good group of pals. She has made it a point, in all the flyers she sends out, to say that this is a nonsectarian group, that we don't favor any one philosophy, in order to welcome all homeschoolers. Consequently, the group is really a mixture of people—we have people homeschooling for religious reasons, people homeschooling for academic or other philosophical reasons. The group has become racially integrated, too, which we're very grateful for. The kids are meeting people from many different backgrounds, with many different kinds of life experiences, and the friendships really cross those lines.

In an interview in GWS #85, Emily says, "One thing that really worked was having an information sheet ready to send to people who called asking for information, because I couldn't tell them everything on the phone, and this way I could follow up right away when they were really interested."

Check out Blake Boles' website to see what he's currently offering for groups of unschoolers. Blake cooks up an always-evolving and enthusiastically appreciated array of opportunities, from adventure trips to facilitated online meetups.

Come to Not Back to School Camp! We want to meet you. Just sayin'.

Some things that unschoolers experience

They keep up their friendships with school friends, doing the same kinds of things together that they used to. Adrian Deal writes, "My social life is so fabulous! I'm becoming even better friends with some of my schooled friends because I have the time to talk to them and do things with them." Sometimes, they feel frustrated because their school friends don't have much free time.

Some make more friends than ever. Cafi Cohen writes in Home Education Magazine:

Our kids had friends when they attended school. But after a year of homeschooling, I realized they had more friends than they had had while in school. Of course, this was contrary to my expectations. . . . Watching Jeff and Tamara, though, it all became clear. Our homeschoolers had more friends because they had more time and energy for friends. That's what friends take—time and energy. As homeschooled teenagers, they had an abundance of both. No longer were my kids hobbled eight or more hours each day by busy work and educational administrivia. Instead, they worked on academics, generally completing them in the morning; both had much more time to make and be a friend, to socialize.²³

They grow closer to their families and start liking their parents and siblings more.

They have fewer acquaintances. They develop stronger, closer friendships. They appreciate not having to spend time around hordes of people they don't have a lot in common with.

Their friends include adults and children as well as people their own age. They get over any feelings that they can't talk with adults. Jeremiah Gingold wrote in GWS #74:

I am friends with the adults who live in the house next door to us. . . . Dick is interested in bicycling and philosophy and Crunch is interested in word games, movies, and sports. These are all things that I am interested in, which is one of the reasons I immediately became friends with them. The other reason is that they take me seriously and respect what I have to say about things. There are a few things that I talk to them about that I don't talk to most of my friends about who are closer in age to me (I'm thirteen)—for instance, politics and education. I don't think my friendship with them is very different from my friendships with other teenagers, except for the fact that we have better conversations. We often fool around with each other the way I would with friends my age. I think there are many things that I can learn from them, but that doesn't make me feel that they are necessarily superior to me. There are probably things that they can learn from me also. I do think that we have a very equal friendship, most likely because they respect me in the same way that I respect them.

Anne Brosnan, thirteen, wrote:

My social life is much more rounded than school kids'; I talk to anyone and everyone the same. I've noticed that most kids will talk to anyone younger than them but only superficially, and hardly talk to adults at all except when spoken to. I don't believe in that and make a point of showing that I'll talk to anyone about anything. On the track team there's all ages and I'm friends with all equally. . . . For example, I talk to the little boys in kindergarten because we share a common hatred of the rock group "New Kids on the Block." And the coaches ask me quite important things such as make sure so-and-so is standing in the right lane, and sometimes they get so mixed up I have to remind them what they are supposed to be doing (they're grateful for it).

I have about thirty pen pals and they range in age from about ten to fifty. I consider these my friends and my social life because you can be "social" through the mail. I may

not have as many friends or acquaintances as other kids but it is not the amount but the quality of friendship that counts.

Anthony J. Hermans, seventeen, was out of school for seventh and eighth grades, though he went on to a private high school. He wrote me that unschooling “allows an individual to meet (and learn to deal with) a wide range of people rather than being largely restricted to one’s ‘peer’ group . . . Homeschooling can provide an incredible boost in self reliance and esteem which all but eliminates peer pressure. I feel very little pressure from my peers as do other homeschoolers with whom I have conversed.”

Younger unschoolers—around twelve and thirteen—often appreciate not having to deal with the pressure of flirting or discussing their crushes in order to fit in and be popular. Older teenagers sometimes feel frustrated that their schooled peers seem immature. They may fall in love and make friends with people slightly older than themselves, and they often invest a great deal of time and care into building strong, honest relationships. In general, unschooling allows teenagers to stay “young” as long as they want, but also to “grow up” as soon as they are ready.

They exchange letters and email with unschoolers and other people around the world. Sometimes, they travel to meet these people.

Their friends are mostly people who share their interests. When I asked about the greatest advantages of unschooling, fifteen-year-old Michael Severini said, “I can spend more time with people who have the same interests I have.”

They grow more secure and feel better about themselves as a result of leaving the social world of school, a world which is often cruel, judgmental, and nosy. Suzanne Klemp, fifteen, comments, “My confidence has grown immensely—I am not judged for reasons such as clothes, money, or my looks. . . . My social life is better than it ever was at school. I meet people at the YMCA [where she teaches ballet], ballet class, and I have adult friends.”

Susannah Sheffer conducted in-depth interviews with fifty-five homeschooling girls, and her resulting book—*A Sense of Self*—shows that for many young women, homeschooling apparently facilitates strong self-esteem, independence, and motivation.

They do sometimes feel excluded from the bustling social activity at school. Most feel that this social activity is shallow and unfulfilling, and they don’t really want it—but sometimes they fantasize about it.

What can you do if you feel lonely & isolated?

Take your feelings seriously. Human contact is crucial. Don’t tell yourself it’s not important to have friends. If you want to be in love, don’t tell yourself that’s silly. Our social needs are more important and basic than our intellectual and creative needs. If you let your social life end when you quit school, soon you won’t care much about exploring the world. You’ll want to get right back to your locker, because Tatiana will be rummaging in her locker next to you.

Psychologist Abraham Maslow pointed out that people have a hierarchy of needs. Each of us has to feel a sense of belonging, love, acceptance, and recognition, before we can set out to fulfill “higher” aspirations such as intellectual achievement.

Don’t romanticize your memory of school. School does provide contact with masses of people. It does not make friends for you, or even provide an environment that is conducive to making friends. Everyone who goes to school, and everyone who doesn’t go to school, has times of overwhelming loneliness. Being in a crowd doesn’t always help.

Take responsibility for your own social life. Make an effort. If you aren’t invited enough, do some inviting. Throw a party. If you’re lonely, don’t blame the universe, me, or yourself. Just do something about it.

Be sensitive to your friends’ feelings about your changing life. If they stay in school, they may watch you with envy. They may romanticize your life, or feel intimidated by your independence and growing maturity. Quitting school can make you smarter and happier than you used to be, but it will not make you superior to your friends. Don’t be arrogant; don’t think that unschooling makes you the most interesting creature in the universe.

Don’t feel bad about your happiness, but do reinforce your friends’ trust by showing interest in their activities. Go out of your way to let them know what you enjoy and admire in them. Don’t talk more than you listen. But if they become hostile and defensive, and you can’t work through this stuff together, it’s time to seek out new friends who are not threatened by your growth.

Involve your old and new friends in your most important activities and contemplations. Don’t define friendship as something that takes place only during milkshakes and mall shopping. Don’t settle for boring, predictable friendships. Challenge each other. Get a little more honest as time goes by. “A real friendship,” writes social media questioner Jaron Lanier, “ought to introduce each person to unexpected weirdness in the other.”²☒

Go to school sometimes, if your district’s policies allow. Eat lunch there, be in the choir, be a teacher’s aide, go to assemblies. See the section “School as a resource” in Chapter 18 for more on this topic. (I know of a college student, majoring in sociology, who routinely eats in a high school cafeteria to watch people interact in their high school ways.) And you can always hang out at other schoolteenager hangouts, if that’s your style.

Visit your closest Liberated Learners centers, democratic free schools, etc. You may find a great fit—both a welcoming community of peers, and also a staff that actively supports your interests without pressuring you into anything—and decide to enroll. Even if you don’t sign up, perhaps you can connect with other youth there.

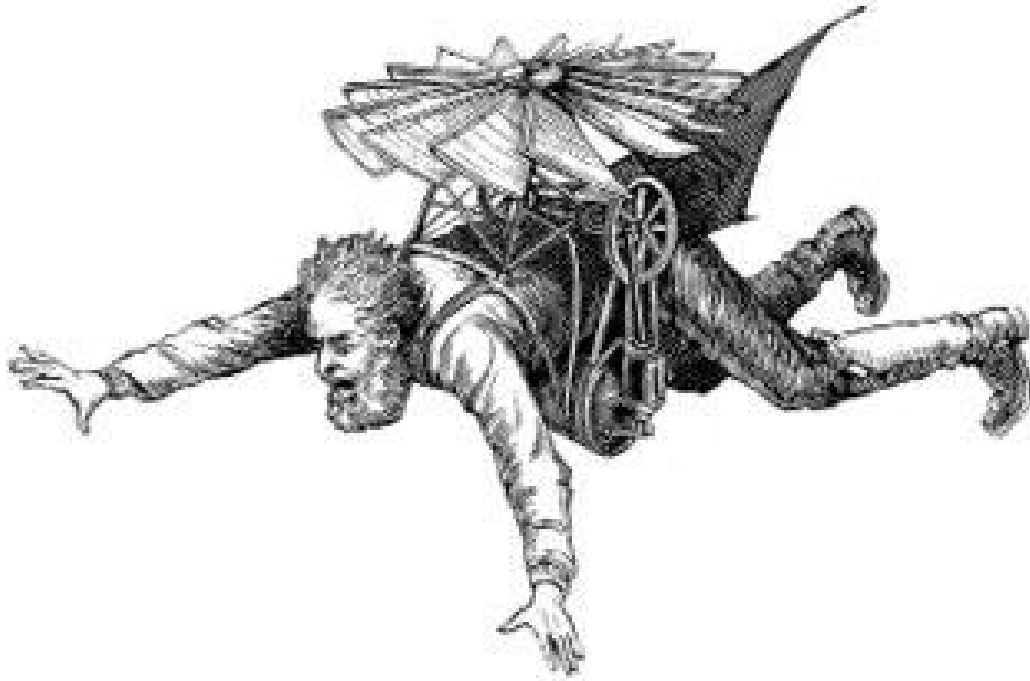
See your family in a new light. Cultivate your siblings and parents as friends.

Free yourself of schoolish prejudices. Don’t cheat yourself out of potential friends because of the clothes they wear or the makeup they don’t wear. A shared sense of

taste and style is a legitimate part of some of your friendships, but there's no reason all your friends have to look like you.

The best solution of all: Get your friends out of school!

14. adults in a new light



You cannot teach a person anything; you can only help him find it within himself.
—Galileo Galilei

Now that you don't have to obey teachers and hall monitors, maybe you can start some healthy relationships with adults. Adults can be your friends, buddies, jogging partners, and other "equals." Since you already know about friendships among equals, I see no point in explaining How to Make Adult Friends. If you spend time around adults—in chess clubs or political campaigns or marimba bands—you will convert some of them into friends. Thirteen-year-old Mylie Alrich points out that when you don't go to school, "the line between 'kids' and 'grownups' is almost not there."

It is also valuable, however, to have unequal relationships with adults. To reach your fullest potential you need mentors, role models, and teachers. That's not just because you're a "kid." Adults also need mentors, role models, and teachers to reach

their fullest potential. No one should be bossing you around or giving you unsolicited report cards, but these guides can help push and encourage you to do things you might not be gutsy, determined, or skilled enough to do on your own. If you're seeking any type of guidance, Susan Shilcock's experience (shared in GWS #112) may be helpful:

We almost always start new experiences as experiments. That helps us define more clearly what we want and what parts of the current arrangement are on target. . . . Though many of our short-term experiments have ended up lasting much longer, proposing the idea as short-term makes it easier for the adult to say yes. . . . We look for people actively involved in their area of interest. We look for an artist, not an art teacher, a Spanish-speaking person, not a Spanish teacher, a wood worker, not a shop teacher, a chemist, not a chemistry teacher. (Of course, sometimes these are one and the same.) Second, we look for people who see themselves as learners. Generally, if someone believes that he has a complete body of knowledge, he tends to be less enthusiastic and more rigid about how he shares his information. On the other hand, people who view themselves as just further along the spectrum of learning about their subject will share not only their expertise but also their own challenges and confusions.

Teachers & tutors

are a straightforward category—people who share their knowledge in a specific area. You may or may not admire them as people-in-general. You do need to admire their expertise in whatever they're teaching you, or find a different teacher. Some teachers become more than teachers: mentors or role models or friends. But it's fine to have a teacher simply to learn particular things. Teachers may not teach a class or formal lessons, of course. Jonathan Kibler writes in GWS #74:

Besides my dad, there are three people in particular who have helped me learn more about computers. First, Mr. Warner was my 4-H Club instructor. He taught me the most commonly used BASIC words [and commands]. Also, he taught me about flow charts. Knowing about flow charts helped me to write my own programs. He also introduced me to some new programs. Before I met Mr. Warner I knew nothing about computers; I am very glad that I met him through 4-H.

Second, Mrs. Penn is a computer instructor at a school. She goes to the same church as I do. When she found out that I was interested in computers, she invited me to work on them with her. Almost every Sunday after church I go over to the school with her and work with the computers in the classroom. I play computer games and write programs. I enjoy these Sundays very much. Mrs. Penn has also lent me books about computers. Through her, I have gained more appreciation for what computers can do. I am happy that she takes the time to allow me to work with her.

When I first got my own computer, I didn't know how to work any of the software. I found out that one of the dads in my YMCA Trailblazer group, Dr. Loader, had the same computer and printer as I did. He offered to help me figure out some of the software. I had a lot of questions about word processing programs in particular.

Dr. Loader happened to have a word processing program that was easy to use and he copied it for me. He also spent a lot of time answering questions for me over the phone—and in the beginning I had a lot of questions! He invited me over to his office so that he could better explain how the programs worked. Once he even came over to my house on his lunch hour to help me print a file. I'm really grateful for all the time he has given to me.

Role models

are people you admire, often from afar. You watch what they do and how they do it. You study them to see what you can learn from them. You can have role models in the career you hope to go into, or role models for life-in-general. By giving you a picture of what's possible, they help you to challenge and guide yourself. They can be people you know—like your parents, or people in the news—like Beyoncé or Barack Obama. Young people, of course, can also be role models. Role models don't have to know you exist in order for you to learn from them.

Guides

Adults can be spiritual leaders like gurus or rabbis or priests or priestesses, experts you ask for occasional advice or information, counselors, advisors. They can be teachers in unusual senses of the word: Australian unschooler Alex Banks-Watson says, "One of my favorite things to do is listen to adult conversations." In ancient Greece, philosophers wandered through the streets and countrysides with teenaged boys, engaged in dialogues about truth and beauty. In a talk at my college, the author and naturalist Barry Lopez spoke about Inuit people who have no word for "teacher" or "wise man" but instead recognize people who play the role of "Isumataq." The Isumataq does not teach or preach, but in his presence, wisdom is revealed. Look for similar possibilities and nuances in your own relationships.

Mentors

are people who pay you a lot of attention and give long-term help, advice, guidance, and support. Depending on their style, they might also give a push when they think you're not challenging yourself enough. Eileen Trombly shares in GWS #18:

Amy, fourteen, has taken ballet lessons from an older woman in town and has developed a unique, warm relationship with her over the years. The woman is now in her eighties, still participates in dance, and has a very interesting past which she shares with Amy. The lesson is one-on-one so there is always much time for sharing and feeling relaxed in each other's company. The teacher was once a ballerina in the New York Ballet Troupe; owned a theater with her husband, who was in vaudeville; was daughter-in-law of a former Connecticut governor; and was acquainted with Anna

Pavlova. She has much to offer in the way of experiences, and her polished yet friendly manner has served to influence Amy in a very positive way.

And seventeen-year-old Sarabeth Matilsky, of New Jersey, writes:

It was the autumn of '95, and my mother and I were sitting at our dining room table with the hateful blue book in front of us. Sighing with frustration, I was trying to understand active and passive verbs and what makes an object "definite." These daily sessions with Warriner's English Grammar and Composition were definitely not introducing me to the joys of the English language. Though we continued to work with the book for a while more, after a month or so of discouragement I wrote to Susannah Sheffer [editor of GWS]. I asked her if she had any ideas for me—books to read, stuff to do, anything besides that dreadful book. She wrote back with suggestions, and she also offered to critique my writing if I wanted her to.

So, for over a year now I have been sending her my essays and articles, and she has been sending me her comments, suggestions, and answers to questions. I have written more in the past year than I ever did before, and think that is partly because I always had someone to show my work to. It's great to be able to do that, I discovered, because even if I never end up doing anything with an essay (like getting it published), I learn a lot in the process and I have an audience of at least one thoughtful person. She is always respectful, and in return I truly value her comments. I've been having so much fun writing to her, and now when people ask me how I study English, I can truthfully tell them that I do it by "correspondence"!

You don't need a mentor to have a nice life. And not everyone who wants a mentor finds one. However, people who do have mentors say that the relationship helps them grow and succeed much more than they could on their own.

If you'd like to have a mentor, how can you find one? Patiently. Mentors are not as easy to find as adult friends, teachers, tutors, and role models. You can't just hire one—or rather, you can, but many adults who think of themselves as ready-made mentors are best avoided. A mentorship may develop naturally out of an existing relationship:

If you love music, perhaps you take piano lessons, and over time, you grow closer to your teacher. Eventually, he begins to take a more personal interest in you, and one day you realize you have a mentor. After you've been leading tours at the science museum for a few months, the director asks you into her office for a cup of tea. It turns out she knows all about stars, and when you tell her you've been learning to identify constellations, she invites you on her next telescope outing. Two months later, it's clear that she has become your mentor.

There is no quick formula to follow; like most important human relationships, each mentorship will develop uniquely and at its own pace. In *Professional Women and Their Mentors*, Nancy Collins cautions:

When you find the right mentor, you never actually say: "Will you be my mentor?" . . . Mentor relationships take time to develop. . . . The relationship seems to begin when the mentor is both supportive and demanding, and the mentee feels stretched and appreciated.

If you know someone you think would make a good mentor, encourage the relationship in that direction. Tell them you admire their work. Show your appreciation for any time they spend with you. Ask their advice. Watch for small ways to help. If they teach classes, sign up—and put focused energy into your work. If they enjoy the role you are quietly creating for them, they will start to share initiative for developing the relationship. If not, they'll back away. Be sensitive. Don't force.

If you don't yet know anyone you'd like to have as a mentor, get more involved in what you love, and meet lots of adults—potential mentors. Take a pottery class; volunteer at the zoo; join a writers' guild.

An ideal mentor is good at what she does, and other adults respect her. Your feelings toward her, of course, are the most crucial. Nancy Collins writes, "In selecting your mentor, you should try to choose someone for whom you feel admiration, affection, respect, trust, and even love in the broadest sense."

Some of your former school teachers have excellent mentorship potential—if they have the time to develop a relationship. Also, of course, they must have expertise. Forget teachers who are obsessed only with "teaching" itself, and not entranced with their subject. Avoid attaching yourself to someone who wants mainly to "help you grow up" or some such slobbery vague condescending controlling rot.

Don't forget old people. With time on their hands and a lifetime of experience, they can make splendid mentors, enriching their own lives as well as yours.

Mentors need not be sugary effusive types who encourage you to do what you feel like doing and exclaim that everything you do is wonderful. I often work best with demanding people like Pat, my flamenco teacher, who snapped, "Again! Lift your chin! Bend your knees! Faster! Don't look at the floor!" But if you prefer the sugary effusive type, that's fine too. Encouragement and warmth may be exactly what you need.

Once you have a mentor, relinquish a bit of control. You picked somebody you trusted, so now try what they suggest. Take the risks they ask you to take. Let them push you onto your tightropes.

Finally, think about your end of the bargain. How can you return your mentor's generosity? Offer to clean her house or type her novel. You will never completely pay her back for her gifts, and she won't ask you to, but one day you can obliquely return the favor by sharing your own white-haired expertise with some wild teenager.

15. starting out ~ a sense of the possibilities

Self-determination is about the many varied decisions that we make to compose and journey toward ourselves, about the audacity and strength to proclaim, create, and evolve into who we know ourselves to be.

—Janet Mock

Soon we'll talk specifics: where to comb through treasure chests of historical documents, what other unschoolers have learned about finding volunteer positions, enticing ways to engage with math whether you already love it or already hate it. Before we investigate that territory close-up, let's consider the big picture: the role of time and scheduling in a free person's life, and other essentials to keep in mind while you select from your nearly-infinite options.

A different kind of time

Don't be a factory. Find your own pace. Do a few things well instead of everything poorly. Big undertakings—like starting a town orchestra or seeking to thoroughly, intimately understand a complex theorem—do take time. If you love your big undertakings, that time is never wasted. And if there's something you've dreamed of doing in “the future,” dream of doing it now.

A different kind of structure

The homeschooling community talks about structured versus unstructured learning. Although there is no such thing as a completely structured or a completely unstructured education, these concepts are useful for thinking about how you want to organize your life. During “unstructured” moments you let life happen, keeping your eyes open and learning from whatever you happen to do. In “structured” periods you make life happen, planning and setting goals. Which is best? There are plenty of respectable votes for each. Most people need both, with the ideal proportions changing over time, or going through cycles.

An unstructured education frees you from unnecessary boundaries between life and learning. It allows you to follow your inclinations, reading only when you are hungry for words. It invites you to soak up the universe by swimming in the river without telling yourself, “I should be thinking about the natures of the currents, and the names



of the potential fish near my feet, and the dead poets who wrote about water.” Perhaps it meshes with the teaching of Zen masters, Indian gurus, and ancient Chinese philosophers who ask their followers not to strive, not to battle life, but to instead surrender to its flow. Many people find that this way of engaging life doesn’t suit them day in and day out, but that it makes for excellent short-term breaks—every Wednesday, or a week at the start of each season. It’s also an ideal way to approach the mandatory vacation at the start of your unschooling career, as described in Chapter 11. And whenever you’ve completed a big project, taking some substantial unstructured time is a great way to rejuvenate and make way for new possibilities. (More about that in a moment.)

A structured education, on the other hand, is what you want when you have a goal or if you enjoy being methodical. After all these years of living with other people’s curriculums, it can be thrilling to design your own. You can be as formal, rigorous, and organized as you want, far more so than school if that’s your preference. And don’t assume that structure has to be school-style structure. Center your plans around whatever you like. For some unschoolers, structure consists of five or more hours of daily music practice. For others, it consists of a full-fledged website design business, or nonstop reading, or tinkering all day long with electronics.

You can set big or small goals—finishing a math textbook by a certain date, writing a letter to the newspaper every week, writing and illustrating a children’s book during the fall, completing an inventory of local tree species before Earth Day, emailing three people each day until you find an apprenticeship you like. If you take this approach, you will get things done. Barbara Sher’s classic book *Wishcraft* can help you set epicurean goals and reach them, although she writes about life, not education, which may confuse you if you don’t yet realize they’re the same. (New books about how-to-reach-your-goals come out every year, and some of them, too, are excellent.)

This is the sort of structure which serves your desires (I want to build a windmill so I will do this, that, and the other thing) instead of your sense of guilt (I should study chemistry every day for forty-five minutes). Obviously, you are going to learn plenty by setting out to achieve your goals; in the windmill department that’s going to include physics, carpentry, geography, and probably history. If your goal is writing a book on unschooling, you’re going to learn about the homeschooling movement, the publishing industry, library research, original research, law libraries, words, and fear. If your goal is to restore the neighborhood swamp to health, you’ll learn about chemistry, biology, politics, economics, your own muscles, and organizing people. Reanna Alder, fifteen, says, “Most of my learning is done in the name of life or challenging myself rather than education. For example, I think I would be happier and would feel more capable and presentable as a writer if I knew I could spell better, so I work on it.”

Regardless of how goal-oriented or structured you want to be in regards to your “education” per se, I strongly suggest that you establish a reliable rhythm to your overall life. Go to sleep and wake up at roughly the same times each day, make your bed and get dressed (in clothes you love, of course!) in the mornings, get in the habit

of working on your favorite projects at the time of day when your mental energy is highest. Most people are much happier, healthier, and calmer (not to mention more productive) with this kind of positive order in their lives. And although it's hard (often impossible) for self-directed people (of any age) to force giant changes to our schedules all at once, it's easy to tweak them little by little. Take time each month to reflect on how your days go, and how you want to fine tune them. All of this will be fun rather than frustrating if you learn about how our habits basically run our lives. (I recommend James Clear's blog and videos, and his book *Atomic Habits*, which offer excellent support for living the lives we want to live.) And then be ready to re-invent your schedule whenever something shakes up your life—you begin a part-time job, your best friend goes away to college, there's a pandemic, you change your mind about future plans, you receive a grant to start a food forest downtown.

If you are confused as to how to structure your life, here's one way: actively focus on academics for two hours daily. (Not necessarily lots of subjects, or the same ones every day; you are not going to dry up if you don't do forty-five minutes of "social studies" tonight.) Do some kind of interesting work or project for four hours. In the rest of your time: read, see friends, talk with your parents, play soccer, make tabouli. Take Saturdays and Sundays off. Sound arbitrary? It is. I made it up, although it is based on a loose average of the lives of a hundred unschoolers, most planning to start college around age eighteen. Once you try this schedule for a month, you will know how you want to change it.

If you like participating in programs and doing academics in groups with adult leaders, consider thinking of your summers as hardcore "education" time—you'll find lots of interesting "enrichment" opportunities which are more fun and productive than school. Then spend the winter making holiday feasts, hibernating with a stack of epic novels, ice skating, visiting favorite uncles, painting murals on your ceiling.

Possibly, you'll need a structured plan because your state laws require one. If so, scour Chapters 20 through 24 for ideas and then try two brainstorm:

1. List the subjects you have to cover. Write down ways you might like to engage each. List resources that sound intriguing. Ask your family and friends for suggestions.
2. List your most important interests. Consider how academic subjects could be related to each. If you love horses, your horse list might look like this:

Language Arts/English: Read *National Velvet*. Write a profile of a local horse breeder. Write poetry or stories from a horse's point of view.

Social sciences: Conduct a study of careers related to horses. Look into why so many young girls are intensely interested in horses, by conducting a survey. Read about the influence horses have had on cultures around the world, such as the culture of Plains Indian tribes. Stay on a working cattle ranch for a week.

Science: Learn about horse anatomy, diseases, and biology. Find out about the evolutionary history of horses. Learn to use a microscope to diagnose horse diseases.

Art: Draw horses. Make a saddle or other tack. Produce a documentary video on horse care or horse races.

Here are some comments and morsels of advice from unschoolers. In GWS #22:

This past year, we got away from correspondence schools altogether, ordered our own texts (for math only), and really got unschooled. . . . My daughter (thirteen) now studies totally independently, with only occasional help in algebra, or help with a Spanish conversation. Her progress is really astounding, too. She reads more than ever, and does about three times the work that she did in regular school—by choice. I guess that once we eliminated all the busywork, she discovered how much fun learning can really be. She is once again eager, sets her own schedule, and still manages to get so much done that it is truly astonishing. The changes in her have also been very beneficial, because, as she controls and uses her own time, it has matured her and made her very responsible and sensible.

In GWS #35 a brave mother writes about her teenagers:

What do they do all day? Why is it that I don't know? Why is it that I don't care? We don't keep journals or go on field trips or categorize the day's activities into subject areas. I can't stand the dead smell of all those fakey thought-up things.

And Borgny Parker writes about unschooling her daughter Abigail:

We started off thinking that we would be following the public school day at home. That did not work well at all. Both David and I saw the need to keep our distance because we were putting Abi under the same pressures she was seeking to avoid. What evolved was our own blend of non-schooling, I guess. We saw Abigail take off in different directions by herself.

Halee Shepler, eleven, of Venezuela, writes:

The way I do my schooling is by answering three questions each year:

1. What skill do I want to learn?
2. What question do I want to answer?
3. What big problem do I want to solve?

Usually one thing leads to another. For example, one year I wanted to learn how to train my horse. This led to the big question: "How do individuals and cultures change?" One day when my instructor and I were working with my horse, she asked another rider to jump him without my permission. When my horse refused the jump, the rider beat my horse. So I wanted to solve the problem of animal abuse. I started to search for resources. In *Horse Illustrated* I found an article about Tellington Touch Equine Awareness Method. I wrote and I got information.

This led to a new problem that I want to solve. Linda Tellington-Jones wrote about the work at the Paralympic Games. I told my friend who is blind and does jumping

about the Paralympics and she was interested in entering the next competition, but there is no committee in Venezuela. I am helping her in this. So you see how one thing leads to another. I hope to be a TTEAM practitioner some day, after completing the two-year program for horses and companion animals, and work in therapeutic riding.

After Eva Owens left “one of the so-called top public high schools in the country” after ninth grade, she wrote in GWS #105:

I am by nature very unorganized. I decided that with homeschooling, I wanted to be somewhat organized to learn what I wanted to learn. Also, when I wrote up my homeschooling plan, the school wanted me to set objectives that they could follow up on. So way back in September I set goals for myself for the year. By December I decided that I needed a little more guidance than that. So I sat down with Leslie [an adult friend], and with her assistance I set my goals for the coming month. Ah, but that was not enough for Eva, the procrastinator. Now in April I’ve become quite content with the routine of, after eating breakfast, writing down what I want to accomplish that day, with thought to my monthly goals. This has turned out to be best for me. At the end of the day I can see the results of my work and can see what I have not done. It’s very clear cut that way.

Christian McKee, of Wisconsin, writes:

At the age of eighteen and as one who has never gone to school, I realize that somewhere during the past five to six years I’ve come to think of myself not as a homeschooler or as an unschooler, but simply as who I am, Christian McKee, citizen and community member. My life, except for the few times my parents doubted their own belief in unschooling, has essentially been mine to structure and live as I have chosen. In the past eighteen years I’ve dabbled in a little bit of everything: radio engineering, juggling, skate boarding, cross country skiing, foreign language, singing, make-up design, fly fishing, all sorts of unusual things. While it seems that unusual things interest me, I think it could be said that I am pretty intellectual by nature. When I’m interested in something I study it in detail. For the past four years I’ve focused my life around my interests in choral music, fly fishing, radio engineering, and the study of foreign language.

While each of these endeavors has taken on a significant role in my life, I’m not sure that any one of them will become the way I make a living for myself. My fishing has offered me opportunities—my own small business, travel and work in Montana, instructing beginning fly tiers, being a demonstration fly tier at regional conclaves, served as a board member for a regional chapter of the National Federation of Fly Fishers—but I’m not sure that I will continue to center my life around chasing the elusive trout with a stone fly nymph. Fishing has expanded my outlook on life and offered me opportunities to experience what a less traditional life style might offer, but my experiences with singing and foreign language have also opened unimagined doors. Through my work with singing, German and French, I’ve been able to travel (locally and internationally), teach young students German and study at the university. My small taste of university life (I’ve taken German courses, a literature and a writing

class) has whetted my appetite for more concentrated academic studies. As a result, I've applied to and been accepted at Kalamazoo College. My plans for the immediate future are to continue, for one more year, as a special student at the university of Wisconsin, possibly live in my own apartment and then move to Michigan for college. What can I say, this is just how my life fits together. As I said earlier, it has little to do with unschooling, homeschooling or schooling of any kind and more to do with being myself and how I choose to live my life at the present time.

Gwen Meehan, mother of unschooler Patrick, writes:

Last year was licking wounds and healing time. We both put much more emphasis on structured learning. We "did History, English, Algebra" and other "school" things. It was fine and necessary for that time. Over the summer, however, I read all my back issues of GWS which highlighted homeschool information for older students. By the time I had finished, I realized the overwhelming consensus was: get off the formal education road entirely. Every parent and every child backed up the idea of simply letting the student direct his/her own education. My role would be "facilitator." I did not have to worry about "teaching a curriculum," no matter how loose. This has been the proper direction for us. Patrick is developing wonderfully.

Other parents write:

"The only books we steadily use are math books, because math is easier to stick with if we use a specific book. I really prefer the Saxon method and he does too."

"Throw away the textbooks, tests, and timesheets."

Teenagers write:

"We study reading, math, language, spelling, social studies, and science. We stuck close to [our] textbooks for our first two years. This was no different than being in school, and caused a lot of stress for all of us. It was also boring!" (The writer now uses textbooks only for math.)

"If the school sends you a curriculum guide, ignore it. You'll learn a lot more going at your own pace."

"Don't try to imitate school. Take areas you are interested in and learn from there. Find adults who know about subjects you are interested in and learn from them."

"Don't schedule yourself too tightly. In school a lot of time is spent just moving from class to class, being counted, disciplined, organized. You don't need to structure everything. Be relaxed. Take time to talk. Take time to think. Do nothing sometimes. Ask questions. Don't force learning. Some days you're just not in the mood, other days you don't want to stop."

Focus . . . and rest

Allow for periods of incubation and mulling, as well as productivity and grand achievement. These cycles operate on their own time, and it's best not to rush. We acquire a significant new interest or begin a project; we muddle or leap along; we run into boredom, difficulty, or other challenges and decide how to handle these challenges;

ultimately we bring this pursuit to completion or perhaps to a plateau—or we choose to let it go. Then, before taking on the next big thing, it is often natural and wise to allow for a fallow period during which our roots grow. When (not before) a new green shoot emerges, off we go again. It is of utmost importance that we (and our parents and mentors) allow for this process to unfold fully.

Revel in your strengths, befriend your weaknesses

One of the obvious perks of unschooling is how it allows you to cultivate your unique gifts and talents. A lesser known perk is how it allows you to cultivate your unique difficulties. I suggest that you reframe your weaknesses as “growing edges,” and decide to steadily grow along those edges. Pick something that scares you and consciously choose to engage it—in a fun, ongoing, non-stressful, unrushed, yet bold manner—preferably at the same time every day for fifteen minutes or so. In this way you can befriend anything: trigonometry, meditation, skateboarding, speaking Mandarin, using power tools, playing the piano, writing thank-you notes. Once the monster has become an ally, pick a new monster. Meanwhile, continue to focus most of your attention on those projects and pursuits which capitalize on your strengths and interests.

Don’t drown in all the possibility

Some of us fall into the trap of trying to investigate all the options before settling on one—and that can be paralyzing, whether the end goal is to buy a pair of running shoes or pick a college. (I know, because I’ve fallen into this trap many a time.) As an unschooler you have nearly infinite choices, so it’s important to not spend your whole life fretting over the choices themselves. Define the criteria for each quest (like, a Spanish-language-learning app that is free, has good reviews, focuses on conversational skills, includes audio of native speakers, and that you can engage in ten- or fifteen-minute increments). When you find one that meets your criteria, stop looking. Sound like something you might have trouble with? Look up “satisficers” versus “maximizers,” and learn how to become more of a satisficer. Christine Carter’s excellent book *The Sweet Spot: How to Accomplish More by Doing Less* can help you stop overwhelming yourself in this way.

Go big!

Dream gigantic dreams, and then follow them. Start a cultural exchange program for unschoolers. Build a log cabin and furniture to go inside it. What you lack in skill and experience, you can make up for with time and patience.

Go small!

Sometimes the bravest and most effective actions are tiny ones. Sometimes the most intense and satisfying growth is incremental, even infinitesimal. Whether you're developing your capacity for mindfulness, or seeking to understand (not just "do") physics, small can be beautiful. Instead of fretting if you can't fly to Mumbai, get to know everyone who lives on your block. While you wait (possibly years) for your turn to raft the Grand Canyon, explore every inch of your own backyard. David Whyte's poem "Start Close In" is my favorite text on this subject. "Start with the first thing close in," it advises, "The step you don't want to take."

Help yourself with self-help

Proactive adults—intentional about living joyfully, co-creating great relationships, fulfilling their creative potential, and making the world a better place—frequently uncover their superpowers with the aid of self-help resources. If you, like me, find the weird descriptor "self-help" somewhat cringey, don't let that stop you from discovering this genre. Its strategies can be fabulous for unschoolers and other self-directed people of any age, not just adults.

Some of the masterpieces spring primarily from one individual's personal genius—they might be packaged as memoirs (Gretchen Rubin's Happiness Project, Henry David Thoreau's *Walden*). Or spiritual guidance (Iyanla Vanzant's *One Day my Soul Just Opened Up*). Or philosophy (William Irvine's *Guide to the Good Life: The Ancient Art of Stoic Joy*). Or business and leadership books (Stacey Abrams' *Lead From the Outside*, Stephen Covey's *Seven Habits of Highly Effective People*). Or reflective book-length essays (David Whyte's musings on work and love in *Crossing the Unknown Sea* and *The Three Marriages*). Or blogs (Leo Babauta's *Zen Habits*). Or diet and fitness books (Mark Sisson's *Primal Blueprint*). Or podcasts (*The Tim Ferriss Show*). Or even housekeeping books (Marie Kondo's *Life-Changing Magic of Tidying Up*).

I also recommend guidance that comes from data—that is, lots and lots of experience from lots and lots of humans. Not that others' experience can always predict yours, not that data is infallible or always interpreted—or even collected—wisely, but evidence-based resources do provide game-changing help for many people, in areas like:

When your actions don't match your intentions, what to do

If you're mildly depressed, anxious, or self-critical, what to do

Determining your life purpose

How to learn and memorize stuff more quickly and with less effort

How to get inspired when you're bored or unmotivated

How to best organize your days, weeks, months, and years

How to understand others, and work well together, such that everyone thrives

Basically how to be more creative, healthier, smarter, more loving, more productive, and happier.

My favorite data-fueled authors, speakers, and bloggers in this field include Brené Brown, Christine Carter, James Clear, Angela Duckworth, Carol Dweck, John Gottman, Jonathan Haidt, Daniel Levitin, Jim Loehr, Gretchen Rubin, and Wendy Suzuki. The TED website is a great jumping off point for finding more.

Remember your adolescent power & magic

Don't spend all your time on mental stuff. It's not natural. You have your whole life to be academic. You have only seven years to wiggle and dream in a teenaged body.

Life doesn't get worse, but it does get less intense. Things become less new, and hormones stop raging. So honor and treasure your passion now. I'm not telling you to act on your every whim or to do stupid things like get pregnant when you're not ready to be. I am telling you to cling stubbornly to your yearnings, not to be talked into any imitation reality, to fall in love with people, and, as Thoreau put it, to suck the marrow out of life.

Take in & give out

Here we throw the spotlight on the concept of balance.

Some things we do are outward—giving, creating, producing, working, speaking, taking action. Others are more inward—receiving, consuming, relaxing, listening, absorbing, digesting. We need both. No one speaks wisely without having listened. No one can listen happily if they aren't heard also.

When it comes to structuring a life, we need to integrate both modes—giving out and taking in. Learning happens in each, to the degree that you are awake and present.

Most youth are coerced into too much taking in. Restricted from working or otherwise contributing to society, forced to read and listen all day, they are desperately dependent, useless, and passive. Their lives are out of balance.

Many adults, meanwhile, feel pressured to do nothing but give out—the workaholic executive who feels like a failure if he doesn't advance continually in his career, the classic-tragic mother who drives her four kids to ten kinds of lessons and cooks three color-coordinated meals daily but has no time to take a photography class or digest her own food. These lives, too, are out of balance.

People need balance. If we don't find it in a good way, we'll get it in a superficial way that hurts ourselves and the world around us. Some adults work at stressful, well-paid jobs but don't feed their minds and spirits, so they switch into another mode—buy, buy, buy. Bad for personal growth and bad for the planet, which is what gets used up when people buy things they don't need (or even deep-down want).

Conversely, teenagers who aren't allowed to affect the world or achieve independence in a positive way often resort to yelling at their parents, insulting their teachers, smashing somebody's feelings on social media or in a YouTube comments thread,

vandalism—anything to make a difference. School denies your basic need to touch the world, to contribute, to matter.

So be sure to make time for “giving out” activities like starting a business, directing a play, or volunteering at the soup kitchen, and “taking in” activities like watching the news, reading, or going to hear a historian speak at a museum. When you escape school you’ll probably want a more active life that affects the world around you, but don’t starve yourself by shutting off the inward flow. Leave yourself time to stare at the fishbowl or linger at dinner. The Tao Te Ching reminds us, “For all things there is a time for going ahead, and a time for following behind; a time for slow-breathing and a time for fast-breathing; . . . A time to be up and a time to be down.”² ☒ If you were a bike, you’d have at least ten speeds. Shift gears as needed.

What’s ahead in this book ~ education, work, & lots of real-life examples

Part Three, Chapters 16-30, will talk mainly about what you can soak up, or the “education” part of your life. Part Four, Chapters 31-37, is about touching the world, “work” stuff. Throughout both sections, I’ll share a lot of examples from unschoolers’ lives. Here are some things to keep in mind as you encounter these anecdotes.

Be inspired and emboldened, but not limited. Pursue your vision; don’t copy someone else’s life.

Don’t be intimidated! If some of the people here sound more mature than you, it’s not programmed in their genes. For many unschoolers, a more proactive, engaged approach to life develops naturally as a side-effect of experiencing more freedom and power. (Plus, if you’re thirteen reading about a seventeen-year-old, take that into account.)

Do the people in this book sound more “gifted” than you? One thing that unschooled teenagers and their parents have continually emphasized to me is that they do not consider themselves gifted or otherwise inherently different from ordinary people. And for the most part they’re not, except in one essential sense—they’re gifted with time and trust. If you are quitting school, these gifts can be yours too. With them, anyone can develop expertise and a wide range of happy interests. Many unschoolers spent disastrous, unpromising years in school before they bloomed outside of school.

Here’s an example of the sort of person you’ll encounter throughout this book: when Kevin Sellstrom was fourteen, he volunteered at a school for people with intellectual disabilities and took piano lessons. His academic work included math, history, English, and science. As a Boy Scout, he worked as a den chief, assisting a group of first-through fourth-graders. In his own troop, he was a Senior Patrol Leader responsible for planning activities. Also:

I am relatively experienced in repairing gasoline engines on cars, as well as bicycles, tractors, and other mechanical equipment. I learned these skills by watching my dad

and other people when they repaired machinery. I like to build power supplies and other electronic and electrical devices that may or may not have particular uses.

In earning my amateur radio license, I had to learn to send and receive Morse Code as well as electronic theory and on-the-air operating techniques. As an amateur, I participate in radio nets as well as talk to other amateurs in person. My dad earned his amateur radio license ... and has taught me much of the electrical and electronic theory that I know. He earned his license when he was fifteen and I earned mine at the age of thirteen.

Kevin's mother, Bonnie Sellstrom, wrote me, "I should emphasize that our boys are not gifted. They simply have a curiosity about life and living that we have not tried to squelch. When a question is asked we try to find an answer to meet their needs."

Later in this book you'll meet Ishmael and Vita Wallace, talented young musicians. Their mother Nancy wrote a wonderful book called *Better Than School*. In a review, John Holt said:

Many school people [say] that home schooling parents like the Wallaces, taking their talented children out of the schools, leave them [the schools] to struggle along with the less talented. . . . The answer . . . is that it is as sure as anything can be that neither Ishmael nor Vita would have been stars in school. Not only would they have done very badly in most school subjects, but they would almost certainly have had all kinds of damaging psychological labels stuck on them—Learning Disabled, Psychologically Disturbed, the whole disgusting package. The school would have seen them not as assets, only as problems, and would probably have convinced them that they were nothing but problems.

In fact, Nancy reports in *Better Than School* that before she took Ishmael out of school, his first grade teacher had this to say:

Ishmael does seem to have a problem with listening skills. . . . I've been playing a record that gives the children instructions on how to follow specific directions, and Ishmael invariably gets lost. His hearing appears to be normal, so I'm just not sure what to do. He also has a problem grasping "whole concepts." For example, if I read the class a paragraph, he can't tell me the main idea. He gets too involved with all the little details. I'm thinking that maybe we should have Ishmael tested, just in case we discover some kind of developmental problem. Then we can send him to the resource room for, say, ten minutes a day, so they can help him.

Maria Holt tells in GWS #35 about the time the education department officials came to visit her family's homeschooling operation. They were impressed, and Maria reports, "One of them said to me as they took their leave of us, 'You have unusual children.' I returned, 'That is where you make your worst mistake.' And I meant it. Our children are 'average.' There is not a genius among them."

"What amazes me," writes Penny Barker in GWS about her kids,

Is that these are not "gifted" children—they spend most of their time doing what they want to do (after chores, that is). In the winter we do structured studies for a couple of hours each morning but that's about it. Most of their learning is completely

spontaneous. As I write, Maggie and Britt stopped by the orchard (where I'm typing) to tell me they are going off to the woods to look for a doe Britt spotted this morning and to spot birds and record their calls on paper. . . . I could go on and on about my average kids and their wonderful growth. It seems they have simply more time to grow and develop than other children I know who have probably more potential but so much less time to realize it because they are always stuck away in a school building.²☒

On a different note, I hope you won't underestimate the multifaceted unschoolers whom I quote and describe. Don't dismiss them with, "Yeah, well, I take dance classes too, and I go to school." Naturally, going to school doesn't mean you can't also do other things. But the question of time and energy is a big question. People who go to school and want to focus on outside interests and weren't born with a genetic propensity to extreme genius have several choices:

Skimp on homework time, turning in work which does not reflect their full abilities. End up feeling guilty and humiliated.

Treat their personal interests as secondary, devoting only a few hours each week to them, or pushing them into weekends and vacations.

Sacrifice time with friends or family.

Sacrifice sleep or relaxation time. Get stressed.

Take "easy" school classes which do not require homework (and which may be boring, and which will not impress admissions officers of selective colleges).

If you already live an amazing life that includes school, you can live an amazing and more relaxed life without it.

*

I'll give a lot of suggestions throughout the rest of this book. That's partly to paint a picture of what's possible and partly to spread the word about resources I think are splendid—and, also, it's partly to bridge the gap of fear. You're used to being told what and how to do everything, so I offer ideas as a metaphorical hand to hold. But only if you want your hand held. If you're ready to figure out what you want and how to do it on your own, wonderful. Hesitate not. Your choices will inspire the unschoolers who follow. Hold your head high, and ride off into the sunrise.

Part Three: The Tailor-Made Educational Extravaganza

16. your tailor-made educational extravaganza

No student knows his subject: the most he knows is where and how to find out the things he does not know with regard to it.

—Woodrow Wilson

This next section is all about access to academia. Before you ignore this advice, or—worse—before you approach it with determined despair because you “should,” please listen: intellectual passion is for everyone. Maybe you don’t think so, because when they made you do worksheets in history, biology, or English, they stole from you the desire to investigate the past, marvel at caterpillars, or hear a good story.

Or maybe you don’t think intellectual passion is for you, because you know where your territory is, and it’s anywhere—under the hood of a pickup, in the cosmetics section of a department store—except in academia. But the universe is your territory. You don’t have to take a test to be allowed into the community of intellectuals. It doesn’t matter whether you used to get A’s or F’s. If you read slowly or have a small vocabulary, you can read slowly and savor it, and you can ask a person, dictionary, or Google about words you don’t know. If your father does nothing after work but drink Budweiser and watch TV, that doesn’t ban you from the poetry section of the library. If you do nothing after school but drink Mountain Dew and watch YouTube, that doesn’t ban you from the poetry section of the library.

Now that you’re out of school, why bother with academics at all? Why not just lie to yourself and write in your log book that you spent two hours yesterday reading *The Origins of Totalitarianism* and this morning you collected coyote poop to see what they’ve been eating?

Because if you soak up some of the sparks we call “knowledge”—in all their conflicting, mesmerizing, shocking, funny, logical, and illogical beauty—you will grow a broader mind, more capable of seeing the connections between things that make the world so mysterious and wonderful.

Because knowledge mixed with wonder shapes your mind into the interesting, lively kind of place you’d like to inhabit for the next eighty years or so.

Because if you don’t know what’s been said and thought and tried before you walked in the door, you may needlessly repeat someone else’s mistakes a few times before you contribute anything new. The world does need new contributions, which is one good reason the government has for wanting you to be educated.

Because it is not fun to be ignorant and confused.



Because if you know things and think about them, you'll free your mind of narrow prejudices and cruelties. (Another reason you do the rest of us a favor by getting educated.)

Because if you know why the Trojan War, the French Revolution, World War II and Vietnam were fought and what changes they led to, you can form your own opinion about what justifies war.

Because if you're a budding pianist, you need to understand the tradition behind you—not only the great pianists and composers, but also the roots of music in fire and ritual and mystery. Whatever you love, you will love it more truly when you understand its history.

Because skills—starting with the academic basics of reading, writing, arithmetic, and simple algebra—can give you control over your own affairs. You can write to friends, businesses, congresspeople, the public, the planet. You can read up on whatever you want to know about and manage your money. If you also develop drawing, physics, and advanced math skills, then you can design buildings, bridges, airplanes, computers. The list goes on, with gazillions more skills that can empower you across all of life's terrain: the ability to communicate in more than one language or to repair a leaky faucet, swimming, coding, coaxing a seed to become an onion.

Perhaps, also, to prove to your parents that your brain isn't mildewed from snooping around in the forest instead of sitting in Ms. Enquist's biology class.

How does it work?

Getting educated in the big, beautiful sense needn't ruin your day. If you wholeheartedly devote two hours each morning to reading and sometimes writing, engaging with science labs, wrestling with equations, or tackling other mental exercises, you will learn more than most people do in school—maybe lots more.

Of course, you may wish to spend more time on your favorite subjects. But don't feel obligated. After all, you never spent a lot of time learning in school. As Micki and David Colfax (whose homeschooled sons went to Harvard) point out in their classic book *Homeschooling for Excellence*:

The child who attends public school typically spends approximately 1,100 hours a year there, but only twenty percent of these—220—are spent, as the educators say, “on task.” Nearly 900 hours, or eighty percent, are squandered on what are essentially organizational matters.²☒

Academia in what you love

There are seven big fat chapters in this book which tell you how to study school subjects without school. They can help you learn about the fields you like—and discover that you like more intellectual stuff than you thought you did.

But you can also sweeten your life by giving your brain to the things that have your heart. Rather than look for activities and resources that fit into a subject, look at the things you already like (and like to do) and think about where they might take you if you didn't stop them. Your interest in airplanes, skiing, your favorite band, cute boys on TV, religion, baseball, computers, or dogs are perfectly respectable pillars around which to organize your "education." Your scrapbooks, obsessions, daydreams, collections, conversations, questions, and reading can all bring you into contact with the lushest, most meaningful kind of academia.

Want to steer your ship close to shore? Base your activities on what the schools are doing?

This book aims not just to get you out of school, but also to get school out of you. Yet I realize some self-directed learners (and/or their parents) like to keep tabs on what their peers are up to in school. They may not incorporate this information into their plans, but sometimes it's useful or anxiety-alleviating simply to know. And some new homeschoolers do take a based-on-school approach for a while, until they find their feet or their wings. Maybe you've decided just to experiment briefly with unschooling and want to keep your options open for seamlessly returning to school. Whatever your reason: how do you know what they're up to these days? Talk with friends or former teachers about what's happening in their classes, or contact your school district to find out what textbooks and materials they use for your grade level. Or take a deep breath and dive in to the complicated "standards" posted online by your state's education department. I like Rebecca Rupp's book, *Home Learning Year by Year: How to Design a Creative and Comprehensive Homeschool Curriculum*. Rupp is a scientist whose three boys homeschooled through twelfth grade; all went on to college and two have masters degrees. While she is thoroughly familiar with school standards, and doesn't deviate far from them, her book is delivered in straightforward language rather than the confusing eduspeak of governmental agencies.

How do you want to keep track?

Whether you plan to translate your activities into a transcript, college application, resume, and/or portfolio; or to bask in the satisfaction of a great set of clear records; or merely to fulfill legal homeschooling requirements: set up a system you like and get in the habit of maintaining it daily or at least weekly. It doesn't have to be complicated. Personally, I like the visual presentation of a portfolio, and you'll find plentiful websites where you can create your own for free. (One of the perks of joining a Liberated Learners center is access to their own software, fine-tuned for the needs of young self-directed learners like yourself. It showcases your activities in a gorgeous, consolidated portfolio, and also helps build a resume and transcript.) Or just try a log and spreadsheet, with dated lists of things you read and do. Keep your written work and other

projects together, whether that's in a folder on your computer or a box under your desk. Some people keep track through the Unschool High School website, designed to help you convert your experiences into a simple transcript.

College & the advice of professors

Many, if not most, new unschoolers plan to go to college. (Many later change their minds. When it becomes obvious that directing their own education is great fun and terribly effective, some of their upstart brains say, "Why spend the next four years taking orders and the following four—or more—in debt?") If you see college in your future, you'll find helpful information in Chapter 30. And in Chapters 20-24 you'll find bits of advice from college professors on what they would like their students to arrive knowing. I am grateful to these professors for sharing their views, and for the most part I think their advice is useful. As you read these comments, keep a few things in mind.

Most of these people teach in very selective schools, and their expectations are higher than those of professors at more typical institutions.

Note whether the professor is talking about students who expect to major in her field, or simply take a basic course. You definitely do not need to be an expert in every academic subject in order to go to college—even a selective college.

I asked these people what the ideally prepared student would be like, as well as the minimally prepared student. The ideally prepared student is rare—mostly a creature of professorly fantasies. When you read about the ideally prepared student in a subject you love, pay attention, but don't worry if you don't exactly match the profile. Honor the goals, but not necessarily the specific methods, recommended by the professors. Professors can be expected to know a great deal about their fields, but they don't necessarily know anything about homeschooling. So if they say, for example, that in order to take a college level course in history you need to have already taken at least two high-school level history courses, translate that to the equivalent of two high-school level history courses—which might involve reading both primary and secondary source history books, writing thoughtful essays and a research paper, participating in a serious online discussion group, and watching five movies about the Civil War and analyzing their different biases. Approach any history activity with focus and patience, and you'll be better prepared than peers who have merely passively taken "at least two high-school level history courses." Keep this principle of equivalence in mind when you communicate with professors or other academes.

The opinions of one or two professors, while certainly valuable, may not represent the opinions of most professors in that subject.

And finally: the professors' comments are, as of this third edition of the book in your hands, old. Our correspondence took place in 1990. But the core academic fields are built on centuries of inquiry, discovery, and tradition, and they are slow to change. (Not immune to change, of course—many disciplines are more data-driven now, and

there are other trends as well, like some institutions' fledgling quest to decolonize both curriculum and pedagogy.) I imagine that the same professors might put things a little differently if I asked now, but if I thought their overall advice was obsolete I would have removed or replaced it. You, naturally, are welcome to do with it as you like.

Keep your antennae unfurled

Most young children have a pretty good idea of what they like—but only in a general sense. They can't know about all the particular things they might like because they don't know about everything that coincides with their tastes. Long before I was six I loved dance class and dressing up in beads and skirts and swirling around at home. I grew up taking ballet and occasional jazz and tap lessons, and I enjoyed them. But it wasn't until college that I discovered international folk dancing, which hit much closer to home—and it wasn't until after college that I found belly dancing, which hit all the way home to my deepest heart.

The moral of the story is keep looking. Hela, a teacher and one of my heroines, says "Take a bite of everything so you don't miss something you could have loved." Ava, also a teacher and another of my heroines, makes a point of trying something new every year. When she was nearly sixty, she took up sea kayaking.

Be all that you can be

Your brain doesn't exist all by itself. In school your body got used to sitting still and suffering in the name of education, but you'll live longer, smarter, and happier if you deprogram that habit. Make sure your muscles and your skeleton feel good while you flex your intellect. Wear clothes that make you comfortable and happy; eat food that gives you bliss and energy; stretch a lot and take breaks to sprint around the block or dance to a Bob Marley tune; wear perfume just for yourself. Nurture your spirit too. I try to wake up early every day and walk down to the river while I reflect on life and make wishes for the day ahead. Find your own way of centering, preferably in the morning or before you begin any academic work—read your Bible or your Ram Dass, meditate, tiptoe through the tulips, weed the watermelons . . .

Stretch, but don't stress

As you can tell from almost any page in this book, I'm an aficionado of intellectual stuff. I think there are excellent reasons to expand our lives through reading, hard thinking, and other such endeavors. And I hope that some of my suggestions inspire you to thusly expand your own life. But I never want my enthusiasm to be experienced as pressure.

It might be a little sad if you quit school and then didn't read any challenging books, but not the end of the world and certainly no reason to despise yourself. How many

adults you know find two hours each week, let alone each night, to edify their souls through “education?” Okay, some went to college and supposedly learned everything they ever needed to know there, but how much of that do they actually remember?

I hereby proclaim that you are nearly guaranteed to improve your intellect by quitting school and finding something interesting to do with your days—even if you don’t make any effort to get “smarter.” With a healthy, relaxed brain, you’ll pick up useful and captivating knowledge about the universe simply by keeping your eyes open, staying aware of current events, watching some good movies, reading magazines in the dentist’s office, and asking people to explain things they say that you don’t understand. Many adults have forgotten what they learned in school, don’t attempt to organize their education any more than this, and get along fine. If you’re loath to finish *Moby Dick*, your time might be better spent journaling about what’s important to you in life, where you’re headed, and whether—and why—you think *Moby Dick* might have a place in that grand scheme.

Each person has their own clock. Though I got mostly A’s in high school, I learned little. I forgot things soon after tests because most of the curriculum meant nothing to me—so much for informed citizenship. However, as my interests broadened in the first few years after college, I effortlessly amassed knowledge in widely varied subjects. In other words, I suffered from a poor education when I was a teenager, but this poor education did not prevent me from opening my eyes and getting on with things a few years later. From that experience as well as my research and observation, I’ve become a staunch fan of patience in all things educational. If you don’t read now, you can read down the road when your hormones de-escalate. I hope you’ll seize this day in a manner befitting this time in your life—whether that’s memorizing Langston Hughes till noon, watching seagulls till dusk, or philosophizing with a soulmate till dawn.

17. eyes, ears, essays, email ~ strategies to learn anything



Learning is the product of the activity of learners.

—John Holt

To go about this extravaganza that you will refer to merely as an “education” when talking to the Authorities, you’ll employ a variety of resources and methods. By “resources” I mean stuff somebody else created, and by “methods” I mean the actions you take. There’s infinite give and take between these two, but it’s a useful distinction. In

this chapter we'll talk methods. In the next chapter, an overview of resources. After that you'll find heaps of suggestions for digging into specific subjects.

This chapter, then, is all about your personal power. Anybody who has a library card or an internet connection (or, amazingly, both!) already has access to an incredible wealth of resources that one lifetime can only just barely scratch. Such resources are wonderful and worth celebrating—we'll be celebrating them for many pages to come—but if you don't make it past this chapter, you'll be fine. Because although you will continually benefit from the expertise and generosity of others, everything that's actually going to happen in your education is going to happen inside of you.

In this chapter we'll survey some of the ways this might unfold. You've long been familiar with most of these activities. I'd like to invite them to the forefront of your brain to remind you of the agency and potent tools you already possess.

So: here are some strategies that can facilitate or enhance your learning in pretty much any area, whether that's a conventional school subject (like biology or history) or otherwise (like parrot-raising or Arabic violin). From time to time I hope you'll flip back to this list and experiment with something new.

Read

Regardless of what you read, reading is an activity. There are numerous ways to go about it, each of which has its place. Sometimes it's best to skim or jump around; other times to carefully read every word and maybe even reread, taking notes and mentally rephrasing the text as you go. Sometimes you're in it for the plot or the data, other times for nuances of meaning or implication. To level up your approach, try Mortimer Adler and Charles Van Doren's classic *How to Read a Book*. Susan Wise Bauer's *Well-Educated Mind* is also helpful. From the former:

In a conversation that a reader has with a book in the privacy of his own study, there is nothing to prevent the reader from seeming to win the argument. He can dominate the situation. The author is not there to defend himself. If all he wants is the empty satisfaction of seeming to show that author up, the reader can get it readily. He scarcely has to read the book through to get it. Glancing at the first few pages will suffice.

But if he realizes that the only profit in conversation, with living or dead teachers, is what one can learn from them, if he realizes that you win only by gaining knowledge, not by knocking the other fellow down, he may see the futility of mere contentiousness. We are not saying that a reader should not ultimately disagree and try to show where the author is wrong. We are saying only that he should be as prepared to agree as to disagree. Whichever he does should be motivated by one consideration alone—the facts, the truth about the case.

Reading also allows for a profound, extended, even life-changing connection with another human, dead or alive. "Books are solitudes in which we meet," says Rebecca Solnit in *The Faraway Nearby*.

Watch & observe

Train yourself to put down your phone and pay full attention—not just to a movie or your boyfriend’s karaoke moment, but also to the ordinary everyday—ants, rainstorms, humans on the sidewalk—and to the mini-apprenticeships that weave through your weeks: how your dad flips pancakes, how your aunt oils her tools, how the street-corner singer drops their gaze then suddenly looks up right into your soul.

When you’re hungry to learn or do more than time or energy seems to allow, integrate “learn-by-watching” moments strategically. When you start to lose focus in the afternoon, break for a TED talk. Before you get ready for bed, a documentary.

Listen

to your grandparents’ conversation, birds, whatever’s on the radio, people chatting on the subway in the language you’re learning. Depending on who you ask (or which internet article you read), there are four or six or so ways to listen, each suited for certain situations. For that subway eavesdropping adventure, you want mainly just to discriminate among the basic sounds of a foreign language, so that its auditory landscape becomes more familiar. In other contexts sometimes it’s best to listen critically, other times appreciatively, still other times dialogically or empathetically.

To get more done in less time, listen to an audiobook, podcast, or analysis of the news while doing something that doesn’t require focused attention—washing dishes or painting the shed you built.

Discuss

Bringing an open mind and talking with open-minded others is dynamic, stimulating, and fun. Converse with relatives, friends, acquaintances, neighbors, mentors. Form a study group that investigates Russian poetry or Latin American social justice movements. Host (or join) a salon—a regular discussion session, somewhere cozy with tea and scones. The Utne Reader proclaims: “Salons may be the antidote to the atomized and over-mediated lifestyle. . . . We need to get together and talk with each other about the things we care about and believe in. It’s fun. It’s hip. And it can change the world.”²☒

Collaborate

on anything, with anyone.

Compete

Hone your skills and connect with other aficionados by entering a competition—whether philosophy slam, video game challenge, poetry contest, or science bee. Try

searching for “competitions for high school students” or something subject-specific like “nature photography competition.” Check out the New York Times’ Learning Network student contests. Participate in local events like talent shows or science fairs.

Write

The “What I Did on my Summer Vacation” essay is usually rot, especially since when your teacher reads it she doesn’t have time to care what it says. Writing a mandatory essay comparing and contrasting the French Revolution and the American Revolution is also usually just busywork. But when you are interested in the similarities and differences between the two revolutions, writing a paper can be one of the best ways to develop and clarify your understanding and opinions—and to reveal the gaps in your knowledge. Writing can be a sharp tool that helps you reflect and draw conclusions on any experience or topic. You can write more precisely than you can talk, because you have time to organize and think through complicated arguments and ideas. A wonderful companion is William Zinsser’s book *Writing to Learn: How to Write—and Think—Clearly About Any Subject at All*. For high-level inspiration, find academic journals in fields you like.

If papers and essays are too formal or strenuous, write your thoughts about what you learn in an informal journal. Or make a zine, website, or blog.

Contact people & organizations you admire

politely asking thoughtful questions big or small. If they respond and invite you to write again, go ahead. Best to reach out to people who aren’t ridiculously famous. Instead of asking Alice Walker for feedback on your writing, ask whether you can send your best short story to a young novelist who has just published their first book—one that you think is great, but which hasn’t (yet) won any awards. Instead of competing for an internship at Spike Lee’s company, check out the work of local filmmakers. Your chances of a serious response are better this way—not because famous people are heartless, but because they are swamped. Email often works well; other times sending a message via social media is the best way to get a person’s attention. Unschooler Chelsea Chapman writes in GWS #69:

I write to a former U.S. Olympic Equestrian Team trainer who writes to help me with training and riding our horses. I started writing to her last fall when we were having trouble with the training of our Norwegian Fjord colt. I got her address out of a newsletter put out by the Norwegian Fjord Horse Registry and sent her a letter asking how she dealt with her Fjord horses. She mostly writes and tells me stuff about her horses and training methods and tack.

Get good at searching the internet & evaluating what you find

Learn to conduct advanced searches that don't just spew out the most-clicked-upon websites or tell you what you already know (and already believe). Get to know at least one other-than-Google engine. You can learn how to do all this by searching the internet, of course. But you can also learn it from books—I like Daniel Russell's *Joy of Search: A Google Insider's Guide to Going Beyond the Basics*. (As the title reveals, it won't explicitly point you beyond the G-matrix, but much of its advice is universally applicable.) The internet will continue to change and expand, so pause occasionally to deliberately find out what fabulous developments you're missing.

Use, analyze, & create visual and 3D tools

such as maps, models, charts, diagrams, and infographics. Search for “free data visualization tools.” To go deep, look up the work of statistician/artist Edward Tufte. Henning Nelms' *Thinking with a Pencil* is also helpful.

Experiment. Research.

Conduct your own research or help out with others': local grad students, somebody on the internet who needs help collecting data, or Audubon's Great Backyard Bird Count. If you keep track of your experiments—in cooking, chemistry, rose propagating, or marketing the app you designed—they become research.

Test yourself

Reclaim testing as a tool for self-diagnosis and a way to reinforce your memory, rather than as something nosy that others do to you without your consent. Think up your own ways to test yourself, take online quizzes, or use an app like Quizlet to design flashcards or games.

Do the math

Whatever you're interested in: calculate, model, analyze your way to better understanding. Math is its own subject, sure, but it's also a tool to use in any other subject.

Make stuff

A handbound book of the poems you wrote, an orrery, a Rube Goldberg machine, a hexahexaflexagon, stockings like your ancestors wore, a loaf of bread.

Copy & memorize masterpieces

Replicate science experiments. Copy out beautiful math theorems and proofs, symbol by symbol. Memorize a speech that changed the world or a poem that enchanted your friends. Handwrite a copy of your favorite short story or essay. Sing along with Aretha Franklin, Luciano Pavarotti, Freddie Mercury, Umm Kulthum, Nusrat Fateh Ali Khan. Copy exquisite paintings, gorgeously decorated cakes, intricately beaded jewelry, sleekly designed websites. (We copy as part of our own learning journey, of course, not to take credit for others' work.)

Start a collection

I once met an unschooler who was passionate about chemistry, had acquired samples of dozens of the elements, and spoke excitedly about his quest for more. If you get seriously into collecting, maybe create your own tiny museum—archaeology, skateboarding, local art, clothing from the 1940s. In college I lived in a natural history interest house. We filled a little back room with a charming disarray of rocks, shells, fossils, and dilapidated iridescent taxidermed birds. (You don't have to be rich or hired by the government to make a museum.)

Activate!

Whatever you're digging into, consider engaging it through the lens of social activism. Add adrenaline and purpose by figuring out how your studies can change the world for the better. If your community is oblivious to a nearby city's sneaky plan to dump PFAS-tainted sewage into your irrigation canal, read up in science journals and prepare a presentation for the next neighborhood meeting. When you're savoring Russian literature, write a blog post about Tolstoy, reflecting on the Christian heritage of fighting injustice.

Think

When somebody else is trying to get you to learn something you're not interested in, or to believe or behave a certain way, they will often try to manipulate the way you think to achieve their goals. That "somebody else" could be a school, a social media platform, or a religious or political zealot. When we shine a light on our own mental habits, and fine tune them in service of our own dreams, that's another matter. So we'll close out this chapter with techniques and resources that can pop brains out of ruts.

Deliberately think about a question or subject in different ways—play devil's advocate, brainstorm, consider "How would my Aunt Juanita solve this problem?" Try

Edward de Bono's Six Thinking Hats (both a book and website), which will invite you to wear the "red hat" of intuition and emotion, the "white hat" of data analysis, etc.

For a more elaborate survey of strategies, find the book *This Will Make You Smarter: New Scientific Concepts to Improve Your Thinking*. Editor John Brockman asked 150 scientists and thought leaders, "What scientific concept would improve everybody's cognitive toolkit?" Their responses are collected in essays like Richard Dawkins' "The Double-Blind Control Experiment" and Steven Pinker's "Positive Sum Games." (You'll find additional cognitive fodder at Brockman's Edge website.)

Malcolm Gladwell's book *Blink* shows why our snap decisions are sometimes the best decisions, and how to harness this power—the "adaptive unconscious"—and avoid its downsides (such as prejudice). Like all of Gladwell's books, it's a fascinating read.

"Systems thinking" is essential when you want to wrap your mind around something complex, like economics or pandemics or rainforests or climate or the internet or politics—or even a single human being in all their complicated glory. It includes concepts like feedback loops that accelerate change within a system (positive feedbacks) or that restore balance (negative feedbacks). The Systems Thinker website is a good introduction; try Linda Booth Sweeney's article there called "Guidelines for Daily Systems Thinking Practice." Donella Meadows' *Thinking in Systems: A Primer* is wonderfully thorough yet non-technical.

Regardless of your feelings about math as a dedicated subject, when you use it as a lens the world around you will reveal itself more clearly. I hope you'll join me later in Chapter 21, *Unschooling Math*, for more on that topic. Meanwhile, I suggest Jordan Ellenberg's book, *How Not to Be Wrong: The Power of Mathematical Thinking*.

Mind maps are a fun, creative, even beautiful way to literally get out of linear-thinking ruts. Tony Buzan's classic *Mind Map Book: How to Use Radiant Thinking to Maximize Your Brain's Untapped Potential* is inspiring. Sometimes there's great mind mapping software available (like FreeMind)—but if you can't find anything that plays nicely with your devices, a generous sheet of paper and a handful of markers will do the trick.

Learn and use the vocabulary associated with a field (its "jargon") to think and communicate more precisely within that field. "Toggle bolt" says more than "thingy," "quarter-tone" more than "weird sound," and "mullein" more than "weed." Just as if you were learning a foreign language, pick up a new term daily or weekly. Herbert Kohl's book *From Archetype to Zeitgeist: Powerful Ideas for Powerful Thinking* is an excellent guide to the "language of ideas" used in the humanities and social sciences.

Don't miss your low-hanging brainfruit. Always have a way to capture your brilliant insights, even if they come at awkward times. Mine tend to flow while I'm in the shower, so I make a habit of jotting down notes the minute I'm dressed. I also keep my favorite note-taking app open on my phone and computer, and when I'm away from these devices there's a pen and tiny notebook in my purse or pocket. Notice what time of day your mind is typically most energetic, and schedule your most challenging, important projects accordingly.

And speaking of challenging projects: when you're struggling to learn hard stuff, there are proven strategies that can make a huge difference. A book packed with such strategies (not just for math and science, despite the title) is *A Mind for Numbers: How to Excel at Math and Science*, by Barbara Oakley. You may also find her online courses and other books useful.

When you want to memorize (anatomy, foreign language vocabulary, your lines in a play ...), deploy mnemonic (memory) tricks to both save time and also embed your new knowledge more solidly. I plodded through high school and college without ever taking mnemonics seriously, dismissing them as a silly crutch, and now that I know a bit more about their power I look back with mild horror on all the time I wasted by ignoring them. The internet and the library abound with "memory palace" and other mnemonic tools. (*A Mind for Numbers*, above, includes several such tools.)

Finally: it's important to notice and question our beliefs about reality—not necessarily to abandon them, but at minimum to develop empathy, a flexible mind, a multidimensional rather than flat vision of things, and to better understand ourselves. One way to do this is to make friends with people who don't see everything the way you do, and then to talk about, rather than avoid, your differing viewpoints. Another way is to seek out resources that contradict your assumptions. For example, if you're all left-wing radical social justicey, as so many of my readers are (and as I often consider myself to be), invigorate your thinking with perspectives that might not align with the flavor of the month, wherein people care about people (as do you) but have a different way of going about that. (I've expanded my own perspective via Wendell Berry, David Brooks, Simcha Fisher, Jonathan Haidt, Thomas Sowell, and Leo Tolstoy—to name a few.) Look for long reads from *The Atlantic* whose titles make you a little uncomfortable. While there are selfish, reactive, immature people in every ideological club, simply holding a different perspective doesn't make a person evil or (I'd argue) even Wrong in some absolute sense. Good chance your own views will shift throughout your life, if you let them. Also: there are always more than two ways to look at anything. This can be confusing, when in the political arena we often have just two choices—especially when it's time to vote in big elections. But to approach everyday life (and the rest of humanity) from a binary mindset is a mistake.

For me, college was my first major experience getting out of my reality bubble. After growing up in a conservative region and religion, going away to a liberal arts college immersed me in broader and more careful ways of thinking for which, decades later, I remain grateful. (Side note: by the end of freshman year, that particular transformation was basically accomplished. Even if I'd left then, I believe I would have retained my newly skeptical and rigorous frame of mind. I sometimes question the value of my college experience in its entirety, but parts of it I definitely still treasure.)

If you enjoy thinking about thinking, don't stop with my suggestions here—refresh your brain anytime with an online search for "thinking tools" or "cognitive strategies," and check out the latest TED talks and popular books about cognitive science.

18. books, beaches, blogs, bulletin boards ~ resources to learn anything

The pursuit of knowing was freedom to me, the right to declare your own curiosities and follow them through all manner of books. I was made for the library, not the classroom. The classroom was a jail of other people's interests. The library was open, unending, free.

—Ta-Nehisi Coates

What an extraordinary timespace we inhabit—replete with virtual Italian art museums! Apps that tell you which stars you're squinting at! Parks full of trees and squirrels! Libraries full of books and magazines! Seed swaps to help you grow a Tigerella tomato or Black Velvet nasturtium! You'd probably get along okay with a Google search bar as your only official "educational" resource, but a better world awaits, and the purpose of this chapter is to take a quick admiring glance at it.*

After you consider the ideas here, and any others you think of: curate your own shortlist of resources that best fit your temperament, budget, and learning proclivities. Have a look at your list whenever you're pursuing a new interest or deepening an old one. And then, from time to time, take a fresh inventory of your needs and what's available—whole new categories will occasionally arise—and update your list.

Community resources

If you live in a big city your challenge will be choosing the prettiest palaces from a kingdom full of libraries, museums, and other edifices of wisdom. If you live in a rural area or smaller town, your choices may seem limited—you have more natural and agrarian resources instead. But no matter where you live, riches abound. Once you know some ropes, you'll find whatever you need.

The public library

remains a highly valuable resource, even in our digital age. When this planet gets itself together, it will have much less school and much more library. In a library—even a small one—you can learn whatever you want, but no one will try to make you learn



anything. With a librarian's guidance or a small dose of courage and desire, you'll find novels or poems that awaken your spirit, non-fiction that explains how to do anything—build solar panels or make cream puffs or get a children's book published or write a bill and find someone to help turn it into a law.

There are two ways to use the library: with an agenda and without an agenda. Obviously, the library is an excellent place to go when you want information about a specific subject.

But the library is also a smorgasbord of surprises. Sometimes, meander into the shelves and see what's there. Forget the catalog, and don't even think what subjects you're interested in. No need to read the books you find, or take them home. Just pick up a few, scan the back covers, and flip through. If your library has an oversize section (for large, tall books) poke around there too—that's where you find lavish Renaissance art books, photographs of Balinese dancers, and other surprises. Find out where the new books are shelved, and glance over them from time to time.

Using the library with an agenda takes more skill. Although you likely know the basics, it's worth taking time to check out the territory thoroughly:

Sign up for a tour if there's one available. You'll find out about resources you'd otherwise never know about. Or maybe your library has an introductory brochure or a map. In school you are used to being kept in the dark; sometimes information is even deliberately withheld. For instance, teachers have "teacher's editions" of textbooks, with all the answers and with background information to make them sound more sophisticated than you. The library, though, is all about access to information. Librarians want you to know how to use the library. It makes their jobs easier and more rewarding.

Become intimate with the library catalog. When you're searching by subject, get good at brainstorming for related terms—especially narrower or broader terms. If you type in "snakes" and don't want to plow through all 943 listings, try "snakes mythology" or "snakes natural history" or "snakes pets" or "snakes North America." Conversely, if you type in "polka" and nothing comes up, try "folk dancing." If nothing works, ask the librarian.

Or skip the catalog. When I want to look over the supply of books on dance, embroidery, folk songs, folktales, international costume, Native American history, or gardening, I walk past the computers and head right for the proper shelf. Since these are some of my current interests, I've learned where to find them. You can also use the catalog to look up one book on a subject, then survey all the books shelved in that area. Many libraries have handy little cards with the Dewey decimal system broken down—or just print a cheat sheet off the internet.

Peruse the periodicals (a.k.a. magazines), which are often more relevant than books for subjects that change or develop rapidly, like politics or fabric dyeing techniques.

Most libraries subscribe to a variety of databases, fee-based websites, and other online resources that would cost a pretty penny if you had to access them on your own.

You can explore these to your heart's content while you're at the library or, perhaps, from anywhere as long as you're logged into your library account.

The public library in the small city where I live offers dozens of such resources. There's an academic database where I can read thousands of scholarly papers—the sort that used to be accessible only through college and university libraries. There's an option to stream selected video from HBO, the BBC, and PBS. There are LinkedIn Learning courses on graphic design, accounting, entrepreneurship, and much more. There's a database of foundations that fund students, artists, researchers, and others seeking grants.

Check your library's website or talk with a reference librarian to see what's available to you.

Does your library have a local history or archives section? If so, it may include books by and about interesting people in your community, law records, old yearbooks (maybe you'll find your mom's), photographs, maps, newspaper clippings, and audio recordings of interviews. When my brothers and I were dirty barefoot kids visiting my grandmother, we loved to make our way into the elegant local history wing of the public library to look at photos of our ancestors and a blueprint of my grandmother's house before she tore it up to make room for her animals.

Some libraries have special collections devoted to rare books, medieval manuscripts, book arts, Civil War documents, etc. You probably won't find about these unless you ask—or google your library's “special collections.”

Check out the reference section. A good reference section is an opulent microcosm of bookish delights, and the only way to know what it has is to take a look. While hunting down books like *The Guide to Alternative Colleges and Universities* and *The New Improved Good Book of Hot Springs*, I've chanced upon *The Encyclopedia of Unbelief*, *The Art of Maurice Sendak*, and *The World Guide to Scientific Associations and Learned Societies*. If you find an intriguing reference book, see if there's another copy on the regular shelves that can be checked out.

Don't feel embarrassed to use the children's and young adult sections. Smart adults use them all the time. Not only do they yield some of the most charming stories of all time, but they also provide a splendid introduction to any subject. When you have gaps in your knowledge, like you've heard of Joan of Arc but don't know why people make such a fuss over her, chances are you don't need to read *Joan of Arc: The Image of Female Heroism*. Instead, find a children's biography and gain an understanding of the big picture. When the big picture tickles your curiosity, then pick up something dense and intense—you'll be ready for it. (You can also read Wikipedia articles for introductions, of course, and sometimes that's a great strategy. But children's books are brighter and often about the same length.)

Realize that there are books about everything, not just “bookish” things. (Actually, I don't even know what “bookish” means. Good poetry, for example, isn't bookish—it's life-ish.) There are books about car repair, winning teenage pageants, and saving the world. There are books about everything you've thought of plus everything you

haven't thought of: books of Maori folktales and Zulu chants, Scottish folk songs and Thai recipes. Books by and about people who talk with gorillas and dolphins, books full of joyous reports by survivors of death. Whatever it is, if people have put a name to it, then someone has written a book about it, and your library can lay that book in your hands.

Most libraries loan electronic books, as well as print books, if you prefer to read on a screen and haul around less stuff.

What if the book you want doesn't appear in the catalog? Your library can probably get it for you through Interlibrary Loan. Ask at the reference desk. You'll have to fill out a form and maybe pay a small bit of cash. Better yet, libraries frequently purchase books requested by patrons.

Don't overlook the library's other treasures—movies, audiobooks, computer stations, devices (like tablets) for rent, newspapers, and bulletin boards. Some libraries even loan out stuff like tools (yes, hammers and screwdrivers), kitchen items, artwork, musical instruments, games, puppets, free passes to museums, and sports equipment.

College & university libraries

If you live near a college or university, don't be afraid to use its library. Such libraries offer huge collections of literary classics, academic studies, and art books. Most have separate libraries for math and science; some have separate law, architecture, art, map, education, or music libraries. Most also have special collections—books from a particular place, or on a particular subject. Sometimes members of the general public can obtain check-out privileges, so be sure to ask. But even without that extra layer of accessibility, it can be glorious to explore such vast resources. These libraries tend to skimp on how-to books, children's books, *Seventeen* magazine, mysteries, Harlequin romances, Gothic novels, and science fiction. They probably won't have a copy of *The Lorax*. Instead, they might have something with a convoluted title like *Speaking for the Trees: The Lorax and Environmental Debate in Oregon Schools*.

College and university libraries are the best places to find academic journals. These journals (magazines) are written by and for scholars, researchers, and specialists—they do not attempt to entertain the general public or to explain anything in easy language. You'll find publications like *The Journal of Psychohistory*; *The Ukrainian Quarterly*; *The International Journal of Climate Change*; *Sport and Exercise Psychology*; *Energy Economics*; *Work, Employment, and Society*; *Asian Music*; *Research in African Literatures*; and *The Journal of Medicine and Philosophy*. If you or a family member has a current connection to a college or university (student, faculty, researcher, etc.), you may also be able to access journals online for free. You'll find a few more notes regarding journals later in this chapter under "Scholarly resources." *

Don't get freaked out if you go into a college library and find call numbers like LB.138 instead of good old Dewey decimal numbers. Most academic and other large libraries use the Library of Congress cataloging system, which is just as easy to use

once you're familiar with it. Books are shelved in alphabetical order according to their call numbers. AR books come before ZT books. LB books come before LM books.

Local colleges & universities

A college or university provides not only libraries, but also a continual array of lectures, concerts, and workshops open to the public. Find out about them by reading college websites and newspapers or by checking bulletin boards on campus.

Professors can be wonderful resources. They are busy and may not have time to sit around chatting. On the other hand, they might appreciate your help: preparing microscope slides or running down articles in journals, and in connection with this help you may find yourself a mentor or guide. If you learn to use academic databases, you can be a valuable research assistant.

You can also study, hang out, and meet people at the student union building or in the cafeterias. You can likely join groups such as animal rights organizations, dance troupes, and outdoor programs. These are not always technically open to the public, but in truth the people who run such organizations often welcome participation from anyone who is interested. Just ask politely if you can join in. Don't let one "no" keep you from finding a "yes."

Sometimes homeschoolers can take courses at local colleges, such as through high school enrichment or dual enrollment programs. For a little more on that topic see the section "College now" in Chapter 30, *College Without High School*.

Makerspaces

There may be a free makerspace in your public library, or an independent makerspace elsewhere, perhaps in a homeschooling resource center. Each is different—you may find 3D printers, sewing machines, art supplies, electronic bits and pieces. Many unschoolers love makerspaces (and their local maker community) for the camaraderie, encouragement, and mutual support combined with a wide range of materials that can be used to freely play, invent, create, build stuff.

Also look to the larger maker movement, including maker faires and conferences, online "instructables," and *Make*: magazine and website.

Community-based classes

Find out what's available by checking dance and martial arts studios, museums, art centers, foreign language or culture centers, college and university catalogs, community colleges, yarn and fabric shops, bike co-ops, writers' collectives, county extension services, neighborhood potters, community education programs, circus arts schools, and homeschooling resource centers and organizations.

Private lessons

Vanessa Keith writes in GWS #32:

I'm fourteen. I've never been to school (except one day with my cousin). I have been trading with neighbors for two years. I trade babysitting, washing dishes, and money for lessons. I have four lessons a week: sewing, weaving, botany, and piano. It works great if you have friendly neighbors.

Find lessons informally—in Vanessa's style—or formally. Music teachers put up their cards in music stores. Sewing teachers put up their cards in fabric stores. Foreign language tutors hang fliers around college campuses. And all kinds of tutors and teachers post on Craigslist and other online platforms.

Museums, art centers, & science or technology centers

are more than exhibition halls, although when you're not in school-field-trip mode the exhibits themselves can blow your mind. These institutions also

- need volunteers

- have internship programs

- give demonstrations (like blacksmithing at a Colonial museum)

- offer classes, workshops, and events

- have private libraries and collections they might let you explore if they know you (maybe after you've volunteered for a while sorting dead butterflies into trays)

- have staff who are experts in their fields.

Events & resources for schools

Homeschoolers are often welcome to participate in stuff like science fairs, chess tournaments, young writers' workshops, spelling bees, and some athletic events. The National Geography Bee (with a \$25,000 scholarship and a trip to the Galápagos Islands for first prize) is open to people ages eight through fifteen, and homeschoolers are welcome. As for the Scripps Howard National Spelling Bee, many contestants (and winners) are homeschoolers.

Events for homeschoolers

Local and state-based homeschooling organizations organize conferences, conventions, workshops, study groups, park days, retreats, and more.

Bulletin boards

Every community seems to have at least one place where people put up notices and fliers telling about events, meetings, used flutes for sale. Try natural foods stores or co-ops, laundromats, cafes where college students or granola-eaters eat, and independent

bookstores. When you want to get your own message or advertisement out, make a flier and hang it up. Online bulletin boards such as Craigslist are also useful.

Newspapers

Once a week or so, most newspapers list events and cultural opportunities (auditions for a musical or an open poetry slam, for example). If your community has alternative newspapers or newsletters published by various organizations, their lists may feature different types of opportunities. Print newspapers may also post their lists online.

Small, specialized retail stores

The people who sell outdoor equipment, weaving supplies, garden tools, South American folk art, solar panels, or ballet shoes often have considerable expertise in their fields. You can also learn a lot by walking through such shops and glancing through any magazines or books they sell. When a shop owner helps you, return some goodwill by buying your supplies there. Small shops may have higher prices than retail chains or internet behemoths. (Among other things, they can't buy in huge bulk quantities so they pay more for their merch in the first place.) Just remember that when you spend your money, you vote for the kind of world you want to live in. Would you rather inhabit a planet full of K-Marts and Wal-Marts, or one where Mike runs his own friendly bike store down the street?

Gatherings near & far, big & small

- clubs or meetups (for hiking, activism, physics discussions, permaculture . . .)
- conferences (bioengineering, philosophy, ethnobotany, mystery-and-thriller writing...) and “cons” (computers, comics, science fiction . . .)
- fairs and festivals (not just music and art and culture but also social justice, physics, vegetables, stand-up comedy . . .)
- trade shows (fashion and textiles, books, computers and technology . . .)
- expos (climate solutions, maker and inventor . . .)

Travel to investigate what you love

Join expeditions and other guided “learning vacations” via Earthwatch and lesser-known organizations.

Visit an epicenter of your obsession—go to Argentina (or Portland, Oregon) to study tango; Italy to study Renaissance history; West Virginia (or Bangladesh) to study traditional quilting; the West Coast to study gray whales.

Visit a big city to access its museums, theater productions, concerts, and such.

Spend time in a natural area (wildlife refuge, state park, national park, national forest, wild river, wilderness area) and train yourself as a poet, naturalist, philosopher, potter, biologist, chemist, essayist, musician, painter, photographer, sculptor, or geologist—by engaging animals, plants, rocks, landforms, weather, and wonderment.

Summer camps, overnight workshops, & retreats

At elaborate slumber parties, you can learn to do anything from physics to stained glass to massage to rock climbing to fearless communication to building houses out of straw. I love learning new skills in these intense short-term communities. To find out about them, search the internet, get on the mailing lists of local conference and retreat centers, read the ads in magazines or on websites related to your interests, or ask for recommendations in social media groups.

And don't forget

Zoos, aquariums, wildlife rehabilitation centers, humane societies, arboretums and gardens, ports, mills, factories and other workplaces, the YMCA, places of worship, city governments, government buildings and agencies of all kinds, parks and pools, clubs and organizations.

School as a resource

Schools have weight rooms, computers, microscopes, balance beams, 3D printers. They have choirs, bands, track teams, maybe even an American Sign Language class you like. Many enterprising homeschoolers have found ways to use the school resources they want without having to endure everything else. If the schools in your area have never tried anything like this, perhaps you can assist them in setting up a program that helps both you and them.*

Some school districts already have elaborate homeschool programs which can help you by lending textbooks, allowing you to take certain classes, and/or paying a teacher to meet with you occasionally. In Port Townsend, Washington, fifteen-year-old unschooler Seth Raymond participated in a program like this. To fulfill legal requirements, a group of homeschoolers and a certified teacher, Marcie, spent two hours together each week, engaged in some type of class or activity. Also, Marcie was available to work with each homeschooler for a few hours at the beginning of each semester to set goals and decide how to categorize their activities into academic subjects. If they wanted additional advice or guidance during the semester, she gave it. At the end of each semester she looked at their completed log books and assigned credits. For those who requested it, she also assigned grades based on whether they had fulfilled the goals they had set for themselves.

Students kept track in a daily log. Seth's log included math, reading, biking, Spanish, science, drawing, history, and occupational education. For example:

Occupational Ed: "Stacked firewood, cooked breakfast, mowed lawn."

Biking: "Edited music tapes for biking," "bike competition—placed 4th."

Science: "Watched and identified birds."

Reading: "Read Of Mice and Men."

Some families have convinced their districts to provide not only access to buildings and textbooks, but also an allowance for supplies. You may be able to negotiate a similar situation; after all, you have leverage. The school will make more money off of your enrollment than it will spend on you, even with a substantial allowance. Susan Swecker wrote in GWS #76 about what happened after an administrator approached her California homeschooling group. It was his idea to set up a partnership. Before the group met with him, they decided together what conditions they would agree on. They knew they could be assertive since they were five families strong, and for each of their kids the district would gain \$3,000. (This was 1990, so worth more now.) They presented the following requirements.

1. No testing unless someone [a homeschooler] requests it
2. Use of the school library and computers at specific times
3. Use of audio-visual materials, darkroom, and supplies
4. One field trip each month
5. Access to school psychologist, speech therapist, nurse, and other specialists
6. The right to research and order our own academic and art materials
7. \$400 per child per year to purchase academic and art materials
8. The right to use the building housing the gym, home economics room and restrooms for bimonthly meetings and potlucks on Saturdays, especially during the winter
9. The right to attend summer school and other school functions and workshops
10. Home visits by the homeschool coordinator as needed

The administrator wisely agreed to the whole list, and as far as I know everyone lived happily ever after. With \$400 in 1990, you could buy a lot of good books and a tall stack of silk shirts to paint.

Some homeschoolers decide to attend school part time, and convince local officials to cooperate. In GWS #33, Pennsylvanian Janet Williams describes her seventh grade daughter Jenni's schedule—after previous years of pure homeschooling:

Monday - 1st period Computers, then home.

Tuesday - 1st Industrial Arts, 4th Recess, 5th lunch, 6th Science, 7th Phys. Ed, 8th Art.

Wednesday - 1st Speed Reading, 4th Recess, 5th lunch, 8th Chorus.

Thurs - 1st Spanish, 4th Recess, 5th Lunch, 6th Science, 7th Phys. Ed, 8th Bi-weekly clubs.

Friday: home all day. . . .

Periods when she is not in a class, she works independently in the library or computer room.

Nick Blanchard-Wright, of Washington, writes:

Despite its other shortcomings, I'm lucky to have a school district that is very open to letting homeschoolers attend public school classes. I'm currently taking my high school's technology class, and my little sister is in the middle school orchestra. I'm one of several homeschoolers in the technology class, which works out well for the school since we can spend more than the class's one hour period keeping the school's computers running. Once I was sent to the office twice in fifteen minutes—the first time was to be lectured for having too many absences that month, and the second time was to show them how to use the school's network. Later I solved the absences problem by having my mother write a permanent excuse saying that throughout the year I would be absent for various educational reasons. I then laminated it and gave a copy to the secretaries to keep on file, and now when I've been gone I just show them the note. I had my technology teacher sign a similar hall pass, so I can enter and leave campus whenever I want.

No longer having to worry about grades, I can concentrate on actually learning something instead of just mindless busy work. The teachers and staff are friends, mentors, equals—and when I help them with the computer systems, my students—instead of just state funded babysitters. Schools aren't all bad, they are a great resource for homeschoolers as well as public schoolers. You just learn a lot more when you're there by choice.

In California, most districts have an independent study program, which can sometimes be adapted to homeschoolers' needs. Thirteen-year-old Mylie Alrich told me that thanks to her participation in an independent study program, she belongs to a school gymnastics team and has a pass so she can go to school dances.

As time goes by, more states and districts pass regulations granting homeschoolers the right to participate in public school offerings—this may mean elective classes, sports, extracurriculars like band, or all of the above. For instance, in 1985 the Michigan Supreme Court ruled that public schools had to “open their elective and supplemental classes to private school students [including homeschoolers] who get their basic education elsewhere.” The court said, “Public schools are open to all residents of the school district. . . . This statutory right to public education is not conditioned upon full-time attendance.”²☐

Many homeschoolers find that regardless of laws or policies, teachers and administrators will do what they can, especially if you're sweet. Fourteen-year-old Pat Meehan of Florida wrote, "The schools here are very helpful. We get a lot of our videotapes from the county teachers' professional resource center through the school I would attend if I were going to school. Everything is very cordial. Some of the teachers are watching how we do because they are thinking of home schooling their own children."

Leonie Edwards, sixteen, of Minnesota, quit school in seventh grade. She has access to the school library, and every fall she helps with the high school musical. Plentiful others also report on good relationships with schools—they attend on special days or to give presentations, for example. GWS #70 mentions a homeschooling puppet club in Vermont that performs for schools.

Another way to get access to the school things you want is to skip the administrators and legalities and quietly go straight to the people who have what you need. The choir director just may be overjoyed to let you use a music practice room during lunch. Can't hurt to ask. Eva Owens of Massachusetts left school after ninth grade, and in GWS #105, she said:

I wanted to continue taking Latin with my wonderful high school Latin teacher. I also wanted to be free to take an elective or two at the school if I ended up choosing to. The school administrators seemed to think I was crazy for believing I could get a better education outside of their prestigious school than in it. Even worse, I had the further audacity to assume that the school people would agree to be an academic side dish to my educational feast. As it has happened, I have been taking Latin all year without the school's official permission, although they do know I'm doing it. It wasn't until March that we made any sort of headway in communicating with the administrators. I've learned that clear, straightforward persistence is the best way to go. I've also found that talking to a lot of the teachers around the school instead of to the administrators is the best way of drawing support. . . . I now take both the Latin class and a public speaking class at the high school.

Books & magazines

Books

print—such as from the public library or your grandparents' shelves

electronic—such as from the library or an online retailer; on your computer, tablet, or reading device

audio—try Librivox, books on CD from your library, or pay for audiobooks

Of course you're going to get the most out of a book by reading it. (And potentially going further: taking notes, considering what others are saying about it, thinking through its points and untouched questions, reflecting unrushed.) But just knowing about powerful books and dipping into them can be catalytic on its own. Sometimes

you can glean a lot by reading a few pages or a single chapter. Do this easily, for free, by requesting digital samples (like Amazon's Kindle samples). When a sample piques your interest, check out the book from a library or add it to your collection. If you survey a lot of books this way, it's helpful to keep your head straight with a log: titles, authors, the dates of your encounters, and key concepts or quotes.

When you're directing your own education, the writers with whom you engage may become more central to your life. You may start to see them as friends, mentors, conversation partners, teachers. And the more you settle in and take your time with them, the more you'll grow from this strange and wonderful type of relationship. Personally, I'd rather be taught by a great book (and by extension, its author) than by a human who is distracted, too overworked to connect with me individually, or without anything profound to share.

Most popular books, high school textbooks, and newspapers are written at approximately eighth-grade level. When you dive deeply into any field, you are bound to encounter some tougher words. As long as you're interested in the topic, the toughness will be worth it. Of course, a lot can (and should) be said simply, but complex subjects often require complex language. School tends to assign a few novels at higher reading levels, but otherwise doesn't challenge you much. College reading comes as a big shock for a lot of first-year students.

Magazines

A visual, fun way to stay current in any field from textile arts to travel to tropical fish care. Subscribe or read at your library. Most magazines also offer free online content, and the choice of digital or print subscriptions.

Audiovisual & online resources

Audio (podcasts, radio, audiobooks, etc.)

Great for brainfood while you're making jam or sewing a tent. Public, college, or alternative radio stations offer interesting local shows as well as the excellent programs of National Public Radio and other networks.

Podcasts, I believe, are one of the most delightful ways to learn. Topics range from cutting edge science to immigration law to personal finance. Moreover, their hosts and guests are often wonderfully diverse. You'll find few podcasts mentioned in this book, but they're one of the easiest resources to hunt on your own. Search "best math/poetry/travel podcasts" and go from there, listening to snippets until you choose one to follow for a while.

Patience is not one of my superpowers, and I used to lament that listening to lectures was just too agonizingly slow. So I love that now it's often easy to tweak audio speed. Speed-tweaking can also be useful in the next category:

Video (online, TV, DVDs, films, etc.)

Documentaries and other video can't always bring the depth that good writing does, but in some subjects the visual component more than makes up for that. "How-to" videos are an incredible resource for just about every practical field from baking bread to conducting chemistry experiments. Video is also perfect for spying on the lives of wild animals and for learning about dance, Shakespeare, opera, and such. And TED talks are deservedly popular. But you can watch anything, including a popular show, with the intention to learn.

When you watch based-on-reality movies, know that they always deviate from actual events—just like maps always deviate from the territory they represent. It's worth running a quick online search so you're aware of the most overt or controversial fictions. When you watch *Hidden Figures*, the exciting 1961 story of Black women mathematicians working in NASA's space program, it's disappointing to know that in real life, nobody smashed down a sign to desegregate the bathrooms, proclaiming "Here at NASA, we all pee the same color!" (But also, Katherine Johnson didn't walk half a mile to use a "colored" bathroom—she just used the closest "white" bathroom and for years, nobody told her she couldn't. When somebody finally complained, she ignored them and just continued. But, wait! Another of the real-life protagonists, Mary Jackson, did suffer through an inconvenient and humiliating bathroom situation. The bathroom-racism isn't fabricated, just repackaged for a more compelling narrative.) Movies tell stories, and sometimes in the context of a story a truth is, paradoxically, best conveyed through fiction. It's just good to be aware. And sometimes, the point being made with a particular fiction is worth questioning.

Besides whatever you can access via subscriptions (Netflix, etc.), don't miss the wonderful short videos in National Geographic's online education resource library. Video-based courses can also be marvelous. The Green brothers' Crash Course YouTube channel offers a magnificent range of well-researched ten-minute videos on everything from ecology to engineering. If you're able to spend some cash, consider LinkedIn Learning, MasterClass, Udemy, CreativeLive, or similar providers.

Free online access to media

My favorite one-stop shop is the Open Culture website, a well-organized and annotated compendium that aims to gather the internet's "best free cultural and educational" media. So many treats! Lectures by brilliants from Michel Foucault to Toni Morrison, reading lists from the likes of Patti Smith and Carl Sagan, free music, free movies . . . it goes on and on.

The Internet Archive is “a non-profit library of millions of free books, movies, software, music, websites, and more.” But that descriptor doesn’t begin to convey this stupendously abundant amalgam—scanned books in Gaelic, sermons and religious lectures, classic TV shows, old cigarette commercials (nested under a “medical heritage” collection) . . .

OpenLearn, from Britain’s Open University, organizes free internet resources by topic and skill level.

For free books online, the mothership is Project Gutenberg. But search and you’ll turn up many more sources, most of them based on the Gutenberg library but with their own twists. All the old classics are free online at Gutenberg and elsewhere (because their copyrights have expired). These encompass the whole rainbow of academia—not just fiction and poetry, but also stuff like Charles Darwin’s journals, Frederick Douglass’s autobiographies, and Peter Kropotkin’s philosophic essays. (In Chapter 23, we’ll delve into online literature a bit more.)

LibriVox provides free audiobooks—thousands of classics and others.

For in-depth essays and articles about current issues, try the Longform and Longreads websites, or the “long reads” section of your favorite news outlet—the BBC, for example.

Most magazines offer free online articles, spanning the universe from dark matter to happiness research.

Interactive websites designed to teach specific subjects

such as the fabulous Khan Academy for math and beyond.

Sometimes the most popular platforms aren’t the best match for an individual—when that’s the case, you might ask for lesser-known recommendations on a related social media group. Be specific about what you’re hoping to find, or why the popular options aren’t working for you. Interactive websites overlap with the next category:

Apps

Your phone, tablet, or other portable electronic device functions as an educational sidekick when you load it with clever helpers. Try free or inexpensive apps that identify star constellations and neighborhood trees, or create flashcards, or show you how to play a song on your guitar, or chat with you in the language you’re learning; games that teach you to code or do mental math tricks; virtual reality immersions into mountain ranges and museums far away; chess tournaments that cross continents; sensors that measure light, sound, and movement.

Internet-based “educational” resources

are designed for school teachers and classrooms (or occasionally designed directly for students, to supplement school-based learning). You have to be careful with this gigantic category. There are gems, but it’s easy to get lost in the rubble. Worse, if you spend too much time here it’s easy to capitulate to a schooly way of thinking—and that’s what you’re trying to escape, not replicate. That said, some great organizations do offer classroom resources which are worth poking through. Try Ted-Ed (TED’s “youth and education initiative”), the Zinn Education Project, Learning for Justice, and the “educational resources” at Science Friday, PBS, the Smithsonian, and such.

It’s often best, though, to turn to these companies for their primary offerings, those designed for an interested “adult beginner” audience. For the most part, actual TED talks are way better than animated TED-Ed videos. Popular science magazines are best explored for their main content, not (usually) their “classroom resources.” The U.S. Census Bureau’s website is packed with fascinating data; their section for “educators and students” has some good stuff but not necessarily worth the time spent sifting through to find it. In general, intended-for-classrooms material is frequently dominated by lesson plans, short cute videos, simple brightly colored graphics, and “teen-friendly lingo”—all intended, just like school, to get you to pay attention to topics they assume you’re not excited about.

Anyhow, the way to find this stuff is to go to the website of an organization you like and see if they have a section called “teacher,” “educational,” “classroom,” or “K-12” resources. Or, check out the extensive “Education” reviews and listings on the Common Sense Media website.

Resources that are intended for students to find on their own (as opposed to resources like those above, which teachers are likely to hunt up) typically aim to help you get better grades or higher test scores. So, they can seem petty to a person who is pursuing a subject because they value it for its own sake. Still, sometimes these can be put to good use. SparkNotes, CliffsNotes, and Shmoop are popular providers of conventional study guides and test preparation help, mostly for free. Quizlet stands out for its flexibility—create your own flashcards and quizzes. The Green brothers’ Crash Course channel on YouTube stands out for its all around excellence and vitality—it’s a fantastic way to quickly attain bare-bones literacy in many areas.

Free online textbooks

Textbooks are not always the ideal way to engage a subject, but when you want one it’s great to have options. Thanks to the Open Textbook movement, many are not only available free, but also designed specifically for online use. Most are college level textbooks but some, like CK-12’s “flexbooks,” are created with younger people in mind. Search for free online textbooks on the topics of your choice.

Online platforms where you sign up to teach or take a class

These range widely, and I predict more will emerge. The platforms themselves are online, but some can connect you to in-person options (like a class offered at your local library) as well as online opportunities.

Auto Gnome “provides facilitators of any age the ability to list their online offerings and allows others to sign up for them.” While facilitators have the option to charge money, using the site itself is free.

Unschool.school is a slick portal that connects learners, educators, and locations. *

Outschool is a clearinghouse for thousands of online classes, on a huge range of subjects, for youth.

Online communities for self-directed learners

Check out the youth-oriented Peer Unschooling Network (PUN) created by Jim Flannery, or the all-ages Alliance for Self-Directed Education. The ASDE is also a good place to check for newer communities and projects, as is AERO, the Alternative Education Resource Organization. And if you use social media, look for SDE-related groups.

Online college courses & lectures

Some of the world’s most respected and beloved scholars and professors post individual lectures online for free—audio and/or video. Search for a specific person, or start with a portal like the playlists on Academic Earth or the “great lectures” list on the Open Culture website.

MOOCs (Massive Open Online Courses)—many top-notch institutions (like Harvard, Stanford, and MIT) offer highly regarded online courses that are free and open to anyone who wishes to participate. (While MOOCs are typically non-credit courses, some do offer credit options.) Explore via a portal like Coursera or edX. Some portals can direct you to smaller online courses as well as MOOCs.

Other online classes, meetings, & events

I can’t quite tell if the fact that I’m wrapping up this edition during a pandemic is a blessing or a curse. (Both, probably.) Out of necessity, it has become part of our lives to meet online for everything from haircutting tutorials to dance parties to conventional high school classes to business meetings to family reunions to conferences. Currently, the most-used platform is Zoom—not without its downsides, but a bit miraculous nonetheless. From where I stand, it’s impossible to predict whether 1) after the pandemic we’ll all be so sick of Zoom (or, rather, of not being together in real life) that we promptly forget all about it, or 2) we’ll continue to value the ease and

affordability of convening virtually, and integrate online options into future gatherings of all kinds. (Some of both, probably.) I do realize that this paragraph is neither here nor there. Perhaps it can simply serve as a reminder to check, now and then, for online events that you might enjoy, and that would support you in your interests.

A few words on the internet itself

It's fun (and sometimes addictive) to randomly "discover" news stories, bizarre chemistry experiments, and panda videos through social media posts. And it's fun to use Google—seemingly a genie that exists only to obey our every command. But amidst these pleasures it's wise to remember that social media and search engines are monitoring and sometimes manipulating us. If you're not paying for these services with money, that means you're paying for them in other, less visible, and perhaps undesirable ways. (See: *The Social Dilemma*.) If social media is something you value (even after reading tech genius Jaron Lanier's *Ten Arguments for Deleting Your Social Media Accounts Right Now*), then it's best to maintain vigilance. I mean, if you're reading this book I assume you don't want your time and your thoughts to be controlled by school. So don't leap from the frying pan into the fire by offering up your time and your thoughts to be controlled by social media. Use it, if you must, for specific purposes at specific times.

When you want to deepen your understanding of a subject, turn instead to carefully-chosen launchpads. In every field there are reliable, respected general websites which recommend resources. (EdTechTeacher's *Best of History Web Sites* is an example.) Take the time to track down a few such portals in the subjects you care about.

Scholarly resources

Not every unschooling teenager will pursue their true love in a scholarly manner: conducting formal research, reading (and maybe writing) academic papers, connecting with scholarly communities on the internet or elsewhere. If you ride off in that direction, the journey itself will uncover resources for going further. But if you're trying to get serious and aren't sure how to begin:

Read journals in your field. Access these at a nearby college or university library—or, some public libraries also provide digital access. If you're really serious about your field, consider developing and submitting a paper. (It's rare, though not unheard of, for youth to be published in such journals.)

Search online for individual articles in your field. Many journals give the public access to their older articles, but if you can't find a free copy, make a list of articles to retrieve at a college or university library.* Also: be aware that there's a trend to publish research articles—accessible for free online—that haven't gone through the traditional peer review process. This allows results to be made public without scrutiny

(or, at times, suppression) from others in the field. In general, the more reputable the journal, and the more thorough the peer review, the more faith you can have that the research and its conclusions are within the bounds of generally accepted methodology and thought. But no single paper should ever be taken as the final word on any subject.

“Most researchers love to talk about their work,” I’m told by one researcher. “If someone has read enough of their papers and has real questions—you never know where that could go. Cold emailing a researcher might be tough (notoriously busy), but if the subject line noted they were an unschooler or whatever, that might get across a number of barriers.”

Look into academic journals for high school students—there are some excellent ones.

Online, explore Scholarpedia, Google Scholar, ResearchGate, academia.edu, and PubMed Central. And search for online communities specifically for scholars in your field.

Reference books like the Oxford Guide to Library Research and Julia Bauder’s Reference Guide to Data Sources are helpful. You’ll want the latest editions.

Try The Syllabus website for its weekly curations.

Consider attending academic conferences, which are often the best opportunity for connecting with other serious students. Traditional conferences are brick and mortar, but online opportunities may become more prevalent.

You may also want to pursue some of the strategies delineated in Ronald Gross’s Independent Scholar’s Handbook—it’s old (pre-internet) but offers unique and timeless guidance.

Miscellaneous good stuff

Government resources

Your government (federal, state, county, city) can do a lot for you, which makes sense considering that your parents give it a big chunk of their money. Ask the internet or a reference librarian to help you find government-sponsored cultural exchange programs, free trainings (gardening, natural history, food preservation, etc.) in exchange for volunteer work, grants for art or science projects, free consultants who can figure out why your blueberry bushes or your chickens look so sad, and more.

Award winners

Look up the recent winners and nominees of major annual awards to stay aware of who is moving and shaking and cutting edges. There are awards in just about every field and genre, from science fiction to genetic research to website design to climate justice to Korean hip-hop. For overall goodness check out the Nobel prize, Pulitzer Prize, and the non-fiction National Book Awards. These explorations will turn up

amazing and influential books, online talks, videos, interviews, and more. (Many of the specific authors and resources that I recommend throughout this book have won such prizes.)

Tools, materials, & posters to support your interests

If you have an allowance for supplies, consider buying stuff that will advance your projects: microscope, piano, pottery wheel, table saw. Maps, art prints, charts, timelines.

About the specific resources suggested in this book

We've been investigating the question of how to learn anything. Soon we'll leap into smaller pools—how to learn about climate science, or mythology, or civics.

My past readers are of two minds. Some say this third edition of *The Teenage Liberation Handbook* need not recommend particular resources at all, because now you just google everything and get your reading lists (etc.) that way. Others say their favorite thing about this book, first time around, was how it pointed them to a mind-blowing novel or a heart-opening physics lecture. I pondered the question many a night. And it's like this: I relish googling everything and anything. My own endeavors are constantly felicitated and facilitated by the internet. But googling doesn't always reliably unearth the great stuff, or at least not on the first page or two of results. Once you're deep into a subject, you'll know how to go further. For getting a solid start, though, I'm still of the opinion that suggestions can be invaluable. So I've opted to maintain this book's purpose as, among other things, a compendium of resource lists. You will find hundreds of book titles and other specific items.

Here are a few things I'd like you to know about these recommendations:

My lists are (still) book-centric

I love books! Especially because of how they welcome me into someone else's mind and for how they have space to thoroughly develop a topic. I also find it anxiety-relieving to settle in for a nice long time with a book, letting it both anchor and carry my thoughts. I hope that if you already love books you will find my suggestions helpful. I also hope that if you're not much of a book reader yet, I might inspire you to become more of one. Most of the books I recommend are available in multiple formats—paper, ebook, audio. (I'm a fan of old-school paper books, because I think they're beautiful and I like the way they smell and the weight of them in my hand—and I like scanning a shelf and then pulling one out and dipping or diving in. Of course digital and audiobooks have their own perks.)

You will find websites recommended also, along with the occasional film, podcast, blog, TED talk, business, or organization. It's my perception, though, that some types of media are easy to find and choose, and it's often best to start with a search of what's current, so I've given them a small proportion of space here.

Sometimes the best books aren't quite up to date

Books of the highest caliber don't just pop out every year in every subject. Their creation demands a tremendous amount of time and attention, and they are written by uncommon individuals who are not only passionate about their subject matter and possess a clear sense of its breadth and magic, but who also can speak clearly to nonspecialists like you and me. I feel that the best approach is not necessarily to look for a newer book as a replacement, but rather to always check the publishing date (knowing that the writing was probably finished the prior year), and then supplement with a bit of online research for new developments in the field. (If it's a famous book, the internet will discuss its out-of-date bits specifically.) Bill Bryson's *Short History of Nearly Everything* is one of the best popular science books of all time. I recommend it with enthusiasm. And yet, published in 2004, it does not—cannot—reflect the most current discoveries. Read it anyway, and also see what Wikipedia has to say about changes to scientific knowledge after its publication.

Much of the best general & introductory non-fiction on academic subjects is (still) written by white men

Absolutely nothing against white men, but by now I do wish things had evened out, so we could more easily enjoy a broader range of perspectives.

Wait! you admonish. There is way, way more amazing non-fiction by Abhijit Banerjee, Angela Davis, Barbara Ehrenreich, Bayo Akomolafe, bell hooks, Carol Anderson, Cornel West, David Treuer, Hanif Abdurraqib, Hannah Arendt, Isabel Wilkerson, Jeff Chang, Malidoma Somé, Masha Gessen, Maxine Hong Kingston, Morgan Jerkins, Natalie Angier, Rebecca Solnit, Robin Wall Kimmerer, Ronald Takaki, Roxane Gay, Ta-Nehisi Coates, Toni Morrison—and thousands of others!—than I will ever have time to read in my wee little life.

True, I respond, so very true. And you will find the work of some of these luminaries emphatically recommended in the pages to come. But it is also true that when I've sought the best general introductory books in each academic subject, the overviews and welcome portals written exquisitely for curious yet uninformed readers, the vast majority turn out to be white-man-penned. Which isn't really surprising when you consider the multiple economic and societal pipelines that (still!) begin early in life, and that by adulthood increase the possibility that women will be assembling lasagna, people of color will be taking out somebody else's trash, and a small slice of white

male professors will be offered contracts to write the “Splendid Bestselling Beginner’s Guide to Geometry/World History/Literature” variety of books.

While I wish I were able to present a more diversely-authored list, I still think it’s awesome that these books exist. In fact, I view informative books as a type of wealth redistribution. Their purpose is to share access to knowledge (a.k.a. power). The tone is often welcoming and friendly, and it’s obvious that the writer wants to share, not hoard, their expertise. A case in point is the “advice to young scientists” subgenre, exemplified by E.O. Wilson’s lovely *Letters to a Young Scientist*, which charmingly bends over backwards to disclose the secrets of how to enter the scientific community. Reading such books is a way for anyone to acquire learning they might otherwise not have access to. Whoever you are, you can benefit from the privilege that plays a part in the life of the writer. I offer my book recommendations in that spirit, and I believe that most if not all were also written in that spirit.

It does seem that other media are better in this regard. Podcasts, in particular, frequently feature diverse voices. I hope you’ll seek out and enjoy the full spectrum of genius, in whatever form you find it.

Of course one can always turn the question on its head: “Well, what are women and nonbinary humans and trans men and people of color writing? I’ll just read that instead.” You’ll have no trouble finding plenty of that excellence on your own, through librarians or internet searches. Perhaps while you’re at it you’ll find yourself questioning the whole Western canon and the traditional approach to liberal arts education and such. I have not aspired in this book to present a serious look at “decolonizing education,” or to otherwise deconstruct academia. It’s a fascinating and important quest, but I don’t have the expertise to present a coherent alternative vision, and if I were to try you’d just be holding a watered-down, confused mishmash in your hands. To get your mind going in that direction, I recommend Marie Battiste’s *Decolonizing Education: Nourishing the Learning Spirit* or Ngũgĩ wa Thiong’o’s *Decolonising the Mind: The Politics of Language in African Culture*. (“What literature, what art, what culture, what values?” asks Ngũgĩ. “For whom, for what?”)*

Meanwhile, though I think I’ve made myself clear about schooling, I’d like to also be clear that I do appreciate academia. I love learning about biology and black holes and Shakespeare and, from as many perspectives as I can get it, worldwide human history. I also see value in taking up the academic disciplines one by one, zooming in with their particular lenses on our cosmos. I believe, optimistically, that if we leveraged the best of every heritage we’d be collectively better for it. Hmm—I just used the words value and believe. Perhaps I should say a little more:

I am biased

I value careful, critical thinking and the scientific process. When I look into the night sky I’m in awe—of the stars, yes, and also of the mind-blower that billions of years ago, Planet Earth began nursing tiny little lives who, eon by eon, morphed into beings who

can now look into this night sky and discern, with tools they have invented, light from the very first second their universe exploded into existence. At the same time, I don't think a rational approach to learning is sufficient on its own; I see emotional, intuitive, and experiential (some days I'd add "spiritual") perspectives as also essential.

I'm disturbed by the popularity of evidence-free conspiracy theories, especially when they demonize people or are invoked to justify violence. I'm flabbergasted that flat-earthers and neo-Nazis are anything more than gauche Halloween costume ideas. I'm grieved by how instantly and automatically some folks dismiss (or even attempt to discredit) a person who expresses an unpopular or questioning perspective. I appreciate that even in the world of conventional education, there is an effort to balance Euro-centric literature with a richer and more complex feast. I'm ready for the worldwide gap between extremely rich and extremely poor to close. I want us to deal, for real, with climate change. I'm so done with human oppression in all its forms. I wish we had more wildlife refuges and fewer golf courses, more farms and less sprawl. I grew up in a fundamentalist Christian church and then left it, grateful for my experience there but, ultimately, believing it too small a vision of reality.

If you disagree with some or all of these views, perhaps you'll be annoyed by some of my recommendations. But even if you agree with my views, perhaps you'll be annoyed by some of my recommendations—because another thing I believe is that it's important to consider a variety of (seriously considered) perspectives. I've tried to make this a guide that serves the larger quest for truth and learning, not a specific political or ideological viewpoint.

I recommend adult-level books ~ and I'm confident you can handle them

If you can keep up with this book, you can keep up with most or all of the resources I recommend. A few may be slow going, as they are for me. (Anything about quantum physics, no matter how basic, I have to read at a sloth's pace. And then, since it's all so counterintuitive, I can read the same thing a week later and it feels almost like the first time.) Also, like me, you may sometimes need to pause and google backstory, side knowledge, or definitions. For most people, it makes sense to read just one (or maybe two) serious nonfiction books at a time—and to read them in fairly short bursts when your brain is energized and literally nourished, going back over confusing sentences or paragraphs as necessary.

My goal is not to replicate high school, but rather to encourage you to become at least conversant in most or all of the major academic fields, with a grasp of the big ideas at play in each discipline. I've sought superb introductory resources that fulfill what Peter Atkins aspires to in his excellent *Chemistry: A Very Short Introduction*:

You will not have a degree in chemistry when you have read through these chapters, for chemistry is deep as well as wide, it is quantitative as well as qualitative, it is

subtle as well as superficial. You will, however, I hope, appreciate its structure, its core concepts, and its contributions to culture, pleasure, economy, and the world.

Beyond these introductions, I suggest additional resources for a variety of reasons. I've looked for items that are engaging, unique, inspired, nestling in the elusive sweet spot between depth and understandability. I assume that whenever you get seriously interested in a subject, you will quickly exhaust my lists and uncover your own resources.

For the most part, I've overlooked books written specifically for your age group. It's my perception that nonfiction for "teens" tends toward cutesy and condescending. Usually, the books written for non-specialist adults seem better choices to me.

You can, not should, do this stuff

This book is not intended as a curriculum or canon. It's much too voluminous to be used that way. Sure, I hope you'll delve into at least one resource from each academic area. But this isn't a checklist—it's a menu. May you discover tasty tidbits throughout.

19. the glorious generalist



Culture is activity of thought, and receptiveness to beauty and humane feeling. Scraps of information have nothing to do with it. A merely well informed man is the most useless bore on God's earth.

—Alfred North Whitehead

What, miss llewellyn, is a glorious generalist?

A generalist, in general, is someone who knows about a lot of things. But a glorious generalist must be distinguished from the heap of ordinary generalists.

The cheap-flash generalist knows a lot of trivia, and can recite amusing quotes by famous people.

The almost-but-no-cigar generalist knows a lot about a lot of things. But it stops there.

The glorious generalist, on the other hand, sees the world whole.

Because he sees the world whole, the glorious generalist can communicate with people of every profession, religion, or background. He can pick up any book or magazine and find in it a connection to his own interests. If he is an all-the-way-there glorious generalist, maybe he can do mystical/scientific things like read the meaning of the galaxies in a fistful of sand.

How does the glorious generalist operate?

She starts with faith that the universe has meaning. She might trust that a God, or an otherwise conceptualized Ultimate Reality, created all this or guided it into place. Or, she trusts herself and other humans enough to believe that she can make sense of it all. Even if there is no actual collaboration between the pattern of a spider's web and the lyrics to that Grateful Dead song, she can still weave them together in her mind to construct harmony and order, like a stained glass window in a French cathedral.

Also, she trusts language. She believes that with language she can bridge almost any chasm between herself and another person.

Once you trust enough, you are a glorious generalist. You are not afraid or bored to be trapped in a stalled elevator with a nuclear physicist, a shaman, an opera singer, or a milk delivery person.

What if the universe looks like a junkyard, and you don't trust it to make sense? Well, chaos shapes reality too; nothing real is as uniform or predictable as the rows of offices in a tall building. As long as your mind is honest, your understanding of the universe will remain in flux: an ocean, not a sidewalk. But you can't even ponder or acknowledge change or chaos until you have some order in your mind, a canvas for that wildness to burn its image into.

Anyway, if your universe is a junkyard, don't be afraid. A lot of that is just school-scars, so much flying at you so fast that any basic understanding of anything seems completely elusive. Once you recognize that confusion for what it is and decide you'd prefer a different operating system, you can start to relax. It doesn't take a special IQ level to be a glorious generalist; everyone could be one. In fact, I think we all come into the world as glorious generalists. Most four-year-olds aren't fundamentally bewildered, and that's not for lack of questions and uncertainty.

Confused or not, go ahead and initiate yourself into the society of glorious generality. The fear will wear away. The cosmos will take shape in your mind.

Here's how to get started:

Become a student & observer of a glorious generalist

First, you'll have to find one. Check your candidate out to see if they meet some of the following criteria established by the nonexistent Universal Committee of Glorious Generalists:

Does the suspect take you seriously? If they know you, do they ask you questions that go beyond mere politeness? The glorious generalist wants to learn from you.

Do they exhibit a wide range of interests? This sometimes shows up in a tattered, diverse library, or in scrapbooks or menageries or cluttered projects.

Are their friends a motley crew? A mixture of young and old, this profession and that, three religions and five philosophies, hippies and rednecks? (Not that the glorious generalist would describe their friends so slickly, or otherwise slap labels on people.)

Do they attend to the basic structure of their life—what they eat, how they care for their body, how they treat their plants?

Are they unintimidated by specialists? Do they focus on others' qualities and capabilities rather than on status, possessions, and degrees? Are they brave enough to decorate their own house, raise their own kids, without worrying that they're not an "expert"?

Have you ever heard them laugh and say: "Everything is connected!"

Once you find this person, try to hang around and notice how they think, talk, and find things out. But don't worship. Glorious generalists are humble humans who don't wish to be fussed over. (A lot of full-time parents, by the way, are closet GGs, though they probably haven't noticed.)

Read the writing of a glorious generalist

The glorious generalist is capable of rendering an ordinary subject wonderful and infinite, or a complicated subject clear and accessible. They zoom up and down on the scale of broad to specialized knowledge—or beginning to advanced knowledge. (To see that in action, watch the "Five Levels" videos on Wired magazine's YouTube channel, wherein experts explain a concept to five people from young child to colleague.)

Glorious Generalists often synthesize, too. Great essayists, like Rebecca Solnit and Alain de Botton, braid disparate topics into coherent revelation. My favorite let's-discuss-everything-all-at-once essayist, Vermont sheep farmer Ethan Mitchell, eschews conventional publishing, but it's well worth the effort to track down his work on the internet or wherever else it lurks. And top-notch multidisciplinary scholars (I'm thinking of historian-anthropologist-biochemist-geographer-ornithologist-ecologist Jared Di-

amongd) shine a vast spectrum of light on their subjects. Such syntheses add up to way more than the sum of their parts.

A good way to find out about glorious generalists' work is to perk up your ears when you hear something like, "Well, it's officially a book about baking bread, but it's really a book about life." Here are a few of my votes:

Hanif Abdurraqib, *They Can't Kill Us Until They Kill Us*

Christopher Alexander, *A Pattern Language and The Timeless Way of Building*

Gregory Bateson, *Steps Toward an Ecology of Mind*

adrienne maree brown, *Emergent Strategy*

Joseph Campbell with Bill Moyers, *The Power of Myth*

Fritjof Capra, *The Tao of Physics and The Turning Point*

Lewis Carroll, *Alice in Wonderland and Through the Looking Glass*

Annie Dillard, *Holy the Firm*

Barbara Ehrenreich, *Living With a Wild God*

John (Fire) Lama Deer and Richard Erdoes, *Lama Deer, Seeker of Visions*

Natalie Goldberg, *Writing Down the Bones and Wild Mind*

Yuval Noah Harari, *Homo Deus: A Brief History of Tomorrow*

Robin Wall Kimmerer, *Braiding Sweetgrass*

Peter Kropotkin, *Fields, Factories, and Workshops*

Barry Lopez, *Of Wolves and Men*

Toni Morrison, *The Source of Self-Regard*

John Muir, *How to Keep Your Volkswagen Alive*

Jenny Odell, *How to Do Nothing: Resisting the Attention Economy*

Guy Ottewill's blog, which "maintains its right to be about astronomy or anything under the sun." (And, any of his publications.)

Theoni Pappas, *The Joy of Mathematics*

Michael Phillips, *The Seven Laws of Money*

Robert M. Pirsig, *Zen and the Art of Motorcycle Maintenance*

Maria Popova's weekly *Brain Pickings* newsletter

Julia Watson, *Lo-TEK: Design by Radical Indigenism*

Ken Wilber, *The Integral Vision* (and Wilber's "Integral Approach" in general, and his compilation *Quantum Questions: Mystical Writings of the World's Greatest Physicists*)

Edward O. Wilson, *Consilience: The Unity of Knowledge*

William Upski Wimsatt, *Bomb the Suburbs and No More Prisons*

Tyson Yunkaporta, *Sand Talk*

Seek out glorious collaborations

Sometimes, merry bands of glorious generalists mix up treats for the rest of us. See what you can find. I love:

The Big History Project (online). “If you want to know about humanity, you have to ask about the whole universe.”

Innermost House website

MIT’s Lifelong Kindergarten—an interdisciplinary research lab with a fascinating online presence, always up to something interconnected, big-hearted, playful, and crackling with imaginative synergy. (And, the MIT Media Lab—of which the Lifelong Kindergarten is a subset—is also an interdisciplinary research lab with its own intriguing online presence.)

Nautilusmagazine (online)

OK Go’s music videos

The TED Radio Hour podcast

The Armchair Expertpodcast—Dax Shepard and Monica Padman, along with their brilliant guests, deliver a stunning mashup of vulnerability, hilarity, and expertise on everything from climate strategy to addiction.

The Our World in Data website from the University of Oxford—I’m agog at the simultaneous breadth and clarity of this gargantuan presentation of data.

And finally, my personal favorite—out of print since before you were born, and yet eternally relevant: The Whole Earth Catalog. (Best version is The Next Whole Earth Catalog, published in 1981, but any edition is great. Also, WEC alum Kevin Kelly’s Cool Tools website carries on in a similar tradition.) The people who put out the WECs were—for decades—the most glorious bunch of generalists at work in the U.S. (And then, as individuals, they moved on to other visionary projects, like the Long Now Foundation and Wired magazine.) Mostly, the Catalogs reviewed books on every imaginable topic. But you don’t have to actually track down these books; just reading the reviews and excerpts is a vivid journey through the big universe. It is a glorious mind indeed that describes the Tao Te Ching—the classic of ancient Chinese philosophy—on the same page as a book about sewage treatment. The page heading is “Whole Systems: Water,” and it all fits. I used to read The Next Whole Earth Catalog every night before I went to bed, though it made sleep difficult. After about six months of that, I started finding and using books they suggested.

Cultivate the habit of browsing

Make it a point of view and a way of life. You’ll have constant fun learning new things, and once in a while you will run into something unexpected that changes how you see everything.

Browse in the realm of words: sometimes when you’re in a library, just wander into the shelves and look at what’s there. Rummage through the piles people have left sitting around on tables. Notice the variety of magazines; investigate a couple. Do the same in bookstores, preferably strange and atmospheric bookstores. Look to see what bookish friends have on their shelves. Ask which are their favorites. Take a mental

bubble bath in the children's library. Peruse college catalogs online. Read the news now and then.

Browse in the material world: walk somewhere new every few days. Go into a different shop, take a different trail, look in the pet food or cookware section of the supermarket, swim a different stretch of the river.

Ask big questions of people you meet

Find out what they do (even if they go to school—what else do they do?) and trust that they can explain their interests and work to you. See if you can grasp the essence, the ultimate point, of what they do. Good starters:

What got you interested in what you do?

What were the first steps you took to get involved?

Why does your work matter? Where does it fit in the world?

What questions are you asking in your work? (Or, what problems are you trying to solve?) How are you trying to answer or solve them?

This last one, by the way, is my magic wand question, one I gleaned from reading the twentieth-anniversary issue of *Whole Earth Review* magazine. I don't always need it, but when someone refuses to believe that I am truly interested in their master's thesis on environmental economics or in her work as an electrical engineer, it opens doors. Clement, my friend the biology research assistant, kept saying, "Well, it's complicated" when I asked him exactly what he was up to. Finally, I said, "What questions are you busy asking in that esoteric laboratory?" And he told me. He was asking what role a certain hormone played in the life of a certain caterpillar. He hoped that the answers would give a clue as to the role of other hormones in human epilepsy. Not only does conversation like this dissolve barriers between people, but it also reveals the beauty and meaning of things we call "academics."

Sometimes you will run into people who really can't explain for you what they do. Put on your suspicious hat. If it can't make human sense, does it make any sense? Some people in bureaucratic careers don't seem to know anymore where the ground is. That's the kind of out-of-touch mentality that's going to blow up the world, if anything is going to. The good (and strenuous) book to read on this subject is *Standing By Words*, by Wendell Berry, very glorious.

Choose calm, not frenzy

The idea is not to fill up your mind like a crowded refrigerator. The idea is to weave a prayer rug out of everything that comes your way.

Pay attention to the details of your own life

such as what you eat, how you speak to your friends, how you walk down the street. The better you understand yourself, the better you understand everything else. You stand at the center of your prayer rug; you can't leave yourself out.

Let yourself cross boundaries

Be prepared, while you are reading Blake's poetry, to come up with a physics question you want to explore. Entertain yourself with treats that stir it all up, like the artwork of M.C. Escher—as Stewart Brand describes it, “Geometry set at its own throat via the images of dreams.”

Ultimately, education is about our connection to the universe, our place in it. The bigger that connection, the bigger our lives and dreams. Through what we undertake to know and understand, we can be as immense as the Milky Way—glorious indeed.

20. unschooling science & technology



You care for nothing but shooting, dogs, and rat-catching, and you will be a disgrace to yourself and all your family.

—Charles Darwin's father

Science is one of the best reasons to quit school.

It took me a while to understand this. Several college admissions directors told me that their unschooled applicants had weak science backgrounds. Among the unschoolers who wrote to me, a few said they felt like they skimmed on science. Coming from an unscientific background myself, I felt as if I were encroaching on forbidden territory. In a bit of panic, I thought about changing my title to *The Artistic or Literary Teenager's Liberation Handbook*. Instead, I researched extra hard, called extra loudly on the expertise of my scientific friends, and compiled this extra-long chapter. In the process, I ended up believing that a mass unschooling movement could inject new life, responsibility, and genius into the world of science.

No doubt, science presents challenges to the unschooler. Lab equipment is expensive—and intimidating. This chapter tells you how to get around such difficulties, plus how to make scientific use of the big wide world that school misses out on.

Why do unschooling and science go together? How should you approach science without school?

You have the whole universe for your laboratory, not just a grey room. “Most people, most of the time, learn most of what they know about science and technology outside of school,” says the National Science Foundation.³☒

School treats science all wrong. It usually allows no play and is afraid to ask you to do serious work. Real science is made out of play and hard work, mixed together. It's a shame that we think of sciences as the most austere and forbidding of the academic disciplines, because the only way you can start properly is to mess around. Tease your mind with captivating books and trips to beaches and canyons. Make questions: why are clouds shaped like billows of ice cream? Why are all the cottonwoods in the park dying? Go on a mental picnic at the Exploratorium in San Francisco or another innovative science museum.

My brother noticed people in his freshman class at Caltech whose actual knowledge base was scanty—perhaps they hadn't yet studied calculus or much physics—but something had inspired them strongly enough that they craved the scientific tools with which to continue exploring their universe. This “something” had varied—for one it was staring at the night galaxies, for another reading a rather poetic book called *The New Physics*. What they ended up holding in common was questions and desire, two of the best beginnings for anything. Einstein's play went like this:

Someone . . . asked Einstein how he had got started on the train of thought that led to the theory of relativity. He said that it had begun with two questions that he had asked himself, and couldn't stop wondering about. One was, “What does it really mean to say that two things happen at the same time?” The other was, “If I were riding

through space on the front of a beam of light, what would I see, how would things look?”³¹

Science also demands intense, serious work. Scientists have immense responsibility to handle information carefully and honestly, in order to tell the truth. Without a school schedule, you can take all the time you need for thorough, attentive investigations. Wait for the right weather; observe the growth of molds for years instead of one lonely Friday in the lab.

Outside of school you have the chance to get involved with real scientists and real scientific work. My friend Heather, a Watson scholarship finalist and senior biology major at Reed College, suggests helping scientists with their research. Scientists always have more ideas than they have time to follow through on, she says. A biologist, for example, might need someone to catch aquatic invertebrates, record information from climate gauges, check traps, or collect water samples.

Reach out to graduate students—who often cannot afford to hire research assistants—and ask if you can help. Or post notes on the bulletin boards of university science buildings. If you live near a college without any graduate programs, seek out college seniors (who often have a labor-intensive project to complete) or professors.

If you try this, expect to be inspected. Although you’re offering free help, you could ruin someone’s research by being irresponsible with data. Heather says to inventory your past so you’re ready to make a case for yourself. List all your experience that shows you can be precise, dependable, and systematic. Include descriptions of scientific work you’ve done on your own or in school, and maybe recommendations from past teachers. Work as a surveyor’s assistant is the ideal background; certain kinds of cooking—candy making, for example—require precision too. So do woodworking and drafting.

If you have little experience with anything of this nature, search your past for other evidence that you can be relied upon for accuracy. If your scientist feels you aren’t qualified, ask what you can do to change that.

Teri Jill Mullen writes in GWS #78:

I am acquainted with a homeschooler who is interested in chemistry, and I have a good friend who is a chemist. I asked my friend if she would allow an eleven-year-old boy to just hang around while she worked. She asked her boss, who was once a college professor. He was very interested and now this eleven-year-old homeschooler has access not only to a chemistry lab, but to a very educated, friendly chemist. Certainly a boy his age in school would not find time for just hanging around and watching someone work.

Along the same line is an article in GWS #29 which quotes liberally from a paper entitled “How Children Can Become Experts,” by theoretical physicist David Deutsch. Deutsch writes about a hypothetical twelve-year-old who has a keen interest in physics. School won’t help much, he says. Books will, but only for so long:

The point here is not that he will run out of facts to learn: he will not. The point is that factual knowledge from such sources actually constitutes only part of what a physicist needs to know. The more important part is a complex set of attitudes and

ideas concerning, for example, the recognition of what constitutes a physics problem, how one goes about solving it, and what might be acceptable as a solution. One can learn such things in only one way: by participating in the physics culture. That is how graduate students learn physics when they are finally permitted to participate in real research. And this—research alongside real physicists—is what I think our hypothetical child should be doing.

Deutsch goes on to say that school is not the way to become a scientist, any more than it is the way to become a carpenter. The adult physicist would first benefit from having the apprentice do small problems—“sub-tasks” that did not require broad physics knowledge, but which nevertheless contributed to his work. The young apprentice would benefit from watching the physicist think, and from being able to ask questions. Eventually, however, the relationship would intensify:

[The apprentice] would begin to “think like a physicist” as he unconsciously assimilated inexplicit knowledge simply by observing a physicist solving problems. He would begin to enjoy more and more the inner rewards of doing physics. At the same time he would become steadily more useful to me in an ever wider range of sub-tasks. Factual knowledge would come to him without specific effort, as a side-effect of pursuing his interests. Later he would begin to grasp the details of specific problems which I was working on, and he would begin to find research topics of his own. I would find myself learning increasingly from him, both directly and because one always learns by explaining things to a willing listener. And because we would naturally have many problems and interests in common, he would be a particularly helpful colleague for me. Finally the apprentice would be such no longer, having overtaken his teacher-colleague in knowledge and skill. This is perhaps the greatest long term benefit which would accrue to both parties.

I must stress that I am not thinking of “child prodigies” in the above example. I am convinced that arrangements such as the one I describe can and ought to be the normal way of entering any profession.

If you are artistic, or if the grey smelliness of science classrooms dismembers your enthusiasm, you can do lush colorful sketching science, particularly as a naturalist or geologist. Or use a resource like Gwen Diehn’s *Science Crafts for Kids* as a jumping off point for your explorations.

What is science, anyway?

Science is not, of course, planets and zygotes, but rather a careful, imaginative yet methodical process of studying them, which involves seeking facts that can be proved again and again. At normal atmospheric pressure, water always freezes at 0° Celsius. That’s Science. It’s predictable. It’s been tested, but if you don’t believe it you can test it for yourself. If your water freezes at 15° C, phone the newspaper.

An important early task in any kind of science is knowing what this “scientific method” business entails. Unfortunately, school courses don’t always impart this un-

derstanding. But you can read about it in almost any science textbook, in the first chapter or thereabouts, or in any basic article on “science” or “scientific method.”

Science has plenty of previously discovered facts for us to learn, but the heart of science is the process of discovery. Recognize the difference between reading the results of others’ work and doing your own. Both are important, and some books are wonderfully eye-opening, but to actually practice science, you must use the scientific method for yourself. “What I noticed over the years,” says materials scientist Ainissa Ramirez, “Is that people were starting to see science as entertainment and not as a tool or a lens to understand the world. The thing that scientists do is ask great questions. We need people who can interrogate and probe the world so they can develop their muscle of being critical thinkers.”³²

Which sciences?

Biology, chemistry, and often physics are standard high school fare. Data literacy has also become essential—study it on its own, and/or engage it as part of each branch of science that you explore. Geology, and subcategories of the other subjects (like field zoology), are generally thought of as extras.

Some unschoolers choose to orient themselves to school standards in science more than in other areas, and these core disciplines are indeed amazing pathways into an awesome forest of understanding. But of course you are free to blend, substitute, alternate, patchwork, zoom in, zoom out, organize around a question rather than a field, or otherwise plot your own perfectly personal scientific expedition.

General resources

The joy of science

In the beginning, consider forgetting textbooks and serious labs for a while and starting with delight.

Popular science books. Bill Bryson’s *Short History of Nearly Everything* epitomizes this field: organized as a cohesive story, funny at times but never dumbed down or goofy, accessible to readers without a science background, packed with analogies and explanations that illuminate difficult-to-grasp concepts like the size of our universe. I’ve recommended a few titles later under each branch of science, but there are many good ones—check out recent shortlists of the annual Royal Society Science Books Prize, or Science Friday’s suggestions.

Popular science and science news websites and magazines (print and online). Poke around until you find one whose editorial and visual approach you like—and then, before you get attached, poke around a little more to check what others say about its credibility or lack thereof. You won’t go wrong with *Futurity*, *Knowable Magazine*,

Lady Science, Nautilus, Popular Science, Quanta, Science News, Scientific American, Seek, Stanford Earth Matters, Undark, or Wired. The prestigious journals Nature and Science make for difficult reading (far beyond what I mean by “popular science”) but their websites include news, editorials, and other fascinating tidbits which are intelligible to the likes of me.

Primary resources let you read about scientific discovery through the eyes of the discoverers. Eyewitness to Science, edited by John Carey, offers over 100 highly readable, sometimes hilarious first-hand accounts (by the likes of da Vinci, Galileo, Curie, Einstein . . .).

NASA’s complex of online resources. Whatever the U.S. has been up to in space (exploring Mars, as I write), there is a wonderful set of up-to-date, interactive resources available. NASA also gathers an extraordinary amount of data about Planet Earth via satellite and land- and sea-based expeditions, and shares much of it online. And they offer opportunities to participate in citizen science, a film competition (use NASA images in original ways), etc. Start at their main website and take some time to see what’s going on and how you can engage.

Science Friday is best known for its podcasts—which are nicely organized on its website into categories such as “physics and chemistry,” “nature,” “technology and engineering,” “brain,” etc. It also offers curated “educational resources” that combine videos, text, simple experiments, and podcast segments on subjects like “the many types of mucus” or forensic entomology or understanding eclipses.

Podcasts bring science to life. See what’s new, or check out The BBC Science Hour, Radiolab, Ologies, or Talk Nerdy.

Most major science museums have great websites with interesting resources. The Exploratorium offers, among other things, “Science Snacks”—activities that require only common, inexpensive items. Also see The Lawrence Hall of Science and its side projects.

PBS’s Nova Labs has engaging games, online labs, videos, and more.

Look up the recent nominees and winners of the Nobel Prize or the Royal Society’s awards. (Then read their books, listen to talks and interviews, watch videos about their work.)

Watch TED talks by scientists. And look for other videos that concisely illuminate tricky concepts. I love, for example, the three-minute explanations of quantum technology presented by the finalists in the Quantum Matters Science Communication Competition, which is sponsored by Boston’s Museum of Science. On a different note, I also love Baba Brinkman’s science rap videos.

Partake in a science festival (not to be confused with a science fair), such as the World Science Festival headquartered in New York City.

Use your phone (or other portable electronic device) as a science tool. Look for apps that convert your phone into a sonometer, accelerometer, spectrophotometer, colorimeter, microscope—and that record the resulting data in your own science journal. Or apps that help you identify stars, birds, rocks, animals, wildflowers, trees. Or that

contribute to research—send cloud photos to NASA to help with weather modeling; send data from your phone’s motion sensors to UC Berkeley’s Seismological Lab, where it will help refine their earthquake warning systems.

A science documentary or series can be as moving and compelling as a blockbuster movie or show. Try *Cosmos*, or search online for recommendations.

Find cartoon science books. Larry Gonick was the main player in this field for decades, and his books remain usefully enjoyable. His *Cartoon Guide to The Environment*, for example, while not up to date on recent developments in climate science, offers a good introduction to chemical cycles, food webs, waste disposal and recycling, and deforestation. Jay Hosler’s newer books on genetics and evolution are also good. In Japan, educational manga has long been popular—there’s a solid batch of English translations renowned for their ability to clarify science (and math) topics. The world of graphic non-fiction is growing more creative, colorful, and prolific; I predict we’ll see many more science books in this format.

The Big History Project (online) offers a sweeping, chronological view of everything that, as far as we can tell, seems to have ever happened, starting with the big bang and proceeding through the formation of our own solar system and planet and the emergence of life. (The last two of the five sections turn their focus to the human story.) And don’t miss the ChronoZoom project, inspired by Big History. Or the Green brothers’ Big History Crash Course.

Enter the children’s section

For sure, sometimes we need to do hard stuff. But sometimes we need to do simple stuff too, so we can grasp the big picture or engage with pleasure rather than anxiety. And it’s not necessarily difficulty per se that leads to learning, but rather the quality of attention we bring. So don’t hesitate to delve into “little kid” science activities—simple experiments, making geographical models, reading children’s books, watching animated shows, playing in the mud.

Get a children’s experiment book from the library, like *The Thomas Edison Book of Easy and Incredible Experiments*, by James G. Cook, or *Usborne’s Science in the Kitchen*. I like Michio Goto’s *Amazing Science Tricks for Kids and Parents*, which is truly simple. Without complicated equipment and procedure, nothing distracts you from the strange beauty of reality.

Or be guided by children’s science experiment videos online. (We typically call these activities “experiments” but as chemist Theo Gray points out, most are actually “demonstrations” since we start out knowing what to expect.)

Make your own science equipment! See *The Science Toolbox: Making and Using the Tools of Science* by Jean Stangl, with easy-to-follow directions for transforming cardboard tubes and stuff you have lying around into simple magnifiers, magnets, water clocks, prisms, and such. It’s profound and revealing to reduce science to its bare bones this way, experimenting and exploring from scratch.

Participate as a reviewer for *Frontiers for Young Minds*. (Scientists rewrite their work for a young audience; before publication, their articles are vetted by a youth board.)

Browse through a stack of simple, clarifying, enticingly visual children's science books such as those published by DK (like *Knowledge Encyclopedia Science!*) or Usborne (like *Electricity and Magnetism* or *Planet Earth*). Grab a copy of Bill Bryson's *Really Short History of Nearly Everything*, which is a colorful sidekick to his renowned *Short History of Nearly Everything*.

Spend your allowance on science toys like hurricane tubes, crystal-growing kits, and fancy paper airplane supplies.

Science overviews

There are a number of wonderful books that summarize the main branches of science and the questions they seek to answer, along with the stories of how each field came into being and made its key discoveries. (For a while I thought it was a weird coincidence that most of the overviews of science were also histories of science—but upon reflection I realized that scientific knowledge is impossible to untangle from the processes through which it has been attained.) If you want to focus your unschooling energy on non-science projects, attaining basic science literacy with a minimal investment of time, attentively read any of the following four books. Each is an excellent option with its own personality:

The Five Biggest Ideas in Science, by Charles Wynn and Arthur Wiggins. Definitely beyond “children's book” level, but about as quick a read as you can get for a solid introduction to the most significant concepts of physics, astronomy, chemistry, biology, and geology.

A Little History of Science, by William Bynum, is presented in a leisurely narrative format, with a “grandfather tells bedtime stories” flavor. Quite a few more words than *The Five Biggest Ideas*, but just as easy to understand.

A Short History of Nearly Everything, by Bill Bryson. This is the fourth time I've mentioned this book—I'm a fan! I particularly like the illustrated edition.

The Canon: A Whirligig Tour of the Beautiful Basics of Science, by Natalie Angier. In Angier's popular science books practically every sentence is spiked with wit, sass, and clever puns. During the course of writing this book she speaks with hundreds of scientists and we listen in on those conversations.

Reference

The Science Book, from DK's *Big Ideas Simply Explained* series. Flip through for synopses of major breakthroughs and theories, from how to measure the earth's circumference to the many-worlds interpretation of quantum mechanics.

Oxford Dictionary of Science: useful, browse-worthy, and fascinating.

Get your hands dirty!

Eat science. Go in the kitchen. Take J. Kenzi López-Alt with you via his Food Lab book, video series, or blog. Concoct a feast for belly and brain.

Participate in citizen science, in which regular people collect data and contribute to scientific projects—one of the best-ever uses of the internet. Check out Zooniverse or search “citizen science” to get connected.

Put your efforts to work for the environment. Conservation groups (easily found online) sometimes conduct restoration projects, such as rehabilitating a polluted stream. The Audubon Society needs volunteers to count birds and salamanders or monitor acid rain. Individuals also spearhead such efforts. For more examples and ideas, seek out current resources on “ecological restoration” or “restoration ecology.”

The Earthwatch Institute is a bunch of scientists who conduct research all over the world, and let people pay to help them out. I’ve heard from and about many homeschoolers who have fabulous experiences on Earthwatch expeditions. Spending the money to go along on one of their projects seems to me like a better educational investment than tuition at a private school; they also occasionally offer scholarships (“fellowships”). Some of their work relates to textiles, folklore, etc., but most is scientific. Projects last from two to three weeks. Examples: studying moths in Papua New Guinea while staying in a tribal guest house, training sea lions in California, doing lab work (which will contribute to a map of the Pacific Ocean) on a research ship. You must be at least fifteen.

Get serious (remain playful!)

Form a science co-op with unschoolers or friends of any age. Buy equipment together, share ideas, discuss projects. As you become better scientists, apply for grants together.

Utilize online courses. Partake sequentially and thoroughly, or dip into individual modules and watch explanatory videos as needed. At least in the beginning, free platforms are likely to meet your needs. Khan Academy and CK-12 are good places to start. For free college-level courses, see what’s currently available and recommended via MOOC.

Get the facts. There’s a wide range of scientific data available to the public via the internet, such as climate-related data from the National Oceanic and Atmospheric Administration (NOAA), all kinds of earth-related data from NASA’s EarthData website, biologic factoids from the Encyclopedia of Life’s Open Data Portal, human health details from the World Health Organization’s Global Health Observatory, over sixty searchable U.S. databases at science.gov, and a galaxy of international databases at WorldWideScience.org. Once you find the facts of your dreams, the possibilities for what to do with them are endless. Even just creating a fresh, clear way to display data can be a huge contribution. During the first few months of 2020’s Covid-19 pandemic,

the best way I found to keep track was via seventeen-year-old Avi Schiffman's online Coronavirus Dashboard.

My biologist-brother Richard elaborates:

Many sciences are coming to rely on ever-growing datasets as a fundamental aspect of their research, and many of these datasets are publicly available. This presents an opportunity to the unschooler who feels the thrill of the unknown, and of opportunity, when looking out over a vast multidimensional sea of data that must contain, if only appropriately queried and analyzed, the answers to untold questions yet unimagined and unasked. For example, in biology it has become relatively easy to sequence whole genomes to obtain the genetic sequence of just a single gene, so a research lab interested in a particular gene family might end up adding many complete genomes to a public database (such as those maintained by NCBI or EMBL), even though they will only analyze a tiny fraction of the data themselves. It's analogous to producing the blueprints of an entire city when only the houses on one block are of interest to the researchers. Often, much of the data produced goes unexamined to await your curiosity and skill.

Useful skills for analyzing large amounts of data are constantly evolving, so an unschooler who is eager to learn new techniques has a natural advantage and opportunity for entry into many different sciences. Lately researchers and employers with problems involving machine learning or AI cannot find workers with the needed abilities. An interest in mathematics—especially probability and computer science—and various methods of applying logic, such as philosophy or linguistics, will help you gain those skills. But if you also are passionate about the questions you can ask and perhaps answer with these techniques, then be sure to avoid letting the technology eclipse the questions themselves. Given the skill and tools, you may become proficient in navigating from point A to B, but you will still need to glimpse the stars of insight and constellations of knowledge in order to postulate the existence of B in the first place. This is what distinguishes scientists from engineers and data analysts.

Enter a science fair or “STEM” competition. Look online for opportunities near and far. Consider MIT's THINK competition.

Think about publishing. Maybe not academic papers in major journals just yet, but look for a way to break in, perhaps by submitting a review to a site like Botany One. Or enter a competition, like the New York Times' youth STEM Writing Contest. Or submit to one of the excellent journals for youth—like Scholastic's Journal of High School Science, The Columbia Junior Science Journal, or The Journal of Emerging Investigators.

Join a community. If you find yourself gravitating toward serious scientific work, try to get an account on ResearchGate or an online network for your specific field—or find another meaningful way to join the conversation. While some scientists do their actual work alone, it is essential (for so many reasons!) that they participate in the larger community. (Also consider the ideas listed under “Scholarly resources” in Chapter 18. Conferences can be particularly valuable.)

Advice

“Advice for young scientists” comprises its own literary subgenre. You’ll find more on the internet—essays, blog posts, TED talks.

Advice to a Young Scientist, by Sir Peter Medawar, makes the case that scientists need common sense, inquiring minds, and perseverance—not “genius.” Wise guidance on how to choose equipment and research projects, collaborate, and present papers. Like many pre-internet classics, some of the specifics are outdated, but most of the content is timeless. One of the best parts of this elegant little book is the explanation of different types of experiments: Baconian, Aristotelian, Galilean, Kantian.

The newer Letters to a Young Scientist, by beloved naturalist Edward O. Wilson, is also destined to become a classic.

To make important discoveries anywhere in science, it is necessary not only to acquire a broad knowledge of the subject that interests you, but also the ability to spot blank spaces in that knowledge. Deep ignorance, when properly handled, is also superb opportunity. The right question is intellectually superior to finding the right answer. When conducting research, it is not uncommon to stumble upon an unexpected phenomenon, which then becomes the answer to a previously unasked question. To search for unasked questions, plus questions to put to already acquired but unsought answers, it is vital to give full play to the imagination. That is the way to create truly original science.

If you’re heading deep into science, don’t miss W.I.B. Beveridge’s classic Art of Scientific Investigation, and Joshua Schimel’s excellent Writing Science: How to Write Papers That Get Cited and Proposals That Get Funded.

The culture of science

The Only Woman in the Room: Why Science is Still a Boys’ Club, by Eileen Pollack, is a dense yet highly personal (dark and funny) read—helpful perspective for girls and other outsiders, and a call to action for inner circle folks with the power to widen that circle. Math, along with science, features heavily.

Lab Girl, by geobiologist Hope Jahren, is an often-hilarious narrative that winds through the author’s love affair with plants and soil, the close connection she shares with her lab partner Bill, what it’s like to be a female scientist and professor (not easy), and a bit about her struggle with bipolar disorder.

Galileo’s Middle Finger: Heretics, Activists, and the Search for Justice in Science, by bioethicist Alice Dreger, is a thrilling, disturbing exposé showing how activists and scientists sometimes pit truth and justice against each other, though they need each other and can—must—coexist.

Podcasts are an ideal delivery system for conveying the culture of science. PhDivas invites us to eavesdrop on a juicy, passionate insiders’ discussion of ethics and other

issues within science (and academia more broadly). Beyond the Microscope introduces women working in STEM fields.

Setting up a lab & finding equipment

Some ways that unschoolers find access to microscopes and other toys:

by making arrangements with a teacher or school to come in and use equipment. This might work especially well if you offer to grade quizzes or wash beakers in return. If you find an inspired teacher-scientist, you might end up with a mentor too.

by becoming involved as a volunteer, apprentice, student, or indefinable presence at a museum or science center. Back in 1969, an eleven-year-old boy spent his Saturdays conducting research at the American Museum of Natural History in New York. “The feather in Jeff’s cap is that he is the only living scientist to observe the rare act of a paramecium forming a protective wall around itself as the surrounding water dries up,” reported the newspaper.³³

by using lab equipment at a parent’s, relative’s, or friend’s college or workplace.

by borrowing or buying equipment, new or used. Aside from a good compound microscope, most isn’t expensive, unless you want better-than-school apparatus. If you want to buy, you can decide what to buy by making a list of necessary equipment for key labs in your textbooks.

by always mentioning their needs when they meet people. Gwen Meehan, mother of unschooler Patrick, wrote in GWS #73, “I happened upon a marine biologist with a PhD that included some education credits. He has invited Pat to come use his microscopes and ask questions any time he likes.” In GWS #113, Diane Metzler writes:

One of the fathers in Luz’s unschooling group [Unschoolers Support] has his own lab at Yale University, and my daughter was able to work with him several times a month. They did dissections, and she was able to ask him questions when she came across something in her biology textbook that she didn’t understand. His focus is studying brain cells, looking for clues to how to cure epilepsy, so they did some work together on culturing brain cells, and he showed her how to keep a lab book and take notes. We had looked at a list of labs that the ninth graders were going to do at the local high school, to see if we should try to do any of the same ones, but most of them were things like using colored paper clips to simulate DNA sequencing. I think that Danielle’s experience of seeing how a real scientist worked was much more beneficial to her.

Do you really need lab equipment?

Probably, but maybe not a lot. Most lab experiments in high school textbooks don’t demand much in the way of supplies. The most serious equipment typically required is a compound microscope, Bunsen burner, and triple beam balance. In the dozen-or-so textbooks I investigated, however, the majority of labs required little more than beakers, test tubes, crucibles, petri dishes, medicine droppers, graduated cylinders, and for physics a lab cart, recording timer, pulley, connecting wires, and dry cell. My

friend Clement-the-biology-research-assistant points out that you can often make do with substitutions. Use a candle instead of a Bunsen burner, any sort of scale rather than the triple beam balance, random plastic containers instead of official petri dishes, etc.

It's essential for a budding scientist to dig into real-world, hands-on activity, but you can legitimately augment, replicate, or replace some of your lab work with online simulations and virtual labs. The University of Colorado's interactive PhET project is a good place to start.

If you do want to spend some cash on lab equipment—or other science supplies—you may be amazed (as I was) to discover the range of stuff that can be had for money. Home Science Tools is a good source of equipment (but I would skip their book and curriculum section). And check out companies like Ward's Science, Carolina Biological Supply, American Science and Surplus, Nasco, and The Anatomical Chart Company. These can hook you up with not only the basics, but also replicas of animal skeletons, chemicals, gloriously detailed posters of the human muscular system, soil testing kits, model rocket kits, telescopes, plant and animal tissue cultures, and living things like amoebas, paramecium, centipedes, termites, silkworm eggs, salamanders, and fertile quail eggs.

Robert Bruce Thompson and Barbara Fritchman Thompson's "All Lab, No Lecture" guidebooks advise on, among other things, setting up a home laboratory—specifically in chemistry, biology, and forensic science.

Textbooks

There's no reason to avoid high school textbooks, just don't let them rule your life. Advantages: they cover all the basic territory. Usually, they are easy to understand. They have glossaries and thorough indexes; they can make great reference books. Disadvantages: using them slavishly is unnecessary and usually boring. They can't provide cutting-edge, completely up-to-date information. Also, textbooks can be expensive if you can't borrow them. One way to use them: skim through, read the instructions for the labs, then carefully do a few labs that interest you. (You might also watch videos online of others doing labs, or find an online interactive simulation or two.) Save most of your scientific energy for better stuff, like playing with wires or hatching a crop of ant eggs.

Try to choose a textbook after looking through several, comparing the way they organize material and how clearly they explain labs. For a one-stop shop, see James Trefil and Robert Hazen's *The Sciences: An Integrated Approach*, which offers a solid introduction to the main branches of science. Though written for college students who are unlikely to major in science, it should work well for you too.

If you're serious about science, consider more specialized college-level textbooks. (Pop down to the start of the biology section for a note on how to best engage textbooks.) Find out what is currently being used—either at a college you'd like to attend,

or nearby. University bookstores are one way to get this information. Save money by sourcing from libraries, used book sales at colleges, or by posting notices on campus or campus-connected social media groups.

The internet is an always-growing source of free textbooks. See the Open Textbook Library or Open Culture's list. Or check out CK-12's interactive science "flexbooks."

If you might major in a science in college

Do all the math you can, but don't assume that if you're math-challenged you can't become a scientist. (Not true, just ask E.O. Wilson.) Get comfortable with the scientific method and cultivate precision. Become familiar with data—accessing, interpreting, analyzing it. Read scientists' work, both popular and scholarly. Learn to write clearly and cordially. The detailed advice of professors at the ends of the sections on biology, chemistry, and physics might interest you, but it essentially boils down to math, method, inspiration, perseverance, and communication.

In the long run, college itself is not necessary for the development of a great scientist, but graduate school is definitely valuable. (No law says you must have a B.S. to go to grad school. You will need plenty of knowledge and solid experience. The reports of folks without college degrees getting into grad school do remain scanty—this is still a frontier.) Going to grad school, say my scientific friends, is the first really valuable level of education, more or less equivalent to an apprenticeship. Many of them—including my Caltech-graduated brother—feel that with a few good books and lab equipment, they could have taught themselves all they learned in college.

Scientists & engineers without school

William Lear, founder of the Lear Jet Corporation, quit school after eighth grade to work as a mechanic. He studied radio in the navy during World War I, and went on to invent hundreds of electronic devices, mainly various navigational aids for private aircraft. Later, he developed the Lear Jet, as well as music systems for cars and the first lightweight automatic pilot for jet planes.³✕

A 1980 United Press International story reports:

You wouldn't expect to find a space-age scientist living with computers and telescopes atop a roadless hill on the edge of the Kalmiopsis Wilderness, thirty miles southwest of Grants Pass, Oregon. But then, Paul Lutus is a man who's spent his 33 years doing things in different ways. . . . As a bookwormish "extremely precocious and arrogant twelve-year-old," he idolized Albert Einstein. Believing school would "lead to ruin," the seventh grader dropped out to study astronomy and electronics on his own.

When his parents didn't accept that decision, he moved out. Under the wing of a foster family, the twelve-year-old became a television repairman. At sixteen he qualified for a Federal Communications Commission radio-television license and later worked as a radio announcer in San Jose, California.

At twenty he launched a career as a “street person.” He earned a panhandler’s living in San Francisco by sketching portraits, singing folk songs, strumming his guitar, holding bubble-blowing classes.

He switched to a research associate position at Mt. Sinai Medical school in New York. Then he pedaled his bicycle from New York to Colorado where he took a job designing research equipment for the molecular biology department at the University of Colorado.

In 1974 Lutus began work as a NASA consultant in San Francisco. He moved to his hill at the base of Eight Dollar Mountain a year later. He designed computer programs that helped the Viking spacecraft fly to Mars, and he’s the electronics engineer who invented a new kind of lighting for the space shuttle.

The Christian Science Monitor describes Vincent J. Schaefer, one of the world’s top atmospheric scientists, who left high school after two years. At seventeen, he and three other teenagers started their own small archaeology magazine. The New York State Department of Archaeology noticed it, and the state archaeologist invited Schaefer along on a month-long field trip.

To help support his family, he took an apprenticeship at General Electric. At GE, Schaefer found a mentor who encouraged him to conduct his own experiments in the laboratory. Eventually, without any college or university training, Schaefer discovered the first method of seeding clouds. In 1961, he founded the Atmospheric Sciences Research Center in New York. For the next fifteen years, he directed it as the leading professor. The newspaper article passes along Schaefer’s “secret of success”:

Work on your own.

Learn by doing.

Seek out worthwhile people and make them your friends.

Read books.

Take advantage of every good opportunity to learn something.

Remember that mature people enjoy helping young people who are trying to find themselves and realize their potential.

Shaefer insists that anyone with the desire could do what he has done. “You have to have a sense of wonder,” he says, “and be aware of everything that goes on. You have to develop what I call ‘intelligent eyes’—be intrigued with the world and everything in it.”³☒

Unschoolers & science

Britt Barker followed her interests in wildlife and classical music. At sixteen, she started traveling with naturalists in Canada, assisting while they wrote a book on endangered species. Later, she received a grant to participate as a team member on an Earthwatch Institute expedition to study wolves in Italy. (Britt wrote letters about her experiences, which were later published as a book, *Letters Home*.)

As she got older, Britt kept up her independent approach rather than attending college. She again volunteered for Earthwatch, this time at the Bodega Bay Marine Lab in California. At nineteen, she was offered a three-month internship at Point Reyes Bird Observatory in California, working with a biologist and four graduate students. Next, she spent six weeks tagging elephant seals for the Farallones National Wildlife Refuge near San Francisco. By that time she had been offered a winter job in Arizona monitoring bald eagles from land and air, using radio equipment.³☒

Kathleen Hatley wrote in GWS #53 that her son Steve, thirteen, had developed a strong interest in freshwater fish:

Aside from actually going fishing, which is his very favorite thing to do, he managed to read every available book in the library, including five volumes of a fish encyclopedia. He worked out a deal with a friend who is a graduate student in fisheries, to supply him with worms and perch fillets for his specimens. In return, Steve received a large, fully-equipped aquarium, in which to keep his own specimens. A highlight of the year was when he got to “seine” a local river (drag the river with huge nets to bring up small fish to study) with the curator of the University Life Sciences Museum. Next week, he starts an apprenticeship with the ranger at a nearby lake (who happens to be one of the most knowledgeable naturalists around). He will be learning, among other things, how to manage a camping and fishing facility. This interest in fish led into many other areas, as a real interest always does—climate, pond and stream ecology, life cycles of insects, etc.

In GWS #102, Madalene Axford Murphy writes about her son Christian, attending Williams College:

Early on, our son Christian began to reach the limits of his father’s and my knowledge in science and math, and it became obvious that these would be major pursuits in his life. At first I cheerfully expanded my own knowledge, learning along with him, but finally I had neither the time nor the interest to keep up with him. We met this situation in a number of ways.

Several years earlier, we had bought a good basic telescope on the advice of an expert at the Buhl Science Center in Pittsburgh. Later, we added a good microscope. The cheap models available in discount department stores and many catalogs are difficult or impossible to keep in focus and seem designed to frustrate kids’ attempts, particularly if they want to work on their own. . . . [Christian] became fascinated with astronomy, read all the books by Asimov he could get his hands on and anything else on the topic the library had to offer.

Eventually he began to feel he needed some help. We discovered an astronomy group that met one evening a month, and he began to attend meetings. He discovered that one of the founders of the group was giving a twelve-session seminar on astronomy for adults at our local nature center. On the recommendation of the naturalist there (a friend of his) he was allowed to sign up, though he was only eleven. . . . I was concerned, but Christian wasn’t. He plowed through the reading and was disappointed when the classes were over. Did he understand everything? No, nor did many of the adults in

the class, but words like “parallax” and “gradient” had become part of his vocabulary and he knew a whole lot more about telescopes and the science of astronomy than he had before.

Another group, the Audubon Society, helped open up several aspects of biology for him. . . . When they started planning their annual Christmas Bird Count, Christian and I decided to participate. Of course we could recognize chickadees, cardinals, and nuthatches, but beyond that, neither of us were sure of our identifying skills. One of the Society’s more active members was a biologist who worked at a nearby fish research lab, and I asked if we could tag along when he went on the bird count. . . .

The biggest success of the bird count was the friendship that developed between Christian and Bob, the biologist. Bob invited Christian on other bird counts and for the last two years has taken him along as a timekeeper/recorder on an intense five-hour government sponsored survey of birds. . . . The summer after the original bird count, Christian discovered he could volunteer at the fish research lab where Bob worked, and he ended up working two eight-hour days a week. He worked on computers in one section and on a project in another section where Bob worked that involved sampling the number of fish eggs in various streams in the Northeast. Christian learned a lot about lab techniques and about the amount of tedious work required to get accurate results for a study.

All of these biology activities took place during Christian’s “high school” years, a time when homeschooling parents and sometimes children often begin to get a bit more nervous about whether they need to become more traditional, particularly if the children are planning on college. Christian did decide to use textbooks to fill in gaps in his knowledge of science, and activities like those I just described made the textbook knowledge real and useful.

Chemistry was never a major interest for Christian, but for a long time he thought he might be a physicist, fueled by his love of astronomy and his readings of biographies of fascinating people like Richard Feynman. He heavily used a textbook for physics, perhaps because I was little help beyond the beginning basics and we could find no living resource nearby. . . . Christian supplemented his textbook knowledge of physics with wide reading in periodicals like Science News, Scientific American, and a host of others that were much more current than any textbooks could be. And he did finally meet a nuclear physicist, the father of his older sister Emily’s roommate her freshman year at St. John’s College. Christian had a number of long conversations with him. . . .

Physics ended up being the preferred topic of any of Christian’s science fair projects. Up until two years ago, a science fair was an annual event at our house, with lots of other families participating. No prizes were given because our science fairs were not meant to be a competition but rather a sharing of interests and discoveries. They provided a reason to delve a little more deeply into a subject and offered a patient and understanding audience with whom to practice communicating ideas. . . . Christian’s projects ranged from rockets to lenses to pendulums.

Not everyone wants to focus on science as Christian did, but we're all better off if we pay some attention. Christian's sister Emily, interested in a museum career, wanted to be literate enough in scientific terminology and techniques to understand newspaper articles and issues that might affect her daily life. Her own voracious reading, which included books like Lewis Thomas's *The Lives of a Cell*, accomplished that. She also dabbled in a chemistry textbook long enough to learn about chemical formulae, the table of the elements, and other basic information.³☒

Biology

Many of us are drawn to biology by a love of nature, plants, and animals. And there are myriad resources and activities that reward this love in obvious and immediate ways—I've attempted to offer a helpful starter list here. But a few words, first, about the seeming pitfalls of this discipline.

Ironically, the most passionate students of biology, those whose ardent love for living things impels them to dive wholeheartedly into the field, often hit a wall of disillusionment. For starters, they may be disappointed by the reduction of life to the molecular level. (And if they've dreamed of eventually working as a field biologist who tracks grizzly bears by foot or helicopter in Yellowstone Park, now they realize that such jobs are rare and most professional biologists spend their days not with bears but with computers or microscopes.) They are not pleased to find that chemical principles such as thermodynamics, described with the mathematics of probability, replace the arcane mysteries of nature with mechanistic, lifeless models. Or they may revolt against the theory of natural selection—how can such randomness possibly account for the way amoebas hunt in packs, or for the elegant dance of the whooping crane?

Such internal crises should not be ignored, I am told by my biologist brother Richard. (Richard possesses the heart, mind, and habits of a naturalist, but his workdays are spent with computers, genomes, and complex calculations.) He explains:

These crises should be taken as evidence that you are engaging your full mind and awareness. Your thoughts, and your developing intuition, lead you to confront the fundamental fact that "the map is not the territory," that our models of reality, and particularly of life, are necessarily simplified, always inadequate, and relatively dull compared to the real thing. But once you invest your energy into the models as well, often by challenging them, and then addressing their inadequacies, you find that they are our best efforts at representing and communicating the vast mystery of nature. In this way the lifeless models too become beautiful—we animate them with our own quest for understanding.

But never lose that instinct to rebel and challenge knowledge when it falls short, or seems inadequate, or just doesn't ring true. This tension between intuition and method, between empathy and reduction, between observation and manipulation, drives good science. As a student, for example, you can use this tension to read between the lines in textbooks to move beyond mere memorization, which is only the shadow of science. After each few sentences pause for a moment to ask yourself: is this surprising? What assumptions are required here? Does this conflict with anything else that I know? It is

in these questions, not in the details presented in densely packed page after page, that science resides. The seemingly endless details now have a larger conceptual framework on which to hang. And even more satisfyingly, as you make a practice of reading with this commitment and awareness, you may find that you are already coming up with the cutting edge questions that are driving current research. In a very real sense you are already engaged in the scientific process.

Sometimes a passionate scientist just can't reconcile a commonly accepted model, hypothesis, or theory with their intuition, observation, and experimentation. And sometimes their persistence opens up broad new avenues of understanding. For example, the biologist Lynn Margulis rediscovered and validated the endosymbiotic theory, which explains the presence of mitochondria in eukaryotic cells as the result of a dramatic symbiosis between very different organisms. And Margulis didn't stop there, but went on to champion a new emphasis on the critical role of cooperation rather than mere competition in the evolution of ever greater levels of complexity—see, for example, her beautifully illustrated book *What is Life?*

Connect with animals & plants

If you're interested in the medical field, consider working with a veterinarian. There's a great deal of overlap between human health and animal health and as you can imagine, it's far easier to get permission to watch a cat being spayed than to watch a human being spayed. Lots of unschoolers volunteer with, or apprentice to, veterinarians. In GWS #103, twelve-year-old Caitlin Fahey of New Mexico describes her volunteer work at an animal hospital:

I clean cages, feed animals, watch and help with surgery, monitor animals under anesthesia, draw up saline solution from bags of IV water for moisturing purposes, scrape tartar off teeth, take temperatures, prepare Betadine and alcohol sponges for surgical prep, clean up animals that have just gotten out of surgery and return them to their cages), . . . clip nails, brush tangles out of fur, help get the surgical instruments and drapes ready for the autoclave, and I get to look at x-rays or radiographs, usually with an explanation from someone. . . .

What I love about working there is the variety. You never know what is going to come in that you haven't seen before. Usually, apart from all the regular spays and castrations, there will be a ligament repair or an amputation or some kind of bone surgery or tumor removal. Animals come in with all sorts of complaints: seeds or thorns in eyes, ears, and paws, tails that need to be amputated because they have been closed in doors, respiratory infections, bad breath and dirty teeth, hematomas (ruptured blood vessels), purebred puppies that need their tails docked or puppies that are polydactyl (having more than the normal number of toes) and need to get their extra toes cut off (or else they can't be shown when they're older). . . .

I learn about a lot of this stuff from the doctors, who lend me textbooks that they used in school and also give me magazines. I have gotten experience and knowledge, and even my cat, from the animal hospital.

Unschoolers also volunteer at rehabilitation centers for wounded or orphaned wild creatures—raptor centers, marine mammal centers, etc. And aquariums and zoos. And pet shelters and farm animal sanctuaries.

Closer to home, some unschoolers engage biology as part of caring for (and breeding) their own pets or farm animals. Others lean into biology in the process of growing (and propagating) houseplants, mushrooms, roses, pecans, or pumpkins—in their backyards or at arboretums, farms, botanical gardens, community gardens, urban food forests. You may find helpful guidance for such projects in Chapter 36.

Cultivating the patience, awareness, and knowledge of a naturalist is an exceedingly rich pathway to understanding not only individuals and species, but also the complex relationships among them.

Popular reads ~ biology

The Soul of an Octopus: A Surprising Exploration into the Wonder of Consciousness, by Sy Montgomery, tells of meetings between the very, very different minds of humans and octopuses. This book left me determined to connect more often and more intentionally with the animal multiverse.

Are We Smart Enough to Know How Smart Animals Are? by Frans de Waal, shines light both on animal intelligence and also on the tools—and limits—that scientists bring to that study. Based on careful observation; never overstated (de Waal is a prominent and respected primatologist); yet also permeated with deep affection for animals. (Also see his other books, TED talks, etc.)

Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants, by Robin Wall Kimmerer. Profound words from a botany professor. “Science can be a way of forming intimacy and respect with other species that is rivaled only by the observations of traditional knowledge holders. It can be a path to kinship.”

A Crack in Creation: Gene Editing and the Unthinkable Power to Control Evolution, by Jennifer Doudna. Both a thriller (in which the movie *Gattaca* almost comes to life) and a passionate (but nuanced) plea for caution and careful ethics, from one of the scientists who developed CRISPR technology. (You might start with her TED talk.)

The Gene: An Intimate History, by Siddhartha Mukherjee, sweeps eloquently through the quest to understand how life sends itself forward into future generations.

The Man Who Mistook His Wife for a Hat, by Oliver Sacks, is a disturbing yet thoroughly human classic—stories of people living with strange and painful neurological disorders, and how medicine both succeeds and fails in helping them. The poignant movie *Awakenings* is based on Sacks’s work.

The Tell-Tale Brain: A Neuroscientist’s Quest for What Makes Us Human, by V.S. Ramachandran, is a newer and more in-depth report on the same subject.

Anything by Mary Roach offers a squirmy, funny exploration of human physiology. (Start with *Gulp* for the digestive system, or *Stiff* for dead bodies.)

Plus anything by Stephen Jay Gould and Lewis Thomas.

The dynamic fields of epidemiology/pandemics, genetics, medicine, and neuroscience are unfolding speedily, so search for the latest, greatest books that translate these ongoing dramas into language regular folks can understand.

General biology resources

The Tree of Life Web Project—a seriously huge compendium. Learn about the genetic connections among all kinds of life, from green sulfur bacteria to squirrel monkeys to the redwood forests. And about biodiversity, evolutionary history, and the nitty gritty of what made a tyrannosaurus a tyrannosaurus.

BioInteractive’s website offers a wealth of cutting edge resources intended for teachers, easily adaptable for your purposes.

If you’re working with a textbook or online course, you might supplement with an informal companion like Larry Gonick’s *Cartoon Guide to Biology*, or *The Manga Guide to Molecular Biology* (or *Biochemistry*).

On a screen near you: the beauty, wonder, & diversity of life

bioGraphic magazine, from The California Academy of Sciences, “created to showcase both the wonder of nature and the most promising approaches to sustaining life on earth.”

The Photo Ark hosted by National Geographic—images of over 9,000 animal species. Also Project Noah’s wonderful compendium of crowdsourced photos.

The Encyclopedia of Life, hosted by the Smithsonian’s National Museum of Natural History, works to gather in one place knowledge about all of earth’s plants, animals, fungi, protists, and bacteria—a generous and ambitious undertaking.

Nature documentaries of all kinds. Those produced by the BBC and/or narrated by David Attenborough (*Planet Earth*, *Our Planet*, *Blue Planet*, etc.) are reliably excellent.

Wildlife webcams around the world—for unedited footage, and for up-to-the-minute news. (Search for what’s currently best, or for your favorite beastie.)

The State of the World’s Plants and Fungi. Royal Botanic Gardens, Kew, publishes these beautifully illustrated documents. They collate research and data, looking at everything from which species are best adapted for climate change, to an overview of known medicinal plants, to how fungal enzymes are used in industry, to genomics and the threat of extinction. Kew also offers an online database with over a million plants.

The Census of Marine Life website presents a stunning array of pictures, video, and information for the randomly curious, postdocs, and everyone in between.

Human anatomy

Coloring books are a proven, enjoyable way to learn about the intricate realm of our bodies. I am partial to Wynn Kapit's original classic, *The Anatomy Coloring Book*, beloved by many a beginning medical student, but there are several to choose from. (If you like this approach, check out other coloring books in the same vein—physiology, human evolution, biology, marine biology, zoology, microbiology.)

Try an interactive online platform. Some are expensive (designed for medical students) but offer partial access for free. See A.D.A.M.'s *Interactive Anatomy and Physiology*, or *BioDigital*.

Look up Alex Grey's artwork. Sometimes it's good to learn about our bodies not only from straight-up science and clinical diagrams, but also from art. Grey's gorgeous paintings show human anatomy in accurate detail, but also go far beyond, showing the way he envisions energy moving in, between, and around us.

Consider visiting a *Body Worlds* exhibit if it comes to a museum in your area. Not to be undertaken lightly, and not for everyone, but an extraordinary opportunity to learn more about human (and other) bodies.

How much of your own anatomy can you locate and describe—can you point to your liver? kidneys? For simple self-study projects, see Linda Allison's children's classic *Blood and Guts: A Working Guide to Your Own Insides*. For a more extensive investigation, read Bill Bryson's *The Body: A Guide for Occupants*. "We pass our existence within this warm wobble of flesh and yet take it almost entirely for granted. How many among us know even roughly where the spleen is or what it does? Or the difference between tendons and ligaments? Or what our lymph nodes are up to?"

Genetics

is a rapidly evolving field (yep), so do your own search, and also consider:

The Cartoon Guide to Genetics, by Larry Gonick and Mark Wheelis—a fun, painless introduction to the basics. I'm told Khan Academy's genetics modules are also a good intro.

Personal DNA testing. If you haven't already sent your spit to a giant company to find out more about your own genome and ancestors (and possibly discover unknown living relatives), consider that. Perhaps along the way you'll be inspired to further investigate your own genetic particulars. Until you're eighteen you'll probably need to do the testing part together with your parents.

The *Learn.Genetics* website, from the University of Utah, offers online labs and other engaging resources focused around genetics and related fields such as human health and medicine, ecology, evolution, and cell biology.

And learn a little something about gene editing. The twenty-first century is a science fiction universe, except not fiction. At the time of this writing, techniques known as CRISPR, developed from a bacterial immune system, have grown into an extremely

powerful, and also tricky and challenging technology. This—or something like it—is going to seriously impact basically everything during your lifetime, so regardless of how you feel about that, good idea to get familiar with the basics of how it works. Jennifer Doudna’s *Crack in Creation*, recommended above, explains. HHMI’s BioInteractive website (designed for teachers) offers CRISPR interactives plus a wealth of other genetics and biology resources. Synthego, a genome engineering company, shares a plethora of high-level online educational materials.

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Be a Naturalist

The naturalist is the one with a butterfly net, a carefully labeled collection of abalone shells, an aquarium, a miniature museum, two pet boa constrictors, a field diary full of sketches and notes, a worn pair of hiking boots, and calcite crystals from a trip to Wyoming instead of from the corner New Age Shoppe. The naturalist makes science rich, beautiful, connected, and personal.

Natural history (the naturalist’s path) is an ideal avenue for an unschooler, since you have all the time you need outside in “the field,” and it can be dirt cheap as well as rigorously, respectably scientific. Naturalists are usually well-rounded scientists—geologists and climatologists as well as botanists and zoologists. My favorite example of a naturalist in action is the wondrous, moving documentary *My Octopus Teacher*. Craig Foster’s relationship with a wild octopus demonstrates that one self-taught (or cephalopod-taught) individual can contribute substantially to science, by giving sustained, focused attention to a little-understood entity or phenomenon. (And there are millions of little-understood entities and phenomena!)

“What really makes a naturalist?” asks Gerald Durrell, in *The Amateur Naturalist*. “. . . A naturalist first of all has to have a very inquiring mind. He seeks to observe every little variation in nature and to try and discover its origin and function. . . . A naturalist should also be an assiduous note-taker, recording every detail of his job with accuracy and neatness.” Durrell collected animals for zoos and conducted naturalistic adventures. As a child, he rarely went to school.

Resources

Gerald Durrell's *Amateur Naturalist* covers botany and zoology. It's clear, illustrated, and comprehensive, with sections on techniques, equipment, and setting up a workroom—all you need to know to turn your love of nature into science. Also, Durrell points out inexpensive or free ways to get the job done—like substituting a razor blade for a scalpel.

For help with rocks, minerals, and weather, try Vinson Brown's *Amateur Naturalist's Handbook*. It's great for plants and animals, too, just not as visual as Durrell's book.

Tristan Gooley's unique guides can heighten your awareness of everything around you. You might start with *The Lost Art of Reading Nature's Signs: Use Outdoor Clues to Find Your Way, Predict the Weather, Locate Water, Track Animals—and Other Forgotten Skills*.

To help you draw beautiful pictures in your naturalist's diary, see *Nature Drawing: A Tool for Learning*, by Clare Walker Leslie. For beginner-level guidance, start with *Drawing on the Right Side of the Brain*, by Betty Edwards.

Field guides, such as the Peterson series, help identify birds, animal tracks, mushrooms, etc. (Apps for your phone can do the same. And the Cornell Lab's *All About Birds* website is excellent.) See if you can find a local or regional guide that incorporates the geology, botany, and zoology of your area—an independent bookstore, or an outdoor-oriented supplier like REI, is a good place to look.

Connect your own observations with the rest of the world's by contributing to citizen science projects or crowdsourced compendiums. (Try eBird, Project Noah, or Audubon's Great Backyard Bird Count.) Join the iNaturalist community online, which can help you both identify the life around you and also share your findings.

Look into your state's Master Naturalist program, which provides training in exchange for volunteer work.

Plant a habitat garden, and savor visitations from hummingbirds, songbirds, butterflies, toads.

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Unschoolers learning biology

With the help of GWS editor Susannah Sheffer, unschooler Emily Ostberg found an apprenticeship on a thirty-five-acre farm, Ix Chel, in the rainforest of Belize. In GWS #96, she writes:

Ix Chel is on the bank of a swollen yellow river and consists of about twelve little buildings, a trail of medicinal plants, and lots of greenery watched over by a tall radio antenna. The electricity is solar-powered, the water is from rain, food is from the garden, and the bathrooms are latrines.

Here at Ix Chel there is a short trail through the rainforest full of naturally occurring medicinal trees which the tourists guide themselves through. Ix Chel also works to find new medicines by sending samples to the New York Botanical Garden for positive identification and then to the National Cancer Institute for testing. Twelve plants so far have shown promise in treating cancer and AIDS. Ix Chel makes and sells rainforest remedies. We make them right here from tinctures of plants and alcohol with very simple equipment. . . .

When I'm not busy I help [Jay the plant man] press plants, fill in data, do calculations, weigh bark. I'm learning a lot about botany just by hanging around and helping out.

Emily Linn organized a group of teenagers who got together for numerous academic (and other) activities. Her mother, Diane Linn, reports in GWS #94:

The biology program was one of the best activities. It really worked splendidly. We started with five kids, and by the end we had twelve because the word spread. Emily had asked her father if he would be the primary leader of the group, and then I was sort of the academic coordinator. The three of us spent many hours talking about the structure of the program, who would assume what responsibilities. We continually checked with Emily and asked her how she thought things were going.

Early on, we decided to run it as a co-op. We asked each family to have at least one adult participating in some way. Several families were in charge of getting materials—we gave them catalogs, and a lot of materials just came from the hardware store or the grocery store. One mother was in charge of getting research articles from the library for the kids to look at. . . .

Every other week, Tom [Emily's dad] would present the material from the textbook and answer questions about it, and maybe have some sort of lab work. On the alternate weeks, we did mostly lab work. That became more and more flexible as we went along, but we did make sure that Tom had the opportunity to sit down with the kids and talk about their readings. We had a textbook that we used to cover all the basics in an efficient way, but because textbooks are so boring and so often overloaded with superfluous details, we supplemented it with other books, many of which were more elementary than the textbook. We told the kids not to sit down and memorize terms, but just to read for understanding, and if the terms were important enough and if they used them enough, they would eventually find that they had memorized them.

By the spring, we were getting into physiology and anatomy. A friend of ours who is a biologist told us that he had to order specimens in bulk, and that we could have the ones that he didn't need, for free. This might be useful for other homeschoolers to know: biologists or biology teachers have to order this stuff in bulk, and so often they end up throwing things away, so if a homeschoolers group contacted their local high school, they might get just what they were looking for. It's also easy to order specimens through biological supply houses. . . .

Two of the parents were in charge of field trips and speakers. When we studied bacteria, for example, we went to the Detroit sewage treatment plant and learned how bacteria are used as a natural purifier of sewage. We had a prominent geneticist come and speak to us, too, and give a slide show. The mother who organized this called a hospital and asked about how to arrange for a geneticist to speak. We've found that if you say, "We're a group of homeschoolers and the kids are highly motivated and very interested in this topic," it's as if "motivated" and "interested" are magic words. People couldn't do enough for us; we had so much time donated. They're so impressed by a group of teenagers who are truly interested in learning.

We didn't run the program like a traditional classroom. We had made it clear at the beginning that we were not a school and were not in charge of how much the kids learned. It was very informal, and there were no tests, except at the end we had a final exam which we held by pretending we were on a TV game show. Everyone was slamming on bells and screaming out answers, and the whole group aced the complete exam that was in the textbook.

Preparation for college biology

A professor of biology at Carleton shares that lab experience in chemistry, physics, and biology is expected background for potential biology majors. He is frustrated with students

that have had lecture/seminar/discussion group experience but lack involvement with the equipment and visual observations, data analysis, and understanding of experimental design. Problem solving in the biological disciplines is a necessity; biology is an empirical science not a theoretical one.

The same professor would also like (but not necessarily expect) first-year students to have:

a general familiarity with the major sub-disciplines of biology: genetics, physiology, organismic, anatomy/morphology, evolution and cell/molecular in both animals and plants. I am not suggesting Advanced Placement courses, just a one-term general survey at the high school level. One of the problems we face is that many high school teachers use their biology courses for single sub-discipline presentations (primarily genetics, for example) or as a platform for socio-biology (personal hygiene, AIDS, greenhouse effect, pollution, etc.) without providing the fundamentals of biology. This may give the student problems at the college level when he/she is expected to spend

a full year in introductory courses learning a massive vocabulary of basic terms and concepts. The problems are not insurmountable but they do add to the burden of initial adjustment and may foster a sense of inadequate preparation.

As to the “ideal student”: someone with an enthusiastic curiosity about what makes nature “work” without the preconceptions or prejudices of “that’s impossible” or “I don’t believe in . . .” or “You can’t do . . .” This must be combined with the intelligence to know the difference between improbability and sheer fantasy. Biology is a discipline filled with many levels of discovery, all of which pertain directly or indirectly to how we live in the world and how we perceive it. Anyone who continues to experience a sense of awe about the natural world is the “ideal student” as far as I am concerned—as long as it goes beyond the mere “gee whiz” stage.

In recent years, chemistry has become an increasingly important prerequisite for college biology classes, so that’s a strategic place to invest your preparatory energy.

Chemistry

When I was a kid, old-fashioned chemistry sets were still a thing, and it was eminently possible for your average child-next-door to accidentally blow up the garage or at least send billows of yellow smoke out her bedroom window. Chemistry sets have gradually given way to the kinder, gentler world of making slime and invisible ink—which, sigh, is probably for the best. Still, chemistry remains an excellent choice for those with a seed of mad scientist in their souls. I will not forget the eye-gleam of the unschooler who showed me his project-in-process of amassing an actual periodic table of the elements—wee chunks of silver, tin, niobium, a vial of neon—each nested in its own tidy compartment. If internet-sourced experiment videos don’t satisfy your inner chemistry-set-wielding child, step it up with Theodore Gray’s *Completely Mad Science: Experiments You Can Do At Home, But Probably Shouldn’t*.

Popular reads

Chemistry: A Very Short Introduction, by Peter Atkins, is a substantial yet short and readable introduction. “A chemist can look on a rose and understand why it is red and look on a leaf and understand why it is green. A chemist can look on glass and understand why it is brittle and look on a fabric and understand why it is supple. The glories of Nature, of course, can be experienced without this inner knowledge, just as music can be enjoyed without analysis; but the insight that chemistry brings into the properties of matter, in all its forms, can be brought to bear if the moment is apt, and deeper enjoyment thereby achieved. I seek to share some of this insight with you and show that even a little chemistry will add to your daily pleasure.” If you like this one, you may also enjoy Atkins’ other acclaimed books.

The Elements: A Very Short Introduction, by Philip Ball, tells the story of elements (gold and oxygen feature prominently), their discovery, and their role in history.

The Disappearing Spoon: and Other True Tales of Madness, Love, and the History of the World From The Periodic Table of the Elements, by Sam Kean. “We eat and

breathe the periodic table; people bet and lose huge sums on it; philosophers use it to probe the meaning of science; it poisons people; it spawns wars. Between hydrogen at the top left and the man-made impossibilities lurking along the bottom, you can find bubbles, bombs, money, alchemy, petty politics, history, poison, crime, and love. Even some science.”

Chemistry envisioned

The field of chemistry is abundant in playful and inspiring visuals. These make good reference works, and they add an important dimension to any online course or textbook study. I adore Theodore Gray’s *Elements* book trilogy—a gorgeous and appropriately gleeful explication of elements, molecules, and chemical reactions. (His periodictable.com website is also splendid, with thousands of pages of geekery.) Larry Gonick’s *Cartoon Guide to Chemistry* is a different type of visually-oriented book, also helpful.

Mess around with an interactive atom builder online, and other atom and molecule simulations. I like the University of Colorado’s PhET project.

Hang a colorful poster of the periodic table. Or find an interactive, dynamic online version—try Michael Daya’s Ptable, or Keith Enevoldsen’s Periodic Table of the Elements, in Pictures and Words. Ponder it relaxedly—coached, perhaps, by Wikipedia’s periodic table article. The patterns, progressions, affinities and relationships among the elements offer a never-ending source of fascination.

The online Periodic Table of Videos, from the University of Nottingham, features an intriguing, celebratory video for each element.

On a different note, you might enjoy Lauren Redniss’s graphic novel *Radioactive: Marie & Pierre Curie: A Tale of Love and Fallout*—or the movie based on the book.

The chemistry of cosmetics, food, cooking, gardening, painting, etc.

It’s fascinating to peer into the chemistry that underlies everyday life. Look up Catherine Cartwright-Jones’ expertise on dyeing hair with plants, Paula Begoun’s wealth of knowledge regarding cosmetics, Harold McGee’s *On Food and Cooking: The Science and Lore of The Kitchen*. Since literally every thing—living and otherwise—consists of chemicals, you can explore the chemistry of any thing that interests you.

Preparation for college chemistry

The chairman of chemistry at Amherst advises:

I would suggest that a freshman needs to know very little chemistry to do well in beginning chemistry at Amherst. We like them to know some of course—understand the implications of the Periodic Table, know the common ionic species, etc—but that

is not essential for success. Those who do best have the ability to solve word problems and to do algebra. These are certainly the skills I should most emphasize. Of course, being smart helps too.

The chemistry chair at an Ivy League university says:

Some of our freshmen place out of our general chemistry on the basis of their high school experience, which I suppose is my ideal for the way freshmen should be prepared. Based on what I am told by my students and my own experience, I have concluded (unhappily) that many high school chemistry courses are pretty thin. . . .

In my experience, the troubles students have in general chemistry, if they have trouble, usually stem from mathematical problems, not from lack of prior knowledge of chemistry. Many students have difficulty converting ideas they “know” at a verbal level into algebraic expressions they can solve to get answers. This skill is essential for success in all the physical sciences.

The algebra needed for general chemistry is elementary. Students see it as high school sophomores. The crew we get undoubtedly passed the math courses in question with all A’s. What many of them did not come away with, however, is facility at using the math they “know” to do useful things for them. They never really internalized it.

It follows that the preparation students need for college chemistry is any preparation that enables them to use algebra as a tool. They can get that skill in math courses, physics courses or chemistry courses, but just so long as they get it, I can teach them general chemistry successfully. It certainly makes it easier for me and for them if they had some chemistry before I see them, but it is not absolutely essential.

Physics & astronomy

“When Buckminster Fuller was in the navy, he asked himself why the bubbles in a boat’s wake were round. This might sound like a ‘dumb’ question, but it led him to geodesic domes and hundreds of other discoveries.” —Paul Hawken in *The Next Economy*

A dream was the best physics lesson I’ve ever had. It was the first day in a physics class. The professor said, “Your first assignment is to roll a ball. No writing, no reading. Roll your ball everywhere and always watch it. Roll it in the park, roll it in the street, and roll it in the kitchen.” You, too, might like to begin your fun with a ball—or with a slinky, an old cardboard box and some syringes you can turn into a hydraulic robot, a gyroscope, or any of the other “physics toys” to be made, scrounged, or bought.

Popular reads

David Macaulay, *The Way Things Work Now*. Explains the physics of cars, guitars, parachutes, spacecraft, touchscreens, wi-fi, etc. with fantastic drawings and a sense of humor.

Stephen Hawking, *Brief Answers to the Big Questions*. The famous physicist’s final book is personal and opinionated—and easier to grok than some of his earlier writing.

Read his response to questions like “What is inside a black hole?” and “Is time travel possible?”

Fred Alan Wolf, *Taking the Quantum Leap: The New Physics for Non-Scientists*. Praised for both its playful sense of humor and its success at explaining complicated theories, this is another great one that manages to be both mind-bending and (mostly) understandable. Stories, illustrations, and analogies communicate quantum physics intelligibly, yet without detracting from the wonder of it all.

Seven Brief Lessons on Physics, by Carlo Rovelli. From the mountain of books that try to make dense topics crystal-clear to average folks like me, this eighty-one page gem shines out.

Janna Levin, *Black Hole Blues: And Other Songs from Outer Space*. An astrophysicist eloquently narrates the search for gravitational waves, a.k.a. spacetime’s soundtrack of black holes colliding.

Lisa Randall, *Knocking on Heaven’s Door: How Physics and Scientific Thinking Illuminate the Universe and the Modern World*. From a leading physicist, this book is both a splendid overview of twenty-first century physics and an enlightening reveal of scientific culture and process.

Neil deGrasse Tyson, *Astrophysics for People in a Hurry*, is a quick and engaging read. And consider *Letters From an Astrophysicist*, filled with Tyson’s candid, personal responses to questions on not only the cosmos, but also everything from worst-ever science movie, to philosophy, to life as an African American scientist, to climate science denial.

Physics often sparks the imaginations of scientist-writers, so wonderful books come out every year. The Royal Society Science Book Prize (recent winners and nominees) is a good place to check.

Astronomy resources

In *The Astronomical Companion*, Guy Ottewell trains his wide-ranging mind on the galaxies. Exquisite drawings and poetic, lucid text vividly convey our (tiny) place in the universe and gloriously show why we call the black night around us “space.”

Astronomy Hacks: Tips and Tools for Observing the Night Sky, by Robert Bruce Thompson and Barbara Fritchman Thompson, offers excellent practical guidance.

In addition to NASA’s wealth of online resources, also see National Geographic’s online NASA-based treasures. I love “Cassini’s Grand Tour,” featuring the spacecraft’s exploration of Saturn and its moons.

Physics textbooks & textbook-sidekicks

Particularly for people with weak math backgrounds: *Conceptual Physics*, by Paul G. Hewitt. You need advanced math for advanced physics, but can get a surprisingly substantial start without, thanks to this profound book. At the end of each chapter,

rather than ask you to work equations, it gives exercises to test your understanding, like: “Imagine a super-fast fish that is able to swim faster than the speed of sound in water. Would such a fish produce a ‘sonic boom?’ ”

Karl Kuhn’s *Basic Physics: A Self-Teaching Guide* is praised for its clarity and simplicity.

The Theoretical Minimum: What You Need to Know to Start Doing Physics, by Leonard Susskind and George Hrabovsky, is not a textbook per se but rather an acclaimed step-by-step treatise. (You may also enjoy Susskind’s online video lectures, recorded in his classes for Stanford’s Continuing Education series; these lectures generated the material from which the book was culled.)

For a more traditional textbook, consider Saxon’s *Physics*, by John Saxon, which (like Saxon math books) is praised for its clear presentation and its integration of review throughout the text.

Richard Feynman’s *Six Easy Pieces: Essentials of Physics Explained by its Most Brilliant Teacher* offer transcripts of six lectures given only once to freshmen at Caltech. (You can access the lecture text online for free at Caltech’s Feynman Lectures website—the six “easy” talks are part of Volume 1. Audio recordings of the actual lectures are also available.)

Since physics falls into the “hard” basket for a lot of us, it’s helpful to grab a sidekick to accompany a textbook or online course, something that provides a more accessible, perhaps illuminating, perspective. (Or, to enjoy on its own if you’re just looking to scratch the surface.) In addition to popular physics books like those listed earlier, try

The University of Southern Denmark’s *Quantum Kate* website, with cute bite-sized videos, and accompanying articles both simple and advanced

Larry Gonick’s and Art Huffman’s *Cartoon Guide to Physics*

The Manga Guide to Physics (also to Relativity, Electricity, and the Universe)

MIT’s short online *Physics Demo* videos, in which students a few years older than you, with access to MIT’s fancy equipment, explode wires and levitate magnets.

Dig deeper into physics

Exploratorium Cookbooks. These give detailed instructions for building replicas of the famous exhibits at the Exploratorium museum in San Francisco. Most of the “recipes” relate mainly to physics, and explain such delights as 3D shadows, a harmonograph, a Bernoulli Blower, a person-sized kaleidoscope, and a pendulum table. (The cookbooks are expensive and the recipes are elaborate—these are not for dilettantes. For simpler activities, see the Exploratorium’s “snacks”—free on their website.)

If you liked Feynman’s *Six Easy Pieces*, Caltech offers the text of not just those six, but all the famous Feynman Lectures on Physics free online (at their Feynman Lectures website). Feynman’s *Tips on Physics* is a companion book to the lectures. Richard Feynman’s passionate, idiosyncratic style of lecturing (and thinking) is beloved

by many. If you're learning at that level, also look around to see what's available via MOOC.

Stay current by looking up the work of recent Nobel Prize winners (in physics), or the numerous other physics awards (general, as well as mathematical physics, aerospace physics, acoustics, optics, astrophysics, nanotechnology, quantum field theory, photovoltaic solar energy, etc.).

Preparation for college physics

The chairman of physics at Bryn Mawr describes the background needed for introductory physics courses:

Minimum: a working knowledge of plane geometry, algebra and trigonometry. The student must be able to follow simple geometric arguments, to solve linear and quadratic equations, as well as coupled linear equations in two variables. She must be able to graph simple functions as well as infer information from simple graphs. She needs to have some familiarity with exponentials, logarithms and trigonometric functions, and be able to perform some rudimentary manipulations with them.

Calculus is neither a prerequisite nor a corequisite for the introductory course, but the basic notions of calculus are introduced and used. The textbook is calculus-based. It is not essential for the student to have had previous exposure to calculus (or to physics, for that matter).

Ideal: In addition to the basic mathematical skills listed above, some exposure to calculus would help. Beyond these, of far greater importance perhaps are curiosity and an open mind and a capacity to keep being surprised and awed by the realization that some aspects of the universe do seem to be understandable. And yes, we do get some of these students every now and then!

The chair of physics at another highly respected liberal arts college says:

Apart from general things applicable to all disciplines, like the ability to think, write, and speak clearly, the main thing [a beginning physics college student] needs is a solid background in high school mathematics, up to but not necessarily including calculus.

What else would I like such a freshman to know or have? Some prior exposure to physics at the high school level is probably useful, but we do not require it even in our introductory course for potential majors. The same goes for computer experience; the ability to use a word processor and to write simple programs . . . can make things easier but is not necessary. Our most exciting students are often those who have read widely and enthusiastically in the popular literature about physics and astronomy, though they may have little in the way of special or advanced preparation.

A professor of physics and astronomy at Dartmouth writes about astronomy:

A freshman interested in a career in astronomy at Dartmouth majors in physics. There are astronomy classes that one can take that satisfy the requirements for the major. All of these have the first two general physics courses as the minimum prereq-

uisite. Thus in principle a student can take astronomy after arriving with little or no physics background.

The ideal students, however, should have calculus, high school physics, and knowledge of computers. In general, I recommend that an undergraduate get as strong of a background as possible in these areas in order to go on to graduate school. Generally speaking, a Ph.D. is required to do professional work in astronomy.

Geology

Geology challenges you to look at the earth, wherever you are, and ask how it got the way it is—a great science for detective-types.

Popular reads

The Story of the Earth in 25 Rocks: Tales of Important Geological Puzzles and the People Who Solved Them, by Donald Prothero. “Every rock or fossil tells a story. To most people, a rock is just a rock, but to a skilled geologist, a rock is a clue full of valuable evidence that can be read clearly—if you only know how.” Taken as a whole, Prothero’s tales present a thorough introduction to geology.

Annals of the Former World, by John McPhee. This is a giant four-part compilation, packed with mesmeric stories about landforms and humans. For a less ambitious read, try any of the four individual books—each focuses on one part of the U.S.

Bedrock: Writers on the Wonders of Geology, edited by Lauret Edith Savoy. I love the far-ranging minds that compiled this far-ranging book, with selections from not only scientists but also poets, philosophers, artists, and novelists across the world.

Textbook

Understanding Earth, latest edition. This clear, broad, introductory college text is aimed at the beginning student without any specialized science background. It’s not a lab book, but describes landforms that you can go looking for in your own territory.

Online resources

The USGS (United States Geological Survey) website has lots of good stuff in their “resources for teachers” section. They also sponsor citizen science projects on earthquakes, changing coastal shorelines, etc.

The National Park Service’s “Geology” website, the American Geosciences Institute, and NASA’s Earth Science also offer plentiful articles, videos, and activities.

Look up the forty-second video, “Plate tectonic evolution from 1 Billion years ago to the present,” from the School of Geosciences at The University of Sydney. (For more geekery, see the rest of their EarthByte YouTube channel.)

Go out & play!

When I was in college, the geology majors were notoriously adventuresome and unshaven, even amongst the school's already outdoorsy-skewing general student population. They chose geology largely because the classes, seminars, and homework involved lots of time in the field, a.k.a. "outside." Equip yourself with a simple hand lens, climb out your window, and begin.

Roadside Geology of [Idaho/Minnesota/Louisiana/etc.]—there's one for almost every state. After a solid overview of regional geology, each book explains what's happening in view of the state's highways and byways. The same publishers also offer a "Geology Underfoot" series designed for walkers.

Join the curious subculture of rockhounds (also known as rock collectors or amateur geologists). To get started, you need little more than that hand lens, a rock and mineral identifying book or app, and maybe a rock hammer. See if there's a rock or rockhound club in your area. Or, seek out an old-fashioned (as opposed to a new age) rock shop. The best of these shops are atmospheric delights crammed full of dusty specimens including exquisite, inexpensive little treasures.

Climate Science

The science of global warming is both simple and complicated. It's simple in that the main triggering mechanism is straightforward and undisputed: burning fossil fuels (in the form of coal, gasoline, etc.) releases carbon dioxide. When you add more carbon dioxide to the atmosphere, it heats up. That's basic chemistry, easy to demonstrate in a home lab, and nobody who knows anything argues against it. But the science is also complicated due to the many feedback loops involved, and the way these loops interact over time, in ways we can't yet fully predict. Negative feedbacks counteract warming. (The warmer the earth gets, the more infrared radiation shoots back out into space, resulting in a slight cooling effect.) Positive feedbacks lead to further warming. (The warmer the earth gets, the more Arctic sea ice melts. Whereas ice is white, and therefore reflects heat, once it melts the resulting expanse of liquid water is darker and therefore absorbs heat.)

Out of all the things I might say about climate science, here's one thing I can say for sure: it's a good idea to learn at least a little bit so you don't feel unnecessarily confused about this essential topic which impacts all of our lives. If you don't yet understand the basics, thoughtfully invest an hour or two and you'll be ready to decipher whatever you see in the news or read in a popular science magazine, and to listen in on—possibly join—the public conversation. "On your learning," says the Course in Miracles, "Depends the welfare of the world."

Climatology is a branch of the atmospheric sciences, along with meteorology and a few other sub-disciplines. The science of climate change also draws from all the major fields (chemistry, biology, physics, geology) and from math and data science—and this science sits uncomfortably adjacent to human challenges like politics, international communication and cooperation, bickering within the U.S., youth rights, wealth

inequality, systemic racism, and climate justice. Because there are constant new developments, the best way to stay up to date is via agile resources like websites and journals rather than books. But if you want to go seriously into climate science you will need to deepen your understanding of molecules, physics, photosynthesis, clouds, and icebergs and for all that it may be back to books and labs and such.

NASA's Global Climate Change website offers up-to-date news and analyses plus a visual, impactful presentation of the most current data available. Their separate Climate Kids website is an excellent starting place for people of all ages who are confused about the basics of climate change.

Another great presentation of current data on greenhouse gas emissions and related topics is Oxford University's Our World in Data.

The Alliance for Climate Education's Our Climate Our Future website is designed for youth, with the intertwined goals of educating and empowering. It includes a hub of current news.

Bill McKibben's Climate Crisis newsletter, available through the New Yorker website, is a good source of fresh content. So are TED, The Atlantic, online science magazines, and your favorite science podcasts.

Though a book can't incorporate cutting-edge developments (climate science unfurls faster than a writer can write and a publisher can publish), books are still unbeatable for a broad, deep understanding. At the time I'm writing (early 2021), one of the best to provide a non-technical but science- and evidence-based perspective is Kerry Emanuel's short *What We Know About Climate Change*.

So what can be done about climate change?

The following books, though grounded in science, focus on humans' role—how our species has catalyzed climate change, and what we can collectively do to mitigate it.

How to Avoid a Climate Disaster, by Bill Gates, is practical and big-picture. Gates focuses on technology and briefly addresses geopolitical challenges—how can we get the whole planet to collaborate?—but refrains from political blaming and shaming. Gates' smartest critics say he underestimates the potential of solar and wind power; as always when reading an influential book on an important subject, it's essential to also read a few thoughtful reviews (ideally by informed experts). Still, I think this is one of the best books on the subject.

The Story of More: How We Got to Climate Change and Where to Go from Here, by Hope Jahren. A data-packed yet conversational and witty narrative written by a leading geobiologist.

Drawdown: The Most Comprehensive Plan Ever Proposed to Reverse Global Warming, edited by Paul Hawken. It feels odd to say “inspiring” or “enticing” while discussing climate change, but this beautifully designed book deserves such words. It concisely lays out a hundred key strategies from geothermal energy to reduced food waste to living buildings to Indigenous peoples' land management to bioplastic. Whether you

want to upgrade your personal life, consider career options, or become a more informed citizen, you'll find something compelling here.

On Fire: The (Burning) Case for a Green New Deal, by Naomi Klein. "In tackling the climate crisis, we can create hundreds of millions of good jobs around the world, invest in the most systematically excluded communities and nations, guarantee health care and child care, and much more."

The regenerative agriculture movement proposes a "soil solution" that both sequesters carbon and also builds more productive, ecologically healthy farmland. Visit the Regeneration International website for introductory videos, a list of recommended books, and links to podcasts, online courses, infographics, and more.

Any serious plan for addressing climate change focuses on policy level—getting governments, corporations, and other powerful organizations to make significant changes, like investing in energy and transportation solutions that burn little or no fossil fuel, or supporting prudent agricultural practices. But as *The Story of More* and other books make clear, individual choices are essential too—especially when an individual not only adjusts their own actions but also influences (or humbly encourages) others to level up, so that ultimately our collective culture shifts. Advice abounds for how to reduce your own carbon footprint. The biggest impact comes from big things:

cutting down on fossil-fueled travel—driving and flying less, saving major trips for unique or particularly meaningful opportunities. (And one of the most effective things you can do in that regard, as a young person, is to choose a college or other "leaving home" adventure that isn't terribly far from family and friends. Good chance you'll want to travel back and forth often—for years or even decades—and the shorter the distance, the fewer dinosaurs join the skies along with you.)

eating more plants, and less conventionally-raised meat.

when and if the time comes in your life: keeping family size smallish, particularly if you intend to raise children in the highly-consumptive manner to which we in the U.S. have grown accustomed.

One thing that definitely doesn't help fight climate change? Chronic worry, stress, and guilt. It's not surprising that we'd experience such things given the current, um, climate, but they hurt us and they make us less effective. Moments of cognitive dissonance or moral pain that spark us toward change or action—yes, that can be helpful. Going through waves of grief is also healthy and normal. But don't spend your life or drain your brain spinning dark fantasies such as that you are going to "die of climate change" or that life in the 2030s is sure to be a dystopian desert nightmare. I don't generally think of myself as a pollyannaish "choose positivity!" type, but it pains me to hear young people I love equate our genuinely serious global challenge with universal, unavoidable doom and gloom.

For a constructive dose of realistic positivity, check out Mary DeMocker's *Parents' Guide to Climate Revolution: 100 Ways to Build a Fossil-Free Future, Raise Empowered Kids, and Still Get a Good Night's Sleep*. Invite the adults in your life to help

out in some of the ways DeMocker suggests, or use her ideas to lead your own circle of friends, and your family, into fun collaborations that contribute to a better future.

Later in this book (Chapter 37) you'll find ideas and resources for becoming an activist. You might also look into organizations that award grants and other support to young people who are eager to take on climate change.

Technology

"In olden times men of science, and especially those who have done most to forward the growth of natural philosophy, did not despise manual work and handicraft. Galileo made his telescopes with his own hands. Newton learned in his boyhood the art of managing tools; he exercised his young mind in contriving most ingenious machines, and when he began his researches in optics he was able himself to grind the lenses for his instruments, and himself to make the well-known telescope, which, for its time, was a fine piece of workmanship. Leibnitz was fond of inventing machines: windmills and carriages to be moved without horses preoccupied his mind as much as mathematical and philosophical speculations. Linnaeus became a botanist while helping his father—a practical gardener—in his daily work. In short, with our great geniuses handicraft was no obstacle to abstract researches—it rather favoured them."—Peter Kropotkin in *Fields, Factories and Workshops*

People who work with technology are often called "engineers." (William Lear, described previously, was an unschooled and uncolleged electrical engineer.) Another word for technology is "inventions," scientific knowledge put to work—whether in the form of space shuttles, wind-powered laundromats, or snowboards.

The Maker movement (along with its centers, fairs, websites, and magazine) is a natural ally for self-directed learners. Unless you live in a tiny town there's probably a center (maybe called a "makerspace" or "hackerspace") near you—see if your library has one. Sometimes homeschool co-ops and Self-Directed Education organizations have their own. Such centers vary widely in what materials and tools they have available, who uses them, and how they feel, but most are somewhat tech oriented with resources like electronic tidbits and, if funding allows, 3D printers and such. All hold in common the unschooler-friendly vision that everybody should be able to literally make their dreams come true.

Perhaps you need a Makey Makey, which is an "invention kit for the twenty-first century," rather like a portable, personal slice of makerspace. Use it to turn everyday objects into musical instruments, keyboards, or touchpads and connect them to the internet. (Bonus: co-inventor Jay Silver is a beloved, if infrequent, Not Back to School Camp staffer, and a big-hearted, wildly fun supporter of unschooling.) Or hunt up other makerish playthings, like programmable robot toys or Snap Circuits (modular electronic building blocks with which you can construct radios, flying saucers, and laser guns).

Online resources abound. Generally speaking, see the Instructables website, as well as the plethora of DIY videos on YouTube. Specifically speaking—well, whatever you want to find is probably out there, and also (just in case it doesn't occur to you to

look): courtesy of NASA and Caltech’s Jet Propulsion Laboratory, one thing that’s out there is a complete set of detailed instructions for building a Mars rover.

More tech treats:

The Try Engineering website lists competitions, internships, maker events, scholarships, and a rundown of careers.

Book: *The Art of Construction: Projects & Principles for Beginning Engineers & Architects*. Mario Salvadori uses examples from throughout history to show how buildings and bridges stand up—despite the tremendous forces of wind, earthquakes, and gravity. The projects suggested are simple and revealing.

Read or watch *The Boy Who Harnessed the Wind*. Malawian teenager William Kamkwamba couldn’t afford to go to school, but he read library books and rounded up scrapyard junk. Then he built wind turbines and water pumps that improved life for all his neighbors, and inspired the whole world.

Although at the moment I’m discussing technology and maker culture in a chapter about science, of course it doesn’t fit neatly under that umbrella. You may also want to ponder the world of design. For a few resources, see the Design section in Chapter 25, *Unschooling the Arts*.

Appropriate technology & sustainable technology

Meaning the kind of machines and tools that use energy and other resources efficiently and wisely, things that run on solar, wind, or human power (like bicycles), and stuff like sewage recycling plants and organic agricultural methods.

We need all the innovation we can get in this department. A lot of it will come from people who find out how people did things before the industrial revolution, and adapt these old-style methods and tools to fit our present needs. A living history farm or museum is one way to become intimate with such technology, as is a “traditional skills” or “aboriginal skills” event or workshop (sometimes called a “knap-in”). Solar technology, by the way, is an area whose early leaders mostly learned from independent experimentation and sharing ideas—not from college or school programs. Search online for current trends, opportunities, challenges, and resources in sustainable and appropriate technology.

Centers & organizations

The Green Center does technology that is inexpensive, human and beautiful rather than expensive, cold and sterile. They research food, energy, water and waste treatment systems on a farm in Massachusetts, and have also built a nature center, organized a community farm, and compiled an ecological library. They offer detailed publications on topics like “composting greenhouses” and “how to make a solar algae pond,” as well as back issues of the magazine *New Alchemy Quarterly*.

The Aprovecho Research Center, in Oregon, is famous for designing efficient, inexpensive wood-fired cookstoves which help prevent over-cutting of forests in developing nations. Their stove designs are used in sixty countries, and Aprovecho is also responsible for numerous other inventions including bread ovens, water heaters, solar cookers, water pumps, and composting toilets. Aprovecho offers internships, and my unschooling friends who've participated speak highly of their experience.

The International Human Powered Vehicle Association encourages development and sharing of inventions and sponsors annual competitions. Among its members' accomplishments: the Gold Rush bicycle which has gone sixty-five miles per hour, a man-powered airplane which has flown seventy-two miles across the Aegean Sea, and pedal-powered hydrofoils.

See if your community has a cycling center, like (in Oregon) Eugene's exceptional Center for Appropriate Transport or Portland's Community Cycling Center. Centers like these offer free and low-cost repair classes, apprenticeships (where you might build your own cargo bike), information on cutting-edge bicycle designs, inexpensive used bikes, etc. If there's not a center, start one. If there is, check into apprenticeship and volunteer opportunities.

In the Architecture section of Chapter 25, you'll find a few organizations devoted to sustainable building—both traditional and wildly innovative.

Computers, coding, & the digital universe

The realm of computing, coding, game and website design, app development, artificial intelligence, etc., has long included unschoolers and other youth as serious participants and contributors. In fact, these rapidly-changing fields are particularly well suited for self-directed learners who aren't tied down by school curricula and who are free to continually seek out fresh developments and innovations.

The internet will avail you of the best current resources, including how to get started with coding and other skills as an absolute beginner. (At the time of this writing, popular resources include The University of Helsinki's free "Elements of AI" course, Google's Teachable Machine, Dale Lane's Machine Learning for Kids, and the modern classics Scratch and code.org. MIT's Responsible AI website offers resources and links pertaining to machine learning and related skills. And I would be remiss not to mention Minecraft, which—the cool kids tell me—is used as a portal into everything from coding to history.)

Once you've developed some solid chops, consider joining forces with the lively and collaborative open source community, such as through GitHub. There you will find beginner-friendly projects, as well as plentiful advice and guidelines for building credibility as a newcomer. (Also visit the website First Timers Only, which offers a welcoming introduction.) "If an unschooler is interested in coding, then the sooner they

get into open source culture, the better,” says one of my knowledgeable friends. He goes on:

It really is an incredible endeavour—you could think of it as building logic machines spanning the entire globe, with participation controlled by interest, motivation, and skill. I think it is probably the most significant human achievement in the last twenty-five years. It is very accessible to teenagers who are interested. And it teaches not only coding, but how to collaborate with others in a rigorous way. It’s rather like writing multiple-volume books, but where each sentence means something not only to humans, but also to the rest of the sentences. Pretty incredible that it can work.

The two following oldies-but-goodies illustrate the longstanding relationship between independent scholarship and all things digital. Barb Parshley writes in GWS #32:

I am presently apprenticing in the most positive sense of the word, under someone who designs computers. . . . One day, as I expressed my regret to him for my not having gone to college for a degree in this field so I could work better for him, I asked him what his degree was in. He chuckled and said he didn’t have one. Being sure he misunderstood my question, and also sure he must be progressing toward his doctorate, I restated my question. He said once again that he didn’t have a degree, not even on a high school level. In fact, he never went past eighth grade. He is self-taught, and is designing computers for companies both here and abroad.

Noam Sturmwind, of British Columbia, was fourteen when he shared this in 1997:

As an adult I plan to be involved in the field of computers, electronics, or both. I have not chosen (up to this time) to take a computer course. I am entirely self-taught; I have been unschooling since I was 7 years old.

My learning has all been hands-on; I use computer manuals and books from the library to assist in my learning, but also do much experimenting and playing around to find out what I want to know. I’ve taught myself several programming languages – C++, Visual Basic, and HTML, as well as designing many small programs to do specific tasks. Some examples of the programs I’ve designed:

A math program where you can input any number, the program finds all the numbers that divide into your number evenly.

Another math program that finds all the prime numbers up to a number that you specify.

A program that interfaces with an electronics project hooked up to the computer. It controls 3 LEDs (small bright colored lights); the program gives you the option to flash them at a specified rate, allow them to turn on and off in sequence, or let you turn them on and off individually.

Another program that interfaces with an electronics project: a door alarm. When someone opens my door, the computer greets them (out loud over the speakers), with whatever phrase I have entered.

Over the last few years, many people have asked me for computer consultations and help with problems, including my dad! I love the challenge of being able to sort out their problems and show them how to proceed.

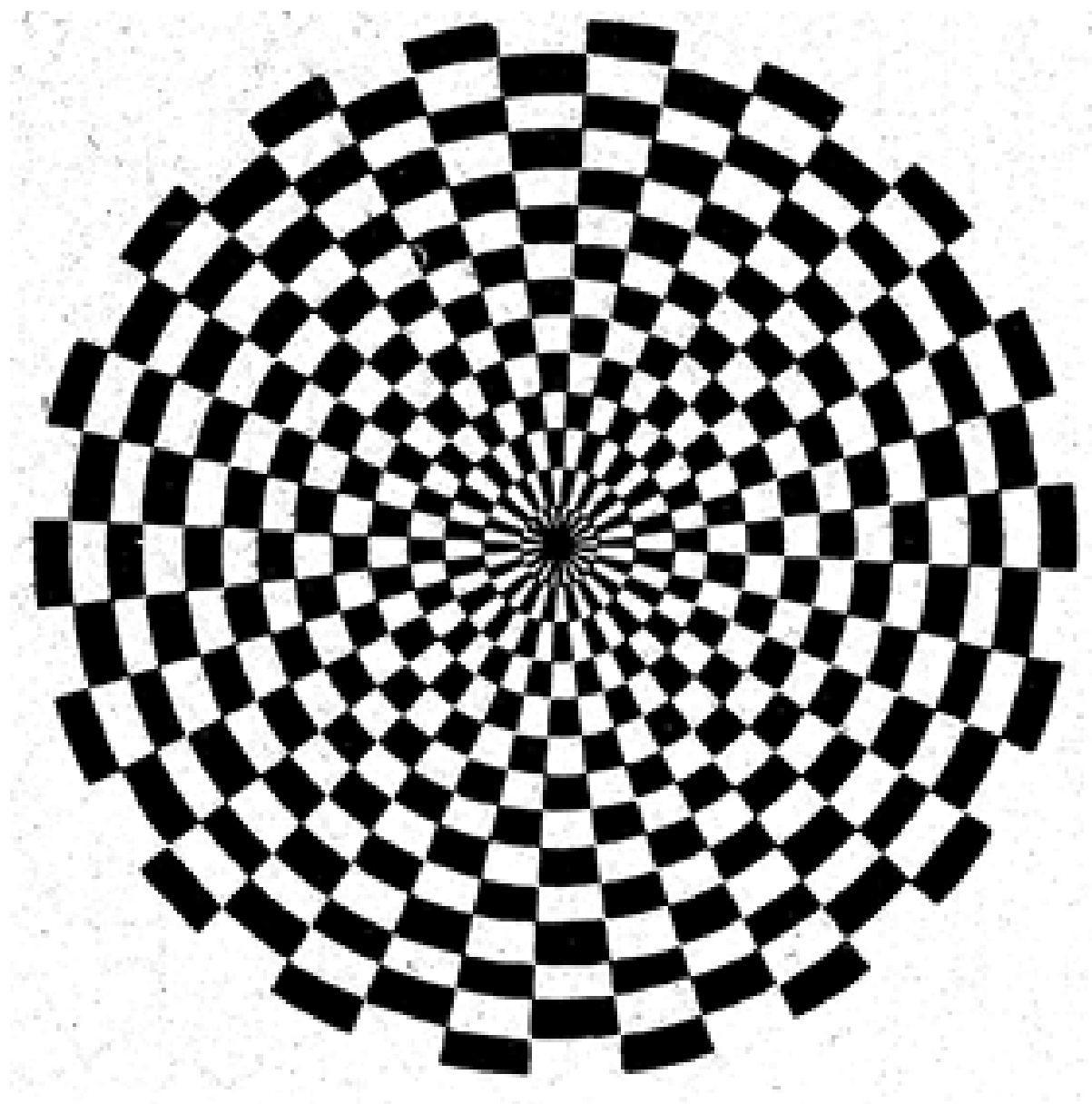
I have been the Victoria Systems Operator for a British Columbia homeschooling bulletin board called “WonderNet” for a few years now. This has involved setting up message areas and files, keeping the long distance gateway to the bulletin board in Vancouver operational, adding new users, and upgrading the software.

For many years, my dad and I have done our own computer upgrading at home, adding and removing equipment or making changes to our existing hardware. We’ve taken our computers apart many times, and miraculously, they actually work when we’re done!

Two possible volunteer positions I plan to create for myself involve working with computers. I plan to work in a used computer shop helping with repairs and problem solving; I’ve also thought about teaching computer skills to young children. This would allow me to combine my love of computers with my enjoyment of young children. I will also continue volunteering my time as a computer consultant to friends and family.

I am certainly the ‘computer expert’ in my family — when I started exploring the world of computers, no one in my immediate family knew anything about them. Homeschooling has allowed me the freedom to totally immerse myself in my computer learning as much or as little as I choose to, at any given time. Because I have such tremendous flexibility and control over my own time, I have been free to pursue this passion, while still following my other interests such as karate, swimming, skiing, my love of nature, and avidly reading any and all books I get my hands on!

21. unschooling math



The world is colors and motion, feelings and thought . . . and what does math have to do with it? Not much, if “math” means being bored in high school, but in truth math

is the one universal science. Mathematics is the study of pure pattern, and everything in the cosmos is a kind of pattern.

—Rudy Rucker

My own math paradigm has shifted thanks to profound thinkers like Aaron Falbel, who wrote occasionally for GWS, Seymour Papert, author of *Mindstorms: Children, Computers, and Powerful Ideas*, and Paul Lockhart, author of *A Mathematician's Lament*. I've come to question why so many homeschoolers feel they should use a textbook approach for math, when they feel textbooks are intrusive, misleading, limiting, and uninteresting for other subjects. Being a little bit math-phobic myself, it took me a while to open up my thinking, but that's part of the point. So many of us are math-phobic (thanks to school and to math-phobic lineage and community). And that phobia prevents us from approaching math with the same objectivity, independence, and courage that we exercise when we decide, say, to learn about European history—itself no simple or straightforward task.

Some of us don't even understand what math is—we confuse it with arithmetic and forget that it's more about logic, and about recognizing and analyzing patterns. As Patricia Clark Kenschaft says in her book *Math Power*, "Computation (routine calculation) is to mathematics as spelling is to literature. It has value in itself, but it is no substitute for the real thing." And in GWS #107 Aaron Falbel says, "School math is very different from real math. School math is mostly about computation (arithmetic) and symbol manipulation techniques. By themselves, these things can be awfully boring. Real mathematicians do not sit around all day doing school math. School has concentrated on this one tiny part of mathematics because: a) it can be graded easily, and b) most school teachers are not mathematicians and have little or no idea what mathematics is really about or what real mathematicians do." In GWS #78, a professor of mathematics education at Queen's University in Ontario, says:

Rather than thinking, "I can do these marvelous, open-ended, creative activities with my child in music, art, and language, but for math I have to go back to the textbook," parents should realize that mathematics has the same potential as these other disciplines. . . . We're in a transitional stage, though; there's a tendency to overplay the fun elements, the motivational elements, without following up on them or understanding the powerful ideas that are embedded in those activities. . . . One way to look at this is to ask, "What are the problems that face the world today, and what do I need, as a citizen of the world who is trying to cope with these problems?" People wonder how calculus is used. Well, at the root of many of our environmental problems, for example, lies a fundamental misunderstanding of the concept of growth. If calculus is about anything, it's about how things change over time. Another example is that it's very easy to be misled about all sorts of things if you don't understand some statistical ideas.

In GWS #107, Aaron Falbel writes about doing math with two teenaged unschoolers. He suggested they focus on logic puzzles, paradoxes, topological puzzles, geometry, probability, and recursion puzzles.

For our first session, I brought in some books by Raymond Smullyan (*The Lady Or The Tiger* and *What is the Name of This Book?*) consisting of all sorts of logic puzzles. These books are about as far away from math textbooks as you can get. They are chock full of amusing puzzles—pure mathematical candy. The puzzles are not meant to illustrate important mathematical principles; they are simply fun. But they are incredibly rich, mathematically speaking. The puzzles escalate in difficulty as the book progresses, and solving them requires careful, rigorous, systematic thinking—in other words, mathematical thinking. . . .

I hope [the unschoolers] came to see mathematics less as the sort of necessary baggage school people say one ought to carry around and more as a way of looking at and exploring the amazing variety of patterns in the world around them, as an experience that can be as fun, as fulfilling, and as beautiful as art, drama, or music.

(Falbel also notes that the author Raymond Smullyan was “largely a self-taught mathematician who dropped out of school several times.”)

And yet! Having said all that, and having reflected on it for a few decades, I don’t want to fling any babies out in their bathwater. Often there are excellent reasons to follow a linear progression in math. This can look conventional: working through a textbook or an online course. It can also look not-so-conventional: wrestling with a theorem until it makes complete sense, and then (and only then) moving on to the next one. (In fact, that’s exactly what most good textbooks are urging you to do, though this typically gets lost when you’re on a schedule driven by anything other than your own understanding.) The branches of mathematics, more than most disciplines, form ladders of logical thought. You begin with one thing you know for sure (like, $1+2$ is the same as $2+1$) and from there you think your way to the next step, and the next, until eventually you could be thinking thoughts like $e^{i\pi} + 1 = 0$.^{*} This is the good reason, as opposed to the fearful and unconscious reasons, underpinning that “we don’t use textbooks except for math” mindset held by a lot of homeschooling families.

By the way, a cool thing about math is that people continue to add splendid new rungs to its logic-ladders (and whole new branching-off-to-the-side sub-ladders). Like literature, math is a living, always-evolving domain.

The joy of math

Agenda-free resources, from simple to challenging

In this section we’re going to completely unhook from the idea of math class. To speak in school terminology, we might pop this stuff into the “enrichment” box, but don’t read that as “unimportant” or even “easy.” It’s not that these resources can’t or won’t build your ability to multiply numbers in your head or calculate differentials—excellent chance they will. They will also help you grasp concepts, understand where math and mathematicians fit into the world, have fun, and possibly experience a spiritual epiphany or two.

Simple (yet profound)

Anno's Math Games (I, II, and III), by Mitsumasa Anno. Anno's books are for young children, but they vividly convey what math is.

The I Hate Mathematics! Book, by Marilyn Burns, delightfully written with people age nine to twelve in mind.

The Joy of Mathematics, by Theoni Pappas. In short chapters (on snowflake curves, infinity, nanoseconds, comets, crystals...), Pappas shows how math connects to nature, art, science, music, architecture, philosophy, history, and literature.

Math coloring books! Engage with ideas visually through Alex Bellos's Patterns of the Universe or Visions of the Universe. (Bellos's other math books are also appreciated by unschoolers—especially The Grapes of Math and Here's Looking at Euclid.) Alex Berke's Beautiful Symmetry is a slightly more challenging coloring book, and there's a free digital edition which makes creative use of animation. While you're finding it, you'll probably run into Berke's website with links to additional intriguing mathy projects.

If you're into music, check out the playful online resources at Math Science Music, which explore math (and coding and science) through music. (MSM also offers more advanced discussion of how music connects to math and other fields.)

Mathigon is a beautiful website with seductively colorful games and other good stuff, ranging from easy to difficult, in their "activities" section.

Powers of Ten, a short film made in 1977 by Charles and Ray Eames—free online.

Watch a well-crafted time travel movie and mull on its mental Moebius strips. I love Arrival, Predestination, and Interstellar.

Check out the bizarre old story Flatland: A Romance of Many Dimensions, by Edwin Abbott Abbott, and any of the long or short films it has engendered. (You'll find the book free to read online.)

Some of the most interesting thinkers I know are devotees of game theory, a fascinating mathematical field that bumps up against psychology, economics, politics, business, sociology, and evolutionary biology. For a non-technical introduction, try The Joy of Game Theory by Presh Talwalkar, Introducing Game Theory: A Graphic Guide by Ivan Pastine, Tuvana Pastine, and Tom Humberstone, or—for more on the human dimension—David P. Barash's Survival Game.

Sidele up to math by dipping into the culture and human history in which it is embedded. There are plenty of dense history books about mathematical thought, but I'm thinking here about based-on-real-events movies, such as The Man Who Knew Infinity, or Hidden Figures (and the books behind these two movies). Or The Imitation Game and Codebreaker, both about Alan Turing. (The many books about Turing's life include Jim Ottaviani's graphic-novel style The Imitation Game.) Listen to podcasts which tell mathy stories with the richness and intrigue they deserve.

Play Set, Mastermind, chess, Pente, and poker. Mess around with a Rubik's Cube. Solve Sudoku puzzles or verbal logic problems. You can engage these at any level of sophistication, and if you stick with them your math wizardry will grow.

Not quite so simple

Vi Hart's videos, not to be missed.

Numberphile's videos and podcast, mostly delivered in charming British accents.

Tom Crawford's Tom Rocks Math website—inspired videos, challenges, podcasts, essays, and more.

Wild Maths (online) is a collection of games and challenges—some easy, some hard. “Wild Maths provides rich and open-ended resources, designed to encourage exploration and discovery, rather than closed problems that come with right-or-wrong answers. We hope that these activities will provide an opportunity to do mathematics the way real mathematicians do, sometimes going off the map, and to hone your creative thinking.”

The University of Cambridge's online Plus magazine is story-oriented, intended for ages sixteen and up, and “aims to introduce readers to the beauty and the practical applications of mathematics” via articles and podcasts.

Most online science magazines include great posts about math, ranging from simple to complex. Quanta is excellent.

And speaking of Quanta, they host Steven Strogatz's wonderful Joy of x podcast (math and beyond). His book of the same name is also wonderful.

And speaking of books, the following are excellent.

How Not to Be Wrong: The Power of Mathematical Thinking, by Jordan Ellenberg. I've had more big lightbulb moments of mathematical clarity courtesy of this book than from any other single source.

Measurement, by Paul Lockhart. This delightful book is about questions, not answers. It plunges you immediately into the abstractions of “mathematical reality,” yet without requiring any prior knowledge. “I'm going to assume that you love beautiful things and are curious to learn about them. The only things you will need on this journey are common sense and simple human curiosity.”

The Colossal Book of Mathematics: Classic Puzzles, Paradoxes, and Problems, by Martin Gardner. For twenty-five years, Gardner wrote a popular “Mathematical Games” column for Scientific American magazine. This fat collection, drawn from the best of those columns, is a feast. Along with the puzzles, you'll find adroit explanations of the concepts involved.

“Mathemagician” Arthur Benjamin's book The Magic of Math: Solving for x and Figuring out Why. Benjamin shows two amazing things: wild tricky number feats, plus how and why these shenanigans work. (Also see his TED talk and other presentations.)

The Math Book: From Pythagoras to the 57th Dimension, 250 Milestones in the History of Mathematics, by Clifford Pickover. Colorful illustrations will tempt you to flip through this fat book. But don't stop there—settle in and give any of the one-page

introductions your full attention, and you'll be rewarded with at least an inkling of the concept at hand, whether that is "The Rise of Randomizing Machines" or "Turning a Sphere Inside Out" or "Chaos and the Butterfly Effect."

A Most Elegant Equation: Euler's Formula and the Beauty of Mathematics, by David Stipp, explains one of the most-admired theorems of all time.

Program a computer to do your bidding. The Code By Math website is one good place to start—bare bones but nifty, offering lessons that "can teach you how to code while showing you some neat things about math." (Pop back to the Technology section of the previous chapter for a little more on coding.)

Continue with the games and puzzles. Alex Bellos's Can You Solve My Problems? Ingenious, Perplexing, and Totally Satisfying Math and Logic Puzzles is a hard-but-not-crazy-hard compendium. And grab any of Martin Gardner's collections, such as The Colossal Book of Mathematics recommended above.

Delightfully, & perhaps horrifically, challenging

Mathematical Snapshots, by H. Steinhaus, uses photos and diagrams to explain math concepts and equations. Not simple material, but good for people who prefer to learn visually and spatially rather than with words. (And, helpful training if you want to start thinking more visually and spatially.) You need some experience with algebra and geometry to understand it.

Mathematics Made Difficult, by Carl E. Linderholm. This hilarious book takes simple things and makes them incredibly complex. It starts by challenging your idea that you know how to count. It reminds us that math has more questions than answers, and that whenever we add, subtract, even count—we operate on a heap of assumptions. With Linderholm, we get a chance to look underneath these assumptions into the labyrinth.

Read mathematical philosophy, such as Remarks on the Foundations of Mathematics, by Ludwig Wittgenstein. "The mathematician is an inventor, not a discoverer," says Wittgenstein, a dead philosopher. This book is heavy on logic and profundity. Other books on mathematical philosophy may reward you in similar ways.

And ever onward with the games and puzzles. Mathematical Puzzles: A Connoisseur's Collection, by Peter Winkler, is deliciously difficult.

Basic math

Numeracy, basic computation (arithmetic) and simple algebra skills

Regardless of how much math you choose to befriend in a formal, one-theorem-to-the-next manner, your life is going to be way easier if you are comfortable thinking with numbers and engaging mathematical concepts throughout your days—when you're reading the news, deciding what to do with your babysitting money, considering your long-term financial goals, weighing the pros and cons of moving into your own apartment, wrapping your mind around how climate change works, or mapping out a week-long driving adventure with your favorite cousin. Of course you can use an app

or calculator for many of life's necessities, but you're so much better off carrying your own mental toolkit too. If elementary school didn't help you to adequately develop these skills, continue and practice them on your own in a stress-free way.

Simply through intention, you may achieve a good-enough working perspective. Follow the lead of many a homeschooling parent and look for ways to practice throughout daily life. Step into the kitchen: multiply your peanut butter cookie recipe by three or seven, and your stewed liver in ketchup recipe by $\frac{1}{4}$ or $\frac{1}{63}$ rd. Shopping for day-after-Halloween sale candy, or socks? Estimate the total as you progress, and see how far off you were when the cashier rings you up. On a road trip? Keep track of your gas mileage and predict when your tank will be half empty. Choose to engage rather than shrink away from the micro-math questions that pop up while you're reading a news story. The more you opt into thinking this way, the more automatic and useful it becomes.

Don't know your times tables? Sing along to the Schoolhouse Rock multiplication songs until you're solid, or find other multiplication rhymes and mnemonics.

Notice if there are particular areas where you tend to get confused. For me, it's in the realm of big numbers. I hear phrases like "trillion dollars" tossed around in the news and, honestly, it's hard for me to put them in perspective. So I keep a simple children's book close at hand and I pick it up often. (It's called *Big Numbers* and features cartoony illustrations of peas—in little piles and big piles.) But maybe for you something else is confusing—fractions, or the Richter scale (for earthquakes), or averages versus medians? Avail yourself of simple reminders and crutches: bookmark an online infographic, find an explanatory video you can watch over and over, buy a children's book and keep it by your bed, hang a poster.

If your moments of confusion are somewhat random, find a reference resource you like and consult it as needed. I appreciate the *Dummies Education* website, which offers simple math and pre-algebra reminders (like how to figure percentages, or how to solve for a missing right triangle length). For more methodical review of basic math and "life math," or to start over from scratch, try a book or a course. Here are a few good ones:

All the Math You'll Ever Need: A Self-Teaching Guide, by Steve Slavin, is a friendly, clear workbook that (for most people) lives up to its title. In logical progression, Slavin covers multiplication and division, percentages, fractions, areas of triangles/circles/rectangles, simple algebra, interest rates, statistics, personal finance, and business math. Designed for adults who want to relearn everything they forgot from their schooldays, but also a tool for unschoolers who don't want to waste a bunch of days (or years) in the first place.

Danica McKellar's *Math Doesn't Suck* and *Kiss My Math*, intended for middle schoolers (especially girls anxious about math), are packed with clear explanations of fractions, decimals, factoring, exponents, graphing, and beginning algebra.

There are many online courses, free and paid. In the free category, I'm a fan of Mathigon's "Foundations" courses (though some sections are unfinished at the time

I'm writing), Khan Academy, and Mathteachingcenter's Mathplanet. CK-12's courses and their Brainiac videos and quizzes are also popular. With all of these, you can dip into the modules you need and ignore the rest.

PhET offers interactive, visual simulations for arithmetic, fractions, and all kinds of graphs.

Math anxiety

often goes hand in hand with low math skills. When we're scared of anything, it's impossible to learn. Play around with books and activities like those listed above. Be nice to yourself when you sit down for a math session—cup of tea, music in the background. Fun and happiness alleviate anxiety and literally make your brain work smarter.

For more: the internet offers plentiful strategies, TED talks, and such. Classic books intended to help you understand your fear and do something about it are *Overcoming Math Anxiety*, by Sheila Tobias, and *Mind Over Math*, by Stanley Kogelman and Joseph Warren. You may enjoy Danica McKellar's chatty, bestselling books for math-anxious youth (especially girls). Another book I like is based on psychologist Carol Dweck's "growth mindset" work: *Mathematical Mindsets*, by Jo Boaler. Though written for adults who work with youth, if you're motivated to dig into this topic you'll find ways to translate Boaler's great suggestions to your own situation.

Data literacy

This world we live in is getting more complicated all the time, and the better we know how to interpret data (and question or critique others' interpretations), the better we can understand and tackle the challenges on our collective plate. If your basic math skills are solid and you get the difference between millions and billions, then as long as you decide to think critically, you probably already have the cognitive ability to at least read the news without being duped.

If you're not comfortable in this domain, mess around with some of the resources below. Or take your literacy to a higher level, using these as jumping off points. As with arithmetic, your data literacy skills are a muscle that gets stronger with practice.

Simple starters

Read "Harper's Index," in any issue of Harper's magazine (and accessible online), which gets all kinds of points across with eloquent numbers. For example, the March 2020 Index included the following tidbits:

Year in which the NFL first required teams to interview candidates of color for every available head coaching job : 2003
Number of head coaches of color employed by the NFL at the time : 3
Number who are today : 4

Watch TED talks—Mona Chalabi’s “Three Ways to spot a bad statistic,” Talithia Williams’ “Own Your Body’s Data,” Susan Etlinger’s “What do we do with all this Big Data?” and others related to data.

Quantify yourself! Use apps and devices to track your habits, sleep cycles, physical activity, emotional state, food, and more. Then decide how you want to leverage this data to improve your life. Search “quantified self” and “self-tracking” for the latest developments.

Books

Cathy O’Neil’s wake-up call, *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. O’Neil reveals how algorithmic models wreak havoc.

How to Lie with Statistics, by Darrell Huff. This short, humorous book was first published in 1954 but is still a great introduction to thinking clearly in the vicinity of questionable numbers.

A Field Guide to Lies: Critical Thinking in the Information Age, by Daniel J. Levitin. The first section of this important book is called “Evaluating Numbers.” It goes a little deeper (and is more up to date) than *How to Lie with Statistics*.

Internet

Khan Academy offers several “data” units integrated into other courses (including their sixth grade math), and also dedicated statistics and probability courses.

The Data Literacy Project (from Qlik) is “a global community dedicated to creating a data-literate world.” They offer short, free online courses, as well as videos, reports, and stories about how data helps solve problems.

My NASA Data provides both access to data about Planet Earth collected from satellites, and also tools to visualize and analyze this data.

Look for online chart tools and other data visualization resources, and play with ways to visually render anything from your girlfriend’s weightlifting progress, to the demographics of all your social media connections, to the results of your science co-op’s mushroom-growing laboratory. Free versions range from elegantly simple to gorgeously complex.

There are some data literacy resources that are popular with teachers, but which seem, to me, a little too expensive or confusing for the individual self-directed learner such as yourself. I predict, however, that free online resources will continue to proliferate and improve, so go see what else you can find that works for you.

Higher math

That is to say, advanced algebra, advanced geometry, trigonometry, calculus, and maybe statistics and probability. (Also, potentially, any of the more esoteric specialties or trajectories—mathematical physics, maybe, or cryptography.) Why bother? If you

want to do anything scientific or understand theories about the nature of the universe, or if you want to design structures or invent technologies, math is your necessary tool. It is also the way a lot of people search for beauty. The Encyclopedia Americana says math can “woo and charm the intellect,” and that “the symbols can be employed neatly and suggestively, just as words are used in poetry.” Bertrand Russell said, “Mathematics possesses not only truth, but supreme beauty—a beauty cold and austere, like that of sculpture.”

Does everyone need to study higher math? Certainly not. Too many of us school-educated people end up with more theorems in our heads than we’ll ever use, yet not enough to help us actually do anything like build a bridge. On the other hand, we would all be better off with at least a rudimentary understanding of each of the major branches.

College? You may need math to get in. How much depends on how selective the college is, what you plan to major in, and whether your other accomplishments are solid enough to balance out lack of math.

Textbooks & online courses

In the long-distant past, homeschoolers often had a difficult time finding high-quality math resources. Textbooks didn’t explain things well enough, or include enough review, to help most people learn on their own. But with the arrival of some excellent textbooks and a plethora of other resources, those days are gone forever.

Many homeschoolers—and teachers—feel that the Saxon books are among the best textbooks. They make sense because they are written clearly and based on the principle of review. Instead of learning something and forgetting it, you do it again and again throughout the book until it becomes second nature, a living language rather than a forgotten vocabulary list. (Some homeschoolers, of course, dislike them because of this emphasis on review—different approaches work for different people.) You can buy Saxon homeschool packets which include the regular text plus an answer key. Saxons can guide you through arithmetic, algebra, geometry, trig, and calculus, as well as physics. Like most textbooks, they’re not cheap—consider borrowing, or buying a used copy.

Saxon offers free diagnostic tests, so you don’t need to guess where to start. If you’ve been confused in the past, start where you’re comfortable, even if that means behind your supposed grade level. I took advanced math through high school. I got a C once in eighth grade, an F the last semester of twelfth grade calculus, and the rest B’s and A’s. In other words, I supposedly learned something (until I caught a serious case of senioritis). But I couldn’t have told you then, and I can barely tell you now, what any of that math was about. I never had any idea what the quadratic formula was for or how we got it. I don’t remember how to find logarithms or do differentiation. If I ever decide to learn math again (and there’s a good chance of that), I’ll start with John Saxon’s Algebra 1.

Saxons are not the only solid option. Consider, also:

Mathematics: A Human Endeavor (A Book for Those Who Think They Don't Like The Subject), by Harold R. Jacobs—a serious textbook, but popular enough that many public libraries have a copy. People like it because it is fun and clear. I recommend it instead of the Saxons if you want to do (and enjoy) some higher formal math, but not in significant depth. It includes (in one volume) algebra, geometry, statistics, and trigonometry, getting its points across with generous use of jokes, games, puzzles, and paradoxes.

Kalid Azad's Better Explained Calculus. Check out Azad's unique, reasonably priced online video-centric course. (Or, just use his free Calculus Better Explained ebook in combination with another textbook or course.)

Seeing Theory: A Visual Introduction to Probability and Statistics—a cool interactive online textbook created by Daniel Kunin, a student at Brown University.

For free online courses, see if Khan Academy, Mathigon, or CK-12 meet your needs. (I lump them into the same sentence, and they're all trustworthy and acclaimed, but each has its own style and strategy.) Explore further with other platforms or with MOOCs.

Supplementary resources for higher math

(Or, When Is it Easier to Read Two Books Instead of Just One?)

If you're studying, say, calculus (or algebra/geometry/trigonometry/etc.) in a progressive fashion (with a textbook, an online course, or even in a conventional class setting), I suggest grabbing a companion book (or blog or whatnot) specifically about calculus (or algebra/etc.) to accompany your journey. Such resources tend to perform some or all of these magic tricks:

- explain what calculus (etc.) actually is and what it's for

- explain concepts in a different way than your textbook does, nudging you into satisfying aha! moments

- relax and cheer you up with humor, friendliness, and humanity

- surprise and inspire you with head-spinning profundity.

To be clear: I'm not suggesting this type of resource as a standalone. You'll wind up frustrated if you use only a comic book with the goal of mastering calculus. But, many people become frustrated in a different way when they use only a textbook—because most textbooks aren't great at contextualizing the material. And far from being an artsy “extra,” it is essential to understand the broader context and meaning, as well as the practical application, of whatever math field you are studying.

There are several such resources for every math discipline. They often have a lot of personality, which in any particular case you might adore or find annoying, so if you don't like the first one you pick up, look further. If you like comics, try the Manga Guides (to Linear Algebra, Statistics, Calculus, etc.) or Larry Gonick's cartoon guides

(to Algebra, Statistics, and Calculus). The Dummies book series is always worth a look, and their website offers bite-sized explanations of specific topics (“How to Graph Polynomials”). The Oxford Very Short Introduction series covers a variety of topics like algebra, trigonometry, game theory, logic, and probability. I like the Better Explained a la carte website resources, wherein Kalid Azad takes a helpful approach he calls “ADEPT”: each topic is introduced with an analogy, diagram, example, and plain English before the technical explanation. (His book, *Math Better Explained: Learn to Unlock Your Math Intuition*, is also excellent.)

If you have a relative or family friend who’s at ease with the field you’re studying, perhaps you can strike up an ongoing fireside chat. Or spend a little time finding and bookmarking videos, blog posts, and other resources and enjoy them as you progress through your textbook. This morning I played “hypothetical trigonometry student.” I searched “trigonometry” on several of my favorite science/math websites and ran a quick Google search. After skimming hither and thither, and tossing out a bunch of not-for-me options, in about one hour I curated a compendium of free online treats that almost have me ready to convert to non-hypothetical trig student:

Vi Hart’s video *Doodling in Math Class: Triangle Party*, to get the brain juices flowing

paper hexagonal snowflakes at Wild Maths—another fun warm-up

an overview of basic trigonometry at Math Blog

a much more charismatic, and slightly more advanced article: “Physics Owes a Lot to a Little-Loved Math Class,” on the Wired website

Kalid Azad’s “Intuitive Trigonometry” video and article

The delightful “Beautiful Trigonometry” and “Surprising Pi and 5” videos from Ben Sparks on Numberphile’s YouTube channel

A “Trigonometry Gets to Work” section on Cambridge University’s NRICH website, showing different contexts where trig is used

A (substantial) free sample of the book *Trigonometry: a Very Short Introduction* (from Amazon in Kindle format)

A handful of trig-related articles on Plus magazine (such as “Beauty in Mathematics,” written by seventeen-year-old Surein Aziz, about Euler’s formula)

And several articles that sit toward the more brainsqueezy end of the spectrum:

“How Triangulation Leads to Knowledge” on Quanta Magazine

“10 Secret Trig Functions Your Math Teachers Never Taught You” on Scientific American

“Forget Pi Day. We should be celebrating Tau Day” on Science News

That last one makes more sense after I watch Vi Hart’s video “Pi is (still) Wrong,” so I guess now I’m enjoying two layers, not just one, of “supplementary resources” for trig. Life in the twenty-first century is a rich and glorious feast indeed.

Algebra

The Algebra Survival Guide, by Josh Rappaport

Algebra Unplugged, by Kenn Amdahl and Jim Loats

Hot X: Algebra Exposed, by Danica McKellar

Geometry

Beautiful Geometry, by Eli Maor and Eugen Jost (makes excellent use of colorful full-page illustrations)

Sacred Geometry: Deciphering the Code, by Stephen Skinner (also veers into trig and other realms)

Girls Get Curves: Geometry Takes Shape, by Danica McKellar

Trig

Trigonometry: What They'd Teach You—if They Had the Time, by Kevin W. Bennett

Heavenly Mathematics: The Forgotten Art of Spherical Trigonometry, by Glen Van Brummelen

Calculus

Quite a few brilliant communicators have tossed a hat into this ring.

Calculus for Cats by Kenn Amdahl and Jim Loats—the fun analogy makes the medicine go down, at least for cat fans

How to Ace Calculus: The Streetwise Guide, by Colin Adams, Abigail Thompson, and Joel Hass

Kalid Azad's Calculus Better Explained free ebook and other resources online

The Calculus Lifesaver, by Adrian Banner—fat and in-depth, only for people who want to master the subject and are ready to invest plentiful energy, but highly appreciated for that purpose

A Tour of the Calculus, by David Berlinski—a bit like a literary novel

The Calculus Diaries: How Math Can Help You Lose Weight, Win in Vegas, and Survive a Zombie Apocalypse, by Jennifer Ouellette—an entertaining, often-funny narrative about calculus and its applications

*

College?

The chair of a very selective liberal arts college math department says,

If the freshman wants to major in math or science he/she should be able to get a grade of 4 or 5 on the advanced placement BC-Calculus exam. The ideal preparation for a normal student includes math courses from some colleges. This should be easier for a “home-schooler” who does not worry about fitting college courses into a high school schedule.

The chair of mathematics at Williams simply informed me that algebra and trigonometry are necessary for their most basic courses, and that the ideally-prepared student has also studied calculus.

Math unstudents

Amelia Acheson shows a bit of what’s possible when she writes about her son in GWS #42:

Alazel (sixteen) loves math—he bought a set of accounting books from a local high school teacher and hurried through them. When he asked her for more, she was amazed at how far ahead of her classes he was. He also got a college supplementary text in trigonometry, and covered most of that between November and March. Then he set that aside and did no math for several months. About two weeks ago, he found his dad’s analytic geometry book. It took him about three days to work through most of it, and demand a calculus course. In one and a half weeks, he has devoured about half of what college professors turn into a year’s hard work for freshmen. His dad has promised to coach him through physics when he gets integration under his belt.

Andy, sixteen, of Germany, writes:

Even though I have liked math since I was seven, I couldn’t do much about it until we started unschooling when I was eleven. Before that the class only went as quickly as the teacher let it, and the teacher wouldn’t let us finish the math book in half a year. When we started unschooling I was able to work at my own pace and not the teacher’s. Now, I am sixteen and am in Trigonometry and Algebra III, having finished Algebra 1/2, Algebra I, Algebra II and Geometry by myself.

Dan Casner, twelve, of Wisconsin, shows what it’s like to use math for enjoyment and other meaningful purposes, rather than simply learn it for some vague future:

Recently I made a probability chart of the odds of a given number coming up on several different combinations of dice. I thought it would be neat to do for its own sake and also thought it would be useful for a game that I like to play with friends. Prior to this, I had watched a PBS program on combinations, and tried several other models. The first one I did on the computer—I created a Pascal’s triangle, though in this case it was shaped in a rectangle. (Pascal’s triangle is a mathematical formula that my dad taught me.) I wrote some basic instructions and printed them out. After I tried to use it in real life, I realized it wasn’t quite as good as I’d thought, and I did a little more research.

I did the next probability chart as a combination spread sheet and word processor program. And when I went at it still another time, my dad showed me how to use a

computer program called Mathcad, which is designed to help math professors make diagrams, etc., for their presentations. But it is also useful for doing your own calculations. My latest chart showed probability for up to five dice, each with up to thirty sides.

I did a lot of the calculations in my head with help from my dad, during our walks with my dog. We talk a lot when we go on these walks, and I do a lot of my thinking that way. And I get a chance to ask questions about science and electronics and chemistry and engineering and other things. On this particular excursion we worked out the mathematical formulas to use Pascal's triangle to calculate the probability of any given number coming up on the dice. I did the math, but he suggested some of the approaches and helped turn me around when I went the wrong way.

I've never in my life sat down to work on a math text book, although I have used books about mathematics. In this case, *Math Wizardry for Kids*, by Kenda and Williams, was useful as it showed Pascal's triangle.

22. unschooling the social sciences



My grandmother wanted me to have an education, so she kept me out of school.
—Margaret Mead

Now it's time for the hall of mirrors: humans gazing at humans. This chapter explores ways to study history, anthropology, sociology, geography, political science, and economics. (I've left out the fascinating fields of psychology, philosophy, and world religions, not because they're unimportant, but because I have to draw my boundaries somewhere and they're not typically treated as core subjects in school.)

These fields are closely related, so it was hard to decide whether to stick certain resources under geography or anthropology, under political science or history. I decided to not get bent out of shape over it. All these "separate" fields can grow more meaningful when they are allowed to merge a bit, as you can tell from reading the following accounts. Kathleen Hatley writes in GWS #45 about homeschooling her sons:

We have been very active this year in the peace movement, and this has provided the older boys with a very direct type of learning in the area of "social studies." We have constructed a section of the Peace Ribbon, regularly met with and written to our representatives (they were quite thrilled to get their first correspondence from their Congressmen), viewed numerous films and attended lectures on Central America, and met priests, nuns, and refugees for some first-hand information about U.S. involvement in Latin America. Because of these experiences, they follow the news and current events with great interest, enjoy reading about the geography and history of Central America, and even practice their Spanish.

Jenny Smith, fourteen, of Alberta, writes:

About a year ago, my twin sister Dawn, our unschooled friend Christy and I started to work on a model of a space station. We named it "First Rising Moon" and all of us take it really seriously; i.e. exactly what would you need to survive. We set the location on the moon and our ideal plan was to have no help from earth once we got there. This meant that we had to plan food (figure out how much one person would eat in a year), clothing, working, and homes for 1,000-2,000 people. We also had to decide such things as a limit on the number of children, what to do with the dead, and how to make everything. The only one we really stumbled on is what to do for toilet paper since all things must be recycled!

We have done floor plans, investigated solar energy, and written up a list of requirements for those wishing to apply, and our work isn't even close to being done. It is one of those projects that just keeps growing. We decided that all people would have to go vegetarian as bringing up from earth thousands of cows didn't add up. We have had to contact the local market garden, B.C. fruits, and Alberta Agriculture to find out how many plants grow per square footage of soil. Finding out how to organize up to 2,000 people has proved to be a great challenge.

When we get bored of First Rising Moon, we read Shakespeare, act, and read world history. Last year we each took two countries (Russia, China, England, Mexico, India and France), researched their history from the birth of Christ on and made a comparative timeline.

History

History is not merely what happened in the human past. It is rather the study of what happened in the past, and it is full of opinions, arguments, and inconsistencies.

History goes far beyond dates, names of presidents, and wars. Although that should be obvious, I mention it because it wasn't obvious to me until after I'd finished enduring high school and taken an enlightening college course. History asks all kinds of questions about relationships and patterns: What role did Christianity play in the rise of the medieval European medical profession? How did art influence peasant life in eighteenth-century Russia? Why are there wars? How did the experiences of early European explorers in America change European attitudes toward the natural world? How has the etiquette of warfare in Japan changed over the centuries? How did our current prison system develop? How did the structure of villages change during the industrial revolution? Where did compulsory schooling come from?

And history is never "done." Partly because now and then somebody finds, say, a letter in an old family Bible that adds to our knowledge of Irish immigrants' experience in the 1840s. But mostly because historians look backward from the ever-evolving perspective of the present. We now value the stories and contributions of women, and so we re-read the old documents with an eye to women's roles—something that didn't always occur to earlier historians. We are slowly facing up to the scale of the devastation that took place when Europeans settled America, decimating a complex group of interconnected cultures and many millions of human lives—and so historians make more effort now to find and unravel clues about pre-Columbian reality. These quests for a more complete understanding of the past can be painful and disturbing, exciting and inspiring. (Sometimes you'll hear fresh perspectives criticized as "revisionist," as if the history taught in 1950—or 2020—was already perfectly complete and needed no further thought.) Future historians (you, perhaps) will take up quests that haven't occurred to us yet. So, although the raw material of history comes from the past, it is very much a lively, present-day activity.

Understand the difference between primary and secondary sources: a primary source is a document produced by someone at the scene of the crime. A letter home from a soldier in the Civil War is a primary source. A secondary source is a historian's interpretation of a variety of primary sources, like a textbook about the Civil War.

Primary sources

Eyewitness to History, edited by John Carey, bulges with primary sources from all over the world and throughout history. A caliph of Baghdad describes a tenth-century Viking funeral and the girl who volunteers to be cremated along with the Viking and his ship. Tales of death and destruction are thankfully interspersed with treats like astronaut Neil Armstrong's description of his first moments on the moon. A World War I soldier writes about burying his friends in the sides of a trench, and how parts would stick out:

Hands were the worst; they would escape from the sand, pointing, begging, even waving! There was one which we all shook when we passed, saying, “Good morning,” in a posh voice. Everybody did it. . . . We couldn’t stop shitting because we had caught dysentery. We wept, not because we were frightened but because we were so dirty.

Witnessing America: The Library of Congress Book of First-Hand Accounts of Public Life is a similar collection, but focused on the U.S. Seek and you’ll also find collections centered on specific times or themes—like the Civil Rights movement, or science throughout history.

Great Speeches of the Twentieth Century is a curated set of audio recordings, with excerpts from seventy-eight landmark speeches by people like Amelia Earhart, Gloria Steinem, Martin Luther King Jr., and John F. Kennedy. (And also Joseph McCarthy and Adolf Hitler—the “great” in the title means influential, not praiseworthy.) The Penguin Book of Twentieth Century Speeches, edited by Brian MacArthur, is a similar collection in book form.

Collections (like those above) cherry pick for snippets that are evocative, representative, and entertaining. For more depth and detail, try poking around online where you can slog or luxuriate (depending on your perspective) through endless troves of primary documents. (Then maybe create your own collection, looking for gems, patterns, and themes others have missed.)

The DocsTeach website offers a rich collection of somewhat organized, curated primary sources from the U.S. National Archives. Or, go straight to the National Archives Catalog itself.

Steven Mintz’s Digital History website is helpful for U.S. history, and well organized—look for the “documents” to support any era.

The U.S. Library of Congress Digital Collections has many resources, partially sorted into categories (Slavery, LGBTQ+ Politics and Political Candidates, etc.).

The Living New Deal website points toward thousands of American oral histories (including, most famously, the slave narratives) collected by the Federal Writer’s Project during the Great Depression of the 1930s.

The “History and Politics Out Loud” section of the Wyzant website is good for audio recordings of important speeches.

The text of key U.S. speeches can be found at the Voices of Democracy U.S. Oratory Project’s website.

For global history, check out Yale Law School’s Avalon Project, Fordham University’s Internet History Sourcebooks Project, Spartacus Educational, and the extensive collection of links on the West Sound Academy Library’s website (in their world history primary sources section).

LIFE magazine’s extensive online photo archive provides great visual supplements (1860s onward).

Twentieth-century long reads—here’s a short list highlighting just a few events:

James Agee, *Let Us Now Praise Famous Men* (with photos by Walker Evans). Agee tells about sharecroppers in the South during the depression of the 1930s. People read this moving and beautiful piece of journalism in English class too.

Studs Terkel, *Hard Times: An Oral History of the Great Depression*. Terkel, a master of recording oral histories, invites all kinds of people to tell their experiences during the depression.

Anne Frank, *The Diary of a Young Girl*—the tragic classic of Jewish life in hiding, Holland occupied by the Nazis during World War II.

Aranka Siegal, *Upon the Head of the Goat: A Childhood in Hungary 1939-1944*. Another Jewish tragedy.

Elie Wiesel, *Night*. Just about as terrible as it gets. Wiesel describes his boyhood in Nazi prison camps. His family dies, his faith dies. With antisemitism rearing its head once again all over the world, it is extremely important that people read books like this one.

John Hersey, *Hiroshima*. A journalist's detailed 1946 story of six survivors of the atomic bomb, starting from right before it dropped and following through with exactly what happened to each of them during and after the explosion.

Studs Terkel, *The Good War: an Oral History of World War Two*. A variety of Americans give their viewpoints—women at home waiting for news of their sons and husbands, eighteen- and nineteen-year-old soldiers in Europe.

John Lewis, *March* trilogy—the Civil Rights era told from the inspiring perspective of one of its “Big Six” leaders, in graphic novel format.

Anne Moody, *Coming of Age in Mississippi*. The firsthand account of a Black woman who grew up during the Civil Rights movement and took part in sit-ins and other history-making events.

Find autobiographies (as well as biographies) in the 920-928 section of your library, in alphabetical order by the subject's last name. Try a couple of my favorites: *Maus*, by Art Spiegelman (graphic novel style memoir of Jewish survival during the Nazi holocaust) and *Red Azalea*, by Anchee Min (a young girl growing up in China during Mao's communist revolution). Browse and you'll find something you didn't know you were looking for. I found *Blame Me On History*, the fast-paced autobiography of Bloke Modisane, an activist who fought for freedom and human rights in South Africa.

Finally, for a riveting and unique presentation of primary sources throughout U.S. history, watch the documentary *The People Speak*.

Secondary sources

Even the most highly acclaimed histories are imperfect. Whichever you choose (from my list or elsewhere), fortify your perspective: read a few reviews to get a sense both of factual errors (there will almost always be some) and also any controversies regarding the historical interpretation. Disapproving responses—and even factual errors—don't

mean a resource isn't worthwhile, but it's good to maintain awareness of such things. And ideally, read at least two takes on each topic you explore.

Here are some big-picture, zoomed-out resources to first consider:

Websites

The Big History Project. After devoting three sections to what we understand about the prehuman history of the entire universe, Section Four sweeps through most of human evolution and history, and Section Five concludes with the modern era, roughly the past 200 years. In addition to the official website, ChronoZoom and the Green brothers' Big History Crash Course are worth exploring.

The Zinn Education Project, though designed for teachers (you'll have to translate a little), is an exciting compendium of resources on many facets of U.S. history.

The Ancient History Encyclopedia is a glorious and ambitious project which, if all goes according to plan, may have expanded by the time you are reading this to all periods of human history around the world.

The Smithsonian National Museum of American History's website offers an always-evolving mix of resources intended for teachers, some of which are great.

EdTechTeacher's "Best of History Web Sites" is a well-organized portal with hundreds of links. Explore the history of Hindu-Muslim conflict in India, Britain's early Celtic kingdoms, the rise of the two-party political system in the U.S., the 9/11 Digital Archive...

World history books

Sapiens: A Brief History of Humankind, by Yuval Noah Harari, is downright enthralling. Though I had previously encountered most of the material elsewhere, Harari's way of presenting it made lightbulbs pop for me on almost every page.

The Oxford Illustrated History of the World, edited by Felipe Fernández-Armesto, weaves a wealth of details into a coherent narrative of the last 200,000 years. Quite a feat—and quite a feast—for one book.

E.H. Gombrich, *A Little History of the World*. First published in 1936, this book has stuck around thanks to Gombrich's storytelling skills. That said, the title is misleading as it's a mostly-Eurocentric history, and it ends with World War I.

The History Book (from DK's Big Ideas Simply Explained series) sweeps from 200,000 BC to 2008 in very short, self-contained, illustrated chapters on topics like "The First Emperor Unifies China," "The Signing of the Magna Carta," "The Fall of the Berlin Wall," "The Global Financial Crisis." Succinctly explains key concepts, connects the dots between different events, and makes for good skip-and-dip reading.

Jared Diamond's three-volume "Civilizations Rise and Fall" series. (*Guns, Germs, and Steel: The Fates of Human Societies*; *Collapse: How Societies Choose to Fail or Succeed*; and *Upheaval: Turning Points for Nations in Crisis*.) Diamond is a glorious

generalist known for weaving together history, science, geography, linguistics, and anthropology.

A People's History of the World, by Chris Harman—a socialist perspective on oppression and resistance throughout the ages.

Simply empathising with the people involved in one event cannot, by itself, bring you to understand the wider forces that shaped their lives, and still shape ours. You cannot, for instance, understand the rise of Christianity without understanding the rise and fall of the Roman Empire. You cannot understand the flowering of art during the Renaissance without understanding the great crises of European feudalism and the advance of civilisation on continents outside Europe. You cannot understand the workers' movements of the nineteenth century without understanding the industrial revolution. And you cannot begin to grasp how humanity arrived at its present condition without understanding the interrelation of these and many other events. The aim of this book is to try to provide such an overview.

If you like graphic novels you may enjoy Yuval Noah Harari's Sapiens series (an ingenious adaptation of the book recommended at the top of this list), or Larry Gonick's three-part Cartoon History of the Universe and two-part Cartoon History of the Modern World.

Libraries offer engrossing history reference books including specialized atlases and dictionaries, like A Dictionary of Chivalry.

US History books

If you want to read just one, consider These Truths: A History of the United States, by Jill Lepore.

Can a political society really be governed by reflection and election, by reason and truth, rather than by accident and violence, by prejudice and deceit? Is there any arrangement of government—any constitution—by which it's possible for a people to rule themselves, justly and fairly, and as equals, through the exercise of judgment and care? Or are their efforts, no matter their constitutions, fated to be corrupted, their judgment muddled by demagoguery, their reason abandoned for fury? This question in every kind of weather is the question of American history. It is also the question of this book, an account of the origins, course, and consequences of the American experiment over more than four centuries. It is not a simple question.

For more intricacy, try any of the books in Oxford's hugely ambitious, multiple-award winning History of the United States series.

Or for an easy yet not simplistic read, try one or all of the ten volumes in Joy Hakim's History of US.

My next recommendations highlight perspectives and contributions which have often been overlooked. (There are young adult versions of all these, but I suggest the original adult editions.)

Charles Mann's epic 1491: New Revelations of the Americas Before Columbus investigates the complexity and sophistication of the cultures that flourished before European diseases, guns, and forced relocations wiped many of them out:

One way to sum up the new scholarship is to say that it has begun, at last, to fill in one of the biggest blanks in history: the Western Hemisphere before 1492. It was, in the current view, a thriving, stunningly diverse place, a tumult of languages, trade, and culture, a region where tens of millions of people loved and hated and worshipped as people do everywhere. Much of this world vanished after Columbus, swept away by disease and subjugation. So thorough was the erasure that within a few generations neither conqueror nor conquered knew that this world had existed. Now, though, it is returning to view. It seems incumbent on us to take a look.

A Different Mirror: A History of Multicultural America, by Ronald Takaki, examines U.S. history from the viewpoint of those who built it: Indigenous, Irish, African, Jewish, Asian, Latinx, and others. Packed with details and quotes from primary documents. "The study of diversity is essential for understanding how and why America became what Walt Whitman called a 'teeming nation of nations.' "

The ReVisioning American History series from Beacon Press zooms in on rich, complex sagas. Editorial director Gayatri Patnaik says, "Each title will both fundamentally challenge but also change how you think about U.S. history." They include:

An Indigenous Peoples' History of the United States, by Roxanne Dunbar-Ortiz

A Queer History of the United States, by Michael Bronski

A Disability History of the United States, by Kim Nielsen

A Black Women's History of the United States, by Daina Berry and Kali Gross

An African American and Latinx History of the United States, by Paul Ortiz

Howard Zinn was an early leader of the "tell the whole story!" movement. His classic People's History of the United States centers the perspectives of women, labor leaders, war resisters, and fugitive slaves.

If you love novels and poetry, combine your literary adventures with an investigation of the American mythos and history, taking Thomas C. Foster's Twenty-Five Books That Shaped America as your companion.

And for graphic novel fans, Larry Gonick's Cartoon History of the United States is an easy all-in-one (though it ends with the early nineties).

Geographical resources for historians

History makes way more sense when you add the dimension of where. Hang a world map on the wall or keep a globe close at hand. Or try a historical atlas, with map-centric spreads that illuminate a topic like "From hunting to farming: the origins of agriculture," "The 9th and 10th century invasions of Europe," "East Asia at the time of the Ch'ing Dynasty," or "The industrial growth of the United States." There are several thorough, frequently-updated historical atlases—my favorites are Oxford's and DK's.

Timelines

Timetables, showing what happened when, can be endlessly fascinating. I keep a copy of Schofield and Sims' "World History Timeline" poster on the fridge, which is why dinner is often late at my house. More extensive timeline posters are great for wrapping around a room or running the length of a hallway. There are excellent ready-made ones to purchase, or research and construct your own—make it general, or focus in on a subject like gymnastics, religion in Africa, architecture. Play around online with Histography's interactive timeline, which pulls historical events from Wikipedia—from the Big Bang through the black death to the invention of the iPhone and beyond. Muse there on the interplay of everything, or click on a topic (like "riots" or "discoveries") to see a themed chronology. HistoryWorld is another good timeline-based website. And don't miss the Smithsonian's timeline books.

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Now, let's zoom in on more specific themes and stories.

Books about historical problems, themes, & events

Libraries provide endless heaps, so browse to find what grabs you. Or look up recent winners (and nominees) of awards like the Pulitzer Prize in History and the American History Book Prize. Or see what pops up when you search "best history books." A title that recently left a strong impression on me: Masha Gessen's *The Future is History: How Totalitarianism Reclaimed Russia*. Gessen, a brilliant and wry columnist for *The New Yorker*, follows the lives of four individuals to tell the tragic tale of how Russia almost became a democracy.

Biographies

bring it all alive. The 920-928 section in a Dewey Decimal library is packed with biographies and autobiographies, alphabetized according to the subject's last name.

Historical novels

Some people think of historical fiction as being a skewed, subjective view of the past. They're right, of course. But the same is true of any source, primary or secondary. Top-notch historical novels paint a more vivid picture of a period than textbooks can. Their authors are often historians in their own right who research extensively—reading primary and secondary sources and visiting the setting of their work. Before you read a historical novel, orient yourself by looking up the period and location on Wikipedia or in a historical atlas. A couple highlights in my own recent memory are two heartbreaking, heart-opening tales set in Europe during and after World War II: Anthony Doerr's *All the Light We Cannot See* and Michael Ondaatje's *Warlight*.

Movies can be historical fiction (& non-fiction) too

Just don't be brainwashed. Every film has a slant, no matter how objective it seems. As with historical novels, you'll make a lot more sense out of what you see with five or ten minutes of preliminary investigation. A little background knowledge on the Ballets Russes, for instance, makes the movie *Nijinski* far more interesting.

You'll find excellent documentaries (13th, Ken Burns' *Civil War*, *Paris is Burning*, *Wild Wild Country*...) as well as hundreds of good movies based on actual events—like *Apollo 13*, *The Big Short*, *Black Robe*, *Erin Brockovich*, *Gandhi*, *Glory*, *Harriet*, *Hotel Rwanda*, *Just Mercy*, *The Killing Fields*, *Rabbit-Proof Fence*, *Schindler's List*, *Selma*, *The Social Network*, *Titanic*, and *Twelve Years a Slave*.

And movies can call up another time and place even when they are not primarily based on actual events. Filmmakers go to great lengths to recreate authentic settings, bringing us outstanding movies like *At Play in the Fields of the Lord*, *Brooklyn*, *The Color Purple*, *Farewell my Concubine*, *Good Morning Vietnam*, *Jeremiah Johnson*, *Memoirs of a Geisha*, *The Razor's Edge*, *A Room With a View*, and *The Seven Samurai*.

History activities

Visit places where the past is visible—a monument, a restored house, a cousin's attic, a rusty ghost town. Often such places reek of tourism; you may need to take several hours just to sit, slowly conjuring up images, letting the tourists fade, slipping into your own trance. It also helps to visit such places when few people are present—dawn, Monday mornings, maybe if you're lucky even when a museum is closed to the general public. You are not on a school field trip, so don't be in field trip mentality. Stay as long as you like. Be quiet and dream into the past.

Have a look at *The Concord Review*—an acclaimed scholarly journal of high school students' history essays—and consider submitting your own best work. (Editor Will Fitzhugh, former teacher, says, "I would welcome essays ... from secondary students learning at home or on their own, or wherever.")

Conduct your own historical inquiries. There is plenty to be found, interpreted, and presented to the heap. You might record oral histories in the style of Studs Terkel, soliciting the stories of the elders in your community. Read up a bit to get a sense of the issues at play. (For instance, Edward Ives' *The Tape Recorded Interview*, though out of date in technical matters, discusses timeless subtleties like the dynamics of interviewing a husband and wife together versus separately.)

Investigate and write up your own family history. Researching personalized history can make general history much more meaningful. Find resources online and at the library. In *GWS #36*, Virginia Schewe writes:

Quite by accident this summer, I opened the doors to genealogy and suddenly history became very interesting to the youngsters. After we discovered that a great-

grandpa had been in the Army during the Civil War, did a little research in the service records, traced his path, and read about the battles he had taken part in, the Civil War wasn't just some old dumb scrap anymore.

To share your original research, start a website or a publication like *Foxfire*. This is a fourteen-volume collection based on interviews with old people in the Appalachian hills—fiddle making, burial customs, snake handling, ghost stories, and other “affairs of plain living.” Eliot Wigginton’s high school students conducted the interviews. If you want to start a similar project, you’ll want companions (get your friends out of school!). Since so many teachers have been inspired by *Foxfire*, resources to help new groups are available through their website. *Foxfire*-type projects are important partly because they reclaim wisdom that helps us live more abundantly in an ecologically smart way.

Participate in an online crowdsourced history project.

At Historypin, upload (to a map location) family photos or other images in your possession, along with stories.

Zooniverse is known mostly for its citizen science projects, but also has history opportunities—for example, transcribe handwritten documents to help build knowledge of immigrants in New York City or the history of war in New Zealand.

Join the U.S. National Archives’ Citizen Archivist project to transcribe, tag, and comment on records so they are more accessible and searchable online.

If you become enamored of a specific branch of history, you may want to travel to the appropriate setting to look at ruins, meet the locals, meet scholars, and inspect special collections of documents and artifacts at libraries and museums.

Combine history with something else you love. See Chapter 32 to read about Anna-Lisa Cox’s internship at a costume museum. If you like cars, join the local antique car collectors’ club—maybe you can help somebody with their restoration project. Or collect old jewelry, knives, books, tools, horse tack, gramophones. You can do this for free by keeping a scrapbook collection instead, cutting out pictures of such things in magazines (or sourcing images online), labeling them with notes from your research.

If you become a serious collector, create a wee museum. House it in a spare room or a corner of your bedroom. Invite friends and fellow enthusiasts—maybe even the public—to see your display.

You’ll find more ideas in David Weitzman’s old, delightful *My Backyard History Book*—written for children, but a good start for anybody. Weitzman will get you to do fun stuff like create family archives, collect rubbings of tombstones, make a timeline of your own life, and hunt for clues in old piles of junk.

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Living History

Maybe you'd like to join a group that recreates a period of history in lifestyle, costume, language, and skills.

In the Rocky Mountain states, "buckskinners" run rampant—mountain men with muzzle loading rifles and tipis. When I taught school, two of them entertained our social studies class for an afternoon, spinning yarns and wearing moccasins.

All over the world, you can find enclaves of medieval enthusiasts who belong to the Society for Creative Anachronism. They joust in authentically crafted suits of armor, embroider stunning fourteenth-century-style dresses, dance the really old dances, teach each other to play music on ancient instruments, throw brightly colored festivals, and publish fascinating information on topics like "Early Scandinavian Culture," "English Domestic Architecture 1200-1500," "Falconry," and "Leathercraft for Common Usage."

Living history projects often revolve around farms, which brings me to one of my possibly-annoying little sermons. Living history goes beyond mere academia. It even goes beyond being a creative way to have a raging good time. Living history projects could maybe even help fix this planet. Most agriculture now depends on petroleum-powered machinery and on incredible amounts of chemical pesticides and fertilizers. Organic farmers are leading the way back toward health, but they don't know everything that farmers did in the Good Old Days.

When the world got industrialized, few people expected the old ways to ever be important again—and much of this complex lore was lost. Historians recorded dates of wars and names of governors, but rarely had the vision to write down the ways that people did things—herding cattle, growing vegetables, tanning leather. When living history fans work with ox teams and water-powered wheat mills, they help reclaim the knowledge of how such things work. From there, we can go on to adapt them to our twenty-first-century lives and beyond.

Resources

Society for Creative Anachronism: look it up online to find out about events, your local group, and well-researched books, pamphlets, and costume patterns.

Search the internet to find out about the hundreds (thousands?) of living history (or “historical reenactment”) farms, festivals, museums, magazines, suppliers, and organizations. Then participate, or just attend an event to watch other people make history out of themselves.

The Book of Buckskinning, several volumes, edited by William Scurlock. These books overflow with lore and give detailed instructions on making equipment, using muzzle loaders, and acquiring skills for the “black powder” movement. To find mountain men and women, contact the National Muzzle Loading Rifle Association.

If there are no living history programs nearby, or that reflect the slice of the past that interests you, start your own. Enlist the guidance not just of books, museums, and primary source documents, but also of human experts who can help with authenticity. If you present your idea charmingly, you will find businesses or foundations to help pay for the project.

Seventeen-year-old unschooler Andrew Endsley describes his involvement in a “Living History Units” program (in GWS #77):

We dress up in a costume or uniform from a period in history, and then spend time at historic sites, or do reenactments of battles, for the enjoyment of the public and also for our own enjoyment. A lot of work goes into the historical accuracy of the uniforms. Being involved with this now takes me all over the country. . . . Since the unit I was in was known for its special attention to historical accuracy, we were asked to be part of the battle scenes in Glory.

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Unschoolers learning history

Leigh Pennebaker organized a group of homeschooled teenagers, and after they experimented with various activities, they decided to study the Civil War together. In GWS #94, she explains:

We began by having a Civil War re-enactor come, dressed as a union soldier and carrying all the paraphernalia that one would have carried as a foot soldier during the Civil War. . . . On the same day, an author of a book on the Civil War and southern life came and read parts of the book and talked to us. At that time, I was vice-president

of the group, and the president and I had found these people by calling around to historic places and getting in touch with people who knew a lot about history.

The next week I wasn't there . . . but the others went to a Civil War era house and museum, and the people gave them a tour and explained what life was like on the home front. That was one of our big interests—we didn't want to find out just about the major battles and the famous people, because you can read that in most books. We wanted to learn what it would have been like to be a regular person, or a regular soldier, during that time. On that same day, the group also talked to a historian about the politics of the Civil War, and they said that the event was just wonderful and enthralling and that the historian just loved our group. That was one of the amazing things . . . whenever we had someone speak to us, the instructor or lecturer would be shocked at our maturity and interest.

Another activity was going to a Civil-War-era plantation and mansion—which is not, of course, a plantation any more. I had the idea to dress up in authentic costumes, and I thought I would be laughed at because the kids would think the idea was ridiculous. But everyone jumped on it and thought it was a neat idea, and everybody worked hard on their costumes and had a great time.

Reanna Alder, fifteen, of British Columbia, writes:

I learn an incredible amount from reading stories. I read a lot of historical fiction and stories from different wars. I've read many, many Jewish World War II stories, like Anne Frank and Maus, and lots of lesser known ones. Also many Cambodian, Korean, Russian, Native American and Japanese war stories. War stories tear me apart, they are fascinating and painful. I'm not completely sure why I read them. I gravitate towards them, and I often have a hard time sleeping afterwards. It seems very important to me to know all the stories, to understand.

Preparation for college history

U.S. colleges typically expect that you have some general knowledge of U.S. history, Western history, and world history. For more specific guidance, here are the words of a couple professors. The Chair of History at Wellesley College suggests:

A freshman needs to know how to read, reason, and think analytically. She needs to realize that just for something to appear in print does not necessarily mean it is true or useful. She has to have some idea about what constitutes evidence; of the relationships between fact, inference, and opinion; of why the historian selected certain facts to include and ignored others. If she does not have that minimal degree of sophistication, she at least needs to be open to learning about and appreciating it. . . . In terms of knowledge, a student needs to have just plain general background information about this country and the world at large. For example, I've been floored to have students without a clue as to what a bishop is (i.e. not even know it has something to do with religion), or ignorant that there are "books" in the Bible, or with no geographical knowledge (i.e. mixing up Poland and Belgium).

Ideally, students who are well-read, who have had travel opportunities or other interaction with people different from themselves, and who are intellectually and socially at the more mature end of the seventeen- and eighteen-year-old spectrum make the best history students. Aptitude and attitude are probably more important than lots of specific knowledge. Self-discipline, intellectual curiosity, willingness to work, enjoyment of study, ability to accept and profit from constructive criticism all make for an ideal student. Probably the “unschoolers” are not as grade-conscious as many schooled are, which would be a great big plus, as far as I am concerned. . . .

For schooled students, success in Honors classes and A.P. classes allow them to by-pass introductory work and take courses with greater depth and more challenge. If home-schooled do something similar they should be well-prepared for college, too.

A professor of history and American Studies at Carleton shared the following advice:

Minimum expectations for a Carleton freshman’s success in Carleton history courses: Carleton history professors expect their incoming students to have various kinds of preparation. First and most basic, they should have the reading and writing skills that are essential for survival not only in history courses but in college in general. On the reading side, they must be able to identify the argument in an essay and restate it briefly in their own words. They should be able to test the argument in terms of its logic, internal consistency, and reference to the sources. And every student of the historical record needs to be able to read quickly and to skim if necessary so that they can get the main arguments out of a two-hundred page book in three hours or less. On the writing side they need to be able to compose an expository essay that sets forth their question or thesis in the introductory paragraphs, develops an argument with reference to their source materials in the body of the paper, and draws their conclusions at the end.

In addition to these basic reading and writing skills, a good student should have a sense of the basic chronology in American history and some preparation in European history, Asian history, or some other major historical literature. They need to have taken at least two history courses, have read some interpretive books or articles beyond the basic textbook, and have been exposed to some primary sources, i.e., materials written in the time period being studied. They also need to have the minimal research skills that will enable them to look up material in the library using more sources than simply an encyclopedia.

Finally, the minimally prepared student should be able to recognize the complexity of studying the historical past and to frame his or her arguments about the past in such a way that they recognize and evaluate the merits of different interpretations before choosing the one they most favor.

The Ideal Preparation for a student: In addition to the background and skills mentioned above, the ideally trained incoming student would come to college with a burning fascination with the past and an intense desire to understand it. This frame of mind might, in some cases, be likened to a detective mentality. An inquiring mind, full of questions, is a rare commodity and is much prized by teachers.

The best students add to this quality of mind a greater degree of sophistication in reading and writing than his or her minimally prepared counterparts. The ideally prepared students will not only be able to identify and paraphrase an argument from an essay or book, but would also be able to decipher the assumptions upon which the argument rested. They will also have enough self-consciousness as writers to recognize the position of their audience and choose the writing strategy designed to make their arguments most effective. For most people, these will be skills acquired only through substantial contact with reading and writing historical studies of various kinds.

Anthropology & sociology

“Anthropology is the study of human beings as creatures of society. It fastens its attention upon those physical characteristics and industrial techniques, those conventions and values, which distinguish one community from all others that belong to a different tradition.” —Ruth Benedict, *The Patterns of Culture*

Sociology is basically the same thing as anthropology, except a sociologist investigates her own culture, and can use introspection as a significant tool.

In the unromantic opinion of my little brother Richard, who at the time was a Reed anthropology-major dropout, anthropology means going out and looking at exotic people and writing down what you see so you can preserve them in libraries so that no one feels guilty for sending Progress in to destroy their traditions. Richard acknowledges, however, that some anthropologists use their knowledge to help restore cultures, like scientists who use their knowledge to heal devastated ecosystems. Such anthropologists sometimes work with the governments of developing nations to defend a threatened culture. Cultural Survival, described below, exemplifies this movement.

General resources

Enjoy the free online magazine *Sapiens*, with a commitment to “confront what anthropology was, challenge what it is, and dream what it could be.” Enticing feature articles, photo essays, poetry, and more.

For an introduction to anthropology, try Ruth Benedict’s *Patterns of Culture*. You might start with Chapter Two, which is full of stories and offers a glimpse of powerful and unfamiliar (to us) versions of adolescence.

Read the short, illuminating 1950s classic “Body Ritual Among the Nacirema” (free online) to put anthropology in perspective.

For a deeper analysis, read Joseph Henrich’s *The WEIRD People in the World: How the West Became Psychologically Peculiar and Particularly Prosperous*.

Tyson Yunkaporta’s unique, funny, and big-hearted book *Sand Talk: How Indigenous Thinking Can Save the World* considers the industrialized world—and its challenges—from the perspective of Australian Aboriginal culture.

Funk and Wagnalls Standard Dictionary of Folklore, Mythology and Legend, edited by Maria Leach, presents more than 8,000 highly browsable articles on topics like blues, Chinese folklore, eating the sacred animal, hanging, Robin Hood, wolf society, and zombies.

Cultural Survival Quarterly is an anthropology-ish magazine with a political agenda, from a longstanding yet cutting-edge organization. “Cultural Survival advocates for Indigenous Peoples’ rights and supports Indigenous communities’ self-determination, cultures and political resilience, since 1972.” Check out their engaging website (you’ll see they offer internships), and consider subscribing.

The Sociology Book (from DK’s Big Ideas Simply Explained series) surveys key theories and concepts in a visual format—Max Weber’s iron cage of rationality, Edward Said’s Orientalism, Arlie Hochschild’s emotional labor, and many more.

Popular reads

The following books are profound and surprising, though less formal and analytic than textbooks or scholarly works:*

*For this edition, I made an effort to streamline my resource recommendations. Some of the resulting book lists are shorter than they once were, even with newer items integrated. This one, though, has defiantly elongated. I think it’s really valuable to learn about people whose experiences and perspectives differ vastly from our own—and there are so many different cultural (let alone individual) experiences and perspectives. Yet my list, unwieldy as it may be, reflects only a few cultures and hardly dings the surface of this terrain.

Peggy Beck, Anna Lee Walters, and Nia Francisco, *The Sacred: Ways of Knowledge, Sources of Life*. This book is alive with personal stories regarding the religions, concepts, and traditions of Native American peoples—ritual drama and prayer, education, shamanism, response to oppression, childhood and puberty ceremonies, death, peyote, sacred fools and clowns.

One of the main themes of this ceremony is the importance of individual responsibility—to share, to be humble, to be thoughtful. One of the main objectives is to make people happy—“the Clowns open you,” “they make you happy,” the people say. And the Clowns “tame”—they unbalance things and balance them again. “When they feel too sure or too safe, maybe this is good for them,” says Black Elk. The Navajo mud clown of the Enemy Way ceremony does this too—it is one of his powers. By throwing a well-dressed man (who is showing off his clothes) in the mud, the man is tamed. And, as we saw, the Clown is fair about this. After he has teased his victim he gives him/her a gift. This is behavior which helps a community survive.

Robert Coles, *Children of Crisis*. The lives of U.S. children, compassionately told.

Jared Diamond, *The World Until Yesterday: What Can We Learn from Traditional Societies?* Fascinating and deeply human, this book leverages the author’s astounding range of knowledge to address the question in the title.

Barbara Ehrenreich, *Nickel and Dimed: On (Not) Getting by in America*. Ehrenreich tries working as a hotel maid, Wal-Mart clerk, and such—and reports back on what it's like to barely survive on poverty-level wages.

Anne Fadiman, *The Spirit Catches You and You Fall Down: A Hmong Child, Her American Doctors, and the Collision of Two Cultures*. An engrossing, heartbreaking story with Lia—a child who has severe epilepsy—and her parents at its center.

Kenneth Good, *Into the Heart: One Man's Pursuit of Love and Knowledge Among the Yanomama*. Good, an anthropologist, spends twelve years in the Amazon rainforest with some of the world's most remote Indigenous people. His book stands out because he lets himself get personally and emotionally involved, rather than staying removed from the experience in the proper academic way. Not only does he live in a large communal house with the Yanomama (unlike most researchers who stay in separate buildings), but he also falls in love with a Yanomama woman. A vivid story with a strange, bittersweet ending.

The Good family saga deepens with David Good's second-generation memoir, *The Way Around: Finding My Mother and Myself Among the Yanomami*.

Jacob Holdt, *American Pictures: A Personal Journey Through the American Underclass*. Holdt, from Denmark, hitchhiked through America for several years in the seventies, staying with very poor families and selling blood plasma to earn money for film. The result is this book and a long slide show by the same name, phenomenal unflinching works of compassion. You need a strong stomach to take it—photos of dead bloody people on the street, Black men eating from tin trays in prison next to pictures of rich white girls in velvet bedrooms. (While the book is out of print and hard to find, Holdt maintains an incredibly intimate American Pictures website featuring thousands of compelling photos. Despite the title, his online galleries now include images from all over the world.)

Theodora Kroeber, *Ishi in Two Worlds*, describes the life of Ishi, the last survivor of a Californian tribe, who was “adopted” by anthropologists.

Barry Lopez, *Of Wolves and Men*. The mind-blowing difference between the ways Indigenous peoples relate to wolves and the way our now-prevailing culture relates to them. All of Lopez's books seem to encompass the whole universe.

Richard Nelson, *Make Prayers to the Raven*, reveals the relationship between the Koyukon people of the Alaskan boreal forest and their surroundings.

Marjorie Shostak, *Nisa: The Life and Words of a !Kung Woman*, illuminates a traditional culture of southern Africa. The focus is on relationships—discovering sex, marriage, taking lovers, motherhood. Hunting and gathering food, and other aspects of life in the “bush” of the Kalahari desert, are also described.

Sarah Smarsh, *Heartland: A Memoir of Working Hard and Being Broke in the Richest Country on Earth*. An intimate, eloquent exposition of poverty, class, and struggle in the American midwest.

Malidoma Patrice Somé, *Of Water and the Spirit: Ritual, Magic, and Initiation in the Life of an African Shaman*. Read this book—all the way through; you'll miss the

point if you don't finish it—and you'll gain a strong sense of what it's like to experience a transformative adolescent initiation rite.

In the culture of my people, the Dagara, we have no word for the supernatural. The closest we come to this concept is Yielbongura, “the thing that knowledge can't eat.” This word suggests that the life and power of certain things depend upon their resistance to the kind of categorizing knowledge that human beings apply to everything. In Western reality, there is a clear split between the spiritual and the material, between religious life and secular life. This concept is alien to the Dagara. For us, as for many indigenous cultures, the supernatural is part of our everyday lives. To a Dagara man or woman, the material is just the spiritual taking on form. The secular is religion in a lower key—a rest area from the tension of religious and spiritual practice. Dwelling in the realm of the sacred is both exciting and terrifying. A little time out once in a while is in order.

Studs Terkel, *Working: People Talk About What They Do All Day and How They Feel About What They Do*. Read the words of a farmer, a strip miner, a hotel switchboard operator, a bar pianist, a sex worker, a policeman, a gravedigger, and more.

Elizabeth Marshall Thomas, *The Old Way: A Story of the First People*, is a bright window into a hunter-gatherer society. In the 1950s, Thomas lived among the people of the Kalahari desert—before their traditional way of life was disrupted.

David Treuer, *Rez Life: An Indian's Journey Through Reservation Life*. Treuer tells his own story of growing up on an Ojibwe reservation, and the larger story (and history) of the U.S.'s 310 reservations. “Reservations and the Indians on them are not simply victims of the white juggernaut. And what one finds on reservations is more than scars, tears, blood, and noble sentiment. There is beauty in Indian life, as well as meaning and a long history of interaction. We love our reservations.”

Colin Turnbull, *The Forest People*. The Bambuti people of the Congo rainforest live in amazing harmony with their environment. As far as they are concerned, the forest is their father and their mother, and it loves them. When anything goes wrong, the forest must be sleeping—so they wake it up with lots of music. This moving book turns a lot of people on to anthropology.

Isabel Wilkerson, *Caste*. Wilkerson connects the painful dots between India's caste system, Nazi Germany's antisemitism, and the U.S.'s racism.

Ethnographies

are anthropologists' studies of specific cultures. Written mainly for other anthropologists, they're densely academic and not intended to be especially entertaining—but can be fascinating. One of the most enjoyable is *Pigs For the Ancestors*, by Roy A. Rappaport, about the Tsembaga Maring people of New Guinea. To find more, look under “ethnology” in a college library catalog.

Movies & documentaries

Look for films that increase your understanding of other cultures, or your own culture for that matter. Don't miss the delightful and revelatory *Babies*, which follows four humans—in Namibia, Mongolia, Japan, and the U.S.—throughout the first year of their lives. Try *Pow Wow Highway* (Native American fairytale), *Menace II Society* (acclaimed hood film), *City of Hope* (urban conflict in the U.S.), *City of God* (urban conflict in Brazil), *Secrets and Lies* (family dynamics, racial issues), *Unorthodox* (a young woman ill at ease within her Orthodox Jewish community), *Once Were Warriors* (a Maori family adjusting to city life in New Zealand). Or *Babette's Feast*, *The Emerald Forest*, *Local Hero*, *Maria Full of Grace*, *The Milagro Beanfield War*, *El Norte*, *Salaam Bombay!*, *Slumdog Millionaire*, *Wedding in Galilee*.

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Archaeology & Indigenous Skills

Archaeology is a branch of the anthropology tree, with at least two great options for unschoolers: 1) dig, 2) do archaeology “living history” style or learn indigenous or “neo-aboriginal” skills. For opportunities in both categories, subscribe to *Archaeology* magazine, published by the Archaeological Institute of America. Or just have a look at their website for travel suggestions, podcasts, and other helpful resources. To dig, you can also contact Earthwatch (whose expeditions unearth guns in Bermuda, excavate a prehistoric Asante site in Ghana, etc.), your state parks people, or the National Park Service. To participate helpfully from home, join the citizen scientist efforts online at GlobalXplorer, analyzing satellite images for undiscovered pyramids, settlements, and lost tombs. National Geographic also covers archaeological discoveries, if you want to just read about them and look at pictures.

Living history & indigenous arts & skills

A grown up unschooler comments:

We live in a society that is becoming more and more technologically advanced while its individuals are becoming less and less technologically capable. People in indigenous societies knew how to gather materials for, make and maintain everything they used, whereas today, for example, we can turn a knob on the stove or strike a match to produce fire, but take away the manufactured matches and mass-produced propane stove and most of us would die before we could start a fire to keep us warm and cook our food. This is why I've spent days turning rawhide into buckskin and hours at a time chipping away at a piece of obsidian trying to make a knife blade. It's exciting and empowering to know how to make your own tools, shelter and clothing. And it gives me a more intimate ecological consciousness.

If you decide to explore this rich and fascinating field, it's a good idea to listen in on the ongoing public (social media, etc.) conversation regarding cultural appropriation, consider what is an ethical way for you to participate, and keep a humble frame of mind. Knap-ins, for example, explore heritage that is common to all humanity, but they also veer into skills and materials specific to Native American cultural heritage. Awareness, therefore, is an important place to start.

To learn old-school arts and skills, or to turn yourself into a part-time cavewoman or a Viking-style voyager:

Contact natural history museums

They may need interpreters or have other ways you can get involved.

Find companions

Search the internet for flintknapping and primitive living skills, experimental archaeology, reconstructive archaeology, and maybe living history (or “historical reenactment”) organizations. Local colleges may have clubs you can join—check with their anthropology or archaeology departments.

Take a course

My brother Richard went on a two-week course in Oregon's high desert where the late, renowned Jim Riggs taught foraging, making buckskin, using stone tools, weaving baskets and mats, and making fires with bow and drill. Richard ate packrats and jackrabbits and learned heaps. He says that once you acquire some basic skills, as you would in a course like this, it's also fun to drop in on the annual Knap-In in March, a no-cost campout where he met author Jean Auel and lots of interesting people. The pamphlet for the course that Richard took says, "Drawing from disciplines of anthropology, archaeology, experimental archaeology, primitive technology, natural history and ecology, participants master documented aboriginal processes and technologies, replicate and use important material culture tools and implements."

Experiment

Perhaps you don't need an organization to learn these skills. Early in his teens, my same charming little brother took to refining his archery skills and riding horseback into the hills with nothing to eat except what he could find. He learned local edible plants; he digested grubs; he grew one fingernail very long and sharpened it—a digging tool. None of this was intended to be academic, but it reflected and enhanced his fascination with cultures who live—and lived—closer to the land. (Several years later, he temporarily abandoned his exchange student host family in Ecuador to sneak into the Amazon and drink ayahuasca with the locals. That was, perhaps, anthropology too.)

Resources

Flintknapping: Making and Understanding Stone Tools, by John C. Whittaker

Primitive Technology: A Book of Earth Skills, by David Wescott

Earth Knack: Stone Age Skills for the 21st Century, by Bart and Robin Blackenship

Paleotechnics—an informative blog and website, with links to resources such as books and events

An unschooled archaeologist

In GWS #82, sixteen-year-old Amber Clifford of Missouri writes:

I've been interested in archaeology since I was a little girl. One of my favorite books was David Macaulay's *Pyramid* . . . Somehow I managed to choose a subject my parents didn't know much about.

In the beginning, archaeology was just a casual interest. I read books by classic archaeologists, the discoverers of King Tut and Troy. Later I kept a scrapbook of all the newspaper and magazine articles about archaeology. It was during that time that I saw my first Indiana Jones film. Even though the movies were over-romanticized, Indiana Jones inspired me. I dove headlong into archaeology.

At that time I was living in Lubbock, Texas. I began to study classical archaeology in Europe and Asia heavily. I read volumes of mythology, from Greek to American Indian. I went dozens of times to the Texas Tech University Museum, that had an entire hall devoted to the archeological history of Lubbock. I also became on a first-name basis with the directors and workers at the Lubbock Lake Site. The Lake Site is an archaeological site, and I was there at every field day talking and working.

I was able to do the reading and studying on my own, but my parents helped me find the resource people that I needed and took me to the places that I needed to see. We're in a town with a university, so when I was interested in fossils, my mother called the geology department and got the professor to talk to me. I didn't know how to go about finding someone, and she did, so this is where she was really helpful, to me.

It wasn't until last year that I became really interested in United States archaeology. That year I wrote a paper on the uses of neutron activation analysis (NAA), and one of the sections was on NAA's use in archaeology. I got on the mailing list at Kampsville Archaeological Center, and I have kept in contact with the scientists I used as references.

Since that time I have done a lot of things. Last year I submitted a grant proposal to the National Endowment for the Humanities for a paper on NAA uses in archaeology. The NEH has a Young Scholars Program for high school and college students. I needed an advisor, and found an anthropology professor whom my 4-H leader knew. I sent him a paper that I had written, and he said that on the basis of that he was willing to take me on.

If you get turned down by the NEH you can request a critique and they will tell you what you can do to improve your proposal and resubmit it. I got turned down but I'm going to resubmit my proposal in November. The director of the NEH said they

were very interested in the fact that I was a homeschooler and willing to put so much time into this.

This past year I also visited the Etowah Mounds Archaeological Center in Georgia. There is a museum and three burial mounds there. I began heavy research into the archeological record of Missouri. Now I have a list of sites and museums to visit in the area, and I hope to go to an archaeological camp this fall.

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An unschooled & uncolleged sociologist

Eric Hoffer wrote *The True Believer*, an insightful book about fanaticism and mass movements—as relevant (and disturbing) now as when published in 1951. Hoffer had no formal education, but rather a “hunger for the printed word.” He worked at various jobs—mainly as a longshoreman on the docks of San Francisco—and wrote several other acclaimed books.³✉

Geography

The drumbeats we listen to, the earrings we wear, the fruit we eat—it all reflects the richness of a thousand places’ traditions and natural resources. Geography is one of the most lavish thought-universes you can immerse yourself in. Not that our planet is not all happy-go-lucky jewelry designing and fair trade banana farming, of course. Any sincere dive into the discipline of geography will bring you face to face with devastating realities (Indigenous peoples’ homelands destroyed or stolen, refugee crises due to war and famine ...). You’ll encounter hard questions as well as delightful inspirations.

A wonderful portal into all things geographic is the Geography Realm website.

Maps, globes, & atlases

Choosing an atlas or a selection of maps (and learning about the many decisions that go into any map-making project) is potentially an education in itself. We often think of maps as simple objective sources of information, but nothing could be further from the truth. Like other purveyors of knowledge, mapmakers choose what to show, how to show it, and what to leave out—either reinforcing or undermining our assumptions about the world. “Maps are complicated,” writes Natchee Blu Barnd in *Native Space: Geographic Strategies to Unsettle Settler Colonialism*, “They are political documents. They are simultaneously fluid and static. Both artistic and documentary. They are reflections of the relationship between space and identity.” For a fascinating journey into this topic, check out Mark Monmonier’s book *How to Lie with Maps*.

Visit your library’s reference section to investigate different atlases and see if you can pinpoint the differences in their perspectives. Try to find a local or regional atlas.

If you want an atlas but have minimal cash, go to a thrift store or buy a simple nationwide road atlas.

Hang a map of the world or your state. If possible, place maps on the north side of a room, so you are oriented correctly and can easily point in the direction of Kazakhstan, Newfoundland, New York City, or the Marshall Islands. (Unless, that is, you've chosen an unusual map that doesn't place north at the top.) Good, inexpensive maps are easy to find. Or choose an amazing and not-so-inexpensive one, like David Imus's *Essential Geography of the United States* or another winner of the Cartography and Geographic Information Society's annual competition. Or find a fairly-up-to-date globe (a 3D map of the world) for pennies at a thrift store.

Excellent online resources include Google Earth and World Atlas, as well as the lesser-knowns WorldMapper (their "cartogram" format is an easily-understood visual display of anything from plum production to earthquake risk) and Political Geography Now (which tracks ever-shifting national borders, disputed territories, and war zones). The Native Land website is an Indigenous-led project, with multiple layers worth exploring. "What we are mapping is more than just a flat picture. The land itself is sacred, and it is not easy to draw lines that divide it up into chunks that delineate who 'owns' different parts of land. In reality, we know that the land is not something to be exploited and 'owned', but something to be honoured and treasured. However, because of the complexities of history, the kind of mapping we undertake is an important exercise, insofar as it brings an awareness of the real lived history of Indigenous peoples and nations in a long era of colonialism."

Zeroing in on North America, don't miss Claudio Saunt's sobering interactive online maps. His *Invasion of America*, for instance, shows every Native American land cession between 1776 and 1887.

To bolster your mental map of the world's political layout
print out blank maps (easily sourced online) and label them
get an up-to-date geography coloring book
piece together a world-map jigsaw puzzle
find a geography app, online quiz, or game you like.

Once you've surrounded yourself—physically or virtually—with maps and such, consult them: when you're listening to the news, when you're brushing your teeth, when you're dipping into your "poetry around the world" book, when you're fantasizing about your next five years, when the popcorn is ready for your foreign-film-watching date.

Maybe you want to try your own hand (or mouse) at mapmaking? Search online for guidance—the 3D Geography website is helpful for simple projects like paper globes and 3D maps. Or customize a set of Google maps, or use National Geographic's interactive MapMaker tool. Want to go further? The Cartography and Geographic Information Society holds an annual map design competition; for inspiration check out their recent winners online, or see Rebecca Solnit's unique city atlases of San Francisco, New York, and New Orleans.

Finally: for all things map-related, have a look at Jonathan Crowe's extensive blog *The Map Room*.

Easy explorations

National Geographic magazine. Buy cheap back issues at thrift stores and library sales. There's nothing like it, though until recently it conveyed plentiful and patronizing—if sometimes subtle—sexism and racism. Their website also has articles, links to films, and other good stuff.

The Atlas Obscura website leverages its global community of contributors to share thousands of “the world's most wondrous places and foods,” from an island ruled by cats to an Indian prince's queer sanctuary in Gujarat.

Follow the work of a global humanitarian organization like Doctors Without Borders or The International Federation of the Red Cross and Red Crescent Societies. The latter has an online magazine, *Red Cross Red Crescent*.

In Peter Menzel's illuminating *Material World* project, thirty families around the world are photographed with all their possessions. The book is well worth your time and money, but you can also dip into photos online. Menzel's related book, *Women in the Material World*, is also eye-opening.

The Dollar Street website is a fascinating online global project similar to the *Material World* books. See how humans of all income levels live, via photos of their beds, toilets, cars, pets, shoes, dinner guests, things they dream of owning, etc. (You can also get involved by documenting a home and uploading photos.)

Watch films set in faraway places and cultures different from yours, fiction and non-fiction. Flip back to the anthropology/sociology section for a few ideas (mostly oldies). For short documentaries, see the Global Oneness Project—evocative, beautiful, platitude-free films tell individual human stories amidst drought, climate change, political unrest, poverty, and other challenges.

Keep a scrapbook. Gather pictures of worldwide dwellings, farming practices, celebrations, whatever. Assemble digital scrapbooks easily using Pinterest or similar apps. For paper versions, those cheap National Geographic back issues come in handy.

Find out what music you like. The first times I heard the haunting sounds of an a capella Bulgarian women's choir, and (separately) an Armenian duduk, my heart pretty much stopped. FolkCloud offers this type of truly traditional music from around the world (as does the Explorer Series from Nonesuch Records), with Japanese flutes, West African drums, Indian sitars and more. For a mix of current and traditional music, Putumayo is an excellent jumping off point. And it's easy to source pop and fusion from around the world through almost any internet music provider. Enjoy the gorgeous film *Latcho Drom*, featuring the music and dance of Romani people from India to Spain.

Learn to cook and eat the foods of another culture. You'll find a smorgasbord of ethnic cookbooks in the 641.59 shelves of the library.

Have a pen pal. Connect through websites like Global Penfriends, or find a writing buddy via social media.

Go international folkdancing. You'll whip your feet through incredibly complex patterns; learn about geography, international music, and traditional clothing; and have tons of fun.

And travel if you can and want to.

Popular reads ~ geography

Prisoners of Geography: Ten Maps That Explain Everything About the World, by Tim Marshall, reveals how mountains, rivers, coastlines, weather, and other natural features impact everything from international relations to life and politics.

Guns, Germs, and Steel: The Fates of Human Societies, by Jared Diamond, shows how environmental conditions led to huge regional differences in wealth and power.

Africa: A Biography of the Continent, by John Reader, is a vivid and complex saga encompassing geology, biology, our collective human evolution, and recent human history.

The Silk Roads, by Peter Frankopan. Many histories of civilization are confusedly Eurocentric, missing the significance of the flow (of religion, trade, language, ideas, and disease) between Asia and the Mediterranean. This book sets the record straight.

In the 900 shelves of your library, find books about specific parts of the world and people who live there. Watch for unpretentious stories told by the locals. (I like *The Land I Lost: Adventures of a Boy in Vietnam*, by Huynh Quang Nhuong, and *Dreams of Trespass: Tales of a Harem Girlhood*, Fatima Mernissi's evocative recollection of growing up in 1940s Morocco.)

Read novels that take place in areas you know nothing about—maybe *Barefoot Gen*, by Keiji Nakazawa, a graphic novel set in 1940s Japan after the bomb, or *The Ministry of Utmost Happiness*, by Arundhati Roy, set in India and featuring an intersex heroine, or the dark yet hilarious *Milkman*, by Anna Burns, set against the background of political violence in Northern Ireland.

Ethnographies overlap from anthropology into geography. (See the Anthropology section earlier in this chapter.)

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Local Geography ~ Bioregionalism

Bioregionalism means living where you live, which is surely as important as living when you live (as opposed to in your memory of the past or your fantasy of the future). Bioregionalism means knowing and caring about the landscape and the people near you. It means cultivating the perspective that where you live is the most beautiful place on earth, even while you realize that everywhere else is also the most beautiful place on earth—for other people. If anything saves this planet, it will be people who love where they are—ceasing to live in abstract escapism, plugging in and talking to their neighbors, noticing the first leafing out of trees in the spring, climbing the nearest butte to get a look at the lay of the land, going out dancing to local bands, reading poetry by local authors, snacking on hometown blueberry muffins instead of on corporate potato chips.

Find a “bioregional quiz” online—you could organize a whole year’s education around discovering and understanding the answers to its questions. (“Where does your garbage go?” “Trace the water you drink from precipitation to tap.” “What were the primary subsistence techniques of the culture(s) that lived in your area before you?”) Originally titled “Where You At?” and published in *CoEvolution Quarterly* magazine in the eighties, the bioregional quiz has been widely shared—and adapted—on the internet.

Find out who lived in your area first (unless of course you yourself are part of the oldest-known lineage), how they lived, what happened to them when European settlers came along, where their descendants (if any) are now, and what unmet needs or broken treaties are being discussed. The Native Land website and app is an excellent place to begin your inquiry.

Planet Drum Foundation (website, etc.) offers an online library of bioregionalist articles. Key thought leaders include Gary Snyder, Stephanie Mills, Jenny Odell, and Wendell Berry. In the Pacific Northwest, discussion of not only the Cascadia bioregion, but also bioregionalism in general, proliferates online and elsewhere. Robert Macfarlane’s *Landmarks* and Barry Lopez’s *Home Ground* are magnificent collections of terrain-specific language. And much of the art and literature created by Indigenous people exemplifies what it means to relate with depth and intimacy to one’s place on the planet.

In *How to Do Nothing: Resisting the Attention Economy*, artist Jenny Odell makes the case that we’re better off unhooking from digital reality and turning our gaze toward what is literally right in front of us—birds, people, objects we can turn into art.

Compared to the algorithms that recommend friends to us based on instrumental qualities—things we like, things we’ve bought, friends in common—geographical proximity is different, placing us near people we have no “obvious” instrumental reason to care about, who are neither family nor friends (nor, sometimes, even potential friends). I want to propose several reasons we should not only register, but care about and co-inhabit a reality with, the people who live around us being left out of our filter bubbles. And of course, I mean not only social media bubbles, but the filters we create with our own perception and non-perception.

A Place in Space: Ethics, Aesthetics, and Watersheds, includes twenty-nine rich, thoughtful essays that the poet Gary Snyder wrote over a period of forty years, helping to shape and define the bioregionalist vision.

A bioregionalist perspective will influence everything you do, from eating to reading to making friends to deciding whether and where to go to college. Look up the different aspects of your area—its history, its original human inhabitants, its native flora and fauna, its geological story and agricultural products. (Brick-and-mortar libraries are often wonderful sources for local information like this.) Go for walks in your neighborhood; eat in a locally-owned cafe; get to know the pigeons, the unhoused people, and the little kids who show up every day in the park.

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Economics

“Always remember that the economy is the relationship between living beings and the earth—another living ‘being.’ ” —Paul Hawken, *The Next Economy*

The one econ class I took—a required semester in high school—left me believing I despised the subject. It seemed to narrowly confine its attention to abstract matters like money and stocks. I felt that it didn’t—couldn’t—care about real things like trees and houses and elephants, or for that matter even actual human beings. As far as I could tell, economics was capable only of sorting such entities into boxes with labels like “resources” or “exports” or “capital.” But I have a different view now.

Even when the field of economics fails—as it often has—to wrap its perspective around life’s complexity, or to recognize the limits of Planet Earth, it exerts a gigantic force on basically everything. Economic models and theories hugely impact policy and politics around the world—and that means they directly affect your life, and mine, and everybody else’s. So it’s a tremendously important realm. Plus, innovation is underway. Brilliant economists are scrutinizing the old models, designing new ones that more fully describe twenty-first century reality, and thus creating the potential for better solutions to our big problems. Exciting stuff! If I were a young person just entering adulthood now, I’d consider devoting my life energy to economics. Quite a turnaround from my seventeen-year-old verdict.

Introductions & overviews

These encompass a range of perspectives:

A Little History of Economics, by Niall Kishtainy—a highly readable narrative.

Simple meets comprehensive in The Economics Book (from DK's Big Ideas Simply Explained series), which zips through a hundred economic concepts and movements, from property rights to social capital. It's easy to dip in anywhere, thanks to the well organized, visual format.

The Travels of a T-shirt in the Global Economy: An Economist Examines the Markets, Power, and Politics of World Trade, by Pietra Rivoli. The global economy is a ridiculously complex beast. Rivoli tames it—without oversimplifying—by literally following the trajectory of a shirt: from cotton grown in Texas to a factory in China then onward to the U.S. and finally a used-clothing market in Africa.

Thomas Sowell's Basic Economics: A Common Sense Guide to the Economy. Written by a respected libertarian-leaning scholar, this book is praised for its clear presentation of principles.

Freakonomics: A Rogue Economist Explores the Hidden Side of Everything, by Steven Levitt and Stephen Dubner. A popular book that applies economic principles to the terrain of politics, sociology, and more.

Go further by reading the work of influential economists throughout history, some of whom are brilliant philosophers. An excellent starting point is the work of Robert Heilbroner:

Worldly Philosophers: The Lives, Times, and Ideas of the Great Economic Thinkers
Teachings from the Worldly Philosophy—an annotated anthology

Find more in the 330 section of your library.

Movers, shakers, visionaries

Kate Raworth's Doughnut Economics offers a fresh model that balances human needs and the planet's limitations. You don't need to know anything about traditional economics to read Raworth, since she explains the old-school model before going on to transcend it. (See her TED talk and website also.)

Don't miss Naomi Klein's illuminating work. This Changes Everything argues that capitalism and climate change are tightly linked, and that to survive we need to fundamentally change our economic systems. The Shock Doctrine shows how corporations take advantage of terrible catastrophes, to the detriment of the public good.

Abhijit V. Banerjee and Esther Duflo make it clear that economic data can help us care very much, in attentive detail, about actual human beings. Their book Poor Economics looks at what life is like for the almost one billion people who live on less than a dollar a day, and what are the truly effective ways to fight poverty. (It's complicated!) Good Economics for Hard Times is a little denser, packed with nuanced discussion

regarding the (sometimes surprising) economic impacts of immigration, globalization, climate change, and other present day concerns.

Home Economics, by Wendell Berry. Thought-provoking essays discuss how the health of individual households and farms makes up the economic health of the whole planet, and how the industrial economy relates to the greater global economy—the economy that goes far beyond money.

Sacred Economics: Money, Gift, and Society in the Age of Transition, by Charles Eisenstein, elucidates the “gift economy” concept. See Eisenstein’s website for more profundity.

If you like comics, try Larry Gonick’s and Tim Kasser’s powerful, disturbing cartoon guide to Hypercapitalism: The Modern Economy, Its Values, and How to Change Them.

You might learn about time banks, local currencies, and other alternative-money systems. These are complex bartering systems that (when effective) can encourage more local spending, increase local wealth, help start new businesses and jobs, build community, reduce consumption of fossil fuels (because fewer items are imported), and even help to reduce the gap between rich and poor. For example, in Ithaca, New York, you can use Ithaca Hours to buy anything from air conditioning to bank services to carpentry work to dance classes, and you can earn Ithaca Hours by doing or selling anything that other people want. Search out such things on the internet, or read Occupy Money: Creating an Economy Where Everybody Wins, by Margrit Kennedy. Her book discusses alternative currencies—and also argues that our world would be better off without compound interest.

And you might learn about cryptocurrency. Though different in strategy from local currencies, crypto addresses some of the same basic goals (like the ability to transfer value without relying on banks) but on a global scale. Start with any basic internet-sourced overview, and then listen to the enlightening podcast episode “The Quiet Master of Cryptocurrency—Nick Szabo” on The Tim Ferriss Show. Or check out the frequently updated “Crypto Canon” on Andreessen Horowitz’s website.

Financial literacy & personal finance

Don’t leave yourself out of your economic education!

The FIRE (Financial Independence, Retire Early) movement encourages people to maximize savings and optimize spending, in order to live with more purpose and freedom. The Mr. Money Mustache blog exemplifies its best thinking, and the visionary classic Your Money or Your Life outlines its principles. Many people benefit hugely from FIRE strategies and from the movement’s communal wisdom without aiming for early retirement per se. Integrate a few key habits when you are young and you will live better for the rest of your life.

Conventional but useful online resources for growing your financial literacy:

Khan Academy’s introductory personal finance course

The Listen Money Matters website, especially their “Money Tips for Teenagers” section. Other helpful websites include NextAdvisor, Money (magazine), and Practical Money Skills.

TED’s list of talks and articles about finance

Search online for personal finance podcasts and choose one you like. (I enjoy Farnoosh Torabi’s So Money.)

If you have some cash you don’t need access to, and that you could afford to lose (not that the goal here is to lose it), consider opening a brokerage account. A teenager I know owns just one share of Tesla. He tracks it going down and up (mostly up), votes in stockholder meetings, and incrementally grows his understanding of the stock market.

If you want to go to college, devote a serious chunk of your personal-finance energy to that sticky wicket. Do your best to avoid significant debt unless for some reason that makes sense for you. There are many strategies; the important thing is to engage this as the serious issue that it is, think through your options, and make a plan that is realistic for you and your family. Kristina Ellis’s book *How to Graduate Debt Free* is a down-to-earth overview.

Finally, it’s easiest to keep your finances healthy when your basic math skills are also in good working order and you feel confident using them. If they need spiffing up, flip back to the “Basic math” section in Chapter 21, *Unschooling Math*.

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Liberty & Justice for All

If you care about the unfinished business of fairness and human rights in the U.S. and across the planet, peer through any academic lens to grow your understanding and maximize your ability to help. Sociology, since it focuses directly on human society, is one excellent place to start. Closely connected is economics, which looks at the distribution of money and resources. Also math (think critically about economic, medical, and other data—and how this data is used). And literature, a powerful tool for getting out of your own head and empathizing with another's experience. Plus climate science and history and political theory and all the rest. While you're at it, don't forget non-academic pathways to understanding—like observation, conversation, reflection, and journaling. Then find your own way to plug in whether through communication, career, activism, or simply treating humans with more kindness, understanding, and respect. This domain is dynamic and complex, so consider the tried and true resources listed here but also hunt down TED talks, podcasts, and other fresh perspectives.

Books that explain the issues

A book of short essays is a great place to start. I recommend *Readings for Diversity and Social Justice*, and *Race, Class, and Gender: An Anthology*. Collections like these are updated from time to time, so try to get the most recent edition. For some (not all) of the particular ways that humans struggle, I suggest:

Everyday Sexism, by Laura Bates (and the website on which the book is based), documents the big and little ways that women around the world experience intimidation and harassment, particularly in developed nations like the U.S. and Britain. *Half the Sky*, by Nicholas Kristof and Sheryl WuDunn, looks more broadly at sexist oppression all over the world. There's also a documentary film based on their book.

The Gay Revolution: The Story of the Struggle, by Lillian Faderman, starts in the 1950s when homosexuality was illegal, then swims through all kinds of heartbreak, prejudice, death, courage, and heroism toward the landmark 2015 Supreme Court ruling that recognized the right of same-sex couples to marry. Simultaneously an exciting narrative of justice hard won, and a painful revelation of how tenuous and incomplete this justice remains.

Trans/Portraits: Voices from Transgender Communities, by Jackson Wright Shultz. Thirty-four individuals speak openly about the devastating discrimination and other challenges they face, and also about the joy of living authentically, the strength of community, and the power of activism.

About Us: Essays from the Disability Series of the New York Times, edited by Peter Catapano. (And the New York Times "Disability" column from which the essays were selected.) Thirty-four writers illuminate a few of the myriad ways people with disabilities navigate a world that is not designed for them and that often ignores their existence.

American Islamophobia: Understanding the Roots and Rise of Fear, by Khaled A. Beydoun. "For Muslim Americans who confirm their religious identity by wearing headscarves or Islamic dress, fasting on Ramadan and regularly attending the mosque, merely practicing their First Amendment rights is perilous."

Antisemitism: Here and Now, by Deborah Lipstadt. Jewish people experience discrimination from both the left and the right. Lipstadt's book, written as a series of imaginary letters, threads the needle.

Stamped From the Beginning: The Definitive History of Racist Ideas in America, by Ibram X. Kendi, shows how deeply racism is entrenched in our national history.

Speaking of Indigenous Politics: Conversations with Activists, Scholars, and Tribal Leaders, edited by J. Kēhaulani Kauanui. These transcripts of in-depth dialogues eluci-

date a few of the struggles that Native peoples face. (You can also listen to the original interviews, archived at the Indigenous Politics website.)

Climate Justice: Hope, Resilience, and the Fight for a Sustainable Future, by Mary Robinson. The former president of Ireland tells of global farmers, miners, islanders, hurricane victims and others who are already vulnerable to climate change.

A thorough search for books on the “isms”—sexism, ableism, and all the rest—will turn up more complex reads, often with a sociological approach. (My search on “racism,” for example, eventually yielded not only the deservedly popular titles like Ijeoma Oluo’s *So You Want to Talk About Race*, but also denser, quieter works like Michèle Lamont’s *Getting Respect: Responding to Stigma and Discrimination in the United States, Brazil & Israel*.)

Memoirs

can be a potent teacher, offering both understanding (what it's like to live with horrific injustice and oppression), and also inspiration (the awesomeness with which some humans transform pain into universe-changing goodness). My own recent eye-opening, heartwrenching reads include Malala Yousafzai's *I Am Malala: The Girl Who Stood Up for Education and Was Shot by the Taliban*, Patrisse Cullors' *When They Call You a Terrorist: A Black Lives Matter Memoir*, and Roxane Gay's *Hunger: A Memoir of (My) Body*. Oh, and Tara Westover's *Educated*—because every movement has a shadow side, and ours is no exception.

The Universal Declaration of Human Rights

is a helpful framework for looking at these issues. Created by the United Nations shortly after World War II, it offers a conceptual baseline for how humans should treat each other. No slavery, no torture, the right to privacy, stuff like that. Given that the Declaration was drafted in 1948 it's an impressive document; we could make it even better now by adding LGBTQ+ rights and also by extending the right to education beyond the confines of nonconsensual schooling. Although it has no legal standing in itself, the Declaration has influenced laws and policies around the world. And yet, in some places (including parts of the U.S.) these rights are still elusive. In other words, an excellent place for smart, free, compassionate humans to invest big chunks of their life energy.

Read the entire document online. It outlines thirty basic human rights.

The Youth for Human Rights website offers a simplified version of the document plus a series of short, soulful videos ranging from charming to intense.

The Declaration laid the groundwork for nine core treaties which (unlike the Declaration itself) do have legal ramifications. Among these are the Convention on the Rights of the Child, which outlines political, economic, social, health, and cultural rights of people under age eighteen. Except for the U.S., every member of the United Nations has ratified the CRC.

Amnesty International works to support these rights all over the planet, and regardless of your age you can help. Among other things they organize letter-writing campaigns on behalf of prisoners who are being tortured, especially nonviolent “prisoners of conscience”—people imprisoned for their beliefs, color, sex, sexual orientation, ethnic origin, language, or religion. The campaigns draw support from people of all political persuasions and are remarkably effective; many prisoners are released as a direct result, and others are at least treated more humanely.

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Political science, current events, civics

When I first wrote this section it was January 1991, and the U.S. had just gone to war against Iraq. The world felt dark and small; there was talk of a military draft. If

the worst continued, I thought, some of my readers would be sent to fight. In a letter to a former student, I wrote:

If teenagers had more say in the world, the world would be a much cleaner, more peaceful place. The people who wage war and destruction have so little to lose, it seems . . . they're no longer young, they won't be around to see garbage dumps and nuclear waste blot out the face of the earth, they're not the ones who have to meet the "enemy" face to face and shoot, they spend far more time with their documents and diplomats than with their grandchildren. It seems tragic and unthinkable that you are so alienated from the actions of your government.

Later, as I finished the first edition of this book, that particular war was over; a cherry tree blossomed outside my window. We all breathed easier, though across the world a country was ruined. My sense of urgency about all this had diminished, but the political structure of the world had not changed or improved. Nor has it in the decades since that time—and with climate change and other troubles upon us, our collective sense of urgency has gradually risen again. It still seems tragic and unthinkable that you are so alienated from the actions of your government.

How can you begin to make sense of it? I suggest 1) getting involved, and 2) getting informed.

By getting involved, you can build a bridge between you and what happens in the world. You can't vote, but you can go out in the streets with a sign or a flag, or play your guitar at a rally, or organize a vigil. You can work to get a city ordinance or a statewide or nationwide bill passed. You can start a blog or podcast wherein your own heartfelt communication influences public opinion. For more on activism, turn to Chapter 37.

By getting informed, you can share the thoughts of great political philosophers, and build your own twenty-first-century thoughts on top of their wisdom. And by staying in touch with current events, you are better able to sense what changes are needed in the world. Knowledge is power.

Current events

Read the news—not necessarily every day, but on a schedule that works for you and your emotional equilibrium. Best to follow at least two trustworthy news sources with different editorial viewpoints. Even better to learn a little something about media bias and check out your sources carefully:

Media literacy

The Media Bias/Fact Check (MBFC) website is useful, and as the name implies they also address the disturbing reality that not all "news" can be relied upon even to report basic facts with integrity. Other helpful resources for steering through the dark:

The Freedom Forum Institute's website, for perspectives on media literacy and the importance of journalism.

Stanford's free Civic Online Reasoning resources, offering a framework for making sense of news and digital media.

Stanford also teamed up with John Green to develop a Crash Course series, Navigating Digital Information. (Like all of the Green brothers' Crash Courses, this is a tightly edited batch of videos available on YouTube.) It covers topics like using Wikipedia, lateral reading, and discerning truth from lies on social media.

The Critical Media Project (online) examines identity and how it is portrayed.

Daniel Levitin's important, highly readable book, *A Field Guide to Lies: Critical Thinking in the Information Age*, digs into misleading graphs and statistics, faulty arguments, and how to evaluate news stories and rumors.

National & world news

Consider frequent winners of the Pulitzer Prize, like the New York Times, Christian Science Monitor, Wall Street Journal, or Washington Post. Or for audio: National Public Radio, the BBC (British Broadcasting Corporation), and other organizations have excellent news programs and in-depth interviews and commentaries. Listen online or via public radio stations.

Many news websites now have portals specifically for youth (or for teachers working with youth). My perception is that some of these just cutesy-up the regular news—a service of questionable value. But others, like The New York Times' excellent Learning Network, thoughtfully organize around issues that especially impact or involve youth.

Local news & politics

Pay special attention to local news and politics. Your voice can easily make a difference close to home, and what happens nearby especially affects you and yours. Read the newspaper's letters to the editor (and guest editorial pieces) to find out how your community feels about current issues and to clarify your own opinions. Your city, township, and/or county probably have websites where you can find local government news, city council meeting agendas, and such. For hyperlocal issues, see if your community has a neighborhood association—and perhaps a corresponding website or social media presence, with notifications of neighborhood meetings, issues, and events. Local issues often transcend or sidestep partisan politics; if you stick to binary left-versus-right thinking you'll miss nuances and opportunities to understand your neighbors.

Who represents you?

Know who your local and state representatives are. (If you don't, easily look them up online: the two senators representing your state, the U.S. congressperson representing

your district, the individuals who represent your area in your state's legislature, plus city council members and/or other neighborhood representatives.) Consider following them on social media. Keep their names, email addresses, and phone numbers handy for when you want to tell them your opinion or ask for information. If you contact them frequently and thoughtfully, they'll start remembering you and taking you more seriously as time goes by. Personal visits can also be arranged, and are one of the most effective ways to influence representatives. Politicians need this sort of regular contact so they don't start living in a dream world where all their constituents are barely real and they speak only with highly paid lobbyists.

The Vote Smart website is a well-organized compilation of information on all current federal politicians in the U.S. It includes their positions on specific issues and a handy "bull" marker noting lies or misinformation.

Data

These days, poop-tons of data is collected on many aspects of life and society, and frequently discussed in the news. Perhaps you'd like to reflect on this data for yourself rather than relying solely on journalists, experts, and politicians to translate it for you. (Not that I mean to equate journalists with experts with politicians!) This is analogous to, when you're studying history, checking out primary as well as secondary sources. When you have the opportunity, it's often enlightening to go directly to the original material—mulling it over in your own way, asking and seeking to answer your own questions.

U.S. government data and statistics can be accessed through USA.gov's statistics portal. Here, you can investigate everything from crime to women's vs. men's wages to pirates at sea to public attitudes toward science. You'll also find links to state and local government data. (The word "statistics" comes from the word "state" for good reason. It is typically nations, rather than curious individuals or small activist groups, that have the resources—dollars, departments, computers, AI entities, payroll—to collect and summarize voluminous tidbits of information.)

At the time of this writing, there are two non-government, non-partisan websites which do an outstanding job of taking lots of this same government data and presenting it in visual, accessible formats with lofty goals such as generating fact-based discussion. Check them both out: USA Facts (a non-profit started by a former Microsoft CEO) and Data USA (from a collaboration that includes the MIT Media Lab).

The online World Data Atlas from Knoema compiles data from every country on topics including education, food security, water, and crime.

The University of Oxford's Our World in Data website is an extraordinary compendium. "The goal of our work is to make the knowledge on the big problems accessible and understandable."

The Reference Guide to Data Sources, by Julia Bauder—a book written for librarians—points to many more sources.

But! Reflecting on data does have its limits. There are often gigantic gaps in what kind of information is collected in the first place. For a disturbing elucidation of this topic, see Caroline Criado Perez’s book *Invisible Women: Data Bias in a World Designed for Men*. And check out the pointers in the “Data literacy” section of Chapter 21, *Unschooling Math*.

Political theory

These important works have influenced and/or thoughtfully criticized Western political systems. Most are older—in the public domain; easy to find and read online. (That said, sometimes a newer, annotated edition is the best or easiest read.)

Plato, *The Republic*

Aristotle, *Politics*

Niccolò Machiavelli, *The Prince*

Thomas Hobbes, *Leviathan*

John Locke, *Second Treatise of Government*

Alexis de Tocqueville, *Democracy in America*

Karl Marx and Friedrich Engels, *The Communist Manifesto*

Henry David Thoreau, *On the Duty of Civil Disobedience*

Sojourner Truth, “Ain’t I a Woman?”

Frederick Douglass, “What to the Slave is the Fourth of July?” and “The Constitution of the United States: Is it Pro-Slavery or Anti-Slavery?”

John Stuart Mill, *On Liberty*

Peter Kropotkin, *The Conquest of Bread*

Emma Goldman, *Anarchism and Other Essays*

George Orwell, *Animal Farm*, 1984

Hannah Arendt, *The Origins of Totalitarianism*

Russell Kirk, *The Conservative Mind*

Frantz Fanon, *The Wretched of the Earth*

For a variety of short bits, Norton’s *American Political Thought* is useful. And *The Politics Book* (from DK’s *Big Ideas Simply Explained* series) sweeps through human history in an engaging and readable format organized around powerful concepts—like Shirin Ebadi’s “No Islamic law says violate women’s rights.”

Read the Declaration of Independence and the U.S. Constitution—easily found online. An excellent companion to the latter is *How to Read the Constitution and Why*, by Kim Wehle. *In Our Defense: The Bill of Rights in Action*, by Caroline Kennedy and Ellen Alderman, shares fascinating stories that illustrate the first ten constitutional amendments—those which define and defend essential rights of U.S. Citizens such as freedom of speech and the right to privacy. Related books are shelved in the 342.73 section of your library. Online, the Annenberg Classroom’s free resources are helpful.

Branch out to global political and national frameworks with the *Constitute Project* website. There you can explore and compare vastly different constitutions from all over the world.

Freedom House's annual *Freedom in the World* report attempts to measure the degree of civil liberties and political rights in every nation. Sobering: their 2021 report finds that 2020 was "the 15th consecutive year of decline in global freedom." *Democracy Web*, a separate website inspired by Freedom House, takes the report and builds off of it, going deeper into some issues.

If Thoreau's idea of nonviolent civil disobedience interests you, see the writings of Martin Luther King, Jr.; watch the movie *Gandhi*; read Tolstoy's *The Kingdom of God is Within You*. See Chapter 37 for more on nonviolent action.

Take note of new political theories, models, and strategies springing up out of the climate justice movement, racial justice initiatives (like Black Lives Matter, and the #NoDAPL movement started by Indigenous youth), the women's movement, the LGBTQ+ rights movement, responses to economic inequality (like the Occupy movement), other bastions of social justice, and new (or remodeled) religious traditions. You'll find visionary, important ideas in the books below. (Now, certain grownups will tell you this stuff is crazy. Some of it analyzes and advocates for dismantling huge, longstanding systems of oppression. I guess if you're into oppression, don't read this stuff. But then also don't read the political theory "classics" listed above, either. Certainly not the words of Jesus in your Holy Bible. And stay away from Star Wars and Tolkien.)

Welcome to the *Rebellion: A New Hope in Radical Politics*, by Michael Harris. Speaking of Star Wars, this book uses it as a framework for understanding the state of the world and the crucial role that stories play in political movements.

Angela Davis's *Freedom is a Constant Struggle*, or any of her other books

bell hooks, *Feminism Is For Everybody: Passionate Politics*

Everything by Canadian visionary Naomi Klein

Starhawk's *Dreaming the Dark*, *Truth or Dare*, and (a novel) *The Fifth Sacred Thing*

Regarding a different territory of the political universe: in recent years, religious fundamentalism and anti-science rhetoric have often been mistaken for conservatism. An excellent resource to dispel the confusion and learn about the real thing is Jerry Muller's *Conservatism: An Anthology of Social and Political Thought From David Hume to the Present*.

The judicial system

To better understand how it works, attend trials. Just like in the movies, most are open to the public.

Watch films. To transform your experience from entertainment to understanding, supplement with a microdose of internet research—both on how the judicial system

works, and also on the specific issues portrayed. Try *The Accused*, *Dark Waters*, Erin Brockovich, *Inherit the Wind*, *Just Mercy*, *Philadelphia*, *To Kill a Mockingbird*, *The Trial of the Chicago 7*, or *12 Angry Men*.

Supreme Court resources

On the official SCOTUS (Supreme Court of the United States) website you can see a list of recent decisions, plus audio records (and transcripts) of all oral arguments going back approximately ten years. (Records back to 1955 are kept at the National Archives, and some have been digitized and are available online.)

SCOTUSblog, written by journalist-lawyers, offers in-depth, up to date coverage of what's going on. It's much easier to read than transcripts of the actual court proceedings, yet more focused and complex than most mainstream news.

Criminal justice (& police reform or abolition)

is a perennially important and painful topic. I'm writing these words in June 2020, a few weeks after George Floyd died with his neck under the unrelenting knee of police officer Derek Chauvin—and the world watched in unsurprised horror. Everyone I know is (among other things) watching essential films like Ava DuVernay's documentary *13th*, which makes a compelling case that when slavery was abolished by the Thirteenth Amendment, mass imprisonment of Black people basically picked up where slavery left off. (Michelle Alexander's book *The New Jim Crow: Mass Incarceration in the Age of Colorblindness*, is a must-read on the same topic.) The U.S. is wrestling its way through a fresh, potent, critical reckoning with racism. Despite the fact that we're also in the middle of a pandemic and spending most of our time sequestered at home, with everything from gym classes to church services canceled, multi-week protests have erupted in hundreds of U.S. cities (and even small towns), and all over the planet, in support of the Black Lives Matter movement. Word on the street (and from at least three decades of multiple research studies) is that systemic racism is even more of a public health threat than is this nasty coronavirus, and so people pour out of their houses to join the protests.

Even more broadly than the racism embedded in the U.S. criminal justice system, there are lots of reasons good people argue for change. We incarcerate a higher percentage of our citizens than any other country. The money bail system means that poor (but not rich) people typically spend time in jail even before they go to trial. And research shows that time in prison rarely helps people turn their lives around for the better. We know in our hearts that all this just can't be right.

The good news is, those good people haven't merely been arguing. They've been banding together, launching movements, and creating organizations that in a multitude of ways help to heal what's harmed. And then more good people are adapting and

replicating some of these efforts in new places. Consider taking some time to learn about such projects. Maybe you'll decide to volunteer or intern with one of them, or form a group in your own city to build something similar.

Change-making organizations

The Equal Justice Initiative, based in Alabama, works to end mass incarceration and, one case at a time, to make the system more fair and humane. (The powerful movie—and book—*Just Mercy* depicts EJI's early years.)

Murder Victims' Families for Human Rights advocates both for victims' support and for an end to the death penalty.

CAHOOTS is an organization in Eugene, Oregon, that sends a crisis worker and a medic, rather than a police officer, to respond to many emergency calls.

Larger, longstanding organizations like the ACLU (American Civil Liberties Union) and the Southern Poverty Law Center also continue their significant work. And there are dozens of others I don't have space to describe (like The Center for Court Innovation, Dream Corps, Color of Change, and The Center for NuLeadership on Human Justice and Healing). All are worth looking up and learning about.

Sometimes looking into this stuff is overwhelming. When you need a break, check out The Nation of Second Chances website. It celebrates stories of mercy, in which President Obama pardoned (mostly) non-violent drug offenders in federal prison.

For more on this profoundly important subject, seek out resources on prison reform and abolition, decarceration, the school-to-prison pipeline, the prison industrial complex, police reform, the police abolition movement, criminal justice policy and reform, the money bail system, and restorative justice.

Civics

The study of citizenship has never been more necessary than it is now. And this entire chapter has kind of already been a civics class, but we'll close out with a few focused suggestions, opinions (mine), and resources:

The Digital Civics Toolkit website is useful for youth who want to know what's going on in the world and how they can have an impact sooner rather than later. (The platform is designed for teachers but just peel back a couple layers to uncover activities and videos.)

An excellent really-big-picture resource is Yuval Noah Harari's book *21 Lessons for the 21st Century*. Harari puts into clear perspective the biggest issues that we collectively face as a nation, a civilization, and a species. Another one is the Long Now Foundation's website, which encourages long-term thinking. "We hope to foster responsibility in the framework of the next 10,000 years."

A crucial thread of the larger civics conversation discusses reparations: when and how is the U.S. going to make amends to the descendants of enslaved people? A wealth of books offers context, but since the discussion is robust and ongoing, online resources are often best—look up Ta-Nehisi Coates’s writing on the subject and go from there. Separate, but connected, is the unfinished business of land reparations and other redress for Native Americans whose ancestors’ lives were disrupted (to put it mildly) when European settlers arrived—check out the Land Back movement. Germany, South Africa, Canada, and Australia have made progress with their own such reckonings, and can help us better imagine how we, too, will move forward.

As you look toward the day you can vote and take stock of what power you already have to engage as a citizen, I recommend Elizabeth Rusch’s book for youth, *You Call This Democracy? How to Fix Our Government And Deliver Power to the People*, packed with insight and suggestions. Also consider *Votes of Confidence: A Young Person’s Guide to American Elections*, by Jeff Fleischer, and *Every Vote Matters: The Power of Your Voice, from Student Elections to the Supreme Court*, by Judge Thomas Jacobs.

Your power to engage as a citizen already includes the wide open world of activism. Youth, as well as adults, are leading the way—good chance you don’t need me to tell you “how to activist”—but my notes on the subject are in Chapter 37. Meanwhile, see Vi Hart’s short video (free online) “Let Me Convince You To Take Action,” with an encouraging reminder of small yet important ways to engage, like calling your Congresspeople.

Nothing could be more civic-minded in our democracy than guarding everyone’s right to vote. Check out Carol Anderson’s book *One Person, No Vote*, and mathematician Moon Duchin’s videos on redistricting and gerrymandering.

Baratunde Thurston’s engaging, optimistic, big-hearted *How to Citizen* podcast is packed with inspiring ideas and guests.

Patriotism—not to be confused with nationalism—is as indispensable now as it ever was, perhaps even moreso. I love Dan Rather’s heartfelt, wise book on the subject, *What Unites Us*. Short chapters on topics like “The Vote,” “The Press,” and “Courage” are informed by Rather’s more-than-half-a-century reporting on major news stories throughout the U.S. and beyond.

Kialo’s “platform for rational debate” website engages contentious issues from universal basic income to pornography to identity politics to gun control to abortion. Read others’ thoughts, contribute your own, and zoom in or out on any topic. Unlike most social media forums on the same issues, Kialo is structured to support logical, thorough thinking, and to encourage understanding of different points of view.

Reclaiming democracy

Speaking of different points of view. At the moment in 2021 that I’m editing this update of the book in your hands (as opposed to 1991 when I finished the first edition),

the U.S. has spiraled down into a hatefully divided deadlock. It doesn't look like we can solve our actual problems until we can reinvent how to work together as a democracy. ("Reinvent," not "revert," because good-old-days "democracy" was an exclusive club mainly for male, presumed-to-be-heterosexual, presumed-to-be-Christian, descendants of non-Irish Western Europeans.) So for that most deeply important of civics lessons:

The Atlantic publishes thoughtful, nuanced pieces about the state of our democracy.

The Social Dilemma. In this terrifying documentary, top executives from Twitter, Facebook, and other social media giants confess: how their algorithms constantly manipulate your brain—and why that matters not only for your individual sanity, but also for democracy as a whole. "It's not about the technology being the existential threat," says Tristan Harris, formerly of Google. "It's the technology's ability to bring out the worst in society—and the worst in society being the existential threat." In a later interview with OneZero, Harris adds that social media "amplifies bully-like behavior, harassment, hate speech, conspiracy thinking, addiction, outrage." The small slice of "how we could fix this" at the end of the film is essential, and their Social Dilemma website builds on that hopefulness in a "take action" section. The Center for Humane Technology's website is another place to learn about this issue and get involved.

Strangers in Their Own Land: Anger and Mourning on the American Right, by sociologist Arlie Russell Hochschild. If you're a lefty like me, seeking to understand people who see the world through a more conservative lens, I hope you'll read this one. Hochschild goes to great lengths, and has many long mutually respectful conversations, in her five-year quest to get past the "empathy wall" that blocks us from each other. Her work results in one of the most insightful and non-judgmental books I've ever read.

The Upswing: How America Came Together a Century Ago and How We Can Do It Again, by Robert Putnam. In some ways the U.S. of 1900 looked a lot like the U.S. of the early twenty-first century—plagued by inequality and mean-spirited partisanship. Putnam investigates, first, how we shifted to a more communitarian, inclusive society during the twentieth century. Then he analyzes what went wrong and led to a downswing. Along the way he drops hints as to how we might instigate a revival.

Other excellent books include *Why We're Polarized*, by Ezra Klein, *How Democracies Die*, by Steven Levitsky and Daniel Ziblatt, and (my current favorite) *The Righteous Mind: Why Good People Are Divided by Politics and Religion*, by Jonathan Haidt. Consider this observation from another of Haidt's books, *The Happiness Hypothesis*:

Liberals and conservatives are opponents in the most literal sense, each using the myth of pure evil to demonize the other side and unite their own. But the most important lesson I have learned in my twenty years of research on morality is that nearly all people are morally motivated. Selfishness is a powerful force, particularly in the decisions of individuals, but whenever groups of people come together to make a sustained effort to change the world, you can bet that they are pursuing a vision of virtue, justice, or sacredness. Material self-interest does little to explain the passions of

partisans on issues such as abortion, the environment, or the role of religion in public life.

“A Mathematician’s Perspective on the Divide”—Vi Hart’s thoughtful, inspiring 2016 video, free online.

I hope by the time you read these words, they scream that I am just an awkwardly out of touch old lady, because the U.S. has obviously spiraled up into a golden era of collaborative, creative, connected, we-can-do-this, everybody-counts democracy. But if we’re not there yet, not to worry. You and your peers got this. Humans pushed us into this snit, and humans will carry us out.

23. unschooling English



If writing is thinking and discovery and selection and order and meaning, it is also awe and reverence and mystery and magic.

—Toni Morrison

The best english teacher in the world would hardly say a word, especially to the whole class at once. She would stay out of your way, let you read all you wanted, and

not try to organize any cute conversation about the motivations of the characters or the relationship between the setting and the theme. She would not keep you from writing by “making” you write. She would sit peacefully at her desk, reading *Pride and Prejudice*. If you went to her, she would put her book down, smile, and consider your questions.

Unfortunately, if this teacher ever existed, she is surely fired by now, because every time the principal came in to check on her, she was not asking you the difference between Metaphor and Simile. She was violating the first law of teaching, which is *Thou Shalt Be Busy*.

Fortunately, since you are out of school, her nasty luck need not distress you. Instead, you can go sit under the mulberry tree with your literary treasures. If you want conversation about setting and theme, or more intricate matters, you can find it in the company of others who also want it.

Literature

Literature is words telling us our lives. Our lives are funny, profound, and tangled. So are the good stories about them. The study of literature happens two ways. The first and most wonderful way is simple—reading something because you want to. If you don’t read for enjoyment, you lose.

The second way, also wonderful as long as it stays honest, is literary criticism. That’s when you read something and then talk (or write) about it. Unfortunately, dull and insensitive approaches to criticism ruin a lot of people’s love of reading, let alone their potential enjoyment of criticism. Too many college English majors end up burying their former favorite books, after nailing them into caskets made of words like “denouement,” “flat character,” and “narrative voice.”

Sometimes literary criticism seems utterly ridiculous, a way to make insecure English professors feel as scientific as scientists, though they’re not and shouldn’t be. At its best, however, criticism can deepen your relationship with literature, enabling you to be twice as moved.

Criticism, by the way, does not mean saying bad things about literature. It means saying analytical, thoughtful things, after asking questions: What does Shakespeare’s use of the word “nature” reveal about the relationships among Lear and his daughters? What does the barometer in Margaret Atwood’s *Surfacing* show about the relationships between the men and women in the story? What effect does the concept of royalty have on Hamlet’s fate? What does the film version of *The French Lieutenant’s Woman* show about the relationship between reality and fiction? How do “The Miller’s Tale” and “The Franklin’s Tale” complement each other? What is implied by the differences in Mrs. and Mr. Ramsey’s language, in *To the Lighthouse*?

Some people—could be you—can love this. Others can only laugh or run. There is no shame in feeling either way. It is a shame to turn against reading stories just because you don’t like to dissect them afterward. It is a worse shame to perform literary criticism if you can’t also simply read for the joy of it.

Do you need to analyze the books you read? No, no, no, a thousand no's! You don't need calculus to use long division and algebra, or to get along marvelously in the world. And you don't need to engage in criticism to love and be changed by great books.

How can people who hate to read study literature?*

They can watch movies.

Movies, like books, can be "classics" or cheap laughs. You can criticize a good film just as academically as you can criticize *The Tempest*. First, of course, you have to find good movies. Sundance and Cannes award winners, as well as Oscar nominees and winners, are usually worthwhile. Or find a few insightful reviewers you trust, and watch the films they recommend.

Always watch a movie for pure enjoyment the first time. Watching for enjoyment doesn't mean you won't notice things like symbolism and plot structure, just that you shouldn't force yourself to think this way. If you plan on deeply understanding any movie, the second and thereafter watchings can be as analytic as you like.

It is a sorry state to hate to read, but that's beside the point.

Exactly which of the 129,864,880 books should you read?

There is no single answer to this question. Nobody except a vampire has the time to read all the great stuff. That's good news for you, since it means your answer to the question, "What have you been reading, young man?" is potentially as defensible as anyone else's.

But there are a lot of books that count as classics, and a lot more that don't. What counts? Why is *Twilight* out and *Romeo and Juliet* in? Although no one quite agrees on every nuance, we do have several generally accepted definitions: good literature is made up of works that have endured the test of time and offer something of value to our present culture. It is made up of stories that take us beyond mere entertainment, raising questions about the way we live and die. Ezra Pound wrote, "A classic is classic not because it conforms to certain structural rules, or fits certain definitions (of which its author had quite probably never heard). It is classic because of a certain eternal and irrepressible freshness."

Why bother to read the stuff? Mainly for enjoyment. "To enlarge a solitary existence," says Harold Bloom. To be lifted out of yourself, to fly, to cry. To broaden your perspective and learn about human nature. We can look to literature when we face a dilemma or crisis, because it shows different ways of handling all our situations—birth, coming of age, falling in love, losing love, finding purpose, failure, success, betrayal, loneliness, oppression, injustice, watching parents age and die, wanting money, getting money, hating money, losing money, enduring war, seeking truth, reckoning with remorse, facing death.

Most of the classics you usually hear about have been written by white men in England or America. Don't avoid their books—after all, they are the people who have had the most opportunity and encouragement to write in English during the last few hundred years. Therefore, they have written a lot of the greatest stuff. But also read plenty of the other greatest stuff—literature by women, literature from all cultures and colors. Most newer literary anthologies strive for balance. If you get an older (cheap, used) anthology, look in a newer one and notice what you're missing.

If you think you'll want to read a lot of English literature, especially the delicious magical old stuff from Sir Gawain and the Green Knight through Chaucer, Spenser, Milton, Shakespeare, and Blake, prepare yourself to get its inside jokes by reading the Bible, some Greek mythology, *The Odyssey*, and *The Iliad*. (Almost nobody reads the whole Bible. There's a lot of bang for the buck in Genesis, Exodus, Job, the Song of Songs, Isaiah, the four Gospels, Paul's letters to the Corinthians and others, and the bizarre Revelations.)

If you're learning a foreign language, don't miss out on reading its best literature. One of the peak experiences of my life-so-far was sitting in the late afternoon Peruvian sunshine of the winter solstice at Macchu Picchu's stone solar dial reading *The Heights of Macchu Picchu*, by Pablo Neruda, in Spanish.

For companionship, join or start a book discussion club, or just gather friends and read to each other.

Bibliographies & how-to-read-literature books

A bibliography is a list of books, sometimes with introductory notes. It helps when you're confused and lost in the literary universe. Why should you read Shakespeare? And how do you know what else you should read? You can ask your librarian for suggestions, find all kinds of lists on the internet, or try one of these:

The New Lifetime Reading Plan, by Clifton Fadiman and John S. Major. This classic on the classics introduces 130 key works of world literature, including plays, novels, essays, poetry, and biographies (plus a few books on history, science, math, art, and philosophy). For each, it describes the author, the piece itself, and its social and historical context.

The Well Educated Mind: A Guide to the Classical Education You Never Had, by Susan Wise Bauer. Bauer takes you rather firmly, yet kindly, in hand and lays down some rigorous (and excellent) instructions not just for what to read, but also for how to read it. Her notes include plot spoilers, though, so watch out for that.

Those two focus primarily on the Western canon—that is, somewhat-agreed-upon essential masterpieces that come mainly from Ancient Greece and Rome, from Europe, and more recently from North America; and that more or less riff off of the Bible, Ancient Greek and Roman cultures, and each other. If you are nervous about getting

into college, know that attentively reading some of the books on these or similar lists will make any college admissions department happy.

Reading the classics in chronological order is a lofty and meritorious undertaking, but I think it's best to begin with books that you understand and enjoy. For most of us, this means starting in the twentieth or twenty-first century. If literature becomes an important part of your life, you can eventually go back and start reading from the olden days forward.

To expand beyond the Western Canon

Gird yourself with the glorious Norton Anthology of World Literature. (Choose from condensed or expanded versions.) Or dip into titles from an online reading list—search for “African literary canon,” “Eastern classics,” etc. You'll find reviews and recommendations at the Words Without Borders website.

To expand into the present moment

Reading great books from the past is profound and enlightening in one way, and reading great books from the present is profound and enlightening in another way. It can be ridiculously daunting, though, to sort through the mountains of new stuff. Other than asking friends for recommendations, my best strategy is to consult literary prize lists. For novels, good ones include the Nobel Prize in literature, the Man Booker Prize, and the National Book Awards (in fiction and also translated literature). I reliably adore Booker Prize picks, so I consider not only their recent winners but also their “longlist” nominees. For poetry, the Pulitzer, Nobel, or National Book Award winners (in their poetry categories) are marvelous, and it's also delicious to explore the nooks and crannies of lesser-known prizes.

For young adult literature

There's always what's trending, and what the undercover angel masquerading as your YA librarian suggests. I also recommend Melissa Hart's lovingly curated *Better With Books: 500 Diverse Books to Ignite Empathy and Encourage Self-Acceptance in Tweens and Teens*. The YALSA (Young Adult Library Services Association) “Best Fiction for Young Adults” list is good (and it's probably what that undercover angel will be working from). So is the list of recent winners and finalists from The Los Angeles Times Book Prize in Young Adult Literature. (Also: I want to go on record that while I think a lot of YA nonfiction books are unnecessarily diluted and dumbed down, I don't have the same judgment of YA novels. Like adult fiction, YA fiction ranges from forgettable to life-altering.)

Poetry

Reading poetry is daunting for many people, even English majors like me. If you'd like a hand to hold, I suggest Thomas Foster's *How to Read Poetry Like a Professor: A Quippy and Sonorous Guide to Verse*—filled with helpful pointers yet without infringing on the mysterious magic. And the internet offers dozens of intriguing, useful takes on "how to read poetry."

A miniature teenage bibliography

This highly personal list of fiction reflects my conviction that the teenage years are a time of powerful personal transformation and vision. As a teacher, I noticed that my students seemed to especially enjoy literature which put them in contact with the bizarre and visionary, the wild, the edges, the unexplained sides of human nature. Through literature, they sought assurance that no matter how plastic-wrapped the adults tried to make things seem, reality remains big and weird. My friend Keith said he liked being around his friend Mary because she made him feel like he had a place in the universe. I didn't ask him what he meant, but I translated his comment into my relationship with literature. No matter how strange my thoughts or hopes, I can always count on literature to mirror them, and to assure me that I am not alone. Most good literature can do this for you, but here is a short list tailored for searching teenagers. Bear in mind that some of this stuff deals with harsh (but real) stuff like child abuse, racism, and sexual assault; some of it is considered "adult" literature.

Margaret Atwood, *The Handmaid's Tale* and *The Testaments*

Jesse Ball, *How to Set a Fire and Why*

Hal Borland, *When the Legends Die*

Ray Bradbury, *Dandelion Wine*

Rita Mae Brown, *Rubyfruit Jungle*

Octavia Butler, *Parable of the Sower*, *Parable of the Talents*

Lewis Carroll, *Alice's Adventures in Wonderland*

David Lee Duncan, *The Brothers K*

Mark Haddon, *The Curious Incident of the Dog in the Night-Time*

Ursula Hegi, *Stones From the River*

Jean Hegland, *Into the Forest*

Keri Hulme, *The Bone People*

John Irving, *A Prayer for Owen Meany*

John Knowles, *A Separate Peace*

Ursula Le Guin, *The Word for World is Forest* and "The Ones Who Walk Away from Omelas" (and everything else by the late great Le Guin)

Madeleine L'Engle, *A Wrinkle in Time* (plus the other four in the series)

C.S. Lewis, *The Space Trilogy*, *The Chronicles of Narnia*

Barry Lopez, *River Notes*, *Desert Notes*, *Winter Count*, *Field Notes*

Lois Lowry, *The Giver*
Yann Martel, *Life of Pi*
Carson McCullers, *The Heart is a Lonely Hunter*
Toni Morrison, *The Bluest Eye*
Helen Oyeyemi, *Boy, Snow, Bird*
DBC Pierre, *Vernon God Little*
Edgar Allen Poe, *Complete Tales and Poems*
Sapphire, *Push*
José Saramago, *Blindness*
Lynne Sharon Schwartz, *Leaving Brooklyn*
Ignazio Silone, *Bread and Wine*
J.R.R. Tolkien, *The Lord of the Rings* trilogy
Alice Walker, *The Color Purple*
Richard Wright, *Native Son*

Anthologies

An anthology is a collection of literature—lots of stuff in one volume, cheap and handy. If you have space and cash for just one, make it *The Norton Introduction to Literature*, the more recent the better.

To expand, consider more Nortons, like *The Norton Anthology of American Literature*. These are fat books with fine print. They are cheaper, more fun, more serious, and less censored than high school literature textbooks. Acquire them inexpensively at university used book sales. Your choices include anthologies of English literature, African American literature, women's literature, world literature, poetry, short stories, essays, and more. A particularly splendid jewel in Norton's crown, well worth unhurried perusal, is *When the Light of the World Was Subdued, Our Songs Came Through: A Norton Anthology of Native Nations Poetry*, edited by Joy Harjo.

Another worthwhile source of anthologies is *Words Without Borders* magazine, which publishes excellent collections of international literature.

Free literature on the internet

Since (roughly speaking) creative works more than ninety-five years old are no longer protected by copyright, and since many of the classics worth reading are quite ancient, there is lots of legitimately free, first-rate literature to be found online. (There is also lots of pirated literature floating around, like the PDFs I keep finding of earlier editions of this book, even after I ask people to take them down. When we choose pirated work, we undermine writers' ability to feed themselves and carry on with their

vision.) If there's something particular you're looking for, search for it specifically. Or browse these collections:

Project Gutenberg, for all the old classics plus thousands upon thousands of obscure texts from around the world

LibriVox, for free audiobooks—all the old classics and thousands more

Words Without Borders (and sister website Words Without Borders Campus), for contemporary international literature

No Fear Shakespeare, with line-by-line modern English renditions of the major plays

For poetry: I enjoy Poetry Foundation and The Academy of American Poets' website, poets.org. Both are beautifully organized and (legally) feature thousands of poems by revered contemporary poets, as well as older poems. The Poetry Archive offers recordings of great poets reading their work. In a different vein, the Poetry Chaikhana blog overflows with sacred poetry from around the world—lots of Sufi and other Middle Eastern texts. Podcasts and poetry pair profoundly; my favorites are Interesting People Reading Poetry and The Slowdown.

Also worth investigating: Open Culture's Harvard Classics and "free ebooks" section, Wikisource ("the free library that anyone can improve"), and the Internet Archive's Open Library. And of course your trusty public library, for access to ebooks.

When you're seeking a well-known older classic, you'll have at least five or ten options for accessing it free online, so poke around until you find a platform you like. Some platforms rely on Gutenberg's vast library but add their own layer of features.

Pro tip: even when a work is old enough to be in the public domain, the best version may be a newer translation or an annotated edition. The quality of a translation, or the helpfulness of introductions and contextual notes, can make a huge difference, so "free online" isn't always the best option.

The New Library of Young Adult Writing, from Merlyn's Pen, showcases outstanding short stories, essays, and poems written by American youth.

Resources for critics

Ease in with *How to Read Literature Like a Professor*, by Thomas C. Foster, or by reading the commentary throughout *The Norton Introduction to Literature*.

A Glossary of Literary Terms, by M.H. Abrams, provides the language you need to talk like an English major, not only explaining terms like elegy, irony, and Russian Formalism, but also placing them in helpful context. Often required in college English classes.

Consider Harold Bloom, an extremely prolific, influential critic for many decades right up until his death in 2019. Though sometimes dismissed as an old-fashioned curmudgeon, there's no denying that the man knew what it meant to love books. You might begin with his highly personal late-in-life book, *Possessed by Memory: The Inward Light of Criticism*.

Don't miss important re-visioning works like Toni Morrison's *Playing in the Dark: Whiteness and the Literary Imagination*, and David Treuer's *Native American Fiction: A User's Manual*.

If you're reading beyond the Western canon, you might pause and consider how best to engage—there are good reasons to come at non-Western literature a bit differently. Seek and you'll find plentiful essays, books, and internet conversations on the subject. You might also explore the fascinating topic of translation; a good jumping off point is the *Words Without Borders* website.

If you like C.S. Lewis and medieval English literature, check out Lewis's criticism—it's as clear and wise as his fiction.

Hit the scholarly journals to go further. Read a few to get an idea of whether you want to major in English or another literary field in college—the dense difficult papers therein are just the type of thing you'd be writing, again and again. Try writing your own criticism in the same vein.

Mythology

Mythology is not just a bunch of cute stories about why the moon changes shape. It has to do with the deepest dreams, hardest questions, and ultimate destinies of the human race.

Resources

The Power of Myth, by Joseph Campbell with Bill Moyers. Watch the documentary or read the book (get the illustrated edition). Afterwards, anything else by Campbell.

The children's library, for wondrously illustrated versions of the myths themselves. I like D'Aulaires' *Book of Greek Myths*.

Funk and Wagnall's *Standard Dictionary of Folklore, Mythology, and Legend*, edited by Maria Leach.

Edith Hamilton's *Mythology*. A Greek-centric classic that also includes short sections on Roman and Norse myths.

Everything from Clarissa Pinkola Estés. She's best known for the book *Women Who Run with the Wolves: Myths and Stories of the Wild Woman Archetype*. I love her audio projects even more, for her magical, haunting way of telling tales and unlocking the wisdom inside them.

Lewis Hyde's *Trickster Makes This World: Mischief, Myth, and Art*. Worldwide stories of the boundary-crossing, gloriously disruptive trickster, and real life stories of artists and others who embody the archetype. I concur with Margaret Atwood, who says this book "should be read by anyone interested in the grand and squalid matter of all things human," and the Amazon reviewer who says "Without the trickster human worlds would harden and crumble."

Parabola Magazine, from The Society for the Study of Myth and Tradition. Published quarterly, available by subscription (print or digital) and in many college libraries. This wonderful magazine proves that scholarly work can stay meaningfully connected to life. Each issue centers on a topic like Ceremonies, Guilt, Mirrors, or The Tree of Life. Their website is generously packed with free-to-access essays, poems, and other resources, and they also produce a podcast.

Engaging mythology

Incorporate myths into your creative work—poetry, art, music. Make up your own mythology—as have William Blake, J.R.R. Tolkien, Ursula Le Guin, and other greats.

If the myths of a particular culture fascinate you, find out more about that culture's history, geography, etc. Consider learning the language.

Write your own retellings of myths. Outstanding examples are *Till We Have Faces*, by C.S. Lewis, *Prince of Annwn*, by Evangeline Walton, and *The Penelopiad*, by Margaret Atwood.

Eventually, you might try to write for journals like Parabola.

*

Making Contact With Literature

It's human nature to want intimate connection with whatever we're attracted to. It's more gratifying to hike through wilderness, drinking snowmelt and acquiring blistered feet, than to drive a scenic mountain route. It's nicer to kiss somebody than to stare at a photo. My father told me once that he thinks some men hunt because it is the only way they know to be close to wild animals, more than watching them on TV or in zoos. In many ways I catch myself trying to establish relationships with things I like—cutting up National Geographic to rearrange it into my own scrapbooks, inventing variations on my favorite recipes, taking my own photos of favorite landscapes though postcards (and other people's social media images) are way more perfect.

Same thing with literature. It's not always enough to simply read stories and let them work on us in their deep, mysterious ways. Sometimes we need to build a bridge between ourselves and someone else's writing. Unfortunately, the only way most of us are encouraged to do that—in high school and college English courses—is by performing analytical, even cold-hearted, acts of literary criticism upon the pieces we love. The further you go up the English ladder, the less acceptable it becomes to make any comments about how literature affects you personally, or how your own life reflects its themes. Instead you must dissect, define, compartmentalize. At times, this gets absurdly abstract and detracts from literature's ability to work on us in those deep, mysterious ways. I'm not opposed to thoughtful criticism, of course. But it feels important to also present a few other ways of connecting with literature—ways which I think are respectful of you and what you read, ways which allow literature to keep living and growing inside you:

Read aloud

Read to somebody you love, or take turns reading to each other. If you make reading itself into a full experience, you won't feel so much that you have to do something else (like write papers) to the experience to appreciate it.

Trade reading assignments

If you're trying to get to know someone, devour each other's favorite literature. You'll build a shared inner landscape and discover good books along the way.

Make a commonplace book

A commonplace book is a personal collection of quotes lifted from your reading—from novels and poems and essays, not from others’ books of quotations. W.H. Auden’s *A Certain World: A Commonplace Book* is a nice example, though the fact that it was published is a bit misleading: the primary value of such an undertaking is intimately personal, although it could feed into public projects. For instance, the “education” section in my own commonplace book is getting long enough that I sometimes consider turning it into a book of its own—but I would not try, or want, to publish my whole collection. You can organize your quotes by themes (“honesty,” “dogs”) or leave them in an amorphous, poetic lump. Your quotes can be as short as a phrase or as long as a page . . . or more. Because the important thing is your involvement, it’s best to type or write them out yourself rather than using “copy paste” or a digital device to capture them.

Write fanfiction

Envision fresh events in the lives of beloved book characters. Keep this between you and your imaginary friends, share with your inner circle, or join an online fanfiction community.

Volunteer for LibriVox

Read old books out loud, record yourself, and contribute to their ever-growing free online audio library.

Write essay-length book reviews

like those in *Harpers*, *The Atlantic*, or *The Nation*. Writing long reviews is a great balance between criticism and just-plain-reading. You actively participate in the reading—watching for ways the book relates to what you know from other reading, from personal experience, from stories in the news, from your understanding of history, from eavesdropping in the park. You keep your eyes peeled for good quotes. You try to both capture the overall gist of the book and also to highlight a few points or themes which strike you as especially interesting. It's often fine to weave in relevant personal stories or current events, certainly to give background information about the author or subject, and to point out the book's limitations or suggest unusual applications for it. For instance, I wrote a review of Susannah Sheffer's *Writing Because We Love To: Homeschoolers At Work* in which I pointed out how classroom teachers could use the book's ideas; my piece was published by *English Journal*, a magazine for English teachers. That's another advantage of writing reviews: it's one of the easier ways to get published as a beginning writer.

For a less-involved and easy-to-get-published approach, contribute to a review site like LitPick (for young readers) or Goodreads (open to all). Or support your favorite authors by posting thoughtful, positive reviews on a commercial site like Powell's or Amazon.

Memorize

Some people memorize quotes so they can sound urbane while chewing hors d'oeuvres at snobby parties, but that's not what I mean. I once spent half a summer at a field camp in Minnesota studying zoology. I walked alone in the evenings, and sometimes I'd feel overwhelmed as the fireflies came out and the loons called and the frogs sang and the warm wind moved inside me and tossed in the alder thickets. I wanted a way to touch this beauty, so I memorized part of Barry Lopez's story "The Search for the Heron." Then I would walk along at night reciting it in a quiet voice. Yes, I do know that sounds cheesy, but I'd be much more pleased with myself if I had a bigger supply of poems and paragraphs memorized in my cheesy brain, and not such a big supply of college English papers upstairs in my file cabinet.

Host a poetry reading

Read your favorite poems, and invite friends to read their favorites. Honor the poems by making it a gala event, candles and dress-up.

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Writing

Basic writing skills

We're all better off with the ability to communicate in writing, unhindered by significant blocks, fears, and confusions. Since we learn by example, the best writing teacher for many people is lots of reading.

Common sense, too, will take you a long way. I've had several students who spoke articulately, but who panicked and fell apart when they had to write, because they believed writing was difficult and mysterious. Together we found that all they needed was to slow down and imagine themselves talking, and then write what they heard themselves saying in their heads. Simple? Yes. Silly? No. Do whatever works. (This strategy is even easier now, with the voice-to-text technology embedded in most phones and computers.)

Understand writing as a process that typically begins in creative chaos and progresses toward well-organized clarity. Don't expect anything to come out perfectly the first time. Brainstorm, jot down thoughts, spill freely. Don't bother about spelling, punctuation, or consummate word choices. You can organize and reword things the second time around. Later you'll finesse, use a thesaurus, get rid of passive voices, check spelling, worry about commas. Good writing usually requires all these steps, so don't set yourself up for failure by expecting to get it right in one take. Excellent books on learning to write through this process are Gabrielle Rico's *Writing the Natural Way*, and Natalie Goldberg's *Wild Mind* and *Writing Down the Bones*. You can also hear a splendid audio recording of one of Goldberg's workshops, *Writing the Landscape of Your Mind*.

Laura Brown's *How to Write Anything: A Complete Guide* is a comprehensive helper on the writing process itself, and also on dozens of specific types of writing. (Really specific, from thank-you notes to history essays to college application essays.)

You'll find copious help online. For starters, I appreciate the tips on Grammarly's blog and Oxford's Lexico website. For more in-depth support, investigate the phenomenon of free Online Writing Labs (OWLS)—the oldest and oft-considered best is Purdue University's. Or, for interactive resources intended expressly for youth, see Shmoop's online essay lab, with both free and fee options.

If the technical nuts and bolts of writing—punctuation, usage, etc.—don't come naturally, arm yourself with a few helps: Strunk and White's classic *Elements of Style*, maybe an online helper like Grammarly, and possibly a good textbook. I recommend Warriner's *English Composition and Grammar*. (If you want to better understand grammar—for foreign language study or whatever—Warriner's is excellent for that too.)

For simple feedback, hit up your friends and family. Ask what confuses them, bores them, or repeats itself.

Beyond basics ~ developing literary talent

To be a writer, all you have to do is write. Additional frills are unnecessary. And if you don't write, no quantity of fancy workshops, new computers, or young writers' summer camps will pull a novel out of your navel. Once you are writing, however, good resources can help immensely. Try Anne Lamott's *Bird by Bird: Some Instructions on Writing and Life*, and Ursula Le Guin's *Steering the Craft: A Twenty-First-Century Guide to Sailing the Sea of Story*. Roy Peter Clark's books make excellent fuss over the little but essential things (like "a" versus "the")—start with *Writing Tools* or *The Glamour of Grammar*.

For non-fiction, try William Zinsser's *On Writing Well* and *Writing to Learn*.

For poetry: *The Practice of Poetry: Writing Exercises from Poets who Teach*, edited by Robin Behn and Chase Twichell. *The Teachers & Writers Collaborative's Handbook of Poetic Forms*, which introduces seventy-four types of poems and poetic devices (blues poem, elegy, ghazal, limerick, rap, sonnet...). And the brilliant Mary Oliver's *Rules for the Dance* (on metrical verse) and *Poetry Handbook*.

When you're composing minimalist messages where every word counts even more than usual—tweets, epitaphs, the opening sentence of your novel, captions for photos or memes, titles and headlines, *Wired* magazine's Six-Word Sci-Fi contest—you may enjoy the unique guidance in Roy Peter Clark's *How to Write Short: Word Craft for Fast Times*.

For word choice and fiction writing—especially novels and screenplays: *Starting From Scratch: A Different Kind of Writer's Manual*, by Rita Mae Brown. For an intimate dive into the processes of both reading and writing: bell hooks's *Remembered Rapture: The Writer at Work*, and Joe Fassler's glorious collection, *Light the Dark: Writers on Creativity, Inspiration, and the Artistic Process*. These three books also

share insight about living life as a writer. Another classic on that topic is Annie Dillard's *The Writing Life*.

Try anonymously apprenticing yourself to a great writer by carefully studying her work. Copy passages of her writing to better understand her style. Try writing in her voice. Read her best works again and again. Memorize chunks. Read her biographies, letters, anything you can find that tells how she wrote. Eventually, try the same process with a different writer.

Roy Peter Clark's *Art of X-Ray Reading: How the Secrets of 25 Great Works of Literature Will Improve Your Writing* is built on an apprentice-like approach. Clark offers lessons based on the work of luminaries like Shakespeare and Zora Neale Hurston.

Or reach out in person and see if you can apprentice yourself via email to a writer you admire. Ask whether you can send something short you've written, revised and without spelling mistakes and as good as you can possibly make it. Politely ask for their feedback, if they have time, saying you'll understand if they don't. If they're famous (which means busy), or if your work is careless, they'll likely not respond or at least not in detail. So try someone else. Several teenagers have apprenticed through the mail with Susannah Sheffer, former editor of *Growing Without Schooling*, and her wonderful book *Writing Because We Love To* tells how this has worked.

Start or join a writers' guild or support group. C.S. Lewis, J.R.R. Tolkien, and other friends met to share and discuss their writing in a group they called *The Inklings*.

Consider signing up for the High Desert Center's five-week Colorado writing retreat, wherein twenty-four young writers keep each other company while intensely focusing on their own writing projects. This seriously awesome program was originally inspired by the NaNoWriMo (National Novel Writing Month) project, but very much has its own flavor. Also check out what is going on with the official NaNoWriMo organization, including their Young Writers Program.

Or attend writers' conferences. There are real ones intended for adults (but without age requirements) and sometimes okay ones for school teenagers, which you can get in on too.

Take a course in writing, perhaps—if you trust the teacher. It only makes sense to be taught by writers. What right most school teachers (like yours truly) have to teach “creative writing” is beyond me.* Teachers need not be professional writers, as long as they're willing to share their work and you respect it. A lot of writers do teach. If you don't find a writer-teacher, skip it.

And if you are interested in a course, consider one in writing creativity or journaling. While I slog at my computer endlessly day after day, my housemate Caroline enjoys a rewarding weekly class called “Women's Journal Writing Workshop.” They start with guided meditations, like imagining wandering through a big house and meeting a wise old woman. Then they spend half an hour writing poems or prose—or drawing—based on the meditation. They conclude by sharing their work in a supportive atmosphere.

See your writing as a way to make a difference in the world. Join Amnesty International and write letters on behalf of tortured prisoners, thoughtfully write to your

Congress representatives about injustices that steal your sleep, write the utilities company outlining your ideas about how they could better encourage energy conservation, contribute sensitively to discussions on social media.

Use writing to make a difference in your own life, and in your relationships with friends and family. Keep a journal or diary. On birthdays and holidays, give written gifts. Pour yourself into correspondence with pen pals or even with nearby friends. Write your own autobiography, or the biography of your great uncle. Write love letters, apologies, a book of family customs for your baby niece. You may want to seek out books on writing memoir or family history. I recommend:

The New Diary: How to Use a Journal for Self-Guidance and Expanded Creativity, by Tristine Rainer

Put Your Heart on Paper: Staying Connected in a Loose-Ends World, by Henriette Anne Klauser

Families Writing, by Peter Stillman.

Writing for an audience via open platforms

Thanks to the internet, it is way easier than it used to be to get your writing out into the world where strangers can savor it. Of course, this may not up your odds of amassing fame and fortune since thousands (millions?) of other ambitious writers are sharing their work too. The best way to engage these opportunities is (usually) not with the intention of achieving stardom, but rather as a pathway into community with other writers and readers—and continued growth as a writer. Like all things internet, the landscape shifts constantly, so you'll want to do your own research. Look around for free, youth-friendly social publishing sites (such as Booksie). Perhaps one of these online resources will be a match for you:

Penguin's Underlined community for youth who identify as "book nerds"—young writers share their writing and respond to others' work.

Write the World is a multifaceted community for young English-language writers from over 120 countries. You can engage at several levels, from using their writing prompts, to developing a portfolio, to sharing your work and receiving feedback. They also have monthly competitions with cash prizes.

Story Wars is a mix of collaboration and competition. Random writers tag-team.

The Youth Voices writing community focuses mostly around current issues and hot topics (gun violence, climate change, racism, mental health), and also has literary reviews and original poetry, stories, etc.

Or, just start your own blog or website and post your best writing there.

Or, forget the internet. Stand up at an open poetry slam, delivering the words of your heart loud and clear for human ears.

If you want to get published

Search online for current publications (print and online) that seek writing specifically from people under eighteen.

YR Media is an award-winning online news and arts platform with content provided by young journalists and artists throughout the U.S.

The Adroit Journal is a competitive platform that publishes work by emerging writers of all ages. “We’re looking for work that’s bizarre, authentic, subtle, outrageous, indefinable, raw, paradoxical. We’ve got our eyes on the horizon.”

Polyphony Lit showcases teenaged writers from around the world. They also offer the chance to train and work on their editorial staff, and their website provides helpful advice for young writers and editors.

Teen Ink publishes a broad selection of writing by youth.

Ember: A Journal of Luminous Things, publishes poetry, fiction, and creative non-fiction for readers ages ten to eighteen, by writers of all ages. And it’s gorgeously illustrated—often by youth.

Or, try entering a competition, such as the Scholastic Art & Writing Awards.

Reach out to a blogger you follow, politely asking if they’d consider publishing a guest piece by you. Give them an idea—or two or three to pick from—of what you’d write about. If it’s an adult-written blog, emphasize your unique perspective as a young person or as an unschooler. Some bloggers routinely include guest pieces, whereas others never do. Most don’t pay for a first-time contributor, but might be able to pay, eventually, for a frequent contributor’s work.

Start your own zine, or contribute to someone else’s. Zines range from raw and chaotic to refined and elegant. For a sampling, see Chip Rowe’s *Book of Zines*.

There’s no reason you can’t also attempt to get published in mainstream adult-audience publications. (Helpful directories: *Writer’s Market*, *Novel and Short Story Writer’s Market*, *Children’s Writer’s and Illustrator’s Market*, *Songwriter’s Market*, and *Poet’s Market*, most updated annually.) Keep in mind that there is intense competition for the well-known publishers and magazines, and it often takes serious adult writers years to break into print. If your ego isn’t ready for rejection, best to stick with less competitive forums.

Storytelling

“Through storytelling we have preserved our heritage, passed on traditions, learned skills, and—most importantly—developed our limitless imaginations . . . Whether we spend our days harvesting corn or selling real estate or ministering to a congregation, we share our knowledge and experience through storytelling—and in the process we gain a better understanding of ourselves and our world.” —a brochure from the National Storytelling Association

The Moth has galvanized thousands of storytellers and millions of listeners—check out their Radio Hour, workshops, live events in cities all over the world, and website packed with audio and video. This American Life and other podcasts are also excellent opportunities to be moved by others’ stories and seek inspiration for telling your own.

The National Storytelling Network sponsors an annual conference and worldwide celebration each November. The International Storytelling Center offers an online “learning library” and hosts an annual festival in Tennessee.

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Journalism ~ Neighborhood News

Living fully at home is as important—and sometimes as difficult—as living fully in the present. Just as many people imagine that their lives will begin in the future—after they graduate, get promoted, fall in love, or retire—many also act as if events downtown, or in New York or Paris or Egypt, are more important than what happens in their own neighborhood. Yet, if more people cared about where they lived, we'd all have less to worry about and more to celebrate. And that's one place where your writing talents can step in and make life fuller for everybody who lives within a few square miles of you.

Every neighborhood would be made happier and healthier by a small, sincere, well-written blog, newspaper, or zine that celebrates local people and events. Give the behind-the-scenes story of the bed and breakfast inn down the street, or a profile of the old lady who adopts stray cats, or the tale of where your neighborhood's sewer goes after it leaves each house.

Focus on the personalities and details behind your stories; merely printing what-why-where-who-and-how won't satisfy people's desire to understand their neighbors. Better to publish one significant piece each month or season than a poor-quality, rushed weekly. For examples, read profiles and feature articles in all kinds of magazines and newspapers. You could also encourage comments or letters to the editor.

Don't think of your project as "kid-produced," or it might end up matching people's expectations of kid-produced things—dumb and cute. Just think of it as a way to tell the truth and bring your neighborhood closer together.

If you're creating a literal paper, you might give the first issue away free, but then consider asking people to subscribe. If you offer a quality product, some neighbors will gladly pay for it. Or, ask local businesses to buy advertising space.

Of course, your paper or blog could have a focus other than your geographical community, such as city-wide teenagers' accomplishments, or news of your extended family.

Don't invade privacy by publishing embarrassing or private facts. Be careful that what you write is true. And then, as long as the focus of your paper is generally positive, and as long as you write it yourself or with friends, you should have no reason to worry about legal issues. Investigative reporting, or a paper that questions local issues, can also be important, but that's a whole different ballgame. If you'll make anyone angry, be sure not to make any legal mistakes; research carefully before starting anything controversial or political.

You probably won't need books to tell you how to make your blog or newspaper; mistakes and experiments (that is, experience) will guide you—and for bloggers, there are tutorials and articles online. But you might have a look in the 070.5's at the library.

Craig Conley, a fifteen-year-old former homeschooler attending Louisiana State University, wrote about his newspaper in GWS #30:

I first got interested in writing newspapers five years ago when I was present at the collapse of an historic old hotel in Joplin, Missouri. I wrote an article about the history of the hotel and how it collapsed, trapping four men under the rubble. I added other articles about what my family was doing, and what was going on in town. Soon I had a whole newspaper. . . . Now my paper is read by forty families, in fifteen different states. It is called Craig's Quarterly and each issue ranges from twelve to thirty pages. It contains book reviews, news articles, artwork and stories. Subscribers send in articles they have written. . . . Reporting on activities . . . is good training for life. It makes me more observant and analytical. I try to look at people I know and new people I meet as possible subjects for an interview and sometimes this leads me to ask questions I might never ask otherwise. The most fascinating people are really in your own backyard.

*

College?

For people who love the literary arts, typical majors are English, Classics, and comparative lit. Also, if you major in a foreign language often you can "concentrate" on reading literature in the original. The best departments, especially for a traditional English or Classics major, are mostly at small liberal arts schools. The best preparation is reading the Bible and Greek mythology, developing strong writing skills, getting your heart broken at least once, and arriving ready to learn to read all over again.

Unschoolers in English unclass

Reanna Alder, fifteen, of British Columbia, writes:

This freedom I have puts me in an excellent position to grow and evolve. I can see what I want to do, who I want to become, how I want to live, and I can go straight towards it.

Today, just before getting in the shower, I opened *Wild Mind* by Natalie Goldberg somewhere in the middle and read a bit. It's a writing book that is also about life. I read the book a few years ago and learned a lot, I skimmed it today hoping for some inspiration. Nothing particularly grabs me. I put the book down and hopped in the shower. Internal conversation time:

"Maybe I should go to one of her seminars so I can ask her about my writing . . . Natalie, I would say, I'm really frustrated about my writing, it seems detached and ungrounded these days, and it doesn't sound like me speaking, even though they are

my ideas. Natalie, you say you write from your body, how do you write about ideas and philosophies from your body?"

"I guess you would use body language (heh heh), instead of mind language. I guess you would find a way to communicate ideas and philosophies through feelings and everyday real lives."

"That's true, I'll try that."

My mind wanders onto other topics and then I realize something really funny. It's true, what they say, I really do have all the answers inside me, just waiting for me to ask the right questions. It's like in the movies, when the protagonist finds out something really important, that their companion knew all along. "You never told me!" the protagonist yells. "You never asked," the companion responds coolly.

Jade Crown, fourteen, of Washington, writes:

When I was in seventh grade, Jodi, an old elementary school teacher of mine, started a teen writing group which I joined. We met in a cafe every week, surrounded by a full-fledged hippie and skateboard punk scene and the smell of coffee. Jodi hardly talked at all, mostly we just wrote. We'd make up a topic like, "my first pair of shoes" or "chamomile tea" or "what matters" and write our first thoughts for five minutes, even if it was stupid or disturbing or uncomfortable. Then we'd each read what we wrote aloud.

Sometimes the topic got buried by what was on my mind, and my writing came out about something totally different. But that was all right. The topic was just a tool for getting started on writing what you really wanted to write about, without having to think, "I want to write about my grandma dying. Let's see, I'll start off talking about before she got sick, and I need a beginning, middle, and end, so I guess I'll end with her death, since that's pretty much the end. No, that's too depressing . . ." Because after you've figured all that stuff out, you sit down and write something totally shallow and cut-off from how you wanted it to be. Or you never write it because come to think of it, you suck at writing and it's a cheesy topic.

Instead of giving feedback about each other's writing, we gave "recall." Recall is simply saying back something you remember from the piece. Not: "I liked that part about the guy's hat" but actually repeating as best you can, the words, lines, or paragraphs you remember most. No comments.

Jodi has been totally supportive of my decision to unschool, and although she doesn't do writing group anymore, she's agreed to keep helping me with writing on a one-on-one basis.

In GWS #40, Evelyn Tate said that her daughter Amy had several younger pen pals. She illustrated her letters, and planned to start writing stories for her pen pals in response to their letters. Janey Smith wrote about her daughter in GWS #43:

Lindsey (almost thirteen) decided to enter an essay contest for a women's fair at the University. She was to pick a contemporary woman who she thought would find a place in future history. She chose Margaret Thatcher, read a difficult biography of her,

had to figure out lots of stuff about British government, wrote the essay, and won first prize. This consumed her interest for a couple of weeks.

Katherine Houk describes her fifteen-year-old daughter Tahra's endeavors in GWS #43:

She worked with some film-makers as production assistant on a HUD film about housing discrimination. The rest of her time was devoted to reading a tremendous variety of books, writing her poetry (five volumes!), and working on her music (guitar and bamboo flutes).

In November of this year, Tahra's poetry brought her a paid job! She was one of sixty New York State poets who read their work at the State Museum in Albany. We went to hear her and listened to some of the other poets as well. From what we could see she was the only "child" reading. . . . [She] met some interesting people. . . . She puts in countless hours on her writing because she loves it.

English in-spite-of-school

Katherine McAlpine is a successful freelance writer. In GWS #66, she writes:

Two things made those [high school] years bearable. First, literature. I'd play sick every chance I could so I could stay home and read. Or I'd play hooky and hide out all day in the county library. (Bless those librarians. They never reported me, though they must have realized that I was truant from school.) I read widely and wildly, whatever captured my interest, without direction or guidance. When I happened upon "The Waste Land," there was nobody to tell me what it was supposed to be about, how I was supposed to evaluate it, or that it was supposed to be very difficult. So I read all of T.S. Eliot's notes on the poem, then half a dozen critical studies, then a bunch of stuff on the Grail legend, and drew my own conclusions.

Unschooling writers

Ernest Hemingway said that Beryl Markham, author of *West With the Night*, "can write rings around all of us who consider ourselves as writers." The book describes Markham's experiences as a pilot in Africa, as well as her childhood and teenage years on a remote farm in Kenya. There are occasional allusions to lessons to be done—apparently Beryl was more or less homeschooled by her father. However, her youth was dominated by more exciting things—hunting boar with spears, being attacked by lions, listening to Murani legends, watching Kikuyu dances, apprenticing with her father as a horse breeder and trainer. At seventeen, when her father moved to Peru, she stayed in Kenya and trained race horses. Later, she learned to fly. Her writing is graceful and direct, and full of good stories.

Jack London, author of *White Fang*, *Call of the Wild*, and lots of great outdoor stories like "To Build a Fire," quit school at fourteen to seek adventure.

24. unschooling foreign languages



Learning another language is not only learning different words for the same things, but learning another way to think about things.

—Flora Lewis

Why study a language? To communicate when you travel; to connect with immigrants, refugees, and travelers in your area; to read literature or science in its original language; to help revitalize a language in danger of being forgotten; because you like words; to qualify for exciting work; to get into a selective college. Or because, as the filmmaker Federico Fellini allegedly proclaimed, “A different language is a different vision of life.”

Foreign language is not really a discipline, like the study of molecules or epic poems, until you are far past fluency. As a beginner, you don’t study the language from an academic perspective; you merely try to speak and understand it, to use it as a tool. But as you learn, you may wish to flirt with academic questions, like: how does a language

reveal or shape the culture it belongs to? For instance, in Russian, the verb “to get married” is different for men and women. For women, the term literally translates, “to go behind a man.” *

Which language?

If you plan to travel in a non-English-speaking area, “which language” narrows down easily. (Pop to the end of this chapter for travel-specific suggestions.)

If you decide, though, to learn a language for college, “the future,” or another abstract reason, choose carefully. This can be one of the more important decisions you make in life, and may strongly influence what you are capable of doing, where you travel, what you can read, even what type of career you can get or whom you can befriend.

Consider: Are there countries you hope to visit? What languages are most widely used? (Spanish, Mandarin, or Arabic are excellent choices for that reason.) What are your interests and plans? (If you want to conduct research in the jungles of Ecuador and Indonesia, maybe learn Quechua and Penan.) What languages are easiest? Do you want to learn the language of your ancestors? Will you need to read in a certain language to go deep into your favorite academic field? What cultures fascinate you?

Take your time & relax

That’s good advice for just about any pursuit, but especially for learning to communicate with a fresh set of words.

Natural language acquisition starts with lots and lots of listening. Before most people can easily learn a language they need to hear it constantly for days or even months. If you decide to start by working with a textbook or app, fine, but at the same time expose yourself—a lot—to the sound of the language, through foreign movies, radio stations, children’s audiobooks, subway rides, college language clubs, whatever you can find. That’s the way babies do it, and they’re the experts. Don’t worry that you can’t understand what you hear. Don’t try too hard. Don’t worry, be happy.

At some point, you’ll probably want to start using tools—textbooks, apps, or whatnot. (I’ll share suggestions in a moment.)

Then, when the time comes to try your wings in the real world, do what you can to put yourself at ease. Even in a native tongue it’s hard to express ourselves when we’re tense. I studied Russian in college, and after a couple terms I went to a rollicking departmental party which was thoroughly soaked in vodka. To my surprise, I found myself conversing much more fluently than I ever had in class. Later I’d have a similar moment in Peru, tapping my best-Spanish-skills-ever over a pisco sour cocktail. Alcohol, of course, is not an ideal learning technology for most youth, for reasons ranging from legal (at best) to brain damage (and worse). It’s not a sustainable learning technology for most adults either. But these unexpected experiences showed me how powerful it

can be to shift out of my default mindset, which can get in the way with its inhibitions, anxieties, and a tendency to clench.

There are myriad ways to relax. I've gotten good results by tweaking the lights (candles are perfect), playing music, slowing my breath, and laughing or dancing together with friends. Softening my eyes, using my peripheral as well as focused vision, helps. And so does making an agreement with somebody that we're going to share a long conversation, so I know I can take my time speaking and listening.

Perhaps you, too, will find that deliberately putting yourself at ease can make a huge difference. Poke around on the internet for others' tips and for the latest findings of how-we-learn-languages research.

Resources & solo activities for language learning

I hope you won't try to learn a language completely on your own; removed from actual human communication it's no fun and a little bit insane. But as part of an overall strategy, there are lots of independent ways to get started and practice.

A variety of audio programs, mostly available online, emphasize listening and repetition. Many people do fine with free apps like Duolingo, but sometimes a not-so-free program is worth the money. Widely recommended by unschoolers and others: The Learnables teaches languages (French, German, Hebrew, Japanese, Mandarin Chinese, Russian, and Spanish) by having you listen to words and phrases again and again, following along with pictures. After ten lessons, you gradually begin speaking.

Video-based language-learning programs, such as those offered by the BBC, are a better fit for some people than pure audio.

Phrasebooks, intended for travelers, typically offer basic conversational tidbits, micro-dictionaries, and minimalist overviews of how the language works (a.k.a. grammar).

Consider a textbook. You might check to see what local colleges are using and look for a used copy. Everyone learns differently, but for a lot of people it works well to start by listening, transition into speaking, and then—when you're hungry for a broader, more contextual understanding—spend time with a textbook or another resource that lifts the curtain to show you the grammar and structure of a language.

Draw on Barry Farber's classic book, *How to Learn Any Language*, to build your own program from a variety of techniques and resources.

Most phrase books offer too few of these "crutch" phrases. When you meet your first encounter, pull out pen and pad and fatten your crutch collection. Learn how to say things such as, "I'm only a beginner in your language but I'm determined to become fluent," "Do you have enough patience to talk with a foreigner who's trying to learn your language?" "I wonder if I'll ever be as fluent in your language as you are in English," "I wish your language were as easy as your people are polite," and "Where in your country do you think your language is spoken the best?" Roll your own alternatives. You'll soon find yourself developing what comedians call a "routine,"

a pattern of conversation that actually gives you a feeling of fluency along with the inspiration to nurture that feeling into fruition.

Watch foreign films, with or without subtitles. Better yet, watch the same film several times, and memorize a bit of dialogue.

Look for little ways to playfully integrate your new language throughout your days. Mess around with Magnetic Poetry tiles, learn the lyrics to pop songs and sing along, recite children's rhymes while you're training for a marathon, make a list of English terms related to something you love (cars? dogs? soccer? trees? fashion?) and learn a vocabulary word daily.

A cheap introduction to any of eighty different languages, from GWS #70: order a foreign-language Bible from the American Bible Society. The reader who shared this idea liked using Bibles because they were inexpensive, full of good stories, and available in so many languages. If you are familiar with the stories already, that helps. If not, find an English Bible (try Revised Standard Version or New International Version) and read the two side by side. Go for the story parts, like in Genesis, Ruth, or Matthew. Or, of course, apply the same principle to any other literature.

For information on learning Esperanto, the world's most widely spoken "constructed language," check out Esperanto-USA online.

For Latin or Greek, see the online catalog of Bolchazy-Carducci Publishers.

Learn through human interaction!

Work with a tutor. If there are no native speaking tutors where you live, experiment with video-based online tutoring. Money is scarce? Prepare by spending some time with a resource like Barry Farber's *How to Learn any Language*, planning out exactly what you want to learn, and splurge on just two or three sessions. Or look for "tandem" language exchanges online, where a native speaker helps you learn their language, then you switch and help them learn English.

Host a foreign exchange student for a few months or a year—homeschooling families can do this, though the exchange student typically attends school. If it seems a bit odd to live with a student when you are not one, just befriend an exchange student, or set up an unschooling exchange on your own. Danielle Metzler, of Connecticut, writes in GWS #106:

I found learning Japanese without a teacher or textbook to be both challenging and enjoyable. The key was having the right attitude. This included realizing that learning is sometimes hard work. However, it is fun, it is much easier and has a more lasting effect. It also included looking for every opportunity to use what I was learning. My family hosted at least six Japanese exchange students over the course of eighteen months. Between their visits I reviewed what I had learned and took in some more information from my CD ROM program and my grammar book. . . .

The exchange student program provided a sheet of survival phrases with a pronunciation guide. This sheet was not enough, so one of the first things we did was pick

up a very good English-Japanese dictionary. I made sure it was small enough to carry around wherever we went. It had phrases and a pronunciation guide. We also bought a book on Hiragana, the primary Japanese alphabet. Even though there is also another alphabet and pictogram system with thousands of characters, I was still thrilled to be able to recognize a few words now and then.

The one thing that helped me the most was talking with someone who is Japanese. It is essential to understand how words are pronounced right away. This helps eliminate a lot of confusion. . . .

I think homeschoolers benefit by sharing what they have learned, so I did just that. I prepared a three-hour hands-on presentation on the Japanese language and culture for homeschoolers in my support group. Some of the things I shared with them were origami, basic Hiragana, introduction to conversational Japanese, some of the gifts we received from our various students, and the Tea Ceremony. . . . Giving this presentation allowed me to review what I had learned about the Japanese and their language.

House or simply befriend a foreign college student. Contact the foreign student support services at local colleges to see if they can help with arrangements. In GWS #87, Nicky Hardenbergh of Massachusetts writes:

If any homeschooling families are looking for ways to get to know people from around the world, they could investigate the International Student Office at their local university or college. Three years ago, my family volunteered to be a host family to a foreign student through the Harvard University International Office. We were delighted with our student, Hiroshi, a young linguistics student from Japan. At our mutual convenience, we invited him to our house several times over the course of the year, or met him in Cambridge. Because he was in a graduate program, he had little time for socializing; my initial misgivings that being a host family would be overly time-consuming quickly evaporated.

When Hiroshi returned to Japan, we enthusiastically signed up to host another student. This time we were matched with a mathematics student from Paris. Once again, we were delighted with our student. My husband particularly appreciated being able to receive mini-tutorials in various aspects of mathematics from Eugene. Since Eugene is in a Ph.D. program, we have been his host family for two years now.

Even though Eugene was still in Cambridge, we discussed with the coordinator of the program the possibility of getting another student this year. When we heard that she had a young man from Beijing, China who was coming to the East Asian Studies Program, and that he liked to cook, we signed up for him. Once again, we were delighted. . . .

When ZhenZhou, the Chinese student, came to our house, I could not get over the fact that I had, in my kitchen, someone from Beijing. China has been such a closed place during my lifetime. Now I could actually find out about it firsthand. We have learned so much from him about Chinese history, ancient civilization, and life in Communist China.

The entire host family experience has been incredibly valuable to us. Having someone from another culture for a friend is a wonderful experience, and an immense enrichment to our homeschooling program. You can imagine that we use the visits as times to learn more about the students' countries. Equally valuable, we have become more conscious about the structure of our own culture as we answer our students' questions about American life. At the same time, we have a connection to academia and can find out more about the subjects our students are pursuing. . . .

The coordinator of the Harvard host family program . . . tells me that most universities and even smaller colleges have programs of this type.

Find out if your city has a foreign language center. Some centers not only offer classes, but also host lunches where people—both fluent and stumbling—converse informally.

Find out when a local college or university has language tables. This means that during lunch or dinner people who want to speak Arabic (or whatever) sit together in the cafeteria and try to make sense. Again, some may be native speakers and professors, others beginners or merely curious. If you're like me, you think you'd feel way too stupid waltzing into unfamiliar territory populated by people older and smarter than you. Ignore this feeling. All the other non-fluent students probably feel as self-conscious as you do, regardless of their age.

Participate in sports or other activities with immigrants or exchange students. In Homeschooling for Excellence, David and Micki Colfax report that their son Reed (who later went on to Harvard) "joined the local Spanish soccer team, developed an ear for the language, and has had the easiest time of [their four sons]."³☐

Explore the ethnic neighborhoods of a city. Eat at inexpensive restaurants that don't look touristy, and watch for opportunities to use your new vocabulary.

As you approach fluency, things get exciting. You can: read literature in its original language. Listen to exotic radio stations on a shortwave radio. Make linguistic forays into the structure of a language. Work as a tutor or translator (maybe as a volunteer at first). Work as an American representative on a Russian fishing boat, like my friend Laurachka. And go exploring in extremely special places, far from touristy towns. Speaking of exploring:

Language for travel

If travel is your reason for learning, perhaps you don't need to start in earnest until you arrive in a new country—if you have plenty of time, that is. Certainly the most exciting and vivid way to learn a language is to use it because you need it.

Find out about trustworthy language schools in the country you will visit (search online or in travel guides), and plan to enroll as soon as you arrive. Often these programs can also arrange for you to live with a family. Some areas are famous for their language schools—many people begin a journey through Latin America by spending

a month in one of the Spanish schools in Antigua, Guatemala. An excellent source of information is the Transitions Abroad website.

Learn how the sentence structure works and how verbs are conjugated. Memorize a few key phrases like “Thank you” and “Where’s the bathroom?” Grab a dictionary and go. Panic on the plane and do some last minute studying. Make a complete idiot of yourself for a while. Don’t hang around with English speaking people. From personal experience, I recommend this method. In some countries, it’s cheap. It’s fun. It’s life. It works.

Enroll in a foreign exchange program. The obvious trouble is that you may have to go to school, which won’t be any more fun, after the first few weeks, than school at home. You might try a summer program, in which case school may not be on the schedule.

The professors say

In general, they say that if you want to learn a language in an academic setting, you have to know English grammar. If yours needs help, use a good text like Warriner’s English Grammar and Composition. (For most people there’s no reason to bother studying English grammar unless they want to learn a foreign language in a methodical, academic way.) An assistant professor of Spanish at Smith College writes:

What we like best in our first-year students is the ability to think, the motivation to study and the desire to learn Spanish. Generally we find that a student who writes well, and is well-read, in English has less trouble translating those skills to a foreign language than the ones who also have trouble writing in English or whose grammar background in English is weak.

Of course, we teach many levels of Spanish, even to our first-year students, depending on how much Spanish they’ve had before and how well they do on the placement exam (which consists of a grammar section, a listening comprehension and a composition) they take when they arrive. Some, who have studied many years of Spanish, go directly into a literature class. Others find a review of grammar useful. Still others will want to perfect speaking and writing skills in a conversation class. But, for beginners in the language we recommend a good grasp of the concepts of grammar (i.e. knowing what verb tenses and the parts of speech are, and how to use them correctly) in their own language, and the willingness to study in order to learn.

A Dartmouth Russian professor advises:

I would say that the most important thing for success in our Russian classes is a knowledge of English grammar. I’ll never forget the day I was talking blithely about direct objects only to have a student raise his hand and ask what one is. . . . We have noticed over the years that students who have studied Latin in high school have a minimum of difficulties. Getting used to a language with cases and inflected verbs is a big help.

25. unschooling the arts



There is a vitality, a life force, a quickening that is translated through you into action, and because there is only one of you in all time, this expression is unique. And if you block it, it will never exist through any other medium and be lost. The world will not have it.

—Martha Graham

On Halloween I wanted to be Max from *Where the Wild Things Are*. I got sidetracked and sat marveling at *The Art of Maurice Sendak*. On page 22, I ran into the commentary on education:

“I hate, loathe, and despise schools,” [says Sendak]. . . . To this day, he tends to look on all formal education as the sworn enemy of the imagination and its free, creative

play. . . . “School is bad for you if you have any talent. You should be cultivating that talent in your own particular way.” ☒☒

This chapter can’t teach you to draw gnarly monsters or sing like the wind. It just aims to help you start cultivating that talent in your own particular way, and to inspire you with other unschoolers’ artistry. It can’t give in-depth suggestions on everything; it can’t even mention everything. The arts are endless, especially because artists are always making up new kinds of art.

General resources & tips

Find out what’s on offer close to home. Look up your city or regional arts council and see what classes, facilities, and events are available. If you have a center for the performing arts, sign up for their mailing list.

See if nearby universities or colleges have arts programs open to the public. The University of Oregon, for example, operates a Craft Center which offers high quality, low cost classes in photography, jewelry, woodworking, stained glass, etc. (Even when opportunities are not officially open to the public, persistent unschoolers often find their way in.)

Don’t divorce art from the rest of your life. Decorating your bedroom, planting a garden, playing your harmonica at sunset, making cards for your friends, painting a mural on the garage, singing a lullaby to your sister, making up dances in your basement, and arranging vegetables on a plate are all worthy of your most impassioned artistic efforts. If art does not serve to make life more meaningful, it is empty.

Hone your taste. My artist friend Tilke Elkins says: “Continually cultivate and trust your own tastes and impulses in art. Do this by identifying what you like and also by identifying what you keep around just because someone tells you you should like it. Weed out the ‘shoulds’ and surround yourself with what you love.” Make a compendium of what makes you happy—in a scrapbook, sketchbook, journal, collection, bulletin board, Pinterest board, or YouTube collection.

Consider a competition. See what’s available locally, or zoom out. The Scholastic Art & Writing Awards offer regional and national recognition in over a dozen visual art categories like digital art, fashion, film, comic art, and sculpture. The YoungArts competition includes dance, voice, music (classical and jazz), theater, and a range of visual arts. Other programs focus more narrowly—check out photo competitions (such as National Geographic’s Student Photo Contest), or the Congressional Art Competition for two-dimensional visual art.

Start a business. If you have talent, dedication, and a unique approach, sharpen your skills and earn some cash as a photographer or drummer or candlestick maker. Consider setting up an online shop on Etsy. You may find useful ideas in Chapter 35, Your Own Business. The internet offers plentiful advice on selling your work.

Creativity literature

This genre can buttress our ability to make art—not just randomly when inspiration strikes but reliably, every day. Such books are useful for everyone who depends on creativity: painters, writers, chefs, dancers, and beyond. A few of the best:

The Creative Habit: Learn It and Use It for Life, by choreographer Twyla Tharp, is concise yet complete.

You'll find that I'm a stickler about preparation. My daily routines are transactional. Everything that happens in my day is a transaction between the external world and my internal world. Everything is raw material. Everything is relevant. Everything is usable. Everything feeds into my creativity. But without proper preparation, I cannot see it, retain it, and use it. Without the time and effort invested in getting ready to create, you can be hit by the thunderbolt and it'll just leave you stunned.

The War of Art: Break Through the Blocks and Win Your Inner Creative Battles, by Steven Pressfield. Readers turn to this one especially for its practical and profound explication of procrastination and "Resistance," the arch-enemy of artists.

Your Art Will Save Your Life, by Beth Pickens, is short but dives deep into the political and personal ramifications of making art. "Anytime you think you cannot leave the house because the world is too hard, I want you to think about the art, performances, music, books, and films that have made you want to be alive."

Steal Like an Artist: 10 Things Nobody Told You About Being Creative, by Austin Kleon. This one is really short, and the most lighthearted of my list, but you can read it over and over and choose something different to focus on each time. (Or move on to Kleon's other pithy books.)

TED talks are another way to reinvigorate your process. Take inspiration from Kayla Briët's quest to preserve her ancestors' culture through film and music, Titus Kaphar's visionary revisions of historic art, or any of the other talks on art and creativity.

Art camps

Spending a week or so with people who love what you love, working with a skilled teacher, is an ecstatic way to develop your talents whether you are a beginner or professional. There are hundreds of visual arts, performing arts, and crafts camps and retreats. Find one by searching the internet, reading the ads in art magazines, asking in art stores, asking local artists and performers. Here are a few highly regarded programs open to youth:

Augusta Heritage Center, West Virginia—week-long classes in American folk arts like Mountain Dulcimer, Cajun Dancing, Blues Music, and Blacksmithing.

International Music Camp, North Dakota—a respected, inexpensive camp for teens.

The Country Dance and Song Society, Massachusetts—traditional and historic English and Anglo-American folk dance (such as contra), song, and instrumental music.

The Middle Eastern Music and Dance Camp, in California—classes and nightly concerts by world-renowned musicians and dancers. Participants range from absolute beginners to seasoned professionals.

The Stamps Summer “BFA Preview” in Michigan, a three-week intensive for visual artists—you get your own studio and mount an exhibition of your work, complete with a reception to which you can invite friends and family.

Visual arts & design

Check out local art museums or centers. Art supply stores are good places to find out about classes and lessons, and to wander and glean inspiration from the colors and textures of paints and pens. For a different universe of inspiration, check out the natural paints and inks movement, gorgeously exemplified online by Tilke Elkins’ Wild Pigment Project.

If you’re serious about a two-dimensional medium, consider the power of publishing to get your vision out for others to enjoy. In addition to DIY options like social media accounts or blogs, you might submit your work to print and online journals. Many publications that seek writing from youth also feature artwork—check out the resources under “If you want to get published” in Chapter 23.

Art history

“For every reader of books on art, 1,000 people go to LOOK at the paintings. Thank heaven!” —Ezra Pound

Art history means studying other people’s art, not doing it yourself. The two go hand in hand, of course. Take a cue from Ezra, and look more than you read. Go to museums. Seeing great art in person is best, but virtual collections and tours are also a wonderful resource, especially when they’re free. Google Arts & Culture offers a huge compendium, and the Met’s online Timeline of Art History is a beautiful thing. Go to the library and devour the oversize books in the 700s section, like *Two Thousand Years of Japanese Art*, *The Early Comic Strip*, *The Art of Jewelry*, *Italian Painting*, *Turkish Carpets*, *The Oxford History of Western Art*, and *Picasso: The Artist of the Century*. At a poster store, buy yourself a couple nice prints to hang above your baseball card collection.

Drawing

Realistic drawing skills are necessary for many forms of art, from architecture to sculpture to fashion design as well as making portraits and such.

For starters, try *Drawing on the Right Side of the Brain* by Betty Edwards, which can turn any patient artistic failure into a modest artistic success.

If you want a class, find one with a live model, preferably nude. Artists need this training to develop a clear sense of the human form.

Os Shepler writes:

I'm sixteen years old and I've been unschooling in Venezuela for six years. Right now I am working towards becoming a full-time comic artist. My Journey began when my mother brought home *The Teenage Liberation Handbook*. This book lead me to Barbara Sher's *Wishcraft*, which helped me to name my goal—to create my own comic book—and to break it down into steps and get the support I needed.

I started my search for resources. At first I took general art classes at a small local art studio (in Venezuela extracurricular activities like art, music, drama, and sports are not offered at public schools but through private clubs). I was really dissatisfied with the results of my artwork and the amount of discipline I lacked. So, I began writing letters searching for other resources and therefore discovered a series of videos produced by Stan Lee. These videos gave me access to such comic artists as Jim Lee, Todd McFarlane, Rob Liefeld, and Will Eisner. I studied these videos inside out and purchased any materials they suggested. I also spent a lot of time studying other comic artists' work. Through this study, I became a comic collector and eventually I started my own business importing comics for other Venezuelan collectors. (Legally, my visa does not permit me to have a paying job, but I may be self-employed.)

Still, my artwork, at the time, was very poor and disappointing. I knew I needed a mentor. Some unschoolers are very independent and don't depend on the 'mentor' aspect of learning. However, I have discovered that my personal style of learning is very visual and I don't learn very well through reading books or lectures. I needed someone to show me the process of creating comic art. I tried everything. I wrote a letter to Jim Lee for an apprenticeship, I contacted graduates from Joe Kubert College, I spread the word that I was looking for a mentor in the comic arts. Finally, by some act of God, a fellow missionary friend of my parents found a comic institution in the heart of the city while riding a bus (very *Wishcraftish!*). She contacted me right away and I immediately put together a portfolio and showed it to the director of the comic institute. They were somewhat impressed and enrolled me in their Venezuelan equivalent of a B.A. program. When I started my classes, I discovered that I was the youngest student at the age of fifteen while most of the other students were between eighteen and thirty years of age.

All my academic subjects are integrated by my endeavor to create my own comic book. I unschool Writing by participating in the on-line X-Men Role Playing Game (*Uncanny X-MUSH*), I learn Spanish by daily use, I learn math through my import business, I created a cartoon character for my Boy Scout troop for Environmental Science, I do Social Studies by resolving cross-cultural conflicts in the multi-cultural classroom of my comic school, etc. And Clonlara Home Based Education takes care of documenting all these credits.

At this time, I am pursuing an internship with Marvel Comics because I desire to be familiar with the entire production process. While the industry is experiencing tough times in the United States, in Venezuela it is in crisis! As a student in the Comic Art

Institute in Caracas, Venezuela, I and my fellow learners are preparing for careers in an industry which does not exist in this country. Our director and my mentor, Julio Lopez, has told us that the hope for our future depends on a few of us becoming risk takers and starting a Venezuelan production company and thus providing employment for our fellow artists. I hope to contribute to such an effort.

Beatrix Potter said, “Thank goodness, my education was neglected. I was never sent to school. . . . The reason I am glad I did not go to school—it would have rubbed off some of the originality (if I had not died of shyness or been killed with over-pressure).” Instead, Potter spent her time writing, drawing, and studying nature.☒¹

Photography

Aside from taking (and editing) zillions of photos and reading up on technique (in books, magazines, and blogs), also look carefully at the work of other photographers. Once in a while an outstanding photographer writes a book explaining exactly how they made certain photographs. One such book is Ansel Adams’ *Examples: The Making of Forty Photographs*. Adams, by the way, wrote in his autobiography about the end of his school career at age twelve:

Each day was a severe test for me, sitting in a dreadful classroom while the sun and fog played outside. Most of the information received meant absolutely nothing to me. For example, I was chastised for not being able to remember what states border Nebraska and what are the states of the Gulf Coast. It was simply a matter of memorizing the names, nothing about the process of memorizing or any reason to memorize. Education without either meaning or excitement is impossible. I longed for the outdoors, leaving only a small part of my conscious self to pay attention to schoolwork.

One day as I sat fidgeting in class the whole situation suddenly appeared very ridiculous to me. I burst into raucous peals of uncontrolled laughter; I could not stop. The class was first amused, then scared. I stood up, pointed at the teacher, and shrieked my scorn, hardly taking breath in between my howling paroxysms.☒²

At this point, the Authorities invited Ansel to leave school. His completely excellent father bought him a yearlong pass to the 1915 Panama-Pacific International Exposition. He went every day, enchanted by an organist, paintings, sculpture, and science and machinery exhibits. His first photos—about a year later—disappointed him, so at age fourteen he persuaded the owner of a photofinishing plant to take him on as an apprentice. He went on to become perhaps the world’s greatest photographer, as well as an expert mountaineer and avid conservationist.☒³

Sculpture & painting

Try to find a way to share the equipment and space you need, through an artist’s co-op or a city art program. Art supply stores are a good place to ask questions and find leads. If you’re just starting out in a field, consider taking a class—especially one

that lets you come in to use studio space during non-class hours. Once you know what you're doing, see if you can set up an apprenticeship.

Film & video

An apprenticeship, as usual, is a great way to learn. So is experimenting on your own, creating an online video channel, and analyzing other people's films and videos. In GWS #25, Eileen Trombly writes about her unschooled daughter:

Lori had taken a video course at Connecticut College at the age of eleven. Her intense interest in this area caused her to volunteer her services in the filming of several political campaigns in New London, and also for the annual March of Dimes Telerama. She has continued this volunteer work for the last seven years and is now number-one camera person and assistant director for the Telerama. The director from New York phones to be assured of her participation each year. As a result, Lori received a job offer at the Eugene O'Neill Theatre here in Waterford, via the theater director in New York.

A year and a half later Lori is in college—Eileen shares an update in GWS #33:

Lori has already been offered a position at O'Neill for next summer and was given her own studio this summer. Even though we're fifteen minutes from the theater she sleeps nights at the mansion provided for the convenience of the N.Y. critics, etc. She often works late hours and is completely immersed in what she does.

Unschooler Andrew Endsley writes in GWS #77 that his work as an extra in *Glory and Dances With Wolves* led to a greater interest and involvement in film:

I like behind the scenes work, and I'd like to continue working on the technical aspects of film. . . . You meet people who remember you, and they give you a call when they need you on another project. A week ago I got a call from our contact out in Montana. He wants me to work for three and a half months as a production assistant.

Architecture

Serious learning arises not only from reading and looking at pictures, but also from walking through the streets of your city and as many other cities, towns, and villages as you can get to.

Apprenticeships or hands-on workshops can be invaluable. Actual experience with building sets you apart from other aspiring architects. Building happens everywhere, so you can surely find local opportunities. Search the internet for conventional or alternative (tiny house, cob, strawbale, etc.) building to locate nearby organizations and whizzes. Or travel to a center like the Shelter Institute in Maine, known for its post and beam classes, or Heartwood in Massachusetts, where you learn to build a traditional energy-efficient home in a week- or month-long course. (Work/study internships are available too.)

Consider, also, more innovative organizations. Look up Michael Reynolds' Earthship Biotecture in New Mexico. (I'm favorably biased, having briefly lived in an Earthship—plus, they occasionally offer a three-week youth academy.) Nader Khalili's Cal-Earth Institute in California builds gorgeous "Superadobe" and ceramic houses. In Arizona, visit Paolo Soleri's Arcosanti, a futuristic-looking energy efficient town built on the concept of "arcology," which combines architecture and ecology. People from all over the world gather to take classes from visionaries like these and to help with their work.

Or become your own visionary, like unschooler Celina Dill, who at age sixteen set out to meticulously design and build her own tiny house, along the way acquiring skills from welding to carpentry to wiring to working in a sheet metal shop to crafting exquisite custom furniture. (Search online for images, interviews, and Celina's own reports.)

If you're interested in architecture, you'll naturally find out about the work of famous architects and cathedrals and Greek temples and such. (At the library, try the 720s shelf.) But don't miss out on the beauty and wisdom of "vernacular architecture"—humble buildings like yurts, log cabins, and English cottages. An outstanding book for starters is *Shelter*, edited by Lloyd Kahn. Another is John Taylor's *Shelter Sketchbook: Timeless Building Solutions*, with hundreds of illuminating drawings: a thirteenth-century Middle Eastern air conditioning system, a Shaker bathing tub, an Ivory Coast outdoor kitchen, a rainwater cistern from Southern Italy.

For a unique, beautiful, human approach, see Christopher Alexander's work, especially *A Pattern Language* and *The Timeless Way of Building*.

Finally, check out the "children's" books of David Macaulay—*Cathedral*, *Mosque*, *Castle*, *Pyramid*, etc. Each shows explicitly, in detailed drawings, the designing and building processes that went into these monuments.

In his autobiography, Frank Lloyd Wright writes (about himself), "What he was taught in school made not the slightest impression that can be remembered as of any consequence." Wright dropped out of high school to take a drafting job with a professor of civil engineering, and went on to become one of the most admired architects of all time.

Crafts

The thousands of possibilities include decorating eggs Ukrainian style, knitting sweaters, carving wooden boxes, shaping vases, marbling paper, making jewelry, weaving a rug or Scottish kilt, sewing a patchwork quilt. You can often find free or inexpensive classes through yarn supply shops, bead stores, etc.—you buy their stuff and they gladly show you how to use it. Get sparked by looking at local craftspeople's work at fairs. If somebody's work moves you, ask if you can take lessons or apprentice.

The library can help with bookish support for starting most projects. If you're into funky jewelry or arty clothing, look for the magazine *Ornament*. The internet, of course, abounds with both ideas and guidance.

Craftspeople often find inspiration in folk art. Look up Dover Publications and peruse their design library, clip art, and pictorial archives. Their copyright-free images (in collections like *Ancient Egyptian Designs for Artists and Craftspeople*) can energize your pottery, quilts, and greeting cards. Some museums offer spectacular collections. Browse online images from the Girard Wing of Santa Fe's Museum of International Folk Art. (Or much, much better: take several days to visit in person, for a visual feast you will never forget.)

Design

Design (sometimes called “applied arts”) is a giant category that overlaps with science and technology. (Hence, sometimes STEM—science, technology, engineering, and math—is upgraded to STEAM with “art” in the middle.) If you're artistically inclined, consider practical applications like industrial design, graphic and website design, inventing furniture or toys or kitchen gadgets. Create clothing, decorate hotels, dream up wallpaper or fabric. You'll find ingenuity and guidance on the internet and elsewhere. A few general resources:

- Hack Design's free online lessons

- The resources section of Stanford's “d.school” website

- Ideo's Human-Centered Design Kit, an idea-packed website with free downloads

- Why Design? Activities and Projects from the National Building Museum, by Anna Slafer and Kevin Cahill—a good introductory book

- TED talks, which often feature world-changing innovations in design

- The MIT Media Lab instigates a wide range of cool design projects—poke around their website from time to time

- The Webby Awards—check out recent winners and nominees for inspiration in the realm of internet and digital design—websites, apps, video, games, and such

- Flip back to Chapter 20, and consider the resources under “Technology.”

Liz Claiborne, fashion designer, escaped school because her father deemed formal education unimportant. Instead, she studied fine arts in Belgium and France. She entered the world of fashion at age twenty-one, when after winning a design contest she worked assorted jobs in New York's garment district.☒☒

Dan Casner, twelve, of Wisconsin, writes:

For Halloween I made a full tracking mask. The mask had a long snout because it was a lizard mask, however I designed it to follow my facial expression and speech. I designed a tensioning mechanism to allow the lower section of the jaw to follow the movements of my jaw both vertically and horizontally. For instance, if I stuck out my chin, it stuck out its chin. If I opened my mouth, it opened its mouth. Also, I've been working on designs for a ventriloquist's dummy and several marionettes.

Performing arts

Good performing arts opportunities in school are the exception, not the rule. If your school has one of the exceptions, however, I know better than to tell you it doesn't matter. My school had one of the exceptions, and despite the rest of the drudgery I endured, I am still thankful for having belonged to the Capital High School Concert Choir and the Capital Singers. When I think much about it, though, I get angry anyway. Music wasn't my first love; dance was. Because I didn't like my school's dance program, I sang instead. It was a terrific music department—but I wonder how my life might have gone differently if I had quit school and danced my heart out. If your school does have programs you want to participate in, go for it. Many states allow homeschoolers access to extracurriculars and arts.

Or, find a program elsewhere—a city youth symphony, a dance studio, a little theater, community musicals, an arts summer camp, run away and join the circus. And don't rule out college groups. One of my college's modern dance troupes included two high school students. No one made a fuss out of their age or the fact that they weren't Carleton students; they were welcome because of their seriousness and talent.

Study or perform solo—break dancing on street corners, giving a violin recital, performing stand-up comedy, playing piano in a restaurant. Or team up with friends—as a chamber orchestra, reggae band, tap dance troupe, or theater company. In GWS #108, fourteen-year-old Jenny Boas of Florida shares her interest in circus arts:

Ever since I was ten, my main hobby has been circus skills, things like juggling, unicycling, etc. Over the past few years I have become quite a good juggler. . . .

This summer I had the opportunity to go from where I live in Florida to Rhode Island to be part of a real circus. My family has a friend who lives in Rhode Island, and he asked me if I would like to come and stay with him and his family and be a juggler in the circus that he was producing. . . .

There were people at the circus from all over the world. . . . There were about nine performers in the circus—trapeze artists, acrobats, stilt walkers, clowns. There was even one other person who could juggle five balls. He and I would have contests to see who could go the longest without dropping a ball. It was great to have all that competition and my juggling skills improved immensely.

Music

Learn by practicing, experimenting, taking lessons, joining a band, playing your viola along to your favorite pop songs, composing, singing in the church choir. From time to time see what's new in the way of helpful websites and apps. (I'm a fan of good stuff that's free: play around with audio editors like Audacity. Investigate the plethora of online music courses and videos offered by everyone from giant universities to lone guitar teachers.)

Your library probably has books of Beatles songs, Beethoven's piano concertos, and seventeenth-century English folk songs, plus a variety of CDs. Downloadable sheet music is available online for free (especially the old classics) and for coin (especially the new classics).

Don't assume the only instruments to play are the ones in school bands and orchestras. There are also pan pipes, organs, dumbeks, harmonicas, marimbas, ocarinas, ouds, mizmars, lyres, sitars, and hundreds of other implements of bliss.

Consider creating your own instruments—see Bart Hopkin's books and videos for inspiration and guidance. Fifteen-year-old Saeward Stone of British Columbia writes:

Several years ago I began to experiment with making musical instruments. My primary resources were books and imagination. I also began playing the flute. I then found someone in the community who used to make musical instruments professionally, who was happy to work with me. My first project was a mandolin which I was immediately inspired to play. I then made an acoustic guitar. Presently I am working on a violin, a mandolin for commissioned sale, a rebec, an octave mandolin, another guitar, and numerous repairs for people.

I play flute, whistle, mandolin, fiddle and some guitar. My thirteen-year-old brother plays guitar, piano, five-string banjo, and some fiddle. My ten-year-old brother plays fiddle, and my seven-year-old sister plays fiddle also. We play a lot of music at dances, song circles, Celtic festivals and at home, calling ourselves "Stone Circle." We play folk music—so far, Celtic, Ukrainian, and American fiddle tunes.

In the summer we often make \$150 an hour busking at the summer market. We are planning to travel to Cape Breton to participate in music there. My future goals are to build a harpsichord and to travel Europe to learn more about violin making and music. I am also working towards a self-sufficient lifestyle with a small farm and workshop using old-fashioned methods and hand tools.

Stretch your ears by listening to different kinds of music. Try a classical radio station on Sunday mornings. Music apps and public radio stations offer everything from Celtic reels to Brazilian rock. (FolkCloud, online, offers a thrilling spectrum of traditional global music.) Go to concerts and festivals.

Learn about music theory and composition through books, online tutorials and videos (see Dave Conservatoire), tutors, or classes. Try *Music Theory for Dummies*. The unschooling Wallace family found creative ways to study music in addition to taking lessons from local teachers. Nancy Wallace, the mother, writes in GWS #30:

Ishmael . . . is studying music composition with a recent composition graduate from Cornell. Ishmael adores him, although I have grave reservations because he gives Ishmael so much homework that he has hardly any time to compose. In any case they are analyzing music from Gregorian chants to Debussy to Ravi Shankar, and Ishmael is getting a full scale graduate course in melody and harmony. Mostly, I have no idea what they are doing, with their sequences, modulations and chordal structures, but Ishmael seems extremely happy during lessons. He also takes music theory lessons.

Ishmael later moved to Philadelphia, where he studied music at a conservatory while earning money as an accompanist and stage manager. His sister Vita taught younger children to play violin to earn money for art supplies. (Ishmael endured school until part way through second grade, when his parents couldn't stand any more to watch him suffer. Vita never went to school. As the two grew up, both developed a love of music. During the year that they were fourteen and eleven, they earned over a thousand dollars for playing recitals and winning competitions. At ten, Ishmael wrote a musical play, *Love's Path is Lumpy*, or, *Eat Your Spaghetti*, which was produced in Ithaca, New York, with Ishmael on piano. For more on the Wallaces, see Nancy Wallace's two insightful books, *Better Than School* and *Child's Work*.)

Canadian artist Carey Newman, fourteen, writes in GWS #68:

I have taken piano and theory lessons for ten years. While I don't plan to become a professional musician, I have reached a level such that I could work at it if I decided to. My mom has encouraged me to write piano and theory exams before quitting lessons for the purpose of using these certificates as stepping stones to get into the field of music if I were to choose to do so at some future date.

GWS #37 ran a reprint of a newspaper article about an unschooled musician, Gunther Schuller, head of the New England Conservatory of Music. Schuller had quit high school, and commented, "I have the feeling I would not have been a very good music student in, for example, the rigid programs which allow for almost no electives, which some of our schools demand."

Acting

The classic book is Constantin Stanislavski's *An Actor Prepares*, designed "to prepare the actor to present the externals of life and their inner repercussions with convincing psychical truthfulness." The internet overflows with tips (and videos) on how to do everything from cry on cue to find an agent.

Get involved in local theater, of course, but also think about staging your own play. Library books explain directing, set design, lighting, costume, business, and the rest.

If you're seriously interested in improvisational or stand-up comedy, consider taking classes from The Second City in Chicago, Toronto, or Hollywood.

A *Dictionary of Theatre Anthropology: The Secret Art of the Performer*, by Eugenio Barba, is a detailed, bizarre, densely illustrated, fascinating encyclopedia.

Unschooler Emma Roberts writes in GWS #68:

I act a lot in our local community theatre. . . . This past March I was in Brighton Beach Memoirs. I was the only kid under sixteen in the cast. Being with all those adults really gave me a professional feeling. The adults were so serious and fifty kids weren't running around making noise. I felt that the play was more realistic than a bunch of kids on stage standing around waiting to say their lines. When I am in a play with other kids I want to hang around and play with the other kids and not really watch the play and pay attention. That is nice too, but I don't feel professional.

Georgina McKee, fourteen, writes:

I have been homeschooled all my life. In the last fourteen years I've done so much stuff I can't even remember it all. I do remember swimming for about six years. . . . Then it was off to singing. . . . My choir just returned from a ten-day tour of Italy. . . .

Right now my main passion is acting. I've always been interested in it but never did anything about it until last fall, when I auditioned for a play called *The Snow Queen*. I got the part I wanted! Pretty cool for a first time around. During *The Snow Queen* I wrote a play with my neighbors. I showed the script to my director and she liked it. Later she asked me to help her revise her script for her spring production of *A Little Princess*. (I also got the opportunity to serve as the assistant to the assistant director.) During *The Snow Queen*, I got an offer to take acting lessons from the woman who was the assistant director of the play, but that would have to wait until the summer. In the meantime I auditioned for an opera put on by The Madison Opera Company. I got into that too and got asked to try out for the lead part! I didn't get the lead, but I did sing in the chorus which was just so exciting! The biggest thing was yet to come. I got a pamphlet about the Children's Theatre of Madison Summer Drama School and was able to get my way paid with a scholarship. So, I got to spend four grueling yet fun and educational weeks learning about Theatre—voice, dancing, singing, the works! The result of our work was a production of *Jane Eyre*.

What do I love about acting? Well, I love having all eyes on me! But most of all I love taking on another person's character. I love watching people and trying to be them. I love being able to do things on stage as someone else that I would not be allowed to do as myself. Most of all, I like the people, the smell of backstage before a show, and the sound of applause when you've done it right. I someday hope to be a Broadway star, then move onto The Big Screen, and maybe even have my own sitcom called "GEORG!"

Dance

Almost half of the unschooled girls who responded to my questionnaire were involved in dance; many took three or more classes weekly. Aside from taking dance lessons, you (whether girl or other, of course) can audition for musicals, share your moves on social media, start your own troupe, or move to New York to chase the dream.

Videos, especially free ones on the internet, are a fabulous way to learn new material. I've devoured tutorials and taken inspiration from performances in many genres—like tap, tango, belly dance, and Gabrielle Roth's ecstatic Five Rhythms. Not to mention the jaw-dropping choreography and finesse of pop music videos.

Don't miss movies with great dancing, like Carlos Saura's *Carmen* (flamenco), *Stomp The Yard* (stepping), *White Knights* (tap and ballet), *Five Dances* (modern), *Strictly Ballroom*, *The Tango Lesson*, and the old musicals, like *The Bandwagon* and *Singin' in the Rain*.

GWS #30 reprinted part of a newspaper article about Cathy Bergman, former unschooler and president of the National Association of Home Educators:

Bergman said that as a teenager her goal in life was to be a ballerina. “I had to practice six hours a day in order to be a ballerina, which I couldn’t do if I was in school. In a home school I could put all my energies into dance. That doesn’t mean I didn’t do anything else. You are inspired when you have so much free time to learn and grow. Your interest will lead to another interest. My ballet led to reading about ballet, and that reading gave me history. Reading that history led me to study great figures in art.”

Survey the territory before pouring all your energy into one genre. There are the standards like ballet, tap, hip-hop, modern, contemporary, and jazz. And there’s flamenco (fiery controlled passion), Argentine tango (mind-blowing attunement between partners), international folk dance (intricate footwork), Capoeira (Brazilian martial art/dance combination), Tai Chi (not strictly dance but a graceful movement focusing on the flow of energy), belly dancing (sinuous undulation and intricate isolation), classical Indian dance (complex everywhere, especially hands and face), contra, ballroom, blues, West African and hula—just to name a few.

26. sports teams & athletics



Your task is to carry your life high, and play with it, hurl it like a voice to the clouds so it may retrieve the light

—Pedro Salinas

Unschool your body! What you can do with it in school is nothing compared to what you can do with it on an icy hill or a surfboard or a green field or a horse or a bike or a dance floor. Plus, your muscle tone and your life expectancy will automatically improve now that you're not spending all your daylight hours on a chair.

Your choices go way beyond the things you used to do in gym class. Consider walking or skipping or running or biking to work, yoga, gardening, hiking, climbing, skiing, kayaking, dancing, tai chi, horseback riding, martial arts, circus arts like silks or trapeze, and feisty teenage sports like skateboarding, snowboarding, scootering, freestyle biking.

If you are serious about an individual sport (as opposed to a team sport), you will improve more outside of school, unless you had a truly outstanding school coach who devoted plenty of time to you. GWS #17 reports that tennis champion Björn Borg taught himself to play in his childhood, stubbornly (and wisely) refusing advice he didn't agree with.

Your library has books on fitness (aerobics, weight training, yoga, etc.) in the 613 section. The 796 vicinity is sports territory.

For an unschooling-compatible, original perspective on inhabiting a human body, check out the podcast, videos, and books of biomechanist Katy Bowman. Draw on her expertise—delivered with ever-present humor—to tweak a few aspects of your daily routine, and you will feel better for the rest of your life.

Need a team?

Don't go to school but do play on the team. Many state laws specify that homeschoolers can participate in school sports and other extracurriculars. (Homeschooler Tim Tebow played high school football and went on to college football, winning the Heisman Trophy in 2007. After this, more states amped up their homeschoolers-can-play-sports rules, so they are frequently referred to as "Tim Tebow laws.") Even when state laws don't guarantee access, individual districts often grant permission—and even when they don't, exceptions are sometimes made or found. GWS #69 tells about an unschooled sixteen-year-old in Vermont who participated in his district's cross country meets. At one point, he ran up against a legal technicality which prohibited his involvement, claiming private schools (including home schools) had an unfair advantage. (They might offer an intensive training program.) The coaches, who liked the kid and thought the rule stupid, started working to change it. He skied too. Since the ski coaches also liked having him around, they let him participate through another technicality in the rules—a special guest category.

In GWS #78, Gretchen Spicer writes about her daughter Jessie's high school gymnastics team. In ninth grade, Jessie decided to go to school for the first time, in order to be on the team. She did well in school, but decided not to return for tenth grade—among other things, she felt alienated from her family, and had to drop piano lessons and some of her ballet lessons to make time for school. The Wisconsin Interscholas-

tic Athletic Association refused to let her participate on the gymnastics team as a homeschooler, but they finally worked out a compromise. Gretchen explains:

They are willing to consider her a transfer student. She can transfer to the school one week before the first meet, take twenty hours of electives, and thereby be there for the time needed to be allowed to play on the team. She doesn't have to take core subjects, and she can arrange it any way she wants—three full days a week, or four hours a day, five days a week. She'll continue this through the gymnastics season and then leave, and for now, she can go to practices without going to school at all.

At first we were angry about this. It seemed ridiculous for her to have to spend all that time there doing things that have nothing to do with being on the gymnastics team. But she feels OK about it for now, because it's better than going full-time, and she'll take some things she wants, like an art class and driver's education, and she can take study halls. We're not finished fighting this, but for the time being we can live with this compromise.

Jesse Schwerin, fifteen, ran on a school cross country team. His mother Virginia writes in GWS #77:

I ended up writing to the school and telling them what we were going to do—I didn't ask permission. I just wrote the athletic director of the school and said, "My son is a home-study student in the Lenox School District, and he's qualified for sporting events, and he will be joining the cross-country team." The people in the athletic department were encouraging—there was no problem at all.

If yours is an individual sport, like tennis, maybe you can train on your own but join a school team for tournaments.

Join a non-school team—through a community league, community college, private school, or church league.

Start your own team of unschoolers and dropouts. If there are enough of you, start a league. Experiment with coaching each other—an excellent experiment in self-directed learning. GWS #97 reports that Oskars Rieksts of Pennsylvania, a homeschooling father with a fifteen-year-old son, formed a homeschool basketball team because they found no other available opportunities. It developed gradually—the first year they had seven people aged eleven to seventeen, with a wide range of abilities. "We only practice about once a week," wrote Oskars, "Not as often as a regular high school team, but I like the homeschooling aspect of it—I tell them things they can practice at home, and many of them are very self-motivated about that." By the team's third year, they had enough players for three teams—one for seven- to ten-year-olds, one for ten- to thirteen-year-olds, and one for high school aged people. They played small Christian schools and planned to organize a homeschool basketball round-robin. "We chose basketball primarily because it was my son's interest, but we also liked the fact that you only need five players for a team. So you don't need too many kids to get something like this going."

Another Colorado family, with an eighth-grade aged son, started a volleyball team and then added additional sports: soccer, softball, and basketball. They played in a

Christian schools league—"Although we were playing in a Christian schools league, it wasn't a requirement that the players be Christian. . . . We got involved with Denver Parks and Recreation, and when we used their gymnasium, we used it at a kind of low point in the day, when they didn't ordinarily get many people, so they didn't charge us anything for it. . . . We practiced twice a week, and played games once a week. That can be demanding, and we did have families drop out, but we always had enough for a team."☒☒

Unschooler athletes

In GWS #43, Janey Smith writes about her teenaged son:

Seth did an interesting thing recently. He became interested in cycling and joined a bike club last spring. He's the youngest member by far. He trained for a race and did well last spring, goes on long rides with them (25-70 miles, 100 this Sunday), bought some needed equipment. . . . This was getting expensive for him, so he made a deal with the owner of a local bike shop to work out purchase of things at cost. He won a summer race and came in third out of fifty (some experienced racers) a week ago. He reads biking magazines and books and plans his training and strategy.

Erin Roberts, fourteen, has played on an AYSO (American Youth Soccer Organization) team for several years, and works as a youth referee and a co-coach for a team of four- and five-year-olds. "This fall," she writes, "I will be playing for Boonesboro's Junior Varsity High School team. Everyone involved was very helpful about giving me the opportunity to play on this team even though I don't go to the school."

GWS #12 tells of a fourteen-year-old unschooler who lived at a ski resort over the winter, alone in his father's camper, technically under the guardianship of other adults but actually on his own. He was able to ski as often as he wished, and his father commented that he "spent an interesting, difficult, exciting, productive winter there."

27. other school stuff turned unschool stuff

I'm alive, I believe in everything I'm alive, I believe in it all.

—Lesley Choyce

What about the rest? Health, driver's ed, home economics, woodshop, graduation, prom ... Plentiful support waits patiently at the library, on the internet, and in your community. This chapter is just a quick road map. Like the rest of this book, it doesn't show all the roads—an impossible task.

Health

Sex ed

Before you become sexually active, learn about safe sex so you don't become a statistic, and learn about consent practices so you are best prepared to treat others excellently and make sure you yourself are treated excellently. The most current and extensive guides to this terrain are typically online. Seek out a website, app, or platform that meets you where you choose to be, whether that is cautiously curious, ready for every detail, or seeking something specific like a video demonstrating awesome communication about awkward topics. Try Scarleteen, Planned Parenthood's Roo, MyHealthEd's Real Talk, Rutgers University's teen-written Sex, Etc., Get Smart B4U Get Sexy, O.school, the F*ck Yes YouTube channel, or Pussypedia—or keep looking until you find a better match.

If you have ovaries, see *Our Bodies, Ourselves*, by The Boston Women's Health Book Collective, an empowering, detailed, easy-to-understand book. Although its information is not the latest available, it remains one of the best books to turn to for information on the female reproductive system, sexually transmitted diseases, pregnancy, childbirth, abortion, etc. And, there's a fabulous website with current updates. I also recommend Christiane Northrup's *Women's Bodies, Women's Wisdom*.

If you have testicles, I'm sorry no one has yet written a book as good (and non-patronizing) for you. (The “men's health” section mostly seems to feature gyms and elaborate muscles.) But *Changing Bodies, Changing Lives*, edited by Ruth Bell, is a solid resource for all teens, full of straightforward quotes from youth as well as no-



nonsense medical information. Though outdated in some respects, many still find it helpful.

If you're trans, don't miss *Trans Bodies, Trans Selves*, edited by Laura Erickson-Schroth—packed with individuals' perspectives and experts' knowledge.

Mental & emotional health

In the last edition of this book, I didn't see the need for a section dedicated to this topic. That was partly due to my own ignorance and a general lack of public awareness, but it was also because some things were just easier back then. Let's be real: you are growing up in challenging times. You are up against not only longstanding problems like racism, sexism, homophobia, and wealth inequality, but also the unprecedented threat of obvious climate change. Amidst all that, you must learn how to self-regulate and communicate in the overwhelming context of the internet and "social" (often anti-social) media. It's no wonder that mental health is a big issue. In fact, many youth now start unschooling specifically because their anxiety or depression is exacerbated in school. (Welcome!) I hope you and your family will seek out the best help for your situation, whether that means a therapist, support group, tweaking a few key aspects of your life, or all of the above.

The most useful resources are sometimes less about information and more about interaction, so see if you can find an app that fits your needs. At the time of this writing, Jackson Tempra's *What's Up?* is good. So is *Real Talk*, which is listed above in the sex ed category. (It's often the case that folks who offer non-patronizing sex ed resources also offer non-patronizing mental health resources.) For LGBTQ+ youth, the *It Gets Better* website (and book) can provide hope. Seek and you will also find resources expressly for women, people of color, people with disabilities, and other groups. If you're struggling, look up crisis hotlines (and texting helplines) and put a couple numbers in your phone so they're ready if you need them.*

No overview of mental health would be complete without mentioning the darker sides of the internet. This amazing invention, which facilitates and excites our lives in a million ways, also zaps us with some seriously hard, disturbing conundrums. Obviously video games are a wonderful pastime for many youth—but, if gaming is all you do (and if it's been more than a few months since you left school), consider whether you could use some help balancing out your life. Same thing goes for social media use: study after study links it to depression, anxiety, body image concerns, and other painful stuff. Fortunately, there are apps and other resources that help people self-regulate and use social media more positively, but you have to decide to be proactive. Also: porn addiction. Our brains and bodies just didn't evolve to cope with the 24/7 availability of explicit videos and images. I can't tell you the best resources for addressing this challenge, but you'll find many if you look. What I can tell you, courtesy of twenty-four years with *Not Back to School Camp*, is that this is a scary and even debilitating issue for many youth, especially young men. I'm putting that in words right here to

emphasize that you are not alone, there's no shame in being overpowered (your body is following its natural logic), and you deserve better. If you aren't dependent on porn, you are going to enjoy way more thrilling and intimate relationships throughout your life.

Finally, a word about community. If you're attempting to both direct your own learning and cope with mental health issues, that's already a lot on your plate. Building community is essential, but it's also one more thing that can suck up limited energy. For that reason I strongly urge you to look in your area for communal spaces that support self-directed learning: Liberated Learners centers, free schools based on the Sudbury model, Agile Learning Centers, or independent organizations. Although such programs are not typically set up (or funded) specifically to treat mental health issues (and they may not be a good fit if your challenges are significant), youth with anxiety and depression do often find meaningful support and connection therein.

Health in general

A few key choices help humans thrive. Eat real food (as whole, unprocessed, and freshly prepared as possible). Move your body often (not mere once-daily exercise) and in lots of ways. Sleep enough. Get outside every day into the light. If you know you have habits that aren't good for you (consuming too much sugar or alcohol, lying around on the couch nonstop), figure out how to change that, enlisting support if needed. Learn to find calm through mindfulness. Do stuff that makes you happy, challenges you in an interesting way, and feels meaningful. Contribute. Nurture close connections with family and friends—in real life, complete with touch and hugging if that works for you, not just on screens.

Then build all these things into a reliable daily or weekly structure. It's easy to demonize the idea of a routine, since externally-imposed schedules tend toward soul-sucking (school) or even cruelly devastating (sweatshops that produce our shirts and shoes). But when our days have a rhythm that serves life, that's different, and the repetition itself is part of what keeps us happy and healthy. For support in setting up your own life-of-recurring-gloriosity, search online for "habit change." Or read Christine Carter's *Sweet Spot*, James Clear's *Atomic Habits*, or Gretchen Rubin's *Better Than Before*. You'll find an abundance of strategies that make this process utterly doable—one of the closest things I've found to magic in my own life.

To geek out further about health, gazillions of fascinating resources await. Flip back to the human anatomy section under "Biology" in Chapter 20 for coloring books and other ideas. The 610 section of your library has books on addiction, depression, drugs, eyesight, food, genetics, germs, herbal medicinal teas, how doctors make decisions, neuroscience, pandemics, sexually transmitted infections, skin care, and hundreds of other health topics. And the internet abounds with information on every imaginable facet of human bodies and minds—how they work, and how to care for them.

Driver's education

Rules and options vary from state to state. Many homeschoolers contact a local school and easily arrange to take a course there. Most school districts offer summer driver's ed classes which should not be difficult for you to sign up for. You can also learn on your own (with an adult present) by getting a permit and then passing a test. Or take private lessons. The homeschooling organizations in your state will know the options.

Auto shop, wood shop, industrial arts, etc.

You'll find heaps of online videos, books, and community-based classes. Or apprentice yourself to a mechanic or a cabinetmaker. In GWS #38, a mother writes:

My son (twelve) and I are taking a small engines repair class two nights a week, through adult education. This is the same class taught to the junior high kids, but in the evening. We bring our own engines to repair. It is attended mainly by retired gentlemen, but this time my 72-year-old mother-in-law and my son and I add a little variety to the class. We've really learned a lot in spite of all the help we got from these very nice old men who couldn't believe we were capable. So far we have repaired three lawn-mowers and a go-cart. This includes grinding valves and installing new piston rings and gaskets.

John Boston writes in GWS #42 about his son Sean, fifteen:

When the high school would not let him take Auto Shop without signing up as a full-time student, he enrolled in a Regional Occupational Program auto course, even though he was below age sixteen. He now attends a weekly class session, with hands-on training on our old truck and car, and spends three mornings a week at a local auto parts house.

Personal finance

You'll find resources and suggestions in the Economics section of Chapter 22, Unschooling the Social Sciences.

Home economics

Home economics (a.k.a. "family and consumer sciences"), seems to have dwindled in popularity as a school subject. But regardless of its status in school, the subject itself remains important.

Home economics is all about the fundamental workings of our lives: the way we spend our money, what we eat, how we heat our homes, what clothes we wear, the

skills and knowledge with which we engage these things. Your library has plenty of how-to books to help with all of it, from baking bread to sewing your own leather jeans. Arm yourself with a few great basics, like Samin Nosrat's *Salt, Fat, Acid, Heat: Mastering the Elements of Good Cooking* (which, by the way, includes the very unschoolerish story of how Nosrat pursued her dream of learning to cook amazing food). Online videos are another never-ending treasure trove. For in-person instruction, look online, check out community education agencies and 4-H, and see the bulletin boards of yarn and fabric (etc.) shops.

Home economics really is economics, in the deepest sense. It's about the way our food, garbage, shelter, and consumption fit into the world. All the popular books and blogs about thousands of ways to save the earth are in fact home economics books—when you opt to bicycle instead of get your dad to drive you, buy locally grown fruit, and eat grass-fed beef, you are making home economics decisions that help the greater economy—the economy that is bigger than your own home life, and far bigger than money.

Maybe you'd like to build a house or two

To develop one of the ultimate “life skills,” learn to shelter yourself. Pick a standard method, such as timber frame building, or an innovative method using more sustainable resources, such as straw bale or cob or tires (“earthships”). I've listed a few ideas in the Architecture section of Chapter 25, *Unschooling the Arts*. Rosie Records, thirteen, of California, writes:

My mom was (I think) the first one in the family to hear about natural building. She had become interested in strawbale and told me about it; I'd made a mental note of it as something interesting to try out later, then pretty much forgotten about it. It was still something of a wish to eventually have my own, well-insulated, hopefully strawbale, as-naturally-built-as-possible house, but I didn't start to think about it as something I could actually do (outside of the hazy future) until I went to Not Back To School Camp '96. I went to [a staffer's] natural building discussion and heard about building codes and rebar and R-value, most of it for the first time. And I was inspired by [a] solar oven (and the delicious taste of the cookies from it!). I bought a how-to book and constructed my own solar oven out of salvaged plywood, glass, screws, and cardboard, and realized that building was something that fed my heart.

In June of '97 I went to the second annual Women's Natural Building Symposium. With fifty other women I plastered, thatched and sculpted on a lovely, small clay-earth-and-straw (cob) house, and fell in love with the atmosphere of mutual creativity and strength. As a woman, I find the sense of power and self-confidence that comes with building very rewarding. To possess the skill to make shelter is something very special, and it ties in with my love of nature. Unfortunately, I live in the suburbs, so my opportunities for building are few, but I know that one of my main goals is to

make a cob/straw-bale/wood/salvaged materials house on my own piece of land, or more immediately to apprentice and learn more of the ropes about it.

Graduation

is one of the closest things to an initiation rite that you can get in our culture. In public school, graduation is often impersonal and boring but nevertheless an important ceremony. Be sure to somehow celebrate your own passage into adulthood. Your options are endless and potentially far more meaningful than an ordinary “commencement exercise.” Create an elaborate ritual, plant a tree, or simply let your family and friends take you out for dinner and make a toast in your honor.

To prepare, you might research global rites of passage such as vision quests and potlatch feasts. See what your own ethnic or religious heritage has to offer. Or ask a mentor to plan an event for you.

Of course, you could “graduate” at sixteen or nineteen—there’s no reason it has to happen at eighteen. You might time it around a natural transition like completing a major project, applying for college, or moving into your own apartment. In GWS #77, Dawn Bowden describes her ceremony:

It was just my best friends and my relatives and neighbors. Manfred and Barbara [of The Learning Community, a private school that helps homeschoolers] stood up and talked, and presented me with a diploma, and they each gave me presents.

It was so nice, because it was even more recognition than you get when you graduate from a normal high school. They both said something to me; they didn’t just say something in general to a class of five hundred.

Prom!

Some unschoolers go to local school dances. And nowadays many state-based homeschooling organizations host proms. Or maybe you’ll organize your own elegant unforgettable romantic ball.

28. the call of the wild

Oh yes, I went to the white man's schools. I learned to read from school books, newspapers, and the Bible. But in time I found that these were not enough. Civilized people depend too much on man-made printed pages. I turn to the Great Spirit's book which is the whole of his creation. You can read a big part of that book if you study nature. You know, if you take all your books, lay them out under the sun, and let the snow and rain and insects work on them for a while, there will be nothing left. But the Great Spirit has provided you and me with an opportunity for study in nature's university, the forests, the rivers, the mountains, and the animals, which include us.

—Tatanga Mani

I have always been grateful for the trust my parents have extended to me and my siblings. My brothers started backpacking, hunting, and camping without adults in their early teens. I first backpacked without adults at sixteen—me and those two little brothers in the Sawtooth range. Richard dropped a big rock on his foot so Ned and I took turns carrying his pack. We drank the water without purifying it; we spilled propane on our shortbread cookies; we brought enough trail mix to feed the world. We had a great time.

The freedom and encouragement my parents gave led us all further into the wild. I took a mountaineering course in the North Cascades and backpacked alone in a remote corner of Peru. Ned and Richard spent weeks kayaking through the Sea of Cortez in Mexico. Richard sneaked around in the Amazon when his host family thought he was in Guayaquil. He took two National Outdoor Leadership School courses and traveled extensively in Alaska by boat, solo. Ned kayaked around Greece and biked through Turkey. My mom worries, but she always gives her blessing. This parental blessing is essential. Do whatever you can to cultivate and earn it in your own family!

We often associate outdoor activities with the heat of summer. In summer school's out anyway, of course, so people who want to walk boulder fields can do that and also be a Star Pupil. There is plentiful support for such opportunities, because most teenagers (and college students) can already take part in them.

The summer wildernesses, however, get more crowded every year. You might as well take advantage of September, October, and the other seven best reasons to quit school. If you live in a northern climate, it helps to have a big mind like glorious generalist John Ruskin, who said, "There is really no such thing as bad weather, only different kinds of good weather." Even if you don't want to camp in a snow cave because you're a cold-wimp like me, you will find that spring and fall are enchanting backdrops for



outdoor activities, with their slanted light, mating elk, colored leaves, wet flowery meadows. Or if you have the money you can always head south.

If you are lucky enough to have parents as trusting as mine were, there's no limit to the possibilities. I do have a few words of encouragement and warning.

First, encouragement

Overall, young people growing up now seem far more sophisticated in some ways than my peers and I were. They know and care more, for example, about the world, the environment, and people who are starving.

On the other hand, I see distressing signals that young people are increasingly softer, more cautious, overprotected by parents and other adults. I suppose it's a reflection of our broader society, which often reeks of a squeamish "better safe than sorry" mentality, with constant lawsuits and complicated sanitary codes and endless restrictions. Gumption and bravery are not especially in fashion.*

Ignore fashion. The wilderness does not come in a Styrofoam package, and you may never make sense of it, but so what? If you proceed with care, you are not going to die or get hurt outside. Well, you might—but it's far more likely you'll die or get hurt in somebody's Chevrolet. Anyway, neither dying nor getting hurt are anywhere near as unhealthy as avoiding life.

Now, a warning

Get your adventure on, but don't make trouble for yourself by going unprepared. If you don't already have outdoor skills, learn them in the company of people who know what they're doing. Take a first aid course, ideally a wilderness-specific one. Choose equipment and clothing carefully, so you don't get hypothermia in wet cotton jeans. Don't confuse stupidity with bravery.

Companions & guides

You don't have to take a course to learn outdoor skills any more than you have to go to school to learn history—just tag along with experienced outdoorspeople. If you don't know any yet, find them through online meetups or other social media, by posting a note on bulletin boards of outdoor equipment stores, or by contacting local mountaineering clubs. Also use social media and the internet for planning trips and finding companions further from home. But don't rely completely on others' knowledge; study up a bit on your own too:

Resources

Excellent starters are The National Outdoor Leadership School's Wilderness Guide, or the San Diego Chapter of the Sierra Club's Wilderness Basics. For any outdoor activity, these books provide key information on safety, technique, and equipment. Plus, they teach minimum-impact camping—how to not hurt the wilderness while you enjoy it.

The Natural Navigator: The Rediscovered Art of Letting Nature Be Your Guide, by renowned outdoorsman Tristan Gooley, offers tips you won't find anywhere else. Learn to find your way by reading clues from the sun, moon, stars, land, sea, weather, plants, and animals. (Or start with Gooley's TED talk for a taste of where his work might help you go.)

Seek out what's current in online "wilderness skills" and "wilderness survival" videos and other resources. REI is a good place to begin, with advice on everything from camping to climbing to paddle boarding.

Outside magazine (print and online) covers a wide range of outdoor activity—and its information is high quality, edge-pushing, and practical. Bonus: excellent outdoor schools, expeditions, and supplies are reviewed and advertised.

Mountaineering: The Freedom of the Hills, from The Mountaineers, is an enduring (and regularly updated) classic. Also seek out specialized, current guides (or online resources) for activities like bike touring, ski camping, river camping and sea kayaking.

Organizations

If it's hard to find informal guides, consider an organized trip. There are excellent national schools, as well as hundreds of local ones all over the U.S. Programs vary from almost free to extravagantly expensive. Some teach beginners; others gather experienced climbers for an "assault" on Aconcagua or Annapurna. Nationally speaking, the two old-timers are still considered among the best. They are far from cheap but sometimes offer scholarships:

The National Outdoor Leadership School—in courses that last approximately a month or a semester, you can learn to backpack, horsepack, cross country ski, ice climb, kayak, etc. The courses themselves are usually extended wilderness trips through stunning areas like the North Cascades, Alaska, or the canyons of the Southwest. You have to be at least fourteen (but older for some courses).

Outward Bound is also a good place to learn skills; it is equally known for emphasizing "personal growth"—deliberately pushing the limits of your endurance and courage. Again, opportunities range all over the place, from backpacking and climbing to rafting.

For an approach that's more focused on nature connection than on activity, yet still adventure-packed, check out the camps and expeditions offered by the Wilderness Awareness School in Washington.

Or, spend far less money by taking a course close to home through the outdoor program of a university, the YMCA, your community parks and recreation department, or mountaineering (etc.) clubs. Look for groups through social media or via bulletin boards in outdoor equipment stores. The Sierra Club runs outings both nationally and through local chapters. (If you're an experienced outdoorsperson, consider volunteering with the Sierra Club's Inspiring Connections Outdoors program.)

Speaking of volunteering, search online for ways to help out on public lands—such as planting trees, maintaining trails, rebuilding cabins and shelters, or working on living history farms.

The academic wilderness

It's possible to combine a love of the outdoors with study projects such that you could spend a whole year strolling the Appalachian Trail with your dog and give the school board nothing to complain about. Here are some ideas, but first I must preach:

I have this horrible vision of wandering through the Chiricahua mountains and stumbling upon some teenager who read this book. All around him are strange towers of volcanic rock. The sun going down splashes eternity everywhere. He sits hunched under a tree, reading a geology textbook, memorizing terms. Then he gets out his *Appreciating Art* book and dutifully studies the paintings of Monet and Van Gogh. Please don't be him.

A lot of the beauty of spending time outside is the beauty of simplicity—stripping away distractions and conveniences so your soul lies naked, ready to be touched. There's often much more to be learned from receptive observation than from contrived academia. If you incorporate one or two of the following ideas, you may enhance your next excursion. Try to do it all, and you might as well stay home and nail a poster of Yosemite over your window.

Conduct field research. Be a zoologist, ornithologist, botanist, or geologist. Collect, observe, experiment. Ask questions. Record your findings. See the section “Be a Naturalist” in Chapter 20.

Read background information. Find a naturalist's guidebook that describes the plants, animals, and geology of the region. Ask a ranger station for suggestions, or check the bookshelves in a nearby outdoor equipment store.

Make art. Paint, photograph, or sketch what you see, whittle an elegant walking stick, or work on a pre-existing project that's portable. I bring embroidery—it's small, and it's meditative while I'm sitting on a rock.

Write. You don't have to compose an ode to a tree or heron; you could just work on your sci-fi novel. There are, however, some great inspirations—people who write essays, poems, memoirs based on their outdoor experiences. Many of the more contemplative nature writers (such as Barry Lopez, Annie Dillard, Ed Abbey, and Peter Matthiessen) combine tales of adventure with profound commentary on life, the universe, and ev-

everything. They may not hunker down for long writing sessions while they're out in the woods, but they do take notes or keep detailed journals. Unaided, memory fails.

Read. "Nature writing" like that mentioned above is an obvious choice. But you can stick anything in your backpack or on your phone: Thoreau, Emerson, Blake, Gary Snyder, Mary Oliver, the Tao Te Ching. Native American literature is a fitting companion in the American wilds—consider Joy Harjo's poetry anthology, *When the Light of the World Was Subdued, Our Songs Came Through*. Go for profundity. Jane Austen's world of social etiquette, delightful as it is, may seem petty in contrast to the mountains surrounding your tent.

Explore the relationship between people and wilderness via sociology. When you meet someone on the trail, introduce yourself and request permission to ask questions. Conduct a survey—why are they there? Do wilderness experiences make them nicer to their kids? When they are in an empty canyon is their belief in a God strengthened or diminished? How is their attitude toward wilderness different from their attitude toward their own backyard? Write up your findings and share them on a blog or look for a place to have them published. And check out others' wilderness sociology. For instance, Joseph L. Sax's *Mountains Without Handrails* questions the notion that wilderness vacations are merely a privilege of the elite.

Finally, don't shut yourself off to other ways of learning—quiet observation, meditation, stillness.

Unschoolers without walls

Sarabeth Matilsky decided to do something "Big," and soon translated that decision into a plan to bicycle from Virginia to Oregon, following Adventure Cycling Association's TransAmerica bike route. When she stopped at the ACA headquarters in Montana, they said she was likely the youngest solo female (at seventeen) to ride the route since its inception in 1976. You can read her riveting and thoughtful book, *First Journey*, for free online. (I prefer the version at Sarabeth's own website, *Life is a Palindrome*.)

British unschooler Shawn Hargreaves, thirteen, joined with five other teenagers to organize a sailing trip. At last report they were sailing with the boat's two adult owners, but they themselves were sharing responsibilities for planning expeditions. GWS #72 quoted him: "The experience of sailing 1,300 miles and taking responsibility for the ship and its crew has changed me a lot. I am much more confident and self-reliant, and can work better with other people."

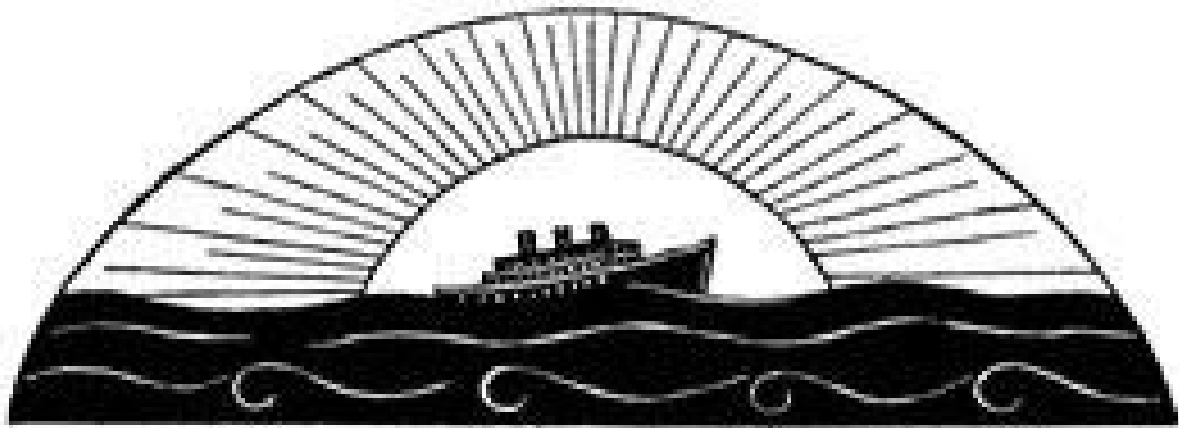
Dan Casner, twelve, of Wisconsin, writes:

Last winter a friend, my brother, and I decided to go out into the woods near my friend's house (they're not much of a woods, just uncut lots) and see what animals we could find. Along the way we learned a lot about other things—plants, and we found a fox den and lots of other tracks including deer tracks. But through all the weeks we went out there we never actually saw a fox, although we always found fresh tracks

and other evidence, like leftovers of uneaten rabbit from a kill. We learned a lot about animal tracking. But we didn't do nearly as much as we would like to because my friend goes to school. This year we think it will be fun to try again, and fortunately the lots are still uncut.

So I've started researching. Sleds, survival, camping, winter ecology, the study of snow and ice, animal tracking. My mom still helps me to find people to talk to who have experience in these fields. And I've also looked for information in four libraries, including our home library. Learning to do the research has been as big a part of this undertaking as the research itself. Narrowing the search on computer catalogs to headings that were useful—at first I went through 193 titles because I didn't know how to narrow the search I wanted. Asking reference librarians for help and finding out how to ask the real questions, finding that some reference librarians were more helpful than others, learning to skim books and other materials to find what was wanted without wasting time on entire books that did not hold the kinds of information required. The range of books has been quite broad: from Owl's Winter Fun to the Boy Scout Camping Badge Book to Winter: an Ecological Handbook.

29. worldschooling



Something hidden. Go and find it. Go and look behind the Ranges—

Something lost behind the Ranges. Lost and waiting for you. Go!

—Rudyard Kipling*

Unfortunately, the world is not a classroom. It is difficult to find *An Introduction to Geography* and other marvelous books like that when you are changing trains in Bolivia or setting up camp in the Canyonlands. Without a chance to do lots of homework assignments on latitude and longitude, unschooled teenagers are surely handicapped and shall remain uninformed throughout their lives. Some bravely try to make their way through the world anyway. It's a wonder they're not all drowned or lost.

One of the more outrageous unschooling stories is that of Robin Lee Graham, who quit school in 1965 at age sixteen and sailed around the world alone in a boat named *Dove*. It took five years. His book, also named *Dove*, tells of all kinds of things no teenager should be allowed to face—battling loneliness and storms, losing a mast, falling in love in the Fiji Islands, feasting on shellfish in the Yasawa Islands and on roast pig and papaya with Savo Islanders, traveling with dolphins and cats, motorcycling through South Africa. “Was I different just because history didn’t turn me on and boats did?” he asks. At the age of thirteen he had already spent a year sailing in the South Seas with his parents. Then,

At fifteen I was back in a California classroom, my spelling still lousy, but I was almost as useful with a sextant as a veteran sailor. On our 11,000-mile voyage I had seen lands of unbelievable enchantment.

It is hard to believe that my parents, having allowed me to sail the South Seas at a most impressionable age, could ever have expected me to be a typical American schoolkid, to go on to college and graduate to a walnut office desk, a home on Acacia Avenue and membership in the local golf club.

I am sure Corona del Mar's high school is a good one. For me it was a return to prison. Beyond its asphalt playground and wired fences there were sun-splashed, palm-fringed shores waiting for my shadow.

[Later that year, while making secret plans to sail away with friends, Robin says:] School became almost unbearable. It wasn't so much that I disliked learning—for I realized the need to be at least partially civilized and my grades were average—but that I detested the routine of school days, the unchanging pattern from the brushing of my teeth to learning English grammar. I came to hate the sound of the bell that summoned me to class, the smell of tennis shoes and sweat in the gym, the drone of history lessons, the threat of tests and exams.

Down at Ala Wai harbor it was all so different. I loved the smell of rope and resin, even of diesel oil. I loved the sound of water slapping hulls, the whip of halyards against tall masts. These were the scents and sounds of liberty and life. ☒☒

When Robin completed his voyage, Stanford invited him to enroll. He tried it, but quit after a semester to start a life of homesteading in Montana. (Read about that in his second book, *Home is the Sailor*.)

I know people are not used to the idea of teenagers roaming on their own, despite the examples of occasional Robin Grahams. If you totally panic at the thought of exploring strange territory without your mother, perhaps independent travel is not for you. (Yet.) But if excitement surges along with the panic, maybe start fantasizing with maps. No significant legal barriers prevent teenage travel, and if you think you're ready, maybe you are.

Why to travel & why not to travel

Why to travel: It's cheaper and more educational than private school, not to mention one of the most exhilarating experiences available to our species. If you choose your destination carefully or don't go far, it can be no more expensive than public school plus the food and electricity you consume at home. In *The Next Whole Earth Catalog*, Kevin Kelly wrote, "The drifters of Europe in the sixties invented a contemporary form of education: extended world travel. At about \$3,000 per year, all adventures included, it is still the cheapest college there is."*

I will spare you a big gushy sermon about the joys of travel—you can make one up for yourself while gazing at a poster of a Marrakesh market. I will say that international travel is a timely pursuit as we continue to shift into a more global economy and awareness. The U.S. is no longer The World Power. We have no excuse for arrogance. We need to learn from and about the rest of the world.

Why not to travel: because I said to, or only to learn about people in other countries because the U.S. is no longer The World Power. Or because you think it's better and braver than staying home and paying attention to your carrot patch, 'cause that ain't necessarily so.

Organizations that support teenage travel

The renowned Unschool Adventures, founded by quintessential adventurer and unschooling proponent Blake Boles, takes groups of ten to twelve teenagers everywhere—Argentina, Nepal, New Zealand, and beyond. One of the many excellent things about UA is the way it honors (and fosters) independence, with participants often responsible for key things like itineraries and meal planning. (And yet as of this writing, in their first thirteen years UA has never had a serious injury, assault, or hospital visit.)

Project World School hosts temporary “learning communities” for self-directed teens in a range of countries.

The Center for Interim Programs is the first and longest running gap year consulting service in the U.S., with many travel opportunities available.

The Council on International Educational Exchange runs a variety of programs, such as Service and Leadership in Toulouse, France; Arabic Language and Moroccan Culture in Rabat, Morocco; and High School Abroad in Brazil. The CIEE exists “to develop, serve and support international educational exchange as a means to build understanding and peaceful cooperation between nations.”

Hostelling International (also known as American Youth Hostels). Through membership you can stay in worldwide hostels cheaply, though unfortunately many now require that youth under eighteen be accompanied by an adult.

Volunteers for Peace offers projects in over ninety countries for volunteers of all ages. Options involve construction, restoration, agricultural or environmental work—like landscaping a public park in Morocco, or renovating an old church in Spain. These projects bring together ten to twenty volunteers from different countries, and typically run two to three weeks. VFP says that their programs

are an inexpensive way to travel and a very effective way people can promote international goodwill. . . . Your readers can live and work in one or several . . . communities for two to three weeks at each site. . . . [Many] people volunteer with VFP by registering for a number of consecutive workcamps in the same or different countries and thereby spend several months abroad. . . . Through tangible work projects, and the challenges of group living, you can create a more positive and hopeful vision for the world and our future. In short, workcamps are places where the power of love and friendship can transform prejudice.

World Wide Opportunities on Organic Farms is a networking organization that operates all over the world. Many unschoolers have raved about their experiences as WWOOFers.

Search online for “volunteer travel” or “volunteer vacations” to find additional organizations that sponsor programs around the world. You’ll find opportunities of all kinds, from excavating ancient cultural sites in Romania to helping people with disabilities vacation in Britain.

Travel companions & informal arrangements

Use social media to find traveling companions or people who can host you. Check them out carefully, of course, before you make concrete plans, since the internet is notorious for its potential in hooking up sweet naïve people with dangerous tricky people.

If you have pen pals, arrange to visit them. See the Geography section in Chapter 22.

You can always start traveling on your own, staying in hostels, and then link up with other travelers. If you’re female, trans, or non-binary, do consider the unfortunate gender-related hazards of being alone. However, know that in many developing countries you are more likely to be verbally harassed than physically harmed.

Pairing travel & academics

Travel is enough education all by itself. You don’t need to cram in scholastic stuff to make it meaningful. Still, a few thoughtfully selected cerebral endeavors might elevate your trip. Pick and choose:

Go to museums. Art, cultural, science, history museums. Take your time and remember to forget school-field-trip mode.

Read about the area’s history, geography, natural history, culture, politics, art, or anthropology. Choose a book or two before you leave home, while you’re in planning mode, but look for more once you’ve arrived—local publications offer details and viewpoints you won’t find elsewhere.

Keep a journal. Source from your journal for letters, essays, or blog posts. While unschooler Britt Barker traveled, she described her adventures for a weekly newspaper column back home in Ohio. These columns were later published as a book, *Letters Home*.

Keep a naturalist’s journal of plants, animals, weather, and geology. Or make collections of rocks, feathers, etc.—after reflecting on the ethics and verifying the legalities thereof.

Take photos. Pay attention to composition and other aesthetic concerns. Be an eye-opener and capture scenes that most people wouldn’t think of recording. Or sketch people, buildings, landscapes. (Ask for permission, of course, before photographing or sketching people.)

Conduct oral history interviews. Record them with a phone or other simple technology. Or, simply record the sounds of your trip—a train ride shared with goats and farmers, an evening in the town square with kids playing and music wafting.

Speak the language. If in a linguistically-foreign country, avoid English and speakers thereof.

Read novels or watch movies which take place in your destination—before departure, or en route.

Resources ~ how to travel

The Transitions Abroad website is packed with in-depth, practical resources for work, study, travel, living, and volunteering abroad. They seek to support “the person who wants to travel, really travel, without being a participant in mass tourism,” and to encourage practices “that seek to benefit locals in their home countries at least as much as the visitor.” Recent postings: “10 Reasons Why Teens Should Volunteer Abroad,” “A Year Living and Working in New Zealand,” “Nine Volunteer Endangered Animal Projects Abroad,” “How to Fund Your Study Abroad,” and “How an Internship in China Can Lead to a Dream Job.”

Work Your Way Around the World, by Susan Griffith. Covers the regulations for working in various countries, and includes information on volunteer positions too.

Vagabonding: An Uncommon Guide to the Art of Long-Term World Travel, by Rolf Potts. A quick read with inspiration, practical tips, and thoughtful discussion of what the title says—not short vacations, but rather extended, meaningful travel.

Blogs and podcasts! Since travel literally takes us out of our literal comfort zone, life’s everyday challenges are often exacerbated. Some of these challenges are awesome and help grow our souls; others are best outsmarted. The multiverse of travel blogs and podcasts addresses these difficulties with helpful specificity: traveling in a sexist world as a solo female adventurer, traveling in a not-so-accessible world with a wheelchair, traveling amidst racism as a person of color, amidst homophobia and transphobia as a queer, trans, or gender non-conforming person. Or traveling with little money or with anxiety or as a young person or as a would-be volunteer who wants to avoid unethical situations. And if by chance you don’t find the perspective and advice-category you’re looking for, perhaps that’ll result in a brand new blog or podcast with your own name on it.

Guidebooks

A guidebook (print or electronic) offers detailed information about a particular country or area, including logistics. Search the internet to see what’s currently available and how the various series and publishers differ. And don’t miss these:

Lonely Planet started out to help with adventurous off-the-beaten-track travel, but has expanded into the beaten tracks as well. Titles range from Walking in Australia to

New Orleans to Southeast Asia on a Shoestring. (The “Shoestring Guides” are written for low-budget travelers.) With a sort of hippie mentality, the Lonely Planet people view travel as a vehicle for positive social change and learning. Check out their excellent website also, with tips, videos, and more.

South American Handbook, edited by Ben Box. Fine print, fat, a stunning amount of information.

Wikitravel—a free, crowdsourced travel guide to the whole world.

The 917.3 section of your library—U.S. geography and travel—offers an incredible variety of domestic trip ideas. You’ll find all manner of books about American exploration—stories of people who’ve done it and advice on how to do it, general and specific: Great American Mansions; National Park Guide; Discovering Historic America; Cavers, Caves, and Caving. Zooming out: all through the 910s and the 930s-990s are books about worldwide travel and geography.

Unschoolers at large

In GWS #52, Dick Gallien writes:

Just got a call from Linda Salwen of New York. . . . Her homeschooled fourteen-year-old son found the money, which included \$500 from the local paper, to fly with his bike to California where he has started biking alone back to New York to raise money for either peace or world hunger. . . . Next year he is planning on biking in Russia.

In GWS #87, Jo Anne Noland of Kentucky writes:

My oldest son, Greg (sixteen), is spreading his wings as we watch in wonder. Last summer he spent a month in France with a French family. This was a wonderful experience for him and his French improved greatly. . . . He traveled to northern France visiting castles, tried new foods, and enjoyed vacationing in the south of France with his family. He earned all the money for this trip from babysitting and bussing tables where I am a waitress. At fifteen he flew by himself without a group or chaperone. He missed one plane connection from Paris to Lyon, but solved the problem by catching a later flight and calling the French family to alert them of the change. . . . His friend from the French family is coming to stay three weeks with us [this summer] and Greg has been invited to visit them again in August.

Unschooler Anita Giesy, of Virginia, spent her “senior” year working in a grocery store to make money for the next stage of her education, a year-long trip driving around the country. In planning the trip, she writes (in GWS #74):

When all my friends were trying to decide what they were going to do after high school, I started doing the same thing. Among my friends, there seemed to be three choices going around: go to college, get a job, or join the military. I decided that the military wasn’t for me. I thought about college, but decided that this wasn’t the right time for me. Looking at where I wanted to go and what kind of career I might want, and thinking of all the people I’ve heard about who changed their jobs halfway

through their lives to do what they always wanted to do, I decided that if I want to do something that takes a college degree, I can get one later.

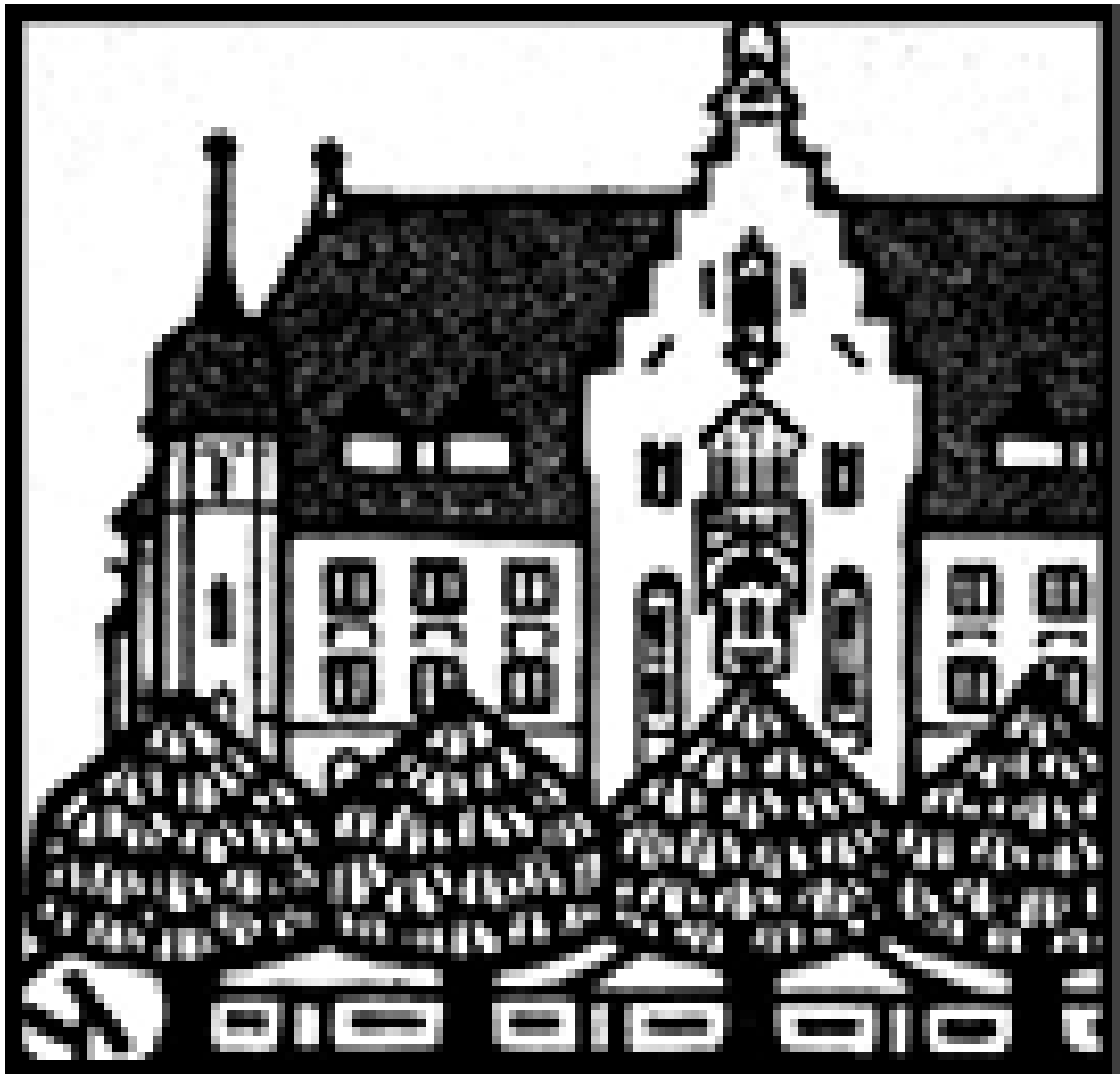
So I looked at what I wanted to do with my life now and I decided the answer was travel. That is when I conceived my plan to see America. . . . Different lifestyles, cultures, and ways of doing things interest me.

I have a good friend in Massachusetts who I met through GWS. In the summer of 1987 I went up to her farm for a week and became a part of her family. She taught me about taking care of her horses and I helped out, including cooking, and I went with her to various community activities. After that visit I went up two more times. Five days after I got my driver's license, I started on a two-week driving trip to Massachusetts and back. That's the kind of thing I'd like to do with other families across the country, to come in and live as a useful member of the family.

After this letter appeared, about forty families invited Anita to stay with them. Midway through her journey, she stayed with me. She told me about unschooled families and teenagers she'd met: Michael, nineteen, now in college to become a Greenpeace-style lawyer, paying his way through by working in a camera shop and doing photography on the side; Matt, sixteen, a computer hacker and programmer. And she told me about the structure of her trip. She takes time every evening to write in her trip journal, with the idea of possibly writing a book about her experience. The pace of her journey has worked well—five or six days with each family gives enough time to get to know them. To other young travelers, she advises that the most important thing is to be adaptable, to consider it all an opportunity to learn. "As long as you don't have any particular expectations," she says, "Everything that happens is a bonus." Anita gave me a copy of an article she'd written for a homeschooling newsletter. Part of it says:

So I planned it all out and on September 8, 1990 I set off on my great journey. From Virginia, I went criss-crossing the south out to California, staying with homeschooling families all the way. I've been as far south as Florida and New Orleans. Before I'm done, I'll go as far north as Vancouver, Canada. The families have been wonderful and I've been able to live, work and play with them. The first family I stayed with, the father was a potter. The day after I arrived was clay mixing day and I helped mix one ton of clay. I stayed with a midwife and got to go along on a birth. I stayed with a college art teacher and got to model for his art class. Every family is a new learning experience and a new friend. And I guess you could say, I've gone from a homeschooler to a worldschooler.

30. college without high school



How we spend our days is, of course, how we spend our lives.
—Annie Dillard

I imagine that Grant, Drew, and Reed Colfax are tired of being invoked as proof that you don't need grade school, middle school, or high school to get into Harvard. So I won't mention them, or Grant's post-Harvard Fulbright fellowship, or the list of other colleges such as Yale, Princeton, Amherst, and Haverford which also admitted them.

Yes, unschoolers can go to college

We don't hear about them when they go to the University of Montana, and they no longer make a media splash when Harvard welcomes them. Lots of people saw the Colfaxes on TV back in the eighties, but few know of, for example, unschooled Elye Alexander who was accepted both to Harvard and Middlebury College. (His interests included writing poetry and studying insects and birds. Also, he was a state medalist and a black belt in Tae Kwon Do.☒☒) There were no talk shows or big headlines when Dawn Shuman was accepted by Bennington, Carleton, Hampshire, and Reed colleges. It is no longer an exception or an unusual occurrence when unschoolers get into the most elite institutions, hardly even worth mentioning anymore in homeschooling circles. Some colleges actively recruit homeschoolers. It's now commonly understood that unschooling does not, in itself, harm your chances to get into selective colleges. In many cases, it seems to improve the odds: perhaps by making an application unique, but more likely just by making it possible for people to get really smart, and moreover to get to know themselves, before they apply.

The hundreds of U.S.* colleges and universities that have admitted homeschoolers include Amherst, Antioch, Boston University, Brigham Young University, Brown, Caltech, Carleton, Carnegie-Mellon, The College of William and Mary, Colorado College, Duke, Duquesne University, Evergreen, Harvey Mudd, Juilliard, MIT, Michigan Technological University, Northwestern, Oberlin, Princeton, Rice, St. John's, Sarah Lawrence, Swarthmore, Texas A & M, Wellesley, West Point, the U.S. Naval Academy, the U.S. Air Force Academy, the University of California, the University of Pennsylvania, the University of Pittsburgh Honors College, Williams, and Yale.☒☒

Indeed, the question is no longer "Can unschoolers get into college?" but rather "How can unschoolers best and most clearly present themselves to admissions departments?" The edge cutters in college admissions are no longer mere unschoolers, but rather unschooling test resisters—that is, unschoolers who also refuse to take standardized entry tests—and people who are admitted to graduate school without having completed undergraduate degrees.

Will unschooling affect your ability to get into college? Probably not. If you were on the path to the Ivy League when you were in school, you can stay on it out of school. If you were planning to go to a state university or community college, those doors remain open also. What may change: you might become a more interesting, skilled, and knowledgeable person—one whom selective colleges find more enticing. Or your values may change, and you decide to work toward something else instead of college.

Maybe you don't need to think about this stuff yet, or The Magic Portal of Community College

Despite the fact that for decades now I've witnessed unschoolers growing up and getting into college, I confess that for a long time I retained an overall perspective like "of course they can get in, but it's kind of complicated." And then one day I was talking with Ken Danford, co-founder of the Liberated Learners movement. Ken has a way of cutting through all kinds of hogwash, and at one point he leaned in, smiled, and lowered his voice. "Isn't it cool," he said mischievously, "That in this country a kid can spend his teen years building forts in the woods or whatever else he wants to do, and then when he decides he wants to go to college he can just register for community college and go from there?" Yes, I wholeheartedly agree, this option for pivoting suddenly into academia is a wonderful choice for many. Community (or "junior") colleges in the U.S. are typically open enrollment, meaning that once you are eighteen you don't have to apply (or have graduated from high school or earned a GED); you basically just sign up. (You might need to take a placement test that helps determine which classes you are ready for.) Many unschoolers find that after a year or two finding their feet in a community college, it's natural to transfer to a more selective four-year college and potentially even go on to grad school. If you or your family feel anxious or confused about the whole realm of college, tuck this idea in your back pocket and carry on building those forts in the woods.

College now

An interesting tangent of the unschooling/college issue is the possibility of beginning at an early age. If you plan to go to college eventually, maybe you would like to go now. Unschoolers often find that while high school is a waste of time, college skips the busywork and gets right to the point and beyond it. In fact, this was a recurring pattern among the teenagers I heard from. They led unpressured lives, which gave them freedom in which to develop one or several intense interests. Thus, by the time they were fourteen or seventeen or so, many wanted to be in a challenging, meaningful (not high school) academic environment.

Homeschooler John Waldowski of Maryland, for one, took the GED at sixteen because "he felt it was a waste of time to continue with his high school curriculum if he

was capable of doing college level work, especially since his goal is to become a clinical psychologist, which will require several years of school.’☒☒

Some teenagers begin their college careers by taking one or two courses through universities or community colleges, while otherwise continuing their unschooled lives. Leonie Edwards, who began working as a dental assistant at age fourteen, also began earning college credits through correspondence courses which she could apply later toward pre-dental coursework.

Dalila Droege, fifteen, was accepted as a “special student” to Indiana University at South Bend, where she received full credit for her classes. In GWS #84, she writes:

College is a lot different (and better I might add) than the other formal school I remember. In a way, it is more relaxed and lenient. No teacher watches me to make sure I’m doing what I’m supposed to and being a good little girl. I’m responsible for my own learning. In that way, college is more like my homeschooling than elementary school was.

Some states offer a “dual enrollment” program, in which regular high school juniors and seniors (with GPAs above a specified level) take classes both at high school and at a public university. Unschooler Bronwyn Jackson, sixteen, was admitted to a dual enrollment program at Florida State University on the basis of an interview and portfolio. She was allowed to take two classes per semester for credit, and audit as many as she wanted. “The administrators at the dual enrollment office at FSU all know me by my first name,” she writes in GWS #84, “I’ve persuaded them to let me enroll in an honors course, and they have offered to write letters of recommendation to the private colleges with higher academic standards I want to attend in another year.” (Bronwyn went on to Wellesley College.) Your local or state-based homeschooling organizations will know whether it’s straightforward for homeschoolers in your area to participate in such programs.

In GWS #84, Bettie House of Texas writes:

Recently, my son’s education has taken an unusual and interesting turn, which may prove encouraging—even inspiring—to other self-educating young people. About a year ago James, now sixteen, began an earnest, intense study of math and physics. Up until that time, he had proceeded no further in math than long division. In a matter of days, he was well beyond any point I had reached in my formal, traditional schooling. He was definitely on his own. He worked through college algebra, plane, solid, and analytic geometry, trigonometry, all levels of calculus, differential equations, gamma and bessell functions, Fourier analysis, calculus of variations, vector analysis, Laplace transforms, as well as going deeply into the study of physics, including mechanics, thermodynamics, sound, fluid dynamics and statics, electrostatics, light and optics, gas laws and statistical mechanics, magnetism, and other related topics. In his studies, he relied on books he checked out of the public library, the Buffalo Creek Community School library, and books he bought.

After several months of work, James expressed an interest in finding some way of earning credit for his studies as well as finding someone who could guide him further

along. About that same time, we read an article in a local newspaper regarding the Texas Academy of Math and Science, a state-funded program whereby students with a deep interest in and a talent for math and science can, by invitation to the program, complete their first two years of college simultaneously, while attending the University of North Texas. About two hundred students per year are accepted into the program.

In spite of the fact that James has had no graded courses, transcripts, etc., since sixth grade, he was accepted by TAMS on the bases of his SAT score, letters of recommendation from three teachers, an essay, a letter from me, a personal interview, and a diagnostic math test designed by TAMS. Instead of a transcript of grades, or any other record of scores and evaluations, TAMS accepted a letter from James outlining his method and course of study along with his extensive reading list for the year. TAMS looks for students with self-motivation. James has thoroughly demonstrated that quality.

Other unschoolers enroll as full-time students in state universities. Mark Edwards enrolled as a freshman at California State University, Hayward, at the age of sixteen, after being homeschooled since eighth grade. His younger brother Cliff entered Chabot College at fifteen, and his brother Matthew was a freshman at Holy Names College in Oakland at fourteen, simultaneously working as a pianist and organist.☐¹

If you want to get a head start but also to be at college with people your own age, try this: get about two years of college under your belt while you still live at home and hang out with your old friends. Do this however you want—through a community college, online credit courses, whatever. Then, when you are eighteen, go off to college along with your peers—but as a transfer student sophomore or junior. Or, consider Bard College at Simon’s Rock, which offers an Early College program for sixteen- and seventeen-year-olds who are ready for serious undergraduate studies.

How your mature, unschooled perspective will influence your college experience

First, it should help you get into college. Maturity always does. But it will also help once you’re there. In GWS #89, Emily Murphy, at St. John’s College, comments:

I also found that homeschooling helped me tremendously in my schoolwork, because I have the self-discipline to get things done early. I have a couple of friends at college who pull all-nighters to get essays done that are due at 9:00 the next morning. I find out what my assignments are for the next three days or the next week, and I make goals for myself and decide what I need to do first. That’s just the way I work. In my homeschooling, we would make a curriculum at the beginning of the year and then every week we would sit down and look at what I had done and what I needed to do. I would sit down by myself and make daily goals, and figure out things like whether or not I was doing volunteer work that day and would have to get things done around

that. So that was very helpful at college, when I was involved in fencing, chorus, and I had a work-study job, and had to work around that schedule.

Colleges increasingly encourage first-year students to take a gap year: a break for work or travel after high school and before college. They feel that such a break gives the student a wiser perspective and greater self-knowledge, as well as a better understanding of why they want to go to college.

Several admissions officers also pointed out to me that their “non-traditional” students almost always do very well. These are older students who have been working or otherwise living adult lives for years (or decades) after high school, and then decide that they want a degree. In these cases, their high school background has almost no relevance to either getting admitted or doing well once they’re in.

By taking charge of your own learning, especially if you get yourself out into the world, you develop a clear head, a feeling for truth and reality that just doesn’t happen until you’re away from the realm of school for a while. Coming from that perspective, all your decisions will be wiser—including the major decisions whether to attend college, where to attend college, and what to study.

Scholarships

Homeschoolers can and do qualify for scholarships—sports and academic scholarships, and all kinds of specific grants and awards. It’s also worth noting that some of the most elite institutions offer full-ride scholarships to all admitted students whose families’ incomes are below a certain threshold.

Unschoolers are as eligible for National Merit Scholarships as anyone else. Joshua Berger, for example, was one of five Vermont National Merit Scholarship winners in 1991, and was admitted to Dartmouth College, where he planned to major in math or physics.² In 1997, Adam Grimm of Oregon won a full National Merit scholarship to Rensselaer Polytechnic Institute to study electrical engineering.³ (To make sure you’re in the running, it’s imperative to register on time for the PSAT/NMSQT test—usually by fall of your “junior” year.)

Jamie Smith, homeschooled all her life, spent her “senior year” at a community college, took the PSAT and SAT, and then applied for and received two scholarships which paid for her complete tuition and books at the Honours College of Maryland University, where she planned to major in English before going into a career in journalism. In Canada, Eugenie Daignault was homeschooled until Grades 11 and 12, after which she graduated and received a scholarship and two bursaries to the College of the Rockies, where she planned to study medicine.⁴

But do you really want to go to college?

I wish someone had asked me this question, in a serious tone of voice. At our house it was assumed that one goes to college, and Not Just Any College, but a Reputable and

Highly Esteemed one. Had I noticed that I didn't have to go, maybe I wouldn't have. Maybe I would have, but with clearer expectations—or even with greater appreciation for the opportunity.

This is how Native Americans answered the question, after Maryland and Virginia colonists offered to educate six of them for free at Williamsburg College in 1774:

We know that you highly esteem the kind of learning taught in those Colleges, and that the Maintenance of our young Men, while with you, would be very expensive to you. We are convinced, therefore, that you mean to do us Good by your Proposal; and we thank you heartily. But you, who are wise, must know that different Nations have different Conceptions of things; and you will therefore not take it amiss, if our Ideas of this kind of Education happen not to be the same with yours. We have had some Experience of it. Several of our young People were formerly brought up at the Colleges of the Northern Provinces; they were instructed in all your Sciences; but, when they came back to us, they were bad Runners, ignorant of every means of living in the woods, . . . neither fit for Hunters, Warriors, nor Counsellors, they were totally good for nothing. We are, however, not the less oblig'd by your kind Offer, tho' we decline accepting it; and, to show our grateful Sense of it, if the Gentlemen of Virginia will send us a Dozen of their Sons, we will take Care of their Education, instruct them in all we know, and make Men of them.☒☒

Why do you want to attend college? Will college provide what you want? Are there other ways to get what you want? There are excellent things about college, but if you go without considering the possibility of not going, it acquires many of the same negatives as compulsory high school. Don't enroll just because it's expected of you.

Unschoolers often tell me that college is a possibility for their futures, but only if they find themselves interested in a field they could learn best in college, or if they truly need a degree to do the work they've chosen. They would not attend college just to learn in a general sense, because they already know how to do that wherever they are. If they want to write, program computers, act, farm, make music, gain sustainable living skills, or run almost any kind of business, they know they don't depend on an institution for training.

For that matter, even in the world of institutions, traditional college is not the only option. Apprenticeships are a standard way to learn a variety of trades, from carpentry to baking to solar panel installation. Google offers inexpensive, streamlined career certificate programs in fields like data analysis and project management. And hundreds of other programs offer career-facilitating credentials in everything from nutrition to architectural drafting to life coaching to massage therapy to welding to teaching ecstatic dance to fitness training to real estate.

Before you decide, I recommend reading Blake Boles' *Better Than College: How to Build a Successful Life Without a Four-Year Degree*. Blake shows that college is not a universal prerequisite for greatness, freeing you to make the best decision for you and your circumstances. An older classic is *The Question is College*, by Herbert Kohl, which discusses teenagers' futures—collegiate or otherwise—with respect and

originality. I wish my parents and I could have read both of these books when I was seventeen.

Anne Brosnan, thirteen, writes:

I really don't know if I'm going to college or not. I might win a scholarship somewhere. I might be busy. I might be canoeing in Canada, or selling hammocks in Hawaii. It all depends. My plans for the future are to maybe be a pianist (therefore I might go to a music college) or a writer/poet (therefore I don't really need to go to college). I could do a lot of things. I'd also want to have a farm. That's easily accomplished without a college education, especially if you can teach yourself through college just like you did high school and grade school.

In his book *Dove*, Robin Graham tells about being invited to enroll at Stanford after he sails around the world. He and his wife Patti stick it out for a semester, but then can't take any more:

What surprised us most was how little we had in common with our peer group because most of them had grown up in a different world. I had had the advantage of experiences that most people don't gain in a lifetime and I'd seen horizons far beyond the local ball park and movie theater. It was sad to see how some students straight from high school were ready to believe anything and were so easily duped by cynical professors, especially by one Maoist who was passionate about his bloody revolution. The students who applauded this professor loudest were the ones who owned the Porsches and the Jags.

We made some good friends among the faculty and the students. Most of the students genuinely wanted to see society changed for the better. Like Patti and me, they wanted to expose hypocrisy and they despised the brainwashing attempts to persuade my generation that the dollar buys the only important things in life.

It certainly wasn't Stanford's fault that Patti and I couldn't fit into the campus life. It's a great school and we knew how lucky we were to be there. But right from the start we had a feeling of claustrophobia. The walls of the classroom boxed me in so that I could hardly breathe. I began to fear that even if I saw through my years at the university I would be sucked into a life style which Patti and I were determined to avoid—the nine-to-five routine, membership in the country club and that sort of thing. That first semester at Stanford seemed as long as two years at sea.☒☒

Anne Herbert writes in her "Rising Sun Neighborhood Newsletter" in *The Next Whole Earth Catalog*:

I've noticed that when I meet people my own age who seem to have had a truly incredible number of adventures, they turn out to have not gone to college, so instead of doing one thing for four years they started doing two or three things a year as soon as they left high school.☒☒

In GWS #109, Sarah Shapiro writes about her frustration at Brown University:

I was angry at the way [schoolwork and classes] were intruding on my life. I hated them bitterly, and sometimes felt that I just couldn't keep it up. . . . I read and reread some of the writers who articulated feelings I have had about schooling, like John

Holt and James Herndon. And I heard echoes of many a summer's end: walking into a bookstore or a library as if it were a candy store, glancing longingly at all the books I wanted to read, and knowing that school would take up all the time instead.

Sarah chose to leave, reassured by meeting people like Susannah Sheffer at GWS "who cared about what they were doing." She comments:

Seeing people who had found 'work worth doing,' as John Holt called it, reassured me that this was a reasonable and possible goal. . . .

Even now, outside of school, I still don't always get to read as much as I'd like, but now it's only because I'm choosing to do something else. As an apprentice at a small New England farm last summer, I worked long, hard hours, got to know and care about the people I was working with, caught up on sleep whenever I had the chance, and didn't read much beyond organic farming journals. Now, working with a group that is trying to set up farms near New York City, planting bulbs in urban gardens, juggling, helping a friend with her Jewish after-school program, sitting in on geology lectures at Columbia University, helping my parents move to a new apartment, and staying in touch with far-flung friends, I don't have infinite time either, but I have managed to sit down with some good books, from Russian novels to treatises on geology.

I feel very lucky to have this time in my life, without many responsibilities, in which to learn about things I care about. I've found that most of the people I want to learn from don't care a bit about whether or not I'm in school or have a college degree and are happy that I'm interested in their work. When I called to offer my help to Just Food, an organization trying to promote community supported agriculture near New York City, they were mainly interested in my farming experience. They did ask me if I was in school, and I told them I was learning in a different way, by finding people who were doing work that I thought was important and trying to make myself helpful. I was plagiarizing from John Holt, but under the circumstances I didn't think he'd mind at all.

I'm considering the possibility that it might be useful to me someday to have that piece of paper that says I have been through college and that it would make my family feel more comfortable about my choices. I may hold out on moral grounds, though; one way to delegitimize unfair and ridiculous credentialing systems is to boycott them, and the reverse is also true—taking part in them lends them your tacit support. If I decide to get a degree I may try a program at the Regents College of the State University of New York, which I first read about in Holt's *Instead of Education*. This program gives college credit for taking all sorts of standardized tests. Since that happens to be one of the meaningless kinds of games I'm good at, I figure I might as well take advantage of it. . . .

Meanwhile, I'm trying to make up for lost time in my reading life. Recently, I've been jumping around from Tolstoy to George Eliot to Hardy to Flaubert. One writer I keep coming back to, though, is Henry Thoreau. I vividly remember sitting in a college dorm room, avoiding pressing schoolwork to read him and being struck by the force of a line from *Walden*: "Did you think you could kill time without injuring eternity?"

Sarabeth Matilsky, a seventeen-year-old unschooler taking several college dance classes in New Jersey, writes:

The more I see of college (while taking my dance classes and talking to friends), the more disillusioned I'm becoming. Now that the semester is half over, it seems as though the instructors are trying to cram as much knowledge into everyone's heads as possible, in preparation for those Looming Final Exams. Even in my classes it's happening, as our exercises take on a rushed quality as we start to focus on our equivalent of an exam—a final project. I hate the whole grading thing, too, that everyone is so wrapped up in. I feel so mixed up, because (especially in my Rhythm Analysis Class) my classmates roll their eyes if I say that I like what we're doing. "As long as you get the 'A,' that's all that matters," their comments imply. And I can definitely see how one could be sucked into it all. But I am determined to stay true to myself, and not look at a letter as the product of my work. I never looked to see what grade I got on my class last semester. The knowledge that I took away from the class was my reward. I think that if I ever find myself relying solely upon my teacher's grade to show what I've learned, I'll need to completely re-evaluate my reasons for doing that thing. So right now I'm looking deeply into this whole college business. I see many good things, and many not-so-good, and if I ever go I don't think I'll go full time—just take the courses I'm interested in and allow myself to become wholly caught up in them.

While a college degree definitely makes many careers easier to get, unschooling into your twenties might make it easier to make a living out of doing what you love. Almost anything can become an independent business, whether in environmental consultation or in teaching and performing with steel drums. Rather than go to college and graduate school to become a marine biologist, you could go straight to the coast of British Columbia at the age of eighteen, start conducting your own research on salmon spawning (investing far less money than you would in college), and by the time you were twenty-two or twenty-three, you might look quite appealing to the powers who hire marine biologists—or who admit them to grad school. Or by that time you might have developed a way for your research to generate funds, so you don't even need an employer.

A degree-crazed society like ours, in fact, is a big cop-out. It discourages true expertise. People are unlikely to ask, "What makes him a knowledgeable person? What are they good at? How is she good at it?" Instead, they merely ask, "What's her degree? Where did they get it?" As an unschooled and/or uncolleged person, you will frequently butt up against the assumption that you know nothing. I figure you can nobly accept these situations as opportunities to clarify muddy minds. And after enough people refuse to play the degree-crazed game, the rules will change.

Instead of college, you might simply get on with life—or design your own course of study, unschooling your way through college. Kendall Hailey did just that, and wrote a book called *The Day I Became An Autodidact*.

If you want to unschool on a high academic level, I recommend *The Independent Scholar's Handbook*, by Ronald Gross—a guide to conducting scholarly projects with-

out being a student, professor, or research assistant. Though many of the practical suggestions are outdated, the principles and anecdotes are timeless.

In the humanities, the most intense college learning is often generated by writing papers. You might want to take a course or two to get a feel for writing such papers, and then keep it up on your own, using scholarly journals as a standard for your work, sending your best papers to scholars you admire or (eventually) to online platforms or journals for possible publication. Or ask a professor for guidance in designing a DIY college program.

Of course, saying yes to college is perfectly fine too, as long as you think about it. Anna-Lisa Cox wrote in GWS #74:

The last time I wrote I was still undecided about going to college. I knew it wasn't my only alternative. I could keep on giving the historic fashion shows I've been giving, or take an internship in a museum leading to a job. But in the end I decided that college would give me a chance to do more exploring, and I knew that's what I wanted to do. So I went through the rigors of college applications and got accepted at the college of my choice. An interesting note: I found that my homeschooling, far from being a hindrance, was an asset. With colleges looking at clone high school students, a homeschooler really stands out and gets noticed. It is true that applying as a homeschooler takes extra work, and just being a homeschooler doesn't mean you'll get into Harvard, but it can give you a valuable edge.

Finally, just as there are lists of people who accomplish all manner of wonders without going to school, there are even longer lists of people who succeed spectacularly without college. As you'd expect, many are artists, musicians, actors, and writers, but they also include scientists such as Jane Goodall, who had no university degree, nor any formal training in ethology, when she began her work with chimpanzees in Tanzania. (After she'd been at it for five years, however, she wrote a thesis and Cambridge University awarded her a doctorate.) Tech royalty Steve Jobs, Stephen Wozniak, Mark Zuckerberg, Larry Ellison, Michael Dell, Kevin Rose, Paul Allen, and Bill Gates dropped out of college. Physicist/architect/generalist extraordinaire Buckminster Fuller was expelled from Harvard. A few more people on the uncolleged list include Amelia Earhart, Anna Wintour, Charles Schultz, Eleanor Roosevelt, Ernest Hemingway, Harry Truman, Lewis Mumford, Paul Gauguin, Rachael Ray, Robert Frost, Roger Tory Peterson, and Walt Disney.☒☒

And do you really want a college loan?

I am appalled that young people are routinely encouraged to go into significant debt to earn a degree, and that until quite recently, practically no one raised any questions as to whether this is a good thing. Many, many people go to college with the idea that they'll be able to explore, discover what they're interested in, and pursue it—only to find themselves far too stressed out and overworked to enjoy themselves and learn happily, and only to graduate and find themselves in desperate need of a tedious job

that will allow them to pay off their loans. So, as it turns out, instead of meeting their goal of learning and exploring, they've locked themselves into a straitjacket.*

Maybe you especially shouldn't go to college if...

you want to run your own business or work as a freelancer, in which case college could be the worst possible use of your time and money. Based on my experience and reading, I think the ideal preparation to succeed in business includes:

Expertise and connections in the field—gained by independent study, apprenticeships, jobs, reading, observing, volunteering, perhaps carefully chosen classes.

Experience running the business for a year or three, without yet needing it to support you.

Bookkeeping skills—you can get out of them by using simple accounting software, but it's better to have a solid understanding of how your finances work.

Experience using, saving, and spending money.

Decent math computation skills and good “numbers sense.” You don't have to be born with it. Use an online resource or a book like *The Only Math Book You'll Ever Need*, by Stanley Kogelman and Barbara Heller.

Experience working (or volunteering, apprenticing, or interning) in someone else's business, not necessarily in the same field as yours.

Darlene Lester, of California, writes about her son Ely in GWS #100:

During his years at home he discovered and developed his talent for drawing. He took art lessons, drew every day, and delighted us with his increasing skill. He had a great love for Disney-style art and spent a lot of time drawing Disney characters. He got astonishingly good. At twelve he was earning money doing “quick sketch” portraits at parties. He learned how to do this from a retired artist who had worked at Disneyland.

...

[Later, when Ely started researching art schools,] he found out that they were all horrendously expensive. Finally he discovered a life drawing class in L.A. that was taught by a retired Disney animator. He signed up and made the two-and-a-half hour trip once a week. He met some people in the class who told him about an ROP animation class held at a high school in the area. He signed up for that, too, and said he felt like he was in the right place. . . .

This ROP program funnels talented people into the animation industry by creating internships with the various animation studios. Ely just recently interviewed to become an intern at Film Roman, an animation company in L.A., and he got the internship. He will train there for about a month, and if they like him, he'll be put on the payroll.

...

The beauty of all this is that while Ely's artistic peers are grinding away in universities or expensive art schools, with no guarantee of work in that field, Ely will be busy training in the nitty-gritty of his chosen career.

Steve and I have always told the boys that we've both had a wonderful life, each of us doing what we love to do (and getting paid for it), without having attended college. Instead, we move directly toward our goals with as few middlemen as possible. It was definitely a quicker and more enjoyable way to go, and it always seemed much cheaper. We are clear now that many kinds of work can be entered directly through some kind of apprenticeship arrangement, or through a trade school, or by simply working on your own, getting tips from mentors or books when you get stuck. We are more sure than ever that college is not for everyone, that for many kinds of work it is not the best route, that it is shamefully overpriced for what you get, that it doesn't guarantee you a good-paying job (or any job, for that matter), and that its hard sell given routinely in high school is not deserved. [Ely later became an animator for *The Simpsons*.]

Mae Shell, of Vermont, writes in GWS #109:

When I began volunteering at the library two years ago . . . I didn't realize that it would lead to my first paying job. At that time, volunteering was simply a way of getting out into the world and interacting with other people. . . . I already knew a few of the librarians, having spent quite a bit of time in the library as an avid reader. Before long I felt I had carved out a little niche for myself and I enjoyed having a place to go away from home where I felt so comfortable.

Mae also started taking classes at a community college, decided that she wanted to work in a library as a career, and began thinking about pursuing a degree in either library science or literature. But as it turned out she enjoyed her volunteer work so much that she didn't want to put it on hold in order to concentrate on college—nor was she sure she wanted to take on the huge debt that going to college would require. So she kept volunteering—and soon she was offered a temporary paid position, filling in for a vacationing librarian. Soon after, another librarian broke her hip and Mae was paid to fill in for her for another six months. When that librarian was able to return to work, another part-time librarian left for good, and Mae was given her job. Plus, she continued to volunteer, was given more opportunities to fill in for vacationing librarians, and was also paid to make posters for library events. She writes:

At this point, I see no reason to go to college. . . . When I decided to pursue becoming a librarian, I knew that in order to really succeed, I would have to get at least a B.A. and probably an M.A. as well. I didn't really want to go to college; academia has never appealed to me, and after taking the classes at the community college, I saw how diminished my usual creative writing became when I was being assigned papers to write. I got burned out doing the assignments, and had little or no energy for writing essays and poems on my own. I have always loved to read and write, but somehow, being forced to do those things and to do them within rigid guidelines took all the fun and adventure out of it. As a lifelong unschooler, I have always felt that it is real skills, and not a piece of paper, that defines how much a person knows in any particular area. I felt that going to college to get a degree so that I could work in a library was backwards; wouldn't I surely learn more about how libraries work by working in a library?

[Mae explains that she nevertheless considered taking a few courses at Burlington College.] But as September rapidly approached, I began to realize that I really didn't want to take classes; what I really wanted was to continue working and volunteering at the library and to pursue writing on my own time. Things have turned out wonderfully—that is exactly what I am now doing. . . .

I have seen in the last few years how good hard work, commitment, and dedication can show people that I am genuinely capable of doing the things I enjoy and of being successful as well. . . . I hope to find success without going into debt paying for college. So far, I have. In this day and age, when people who have Ph.D.s write into Ann Landers and Dear Abby complaining about not being able to find work, I wonder how much a college education means anyway. If you learn from it, then it is worth something. But if it is just a piece of paper, then it means nothing. . . . My idea of utopia is a society in which people are judged by their expertise, by what they have actually done and what they can do.

Which college? Where? How?

If you do want a degree, perhaps there's a university two train stops away that you've already set your sights on. Maybe your mom's alma mater is a perfect fit. Or, your best match might be an unusual school, or something different from the conventional, expensive age-eighteen-to-twenty-two model. Here are a few off-the-beaten-path possibilities:

Investigate the tricky underground ways to get a degree with less time and money. You can replace from one to four years of conventional college through colleges that give credit for life experience or passing tests (such as Advanced Placement—"AP"—tests). You may also want to earn credits or a whole degree via the internet, in which case you should ask the internet to tell you how.

GWS #18 tells about Emil Berendt, a sixteen-year-old who finished his B.S. before he graduated from high school, by studying at home and passing exams. Kirsten Shepler of Venezuela was accepted to Goddard College in Vermont, even though she refused to take the SAT. In GWS #106, she writes:

When I made the decision to homeschool, my views on many subjects changed, one of which was my view on college. After having the freedom of designing my own education and learning through experience, I just couldn't see myself choosing to go back to an imposed curriculum. . . . Goddard College's off-campus program combines experience with academic study and offers the security of a degree. Students use campus facilities and resources only during the week-long on-campus residencies that begin each semester. At those residencies, students plan large-scale full-semester independent study. After the residencies, they carry out their study plans in the field, keeping in touch with their faculty members through correspondence every three weeks. Goddard College uses student- and faculty-written evaluation reports instead of grades.

[At the time, Goddard normally admitted only people over twenty-five, but Kirsten explains:] Goddard was willing to consider me for their off-campus program because of my homeschooling endeavors. Therefore, I stressed my homeschooling philosophy when applying. . . . At the end of my interview, the interviewer told me that letting a seventeen year old enter the off-campus program was very unusual but she felt that I was prepared.

If you have no idea where you want your life to go, put college on hold. In the meantime: travel, work, continue to learn on your own. You might design a “gap year” (or two) on your own—or check out the High Desert Center’s wonderful and inexpensive gap year program, or the Center for Interim Programs’ wealth of wisdom and connections. *The Gap-Year Advantage*, by Karl Haigler and Rae Nelson, is one of the better books for considering your options.

Make a point of knowing about all kinds of colleges. Coming from your unschooling perspective, you may want to look into “alternative” schools such as Wayfinding Academy, Evergreen, Prescott, Antioch, St John’s, Naropa, Deep Springs, or The Expedition Education Institute. (None of these, by the way, have much in common with each other.) Also look into specialized colleges like technological institutes (Caltech, Harvey Mudd, MIT), art schools (San Francisco Art Institute, Parsons School of Design), music schools (Juilliard, Oberlin). Explore unique opportunities like the international folk music and dance group affiliated with Duquesne University in Pittsburgh, or the Rural Studio associated with Auburn University’s architecture school in Alabama. Consider the diverse array of women’s colleges or historically Black colleges and universities—“HBCUs.” See which colleges are furthest along in the quest to decolonize their curriculum and pedagogy. (In the UK, Keele University is a leader.) And check out the *Colleges That Change Lives* website for a directory of schools that provide high-quality, student-centered experiences.

Consider a not-too-distant college. Travel costs a lot of money, takes a lot of time, and as long as it burns fossil fuel, also exacerbates climate change. Many people build their adult lives in the area where they go to college, while also wanting to stay connected to family and friends back home. It ends up requiring a lot of travel just to stay in touch with community, often for decades to come. My favorite strategy is to figure out what you want—in a college and/or the area you want to live in—and then look for the closest-to-home solution that hits the spot, so you can save most of your travel budget for special occasions. If you’re all about theater, for example, the obvious fantasy might be the combination of New York City and a school like NYU or Juilliard, but there are also potent city/college combinations in Chicago, both Northern and Southern California, Seattle, Atlanta, and elsewhere.

Finally, in choosing the type of college you attend, think about this statement, written by the dean of admissions of a very competitive liberal arts college:

We have admitted two [unschooled] students, and we may admit another this year. . . . We are a rather traditional college of Liberal Arts and Science with an enrollment of two thousand, all undergraduate and all in residence. I mention this because I do

not believe we represent a good choice for these kids. We have found that they are accustomed to doing what they want to do and only what they want to do. They have not had to make many of the daily adjustments that kids in public schools have been forced to make, so they have no experience in adjusting to rules, regulations and procedures with which they are not sympathetic. One of these students is leaving to try out a larger university and we will be surprised if she returns. The second student seems to be having similar problems but the jury is still out as to whether he will stay or leave. We are admitting another such student for next September and he appears to be so bright that they are hardly able to measure him! We do not yet know if he will attend, but we suspect that he will not. So the bottom line here is that while we are very high on these kids, we tend to doubt that we are a good choice for them.

How to get in

Getting into U.S. community colleges

is typically a non-issue. If you're eighteen or older then normally you don't apply, you just sign up. From there you can simply take a few classes, or complete a certificate program (in a range of fields from dental assisting to welding), or get a two-year degree, or transfer to a four-year college. If you're younger the process may be different. Your state-based homeschooling organizations probably know the ropes.

Getting into state universities

Admission to most state universities is a fairly cut and dried process. In addition to filling out a regular application and possibly taking the SAT or ACT, you may also have to pass the GED or HiSet. If that worries you, coach yourself with an online test prep program, or use a book like Kaplan's GED Test Prep Plus. Each state has a standard minimum age requirement (often eighteen) for the GED, but there are usually special rules or workarounds for younger people.

You may not need to fulfill all the standard admissions requirements, though. Most big universities do have some kind of clause that leaves room for admitting students with "special circumstances." Of course, if an epidemic of unschooling breaks out (go team!), your circumstances will no longer be special. I figure having to take the GED is painless compared to having to take six years' worth of school, including a few too many exams.

If there's a specific university you hope to attend, contact their admissions department and ask if they have guidelines for homeschoolers.

Test refusal

Kirsten Shepler, a student in Goddard College's off-campus program, writes in GWS #106, "Because I am a compulsory-school refuser, I chose not to take the SAT. Along with my application, I submitted a letter stating my reasons for not sending the scores." Part of her letter says:

I believe that schools should not constantly test and measure us in order to rank us. By doing so, they teach us to believe that we can be tested and measured, or at least that everything important about us can be measured and the rest must not be important. The SAT might measure technical intelligence well. However, tests like the SAT can't measure important intelligence, like our insightful knowledge or our sense of wonder.

People like Kirsten, who refuse to participate in normally-required tests, remain a tiny but passionate minority. Meanwhile, the ranks of test-optional institutions are growing. As of this writing, there are over a thousand schools in the U.S. that don't require SAT or ACT scores, including the California State Universities and many other public universities, many Christian colleges, and numerous private colleges including Smith, Bard, Middlebury, St. John's, and Juilliard. For a complete list, check out The National Center for Fair and Open Testing.

Getting into selective colleges & universities

If you want to go to a selective school and you're nervous about being admitted, I hope the next few pages will ease your mind. Unschoolers who want to go to "good" colleges, are inclined toward academic study, and are willing to document their work to demonstrate their experience and skills rarely have significant trouble getting in. Like their schooled counterparts, they are not always admitted to their first choice, and on some occasions they are asked to take a class or two at a community college before their application (to the more selective institution) is completely approved, but by and large college admissions just aren't a big stumbling block anymore. If you'd like to see how some admissions directors have thought about unschooled applicants, read on. In 1990, I put the following question to the admissions directors of fifty of America's most selective, respected universities and liberal arts colleges:*

*Yes, you read that right: 1990. I opted not to repeat my research for the thirty-years-later edition of this book, although it would be much easier now via email. I just didn't consider it necessary. Poke around and you'll find corroboration—my quick online search in 2020 turns up little nuggets like MIT's advice for homeschooled applicants. In many ways, traditional colleges and universities are slow to change (after all, they disseminate human thinking and discovery that has accumulated over centuries), and I believe that the quotes shared here remain relevant. For more updated takes on the

same topic (with essentially the same final message), see Blake Boles' books *Why Are You Still Sending Your Kids to School and College Without High School*.

If an applicant to [Barnard, etc.] had completed little or no formal schooling, would you still consider her? I am not talking here about the stereotypical teenage dropout, but rather a creative, enterprising individual who has done one or several interesting things with her time, such as started a business, played in a jazz band, traveled, written comic books, volunteered in a Sierra Club office, or raised boa constrictors. I also mean someone who has taken care to meet your admissions requirements other than attending school—studied English, math, foreign language, science, and social science on her own or with a tutor, and taken AP or achievement tests as well as SATs demonstrating that she performs as well as your successful applicants.

Of the twenty-seven admissions directors and officers who responded, none said no, although three were skeptical. Most said they would be completely open to such applicants, but that they didn't want their openness to be misinterpreted as welcoming people who had merely "done their own thing" for several years and not bothered to learn math or develop strong writing skills. Some were already accustomed to the idea and warmly positive. But all agreed, with varying levels of enthusiasm, that they'd willingly consider such an applicant.

Worst first. One rather pessimistic response came from Grinnell. The admissions officer pointed out that he was open to reviewing any candidate, but that the home-schoolers he had previously considered had been poorly prepared. On a similar note, the Dean of Admissions at the University of Virginia told me:

We will consider students who have not completed a high school diploma in a traditional setting. The burden of proof that one has become educated in the areas we consider important is on the student, and it is a difficult task to accomplish. To be quite frank, the students who have been home schooled are often well versed and well read in a few areas, but there often are blank spots in their education. In the cases we have seen, the students usually are well prepared in terms of literary criticism, the use of a foreign language, the study of government or history, but in most cases, their background in science and math is quite lacking.

As we both know, there are not many examples of self educated people in history; Benjamin Franklin is the person who jumps to my mind first, and in his case, I would say that it was because of his strong intellect, intelligence and perseverance that he was able to accomplish what he did. I doubt that the average person in this world could do the same. For that reason, I believe that public schools are essential, for the association with fellow students and teachers and the stimulation that comes from that experience is extremely beneficial for most people. But, there certainly are cases in which home schooling can work and work well.

What shall we do with these hesitant responses?

First, avoid the mistakes of unprepared applicants. If you want to go to a selective college, know what it takes. It may be safe to say that being unschooled makes your application stand out, but it will not make up for a weak academic background. You

must actively choose to meet their standards and fulfill their requirements, and you must be ready and willing to submit to the type of environment they offer. (Notice what kind of person I described in my letter. I did not merely say someone who didn't like school and quit. Having been to one of these colleges myself, I knew better.)

Second, be ready to educate confused or hesitant admissions people. Tell them explicitly what you have been up to, and take the initiative to politely correct misconceptions. Benjamin Franklin, for instance, is only one of many self-taught successes in recent history. Furthermore, most people experienced with unschooling stress that they (or their children) are ahead of their peers not because of their "strong intellects," but because they have room to grow.

Most admissions officers were quite positive. The Dean of Admissions and Financial Aid at Davidson College told me:

Like most institutions, we have rules for the masses, and we break rules when it seems just and proper to do so. It really depends more on the individual than anything else; we would consider, and probably admit, a strong person and refuse to consider a weak one. . . . Let me add that if a student had been "schooled" at home by one or both parents, presumably in a way that resembled a formal education, although not in a typical "school setting," we would be very interested, indeed. Such individuals are often the yeast that leavens the bread and would be a welcome addition to any educational environment. . . .

Good kids are wherever you find them, and it is really too bad so many colleges look in the same places. Given the general state of many schools today, it is not at all clear that all of the bright, highly qualified kids are found within the halls of accredited institutions. For an adolescent to pursue knowledge on his/her own, outside school, speaks very highly for his/her motivation, genuine interest in learning, and willingness to take risks in a good cause. Seems to make sense to me.

The Director of Admissions at St. John's College in Santa Fe wrote:

It just so happens that St. John's has admitted students such as you describe and will continue doing so given certain essential reassurances that they are capable of succeeding in our rigorous program.

The Bates College Director of Admissions said:

Bates, like most colleges, has a set of printed admissions requirements that include a high school transcript and a number of recommendations. . . . But the faculty gives to the Dean of Admission the right in any particular instance to forgive requirements, including that of a high school diploma if we are convinced the student has proved themselves ready for Bates in other ways.

The Senior Admissions Officer at an Ivy League university responded:

Candidates who have, as you describe, "taken care to meet your (our) admissions requirements other than attending school" and who are presenting compelling admissions cases, in their own right do very well in our admissions process and throughout their undergraduate careers at [our college]. . . .

For the majority of admitted students there must be something else [beyond academics] that sets the student apart from the rest. It certainly can and often does fall within the nonacademic realm—a musician, an actor, an athlete, an artist, a community worker, an employee (to name only a few) who puts forth distinguishing credentials within the context of our applicant pool. None of these activities must be school sponsored at all; thus, I do not see the candidate who is not trained within the school setting to be placed at a disadvantage in our process.

The director of admissions at one of the most prestigious technological institutes cautioned that he wouldn't want to mislead anyone, and didn't want the school's name mentioned directly. Nevertheless, he said:

The hypothetical candidate you have described in your letter . . . would be a viable candidate here. . . . Whereas the prerequisites for candidacy expressed in our literature include a year of chemistry and physics at the high school level, and so on, the Admissions Committee will review the credentials of anyone proposing to study here. That is, a diploma is not a requirement and, given adequate basis, other formal requirements could be waived.

Some admissions officers were downright enthusiastic, like the Dean of Admissions at Colgate University:

I have little doubt that I would be delighted to admit a person [like that] described [in] your letter. Besides, I would like to see a large number of them in any class. In addition to the normal skills required for success in college, people like this would have a degree of initiative, independence, self knowledge and philosophical perspective that would make them desirable college students indeed. I suspect they would also have a degree of maturity not often encountered in typical college first-year students. . . .

It may interest you to know that we have had students who bore some of these characteristics over the years. I recall particularly one young man who did attend high school, but he might as well not have been there. After leaving school, he spent three years working on a tug boat in the Gulf of Mexico where he wrote a book à la Pascal's *Pensées* and went into business selling Mexican food with a member of the Dallas Cowboys. He enrolled at Colgate and after some initial struggles ended up doing very well.

Duke University's Senior Associate Director of Admissions said:

Our experience with students educated in this fashion has been very positive. In many cases, they are among the strongest students in our applicant pool. They are usually very well read with eclectic tastes and unusual sensibilities. Because they have been out of the academic mainstream they usually have a different perspective, and can be a positive influence in the classroom. While I was working at another institution, we enrolled a student who had been entirely educated at home. She managed a highly competitive academic setting with aplomb and graduated with high honors. We have admitted to Duke students who have been educated at home, but in the last four years, we have not been able to enroll any of those students. . . .

There is no inherent bias against students whose academic profile or educational environment do not conform to the norm in our evaluation system. We welcome diversity in every form. Our goal is to enroll those students who have the greatest potential to contribute positively to the university.

An Associate Director of Undergraduate Admissions at Washington University wrote:

My first response to reading your letter was: “Where is this student? Does he or she exist? How can we get him or her to apply to Washington University?” I am being somewhat facetious; however, the short answer to your question is that we would most definitely be interested in hearing from a student such as you describe in your letter. We have never stood on standard, traditional preparation as the sole criterion for admission. As a matter of fact, a number of [such] students, many from home-schooled situations, have been evaluated and admitted. . . .

There are many factors that indicate success in college for prospective students, and academic achievement in a traditional setting is but one. Leadership skills, ability to cope with new and different situations, the ability to synthesize information in creative ways, and a person’s intense interest in a specific field all add to the likelihood of their success in college. I often encourage students with whom I speak during my recruiting activities to consider taking a year off between high school graduation and beginning college to enhance just those skills.

Finally, Boston University has proactively contacted unschoolers. GWS #79 prints a letter written by the undergraduate admissions office, part of which reads:

Boston University welcomes applications from homeschooled students. We believe students educated at home possess the passion for knowledge, the independence, and the self-reliance that enable them to excel in our intellectually challenging programs of study. Two homeschooled students currently attend Boston University. One is a sophomore in the College of Liberal Arts, the other a freshman in the College of Engineering. Both students are doing very well. Their educational and personal transitions from homeschooling to the University are a proven success.

If you are a homeschooled student interested in attending college or simply concerned to know more about your options in higher education, we would be pleased to talk with you.

*

Traditional colleges want their incoming students to have a broad, thorough education. Normally, they measure this education mainly by looking at high school transcripts. Their verdict also depends on recommendations from teachers or other adults, an application essay, the strength of “extracurricular” interests and achievements, standardized test scores, and sometimes an interview.

Imagine the admissions process through the eyes of an admissions officer. When she opens your application, her job instantly becomes both more interesting and more

confusing. Without the standard transcript of courses and grades, she needs another form of assurance that you are a strong candidate. The more clearly you show what you know, what you can do, who you are, and how you've spent your time, the sweeter her task will be. As the Carleton Dean of Admissions pointed out to me, he prefers students with traditional backgrounds because "the simple matter is that this background gives us the easiest means for evaluating readiness to pursue college study." Admissions people have incredible paperwork, and if tons of unschoolers descend on them all at once, it will be difficult for them to be happy about that. Don't be their logistical nightmare.

Nevertheless, colleges are increasingly prepared to deal with nonstandard applications. If you know where you want to go, contact the admissions department—even if college is five years away—and ask how they would like you to organize your application. Some institutions have ready-made guidelines for homeschoolers. Stanford once sent out a form letter: "[Homeschooling] students are no longer unusual for us, and several are usually admitted and enroll at Stanford each year. They are, of course, still a small minority in our applicant pool. We are scrupulously fair in evaluating these applicants, and they are not at any disadvantage in the admission process. At the same time, as you may already recognize, these applicants present us with some special challenges."

In a talk for homeschoolers, a senior admissions officer at Harvard was asked, "What is the easiest format for you to review?" He responded, "The easiest for us to review would be some sort of a booklet. It would be like 'My Career in Homeschooling,' something like that." ❏❏

The admissions director at Washington University says:

Our only concern in evaluating such individuals has been: Are they prepared to meet the academic demands of Washington University? So, assuming your hypothetical person to exist, we would rely on standardized testing, AP or Achievement tests to evaluate their academic preparation. On those rare occasions that students approaching your description have applied to us, we have often requested a formal interview on campus.

Despite the headaches you will cause, you can also delight admissions people. Set yourself apart from the masses who are only applying to college because it's the next step in a routine they've never thought about. Make the people who read your application feel honored that you want to be at their institution—even though you know from experience that you could choose instead to learn independently.

And make their fears go away. Unless they have had some positive experience in the unschooling department, admissions departments may be full of all the worst stereotypes about homeschoolers. They may suspect you of not having any social skills, of never having heard of Darwin, or of not being able to work algebraic equations.

More reasonably, they may be concerned that you will have a difficult time adjusting to a structured learning environment which is directed by someone other than you. The Director of Admissions at Haverford spoke for many when she reported:

The academic program at Haverford is structured, and the faculty give grades. There are not other options. It would be important to us to know that the student understands this and is truly seeking the kind of educational framework we provide.

If you don't want to be in college, you will have a difficult time making peace with this type of structure. Or an impossible time. Don't be mistaken as to why these colleges exist. Don't feel that they owe you places in their classrooms and laboratories. Don't think they should accept you because you're an interesting person and then let you do whatever you feel like doing. By enrolling, you agree to play their game. Their game is a good one. But there are other good games.

There are entire books devoted to each of the following aspects of selective college admissions. My purpose here is mainly to point out the difference unschooling makes in each.

Testing

The more confused an admissions committee feels about your day to day academic preparation, the more it may rely on standardized test scores to decide how smart you are and what you know. Unless you go the noble-but-perhaps-challenging route of test resistance, or seek out a school that doesn't require tests even for homeschoolers, your scores may count more than the average school-student's. One dean of admissions writes about unschoolers' tests, "the stronger the better, and the more the merrier." The University of Virginia's Dean of Admissions recommended as many AP or other subject-oriented tests as possible, in English composition, math, a foreign language, American history, at least one of the sciences, and literature.

You might as well establish a friendly relationship with tests at your earliest convenience, by taking them more than once. Consult books on SATs and ACTs at any library, or seek out online resources—you will find sample questions as well as information about the tests.

Some people swear that test preparation courses improve your scores. I wouldn't bother, but then I've always thought standardized tests are fun. It probably boils down to whether they scare you. If they do, by all means take all the courses and practice tests you desire. Khan Academy is a great (and free) place to start.

If you want to be automatically considered in the National Merit Scholarship program, be sure to take the PSAT on time—typically fall of your "junior" year. Look up the National Merit program online to ascertain current requirements.

In any case, be certain you register for the tests you need in plenty of time, which is often at least a year and a half before you plan to start college. It's usually simple to register online, or sometimes through a local school.

References

You will need at least two letters from adults who know and believe in you. If you were in school, these people would typically be school teachers. Instead, employers, mentors, or non-school teachers work nicely. Probably no one in your family qualifies, although many colleges will also want to hear from your parents regarding their role in your education. (If your parents have mainly supported you in your own decisions and activities, they shouldn't lie and say they've been teaching you at home. That only perpetuates the misconception that people can't teach themselves—and undermines your own competence.) Harvard sometimes asks for a detailed autobiography in lieu of teacher recommendations. Unschooler Sarah Pitts, of Georgia, went to Boston College. In GWS #96, she advises:

It's a good idea to plan ahead and get letters from anyone outside the family with whom you have extended contact, even when you're young. If you get involved with an activity when you're fourteen and do it for a year, it may be hard to find that person years later when you're applying to college. When I was in ninth or tenth grade I worked as a counselor with my county 4-H group. At the end of the summer the counselor wrote me a letter thanking me, and we copied that and sent it to the colleges. It would have been hard to track her down later if I hadn't gotten the letter at the time.

Interview

Some colleges don't require interviews for everyone, but they may require an interview of unusual candidates such as yourself. Again, you'll have to give them a full, convincing picture of yourself and your strengths to compensate for your missing transcript. Also, you may have to get it out of their heads that people who don't go to school are social misfits.

Interviews don't necessarily have to take place on campus. Colleges who want students from all over the country send admissions officers all over the country to recruit applicants. During their travels, they also conduct interviews. Ask a local high school counselor for a schedule of college recruiters. Or, if you know which colleges you want to apply to, contact them directly and ask about their recruitment schedules. Virtual (online video) admissions interviews may also become more commonplace.

The application essay

will not be much different for you than for schooled people, except that it will count more. Since you can't show them A's in English, they will want to see for themselves how well you write—unless you spend your time composing eloquent things that get published, that is. Choose a topic you love, so your spirit shines through brightly.

Outside interests

Selective colleges want to know what you do besides textbook academics. (Part of the reason for this is they consider their student body part of their curriculum. If you're an interesting bunch, you'll inspire each other and more people will want to go to their school.) Harvard is especially explicit about wanting students who not only meet high academic standards, but also demonstrate expertise in an additional area of almost any kind. This is your showcase, of course, since unschooling is all about pursuing what you love.

In lieu of a high school transcript

You'll probably need to DIY an annotated transcript, and also write a more narrative description of your education—and perhaps bolster these with a portfolio showcasing samples of your best work. The point isn't to pretend you've taken conventional classes, but rather to present your projects in a way that's easy for admissions people to understand and that highlights your strengths. Find out if there's a format preferred (for homeschoolers) by the institutions you're applying to. You might search online to see how other homeschoolers are converting their activities into transcripts. It's easiest to keep track throughout your unschooling career rather than try to add in everything years after the fact—so whatever setup you choose, maintain careful records with dates. List the books you read and the textbooks you use, the lectures you attend, the experts with whom you converse, the letters you write to senators or scientists, the trips you take, the experiments you conduct. Hold onto copies of your best writing or artwork. (All that said, plenty of unschoolers don't decide until late in their teens that they want to go to college, at which point they usually manage pretty well to pull their history together and package it appropriately.)*

*For more guidance on creating a transcript or portfolio, consult Blake Boles' *College Without High School*, or Wes Beach's *Self-Directed Learning: Documentation and Life Stories*.

Perhaps you'll augment your homemade transcript with a miniature college transcript. After hearing from both admissions officers and unschooled teenagers, I strongly advise: before you apply to a selective college, take at least one course through a local university or community college. This way, you both prove that you can handle college-level, structured coursework and find out cheaply whether you like doing it. You may not have to do this, but it will reassure nervous admissions officers tremendously. The Bowdoin Director of Admissions commented:

We have two entering freshmen this year . . . who were completely home schooled. Each of them did take local college courses and the support from teachers was exceptional enough to convince us that both these students possess superior academic ability.

If your application is scanty, a selective college may even ask you to start by enrolling elsewhere full time. For instance, the Admissions Director at Haverford said, “In some cases we have asked students who lack formal education and testing to enroll in an open admission college [like a community college] to prove their ability to excel in a structured situation. When they have presented appropriate grades, we admit them.” A senior admissions officer at Harvard told a group of homeschoolers:

Something that I think could help the application of a homeschooled person to highly selective colleges is some kind of participation in a summer enrichment program. I think that would give the student a chance to perform in a university environment, see what life is like away from home, live on their own, and also give us a chance to [get a look at] some grades and college courses. Many colleges offer summer school programs for, say, high school juniors, people who are arriving seniors, to go and spend six weeks on that college campus and take courses. . . . If you can afford it, it would be a very good way for a homeschooled person to begin to prove himself in a greater context outside the home.☒☒

Your daily bread

The centerpiece of getting ready for a selective college is becoming a well-read glorious generalist with knowledge of literature, history, political structures, math, science, and foreign language. The more selective the college, the more of all this you need. Also, admissions people expect that you have strong reading, writing, and math reasoning skills, and some degree of comfort with scientific process and lab equipment.

To be a strong candidate, you’ll probably need to be reading, writing, actively engaging science, and working math problems for two to four focused hours, five days a week, eight months a year, for three or four years. Plus pouring yourself into bigger passion projects that grow you into something more than a bookworm—perhaps a musician and/or naturalist and/or business owner and/or activist. If that sounds grim, just remember that to do college prep the school way, you’d spend at least six hours daily in school, plus homework, and not learn as much. More importantly, remember that it should be fun, and needn’t orbit around textbooks or worksheets. If you hate it no matter how you approach it, put your life on a different path.

This is a key to your happy future. If you enjoy preparing for whatever kind of college you want to attend, you’ll probably enjoy college itself and the kind of life it pushes you toward afterward. But if you have to force yourself to work trigonometry problems and read heavy books, you can expect major frustration during college too. Don’t sacrifice your present for your future, because your present mirrors your future. All times, say the mystics and the physicists, are now.

Therefore: throughout your years of college preparation, stay in close touch with yourself. Don’t get knocked off balance, and don’t forget who you are. Michael Phillips, in *The Seven Laws of Money*, talks about wanting to be rich: “Say you’ve got the

\$100,000 that you desired. You are now the process that it took you to get there. If you had to sell dope, you're a dope dealer with \$100,000."

Translate that into the world of college prep. You want to get into Dartmouth. You do get into Dartmouth. You are now the process that it took to get you there. You could be a narrow, harried geek with cramped muscles, or you could be a perceptive, questing, lively human being. Test your motives now and then. If you were sent off to war on your eighteenth birthday and all the colleges shut down before you came back—if you came back—would you bitterly regret all that time you'd "wasted" preparing? Or would you rejoice over what you had already learned?

Unschoolers getting admitted to picky colleges

In GWS #89, Emily Murphy recalls her admission to St. John's College:

I applied to just two places: Penn State [and] St. John's. Penn State said they couldn't consider me because I didn't have a diploma; I suspect it was because I didn't fit into their computer system. But just at the point that they said no, St. John's said yes, and St. John's was really the place I wanted to go, so I decided not to pursue Penn State any further. If I had wanted to, I could have gotten a diploma from the State Department of Education or somewhere else. But St. John's didn't care about the diploma at all. They were excited that I was a homeschooler. They kept contacting me, and I felt that they really wanted me there. You do have to provide two letters of recommendation from teachers, so I got letters from teachers in classes I'd taken. My practice had been to get a letter of reference whenever I took a class or did a volunteer project.

I didn't have a traditional transcript or a regular grading system, but St. John's doesn't give you grades anyway. My mother did what St. John's does once you're a student there: she provided a detailed list of what I'd done. Fortunately, I also scored pretty high on the SAT, so that probably helped. For the St. John's admissions application, you have to write three major essays: one on why you want to go to St. John's, one on your experience with books, and one on an experience that changed your life.

Several years later, Emily's mother, Madalene Murphy, writes in GWS #109:

Emily graduated from St. John's and now has a year's contract to write a pictorial history of the college, based on her own proposal and her work in their photo archives. Soon after her book proposal was accepted, she was offered a full-time job as assistant registrar of special collections at the Maryland State Archive in Annapolis, which means she is head of their extensive photo archives and is responsible for preservation, acquisition, research, etc. . . . She will probably go to graduate school at some point but is now pleased and very busy.

Laura Gelner focused on math and science at Colorado College. In GWS #89, she writes:

Colorado College had had a few homeschooling applicants, so it was somewhat familiar to them. My mom wrote a pretty detailed letter about what we had been doing, explaining why I had no transcript, in place of the usual counselor's letter. We had the normal test scores to submit, and we had a neighbor who is a public school teacher write one of the teacher's recommendations. She's someone I've known for four or five years, and I've talked with her a lot about homeschooling. I talked about homeschooling in one of the essay questions that asked what you thought of the block system. I said I had been learning that way all along. The way I tended to work, in homeschooling, was to throw myself into one subject for a month or two. When I was reading *War and Peace*, for example, I just put everything else by the wayside and read that book for a month. I was about fifteen or sixteen at the time. It was my own choice to work this way; I wasn't doing assignments from my mother.

Bronwyn Jackson, at Wellesley, writes in GWS #96:

I am a sophomore at Wellesley College. I started to write and call colleges in what would have been my sophomore year in high school. In the beginning of my senior year I decided to apply to three women's colleges: Converse, Hollins, and Wellesley. I was admitted to all three. All of these schools were interested in homeschooling. Hollins and Converse didn't know much about homeschoolers but Wellesley had had several apply each year for a while and knew what to expect.

Aside from the usual applications, I sent lists of books that I had read, my music repertoire, poetry I had memorized, books that I had written over the past four years, activities that I had participated in that I would not have been able to had I gone to regular school (a stained glass apprenticeship, an archaeological dig, the Florida State University bands and orchestras, etc.), a tape of me playing the harp, and pictures of the quilts I had made. In addition to regular essays I submitted articles I had written for a high school newspaper and GWS about homeschoolers and what being a homeschooler meant to me. My harp teacher, professors at FSU, and my high school physics teacher (I took a class at the high school) wrote letters of recommendation. The Wellesley admissions department says that these kinds of letters are very important for homeschoolers because they help the admissions board decide if the student will be able to do well at the college.

Hollins and Converse both said that I needed to take a lab science before coming to their schools, so I took physics at a high school in Tallahassee. Wellesley, too, suggested that I take a science class, but also said that if I wanted just to homeschool my senior year, it was OK with them. A homeschooler applying to a college should find out what that school's policies are regarding credits, GED's, and diplomas. No Ivy League school requires a diploma. Less prestigious schools, especially community colleges and state schools, since they have to follow state guidelines, tend to get caught up in unproductive rules.

Sarah Pitts writes from Boston College in GWS #96:

I applied to five colleges, and Boston College was my first choice. . . . The application focused heavily on activities, and in one section you had to write what activities you

were involved in and any awards or honors you had won. Since I'm homeschooled I couldn't list activities like president of the French Club or member of the Honor Society. Instead I listed things like my involvement in community theatre and the leadership positions I've held there, and my involvement in 4-H. Also, I was in charge of registrations for our state homeschool conference, and I listed that to show that I had organizational skills. Finally, I listed the jobs I had had, including my internship with a bookseller, doing shipping and receiving. . . . Most applications ask for at least one teacher recommendation in addition to the counselor letter. We were a little stumped at first, but I ended up asking my employers to write letters. I had worked for a year and a half at a computer consulting firm, and I was also working at one other job, in retail. Then, the president of the theatre group I was involved in sent a letter for me as well.

Part Four: Touching the World ~ Finding Good Work

31. beyond fast food



I had to make my own living and my own opportunity. But I made it! Don't sit down and wait for the opportunities to come. Get up and make them.

—Madam C.J. Walker

Nourishing yourself academically won't take all your time unless you want to go light years beyond your schooled peers, and this world needs you. We are starved for people who work not only with their hands and minds, but also with their hearts. And humans of all ages crave the chance to do real work—action that matters and makes a difference in the world—instead of just sitting and taking notes all day.

Some work brings money, some doesn't. I like John Holt's definition in *Teach Your Own*: "By 'work' I mean what people used to call a 'vocation' or 'calling'—something which seemed so worth doing for its own sake that they would gladly choose to do it even if they didn't need money and the work didn't pay."

Now versus later

When I was a teenager I hated the nonsense question adults asked: "And what do you want to do with your life?" Like the other standard, "Do you like school," it made no sense to me. It referred to some abstract future instead of my present. I always had answers, but my heart wasn't in them. At the time, all I really knew was that I had to go to school, supposedly so that I could later apply my school knowledge to whatever career I chose. It didn't occur to me that I could also have begun, then, doing the things that I dreamed about doing "someday."

In your unschooled life, the question of good work is a question about your here and now, not just a speculation about your future. In ten years, you may change your mind completely about everything, including what work you want. If that happens, you can get the skills and knowledge you need then. Your task now is to use your time beautifully now.

In fact, one of the great things about unschooling is that it makes good future work more likely. It allows your present to blend with your future, without an arbitrary split. Many unschooled teenagers wrote to me with a clear sense of this connection. Michael and Christin Severini, for instance: At fifteen, Michael takes flying lessons. He envisions later work as an airline pilot. Christin, thirteen, now dances with a ballet company and belongs to PETA, and she says, "My future plans are to become a professional dancer and to help animals in some way." The Severinis' plans ring with truth because their everyday lives are consistent with their future fantasies.

How to be psyched for Monday

Do work you love. You can do work you love.

If that doesn't feel like a straightforward quest (and if it still doesn't after you read the next few chapters), take some time to discern your desires. Adults putter around in this territory constantly, so you'll find plentiful advice.

I recommend Jeff Goins' book, *The Art of Work: A Proven Path to Discovering What You Were Meant to Do*. Goins elucidates the essentials of preparing for, choosing, and engaging meaningful work. A compelling real-life story illustrates each theme, from apprenticeship to inner guidance to navigating failure. "I used to think that your calling was about doing something good in this world. Now I understand it's about becoming someone good—and letting that goodness impact the world around you."

I also remain a fan of Barbara Sher's timeless book *Wishcraft: How to Get What You Really Want*. Read it, and you will see clearly what it is you most dream of doing, and how to make that happen. Without the clarity her book brought to my life, this book wouldn't be happening, I wouldn't have enjoyed a thrilling stint teaching and performing belly dance, and I might even still be teaching school. She'll get you out of ruts, pronto. Another inspiring resource is Chris Guillebeau's *The Happiness of Pursuit: Finding the Quest That Will Bring Purpose to Your Life*. For more focused career-specific guidance, try Richard Bolles' classic *What Color is Your Parachute?* (There's a separate edition for teens.)

For a more contemplative approach, immerse yourself in David Whyte's soul-awakening words. Try his audio collection *Clear Mind Wild Heart* or his book *Crossing the Unknown Sea: Work as a Pilgrimage of Identity*. Or read Wes Moore's *The Work*, to follow along as Moore searches for meaning from the vantage points of combat officer in Afghanistan, Rhodes Scholar, White House fellow, and Wall Street banker—and meets other "change-makers" who, like him, transform personal difficulty into powerful contribution. Finally: Ram Dass's classic *How Can I Help?* offers wisdom on how to turn any kind of work into true service.

The relationship between unschooling, money, and work can be profoundly fertile. No matter who you are and how much money you don't have, if you are an unschooler you can do work (now and all your life) that both fulfills your spirit and also pays your way. One huge reason many poor people have little chance to escape poverty and drudgery is lack of time: creative, fun work often pays more than mindless or unskilled work. But before you can make a living by designing earrings, coordinating advertising for the community performing arts center, or producing seminars on ecological restoration, you need time to develop expertise. Once many working class people are out of high school, their parents can't afford to support them through college or any other kind of transition. They have to scuttle right from school into full-time unskilled jobs, with no time to gradually become involved (without pay) in something challenging that they adore.

By unschooling, however, many people could break out of poverty. Instead of squandering their teenage years in school drudgery, they could invest that time developing skills that later provide interesting work, or in gradually building a business or getting started in a field through volunteer experience. While they are teenagers, they can afford to volunteer or start a slow-growing business, even if they also have to bag groceries twenty hours a week.

Whether you are poor or not, enjoy your distinct advantage over adults. Unless your parents are the vindictive kind who say “go to school or get a job and pay your way,” you aren’t yet pressured to be financially independent. (If your parents do hint in that direction, remind them that the whole idea of education, in school or elsewhere, depends on children not being forced to earn money. You need time to explore, which is why you quit school in the first place.) Part of your education can be doing terrific work even if it doesn’t pay for your meals. Adults who have to buy the tofu don’t have that luxury.

Of course, you might start a silkscreening business at fifteen which succeeds spectacularly. Or you might begin volunteer work which directly leads to happy employment a year from now. But you can also do work that might never bring dollars—babysitting at a shelter for domestic abuse survivors, organizing a talent show or a beach clean-up day, writing letters to senators, planting trees or a vegetable garden.

Start short

When you approach businesses or individual adults—looking for apprenticeships, internships, volunteer opportunities, or jobs—sometimes you’re more likely to coax out a “yes” if you suggest a trial period. As Emily Bergson-Shilcock says in GWS #95:

Most everything we do, we say, “Let’s try it for three weeks first.” It’s easier for people to say yes that way. If you walk into a store and say, “I’d like to volunteer here,” and they’ve never had volunteers before, it’s more likely that they’ll say no. Just because they haven’t had volunteers, that doesn’t mean they can’t, but it’s easier for them to say yes to something short term. Then if it works out, you can keep going. . . . In a lot of ways it’s easier to go into a smaller business, and easier if you already know and like the people.

Try a class or program

If suggesting a trial period doesn’t work, sometimes it helps to enroll in a class or program at the business or organization where you’d like to volunteer, work, apprentice, or intern. That’s another way to get your foot in the door, and to get to know the staff and let them get to know you.

Doing it

The possibilities are exhilaratingly endless and overlapping, but for clarity I’ve organized the next few chapters by category: apprenticeships and internships, volunteering, jobs, businesses, farm-related work, and activism. First, a few more general notes.

Consider your work part of an education that builds skills and experience toward your ultimate career goal. It’s up to you to draw the learning you want from any situation. Working in a bookstore, for instance, doesn’t mean you’re going to work

in a bookstore for the rest of your life. It might be a stepping stone toward a career as a bookstore owner, author, illustrator, librarian, publisher, book designer, graphic designer, customer service consultant, or business interior designer. (Or, maybe you do want to keep working in someone else's bookstore, which certainly has its own rewards.) Emily Bergson-Shilcock opened her own store when she was seventeen, and several volunteer jobs helped provide her with the experience she needed. At fifteen, for example, she wrote in GWS #95:

When I was thirteen, I wanted some kind of job. We know a lot of the storeowners in our town because we homeschool and we often walk around during the day. We especially liked Janet, who runs a store called T-Shirt Tunnel, because she was very friendly, she wasn't pushy, and she accepted homeschooling. We suggested the idea of having me volunteer there, and we suggested trying it as a three-week experiment at first. She said that that was fine, and it worked out really well. Since then it's really blossomed. At first, because I was only thirteen, I wasn't getting paid, but then I was doing a lot of work and even bringing stuff home to do, so Janet started giving me five dollars each time. Then when I turned fourteen she started paying me a regular wage, and now that I'm fifteen, I'm getting paid [a little more than minimum wage]. I work there about four hours a week, and more around Christmastime when she needs extra help. You need to be sixteen to work the heat presses, which we use for putting transfers on T-shirts. I know how to use the presses, but I don't use them when customers are there because technically I'm not supposed to. So right now Janet can't leave me in the store alone, but when I turn sixteen she'll be able to.

One of the best parts has been the way Janet has taken a lot of my suggestions and used them. When I first started, the store was just kind of staying where it was; it wasn't improving a lot. The signs were all hand-done, and the cardboard would fade from being in the windows. I took all those signs home and typed them up on the computer. Last Christmas we had coupon books, and that was my idea. Then I suggested that Janet put other stuff in the window so that people in the neighborhood would realize that she sold more than T-shirts. After that people would come in and say, "I never knew you sold anything besides T-shirts, and I've lived here for years!" . . .

When I started, Janet was very open to having me come, but she said, "What would you do?" That was just because she'd never had a volunteer before. I started out helping her stock shelves. Then I started using the cash register, because I have one in my bedroom and I've always loved working it. She had a couple of buttons on her cash register that she'd never used because she didn't know what they meant. I showed her what they meant, and then she was much more willing to show me things, like how to use the Visa machine.

You might combine several jobs or activities—here are a few examples of the variety that's possible. Lavonne Bennett writes in GWS #18 about her son, a "mechanical and electronics genius" described as a "stupid dummy" by a high school teacher:

We took him out of high school in the middle of his junior year. . . . He's seventeen now and has managed two stores for an electronics-product firm, parlayed a \$150 clunker car up to a classic sports car, has bought equipment for his recording studio, has been a mentor for an eight-year-old boy, helping him to organize model-train layouts, and has given guitar lessons.

Ann Martin of England tells about her son Nicholas, fourteen, in GWS #21:

He spends one afternoon [each week] in a shoe workshop where he helps out in exchange for tuition and will bring home his own hand-made shoes next week! He has been on a residential sports course, goes on trips with a local theater company, and he helps in a shop owned by a friend of mine, who is teaching him the basic skills of running a business.

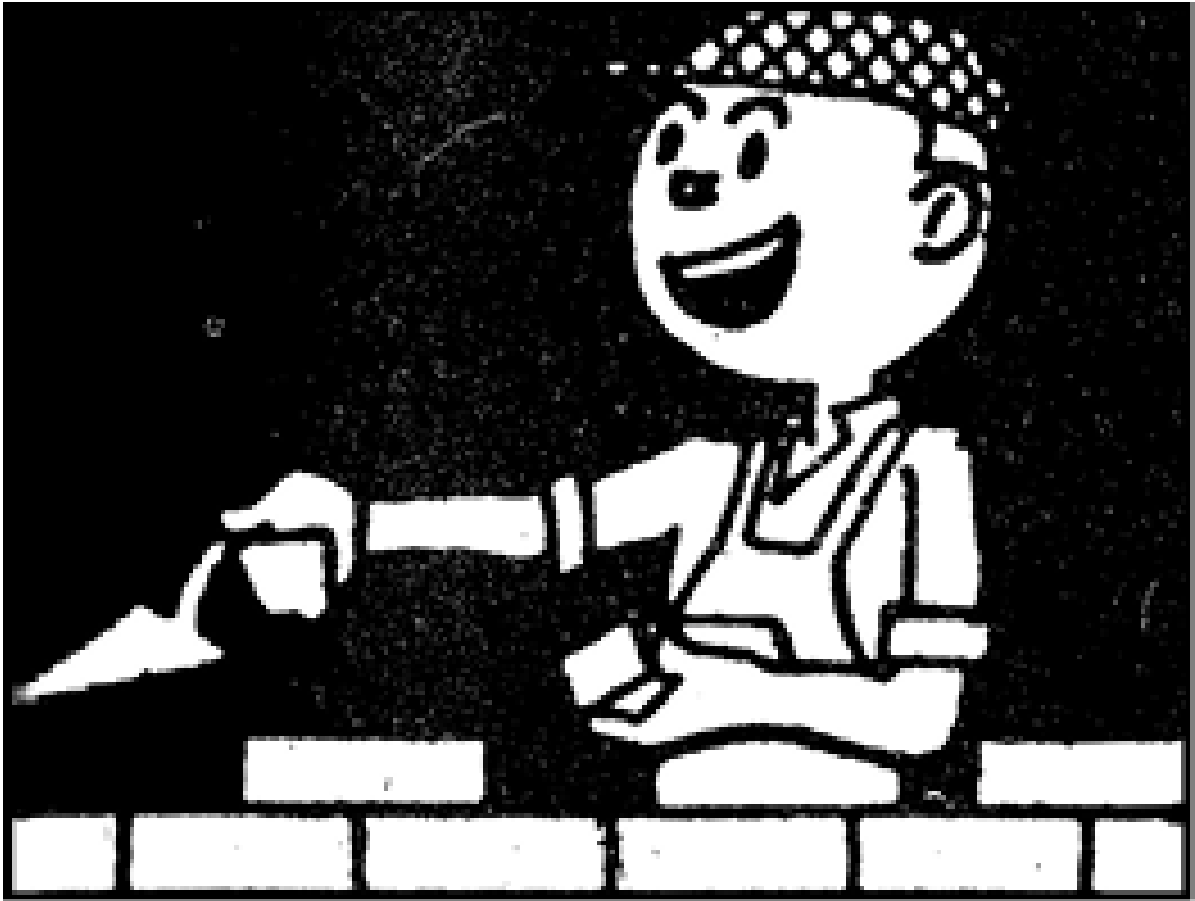
Kandy Light wrote about her children in GWS #47:

Dawn (sixteen) is in New York right now helping some friends while they have their third baby. They live and work at a health reconditioning center. Dawn has been helping in their various programs, learning massage, hydrotherapy, etc. She has also worked in their vegetarian restaurants. They want her to come live and work there. . . . She also met some doctors while there, who have invited her to come work and learn with them at their health center in the South. Last year she was a full-time babysitter for a local school dean. The dean recently moved and called this week to ask if Dawn could come to live with them and teach their children at home (in California).

When here at home she is hired as a secretary for a local businessman, besides apprenticing with the Barkers [a homeschooling family] at their Country School. . . . She has also been asked to learn lay midwifery, train as a colporteur, gardener, etc. . . .

Our fifteen-year-old twin boys, Tim and Dave, are apprenticing with an Amish man learning engine repair. They are learning first-hand how to repair tractors, lawn mowers, chain saws, etc. A neighbor has bartered two calves with them in exchange for them helping him do hay, plant corn, and occasionally milk his cows. Every day they work for another neighbor for four hours, landscaping his picture-perfect lawns and gardens and doing maintenance work. When our local principal moved, he hired them. . . . They've earned \$75 a day helping to move people. They, too, are apprenticing with the Barkers in Millersburg.

32. apprenticeships & internships



If you know what kind of work you want to do, move toward it in the most direct way possible. If you want someday to build boats, go where people are building boats, find out as much as you can. When you've learned all they know, or will tell you, move on. Before long, even in the highly technical field of yacht design, you may find you know as much as anyone, enough to do whatever you want to do.

—John Holt

A great many of the people who are doing serious work in the world (as opposed to just making money) are very overworked, and short of help. If a person, young or not so young, came to them and said, "I believe in the work you are doing and want to help you do it in any and every way I can, will do any kind of work you ask me to

do or that I can find to do, for very little pay or even none at all,” I suspect that many or most of them would say, “Sure, come right ahead.”

Working with them, the newcomer would gradually learn more and more about what they were doing, would find or be given more interesting and important things to do, might before long become so valuable that they would find a way to pay her/him. In any case, s/he would learn far more from working with them and being around them than s/he could have learned in any school or college.

—John Holt

Apprenticeships and internships are based on the concept of mutual benefit. The apprentice or intern helps out in exchange for the chance to learn about a certain kind of work. The labor itself may seem repetitive or boring to someone experienced in the field, but should be interesting and challenging for a newcomer. By the same token, the “master” or supervisor should not have to take a lot of time to stop and explain how to do things, because the apprentice will learn mainly by watching and doing. Sometimes the apprentice or intern is also paid in money. Sometimes the apprentice or intern pays. Often, no money is exchanged.

What’s the difference between internships and apprenticeships? Internships typically involve office or administrative work, while apprenticeships usually focus on specific skills in a craft or trade. But many people use the terms interchangeably.

Apprenticeships can take place in any field, from academic research to interior decorating. They’ve been around for millennia, though in recent decades they’ve been somewhat forgotten in the U.S., or at least restricted to certain trades. In some countries, apprenticeships have always been the way to learn certain types of work, but these fields are often stigmatized as the fate of people not rich or brainy enough to become doctors or ambassadors or such.

I’m excited that unschoolers are reinventing apprenticeships for their own purposes—not only completing traditional long-term apprenticeships to become electricians or midwives, but also arranging situations with no direct connection to their career goals, or that involve an academic field rather than a trade. Unschoolers apprentice themselves for a week or five years, to chemists and museum curators and windmill repairpeople and poets. If the people around you define apprenticeships or internships unimaginatively, don’t let them limit you—dream up a possibility for you and a skilled adult whom you admire. Explain your dream and politely suggest a trial period.

Organizations that offer internships

Thousands of organizations offer positions in fields including communications, arts, human services, science, and industry. You might work on costume and scene construction with a ballet company, conduct a research project for a non-profit organization, operate lights or cameras for a TV station, write and conduct surveys for a newspaper, or do clerical work for a publisher. Some internships offer stipends. Some provide room

and board, free classes, college credit, or help with finding later employment. If you want to apply for a particular position, do keep in mind:

Some programs are rather rigid; others can be adapted to fit your interests.

Some internships are in high demand. You will compete for them with other people, most older than you. Less famous organizations are easier to break into. A small-town newspaper will have fewer applicants than *The Washington Post*.

Many internships will be officially off-limits until you are eighteen or so, though others are open to high-school and even middle-school age people. Many organizations are open to independent inquiries—they will consider ignoring normal requirements, creating special positions for people who don't fit into their usual slots. And anyway, persevering unschoolers often find that age requirements are not written in stone.

Check with businesses, non-profits, and other organizations near you, or look online for opportunities everywhere. Scour general resources like internships.com, and investigate websites related to specific fields (where you'll find internships in public gardens, adventure travel, the arts, etc.).

Arrange & design your own position

You may need perseverance, but all you really have to do is decide what kind of a position you want, and talk to everyone in your area who works in that field until you find someone you like who will take you on for at least a trial period.

A helpful book—oldie but goodie—is Herbert Kohl's *The Question is College*. It discusses apprenticeships as a college alternative, but is relevant for younger people too.

You'll have it easiest if you already have adult friends you'd like to apprentice to, or if your parents know someone who might work out. Tad Heuer writes in GWS #98:

During the spring of 1993, the legislature passed an education reform act, which included provisions for homeschoolers. My parents worked with Rep. Gardner to give her the perspective of a homeschooling family. This provided me with a "bridge" to introduce myself. When I met with Rep. Gardner, I told her of my interest in politics and asked if there was any way I could help her at the State house. She was very receptive and said that I could intern in her office.

Of course you can approach strangers too. After all, apprenticeships and internships help everyone involved. You learn by watching people who know what they're doing and by doing many of the same things they do. They get free or inexpensive help, as well as the joy and pride that comes from sharing what they love with an excited newcomer. Chances are, if you contact all the dog trainers in your city, someone will let you try a one-day experiment or job shadow, and that may lead into a week-long volunteer job, and then a three-month apprenticeship. Don't give up after one "no-thank-you."

Be sure to talk about your ideas and goals and agree on expectations. Write them down. If you envision designing newspaper layouts, but Mr. Mendoza sees you sweeping floors and running errands, it won't work. Discover that before you commit.

If you want a position away from home, you may have success—as others have—posting on social media or advertising yourself in an online homeschooling newsletter. In GWS #87, Judy Garvey reports on what happened after her teenage son Matthew wrote a letter to GWS seeking an outdoor apprenticeship:

I wanted to let people know about the worlds that have opened up for him as a result. He received many generous offers for apprenticeships or visits. . . . Matt just left for Mexico, where he will be working on a ranch in the Sonora high desert area for two months. This first apprenticeship actually came about from contacting Donn Reed, author of *The Home School Source Book*, who happened to know the homeschooling family who owns the ranch. Matthew will be using many of the skills he has learned already, plus he will be working as a cowboy and general ranch hand. He is very happy there, making friends with the Mexican people he works with and in awe of the beautiful country around him.

In July, he will be leaving for at least a three-month stay in Alaska. He will work with a homeschooling family who has a hunting guide business both on the peninsula and north on the Yukon border. This family apprentices a young person every couple of years who could eventually be trained as an Alaskan guide. Since that is Matthew's goal at this point in his life, this opportunity is a great one for him. When his time with them comes to an end, he may go to stay with another family closer to Anchorage but also quite remote. They raise huskies and, in fact, their sixteen-year-old just won the Junior Iditarod. . . .

Besides the letter which was printed in GWS, Matt prepared a resume in which he listed all of his experience, skills, and interests, his size (which was important to his work), date of birth, parents' names, and a couple of references. He has had to write many letters to his prospective mentors to make arrangements. The result of all this is first-hand experience in how to go about finding work in his chosen field.

You can use an internship website or reference book as a resource even without applying for one of the internships they list. Find a position that sounds ideal, except for its location or age requirements, or whatever. Contact the sponsoring institution to request more information. Then, find a similar institution closer to home. Write up a thoughtful but flexible proposal, and approach them. To help reduce any reluctance, point out that you have based your ideas on an organization similar to theirs.

Apprenticeships can and should happen in academic fields too. See Chapter 20 for a description of Vincent J. Schaefer, who became an engineer mainly as a result of an apprenticeship at General Electric. Also in Chapter 20, see the bits of physicist David Deutsch's paper, "How Children Can Become Experts." In GWS #96, Susannah Sheffer tells how she helped Emily Ostberg set up an apprenticeship related to botany in Belize.

Last winter, when Emily was seventeen, she told me that she was interested in doing some kind of botanical work in Asia or Central America. She had already spent a month in Nepal, visiting family friends, and had loved that adventure. She had also studied for a while, though not very extensively, with a university botany student.

Emily asked me for help in researching possible opportunities and making some of the necessary phone calls.

I knew almost nothing about this field, but I had heard of the Rainforest Action Network in San Francisco, so I began by calling them. They had no information about volunteer opportunities in the rainforest itself, although they would have been happy to have volunteers in their office. Next I thought of Cultural Survival, an organization here in Cambridge [Massachusetts] that is dedicated to the survival of indigenous populations. I called and learned that they had a database of organizations looking for volunteers, so Emily and I visited them and she went through the computer files, copying down organizations that looked interesting. She later wrote letters to several of them, and received a couple of interesting responses, including one that she considered pursuing.

Meanwhile, I asked [a colleague's husband] if there was anyone he could suggest calling at Harvard ([he] worked at the Harvard Museum of Comparative Zoology . . .), and he told me about the Harvard Herbaria. After speaking with several different people on the phone, I finally reached a graduate student who was willing to talk to us about the work that students and researchers were doing out in the field. Emily and I met with him and learned that there were a lot of fairly tedious jobs with which a researcher might appreciate help. The difficulty was that most of this year's projects had been set up long before, and Emily was interested to begin this work in a few months (that summer or fall). Still, it was interesting for Emily to get a sense of what sorts of people were doing what sort of work. In the process of seeking out an apprenticeship or internship, very few letters or phone calls are wasted, I found, precisely because they help the young person understand who is doing what and to gain a clearer sense of where he or she might fit in.

At around this time, Emily saw an article in the *Whole Earth Review* about Ix Chel Farm in Belize. She wrote to the magazine asking for the address of the Farm, and then wrote to the Farm itself saying that she was very interested in working there as a volunteer. She said she had little or no experience in this area but she was willing to work hard and was interested in botany, biology, and horticulture. She received a fairly quick response telling her that she was welcome to come and giving her some idea of what she might be able to do. After Emily and her family did some further investigating about Ix Chel and about what working there would be like, Emily made plans to go there in early July.

Help finding apprenticeships & internships

Try crowdsourcing through social media or homeschooling organizations. Maybe you want to hunt up a good career coach who understands the unique needs of youth, and pay for a few hours of support. Or go big—an excellent consultant can open up opportunities you never dreamed of, and turn out to be well worth the expense. Consider the Center for Interim Programs, which has been matching clients with wonderful op-

portunities for decades. Not all of these opportunities are technically apprenticeships or internships, but most involve some kind of interesting work. Many are inexpensive, providing room and board; some cost more due to travel, tuition, or other expenses. Possibilities have included working on organic farms in Spain, interning in wildlife rehabilitation in New York, doing whale research in Maui, and learning to conduct tea ceremonies in a Japanese castle. Most clients are college students looking for a way to take creative time off, or high school graduates wanting to take a gap year and do something meaningful before they go to college. However, the Center has also worked with everyone from high school dropouts to burned out lawyers to empty-nested parents, and is open to all ages. In a talk at Choate, a highbrow prep school in Connecticut, founder Cornelius Bull told the following story about one of his clients:

I have a young kid who was totally allergic to school. He got through his sophomore year of high school, and he said, “Forget it, I can’t do any more.” He went off to Nepal. This kid is a magical climber. He is a human fly. They didn’t care about that in high school. Why should they? That doesn’t matter. It’s irrelevant. So, he had never gotten any good strokes. . . . Mountain Travel, the foremost trekking company in Nepal, watched this guy and was so impressed that they offered him a job and then discovered he was sixteen. They said, “Hey, go home and come back when you’re eighteen and work with us.”

Make the most of your opportunity

Ask your mentor or supervisor for reading suggestions. Milk her brains. Do extra work. Be proactive. Keep a journal. In GWS #79, an adult piano technician apprentice writes:

At the beginning of my apprenticeship, I found that I wanted to be completely directed by my teacher. I wanted to be told exactly what to do, in complete detail, without any necessity on my part for any form of decision-making or any prerequisites of knowledge other than that supplied by my teacher. Perhaps this seems cowardly, but as a beginning learner in the field, it was how I felt. . . . Specific directions for assigned tasks, and the freedom to observe the teacher performing more complex work, were all that I needed and wanted at the time.

So I would call that phase one, and now, six months later, I have noticed that I am entering a second, slightly different phase of learning. I have, for the most part, been given what I wanted—careful directions, appropriate jobs for my level of skill, and a good deal of freedom to observe and listen and learn without having any expectations to perform placed on me. Now I feel that I am ready to take on some things myself, to make some decisions for myself, to see a job that needs doing and to feel able to do it, maybe with a few questions asked but with a fair understanding of the basics at hand. I still have so much to learn, and I still need my teacher to direct me, but not in the totally dependent way of the beginning learner. I now feel the surety to begin to function, in a small degree, on my own.

Unschoolers interning & apprenticing

Anna-Lisa Cox developed an interest in historical costume and then found an internship. In GWS #68, she writes:

I am seventeen, and until I became a part-time student at the local college a couple of years ago, I had been schooled at home all my life.

My main passion in life right now is, and has been for the last three years, social anthropology and history. Antique clothing has been the context which brought these subjects alive for me. I became interested in antique clothing when I was living in England for a year with my family. I stumbled upon the Victoria and Albert Museum in London, which has one of the best costume collections in Europe. I was instantly fascinated by it, and I determined to find out more about the subject.

Now, three years later, I have a large costume collection of my own (acquired through hours of rummaging through charity shops, garage sales, and local estate sales), which I use in historical fashion presentations for local clubs, churches, and businesses. I am also the costume collection consultant for the local historical society. I find what I do very exciting. It's wonderful to be able to help friends date their grandmother's dress, or to teach them how to clean and preserve it.

A year later, Anna-Lisa shares an update in GWS #74:

My true love is museum work, tied to an intense interest in antique clothing. Luckily, my parents have been an incredible help and encouragement, patiently supporting me in my exploration and decision-making. . . .

With the help of friends I was able to find [a museum internship], which I will be going to in April. Some friends arranged for me to get together with the curators of a costume museum near them. I was a little hesitant about even trying, as I had been disappointed so many times, but I decided to go ahead, and I'm so glad I did. The curators are three young women, all as excited and interested in costume as I am. When I first met them we talked for two hours straight. Around the end of our conversation, the head museum curator asked what museum I was in charge of! I decided to tell her the truth, that I had no museum experience, but she said she was very impressed with my expertise and would still love to have me come and work with them.

It all sounds so easy as I write about it, but getting to this point has taken enormous amounts of time and energy. In fact, last summer, when I was in England with my family, I went through an intensive search for an internship. I wrote and called museums. I even had a friend who used to be a costume curator helping me, writing letters of recommendation to old colleagues. But even so, not one internship came out of it. So I guess all I can recommend is to keep trying. There's an internship out there just waiting for you, if you have patience.

Elaine Mahoney writes about her daughter in GWS #23:

Kendra, thirteen years old now, is an apprentice in a sewing machine repair shop. A family friend owns a repair shop and has been graciously sharing her knowledge and skill. Kendra enjoys spending time at the shop and is learning by doing. She

answers the phone, waits on customers, makes bank deposits, and is learning the general maintenance and repair of sewing machines.

[The next year, she adds in GWS #28:] [Kendra] is in Tennessee at present [with 4-H], attending the World's Fair. . . . One of the exciting parts about the trip is that they also plan to go to Kentucky to go to a sewing machine convention, which ties in nicely with her apprenticeship.

In the fall, Kendra plans to take a correspondence course in sewing machine repair to acquire a certificate.

Lisa Asher writes in GWS #45:

I am a twelve-year-old homeschooler presently living in Barnstable, Massachusetts. My father is an architect, and I am, too. I am his apprentice.

I first became interested in architecture a year ago, when I began homeschooling. I made floor plans (the overhead view of a house without a roof). My plans were not very good, not even buildable, but they were a start.

About two months ago I got serious. I began to design buildable plans that took weeks instead of days to complete, and included sections and elevations.

My father looks at all my designs and shows me where I need to fix something. When I have a good plan, my father blueprints it.

I also help my father. When he has a completed design, he pays me to trace it. He also asks my advice sometimes. I even help design.

Right now, I just design contemporary houses, because that is what my father designs, but I would like to design rustic houses also someday.

Gretchen Spicer writes in GWS #53:

Jacob (fifteen) and Tom, my husband, are working at an outdoor Shakespeare Theater. Jacob started as an intern at \$100 a week, but within two weeks was filling the position of two interns and is now getting \$200 a week. . . . We get to see lots of plays and now the kids are quoting Shakespeare constantly. Our house has become a very dramatic place recently.

Judy Garvey and Jim Bergin write about their thirteen-year-old son Matthew Bergin in GWS #76:

Shortly after leaving school two years ago, Matthew began working with a man who has a landscaping business. He loves the work and because of his energy and enthusiasm he has now become a real asset. This summer he will begin earning a wage for his labors. What he has already received from this apprenticeship—new self-esteem, real skills, and an awareness of how the world works outside of school or his family—could never be measured by salary.

In GWS #76, fourteen-year-old Emma Roberts writes about the process of choosing and setting up a theater apprenticeship:

I don't remember how I got the idea to have a theater apprenticeship. The whole idea really appealed to me. I love theater, and spending a few days every week working on it sounded great. It would solve my problems about wanting to go somewhere every day, and it would be fun. So I began thinking about what would be the ideal

situation for me. I concluded that, say, three days a week working backstage, in the box office, anything to do with theater would be great. I was sending out some headshots and resumes for auditions for myself, so I sent along a cover letter saying that I was interested in volunteering in their theater, explaining I was a homeschooler and very flexible. At first I felt kind of strange asking to be an exception, but I got used to the idea.

I hadn't heard from the places I had written to in Boston when one day my Mom and I were talking to the scenic designer at Mount Wachusett Community College, Patrick Mahoney. I do a lot of theater at The Mount . . . so I know everyone pretty well. Mom happened to mention that I was looking for an apprenticeship in Boston, and she asked him if he knew of any places I could write to. Patrick said yes, he thought he did. Then he asked if we had considered The Mount as a possibility. We hadn't, because it hadn't occurred to us as being a real theater, but of course it is. I had recently had a chance to have a tour of two professional theaters in Boston and Worcester, and afterwards I realized how really professional the theater at The Mount is. Patrick said he would mention it to Gail Steele, the head of the theater department. I called Gail after about a week and we set up a meeting.

When I went to the meeting, Gail and Pat asked me what I would be interested in doing. I told them two or three days a week helping where I was needed would be great. They were really excited. Then Gail said she had talked to the head of the humanities department and he suggested I might like to take a few courses at the college. I couldn't believe it!

We set up for me to take two classes, The Fundamentals of Acting and Scene Tech, and get college credit. Going through the process of being admitted was a riot. You could tell they'd never heard of such a thing: a fourteen-year-old-girl who doesn't go to school wanting to come to their college and take classes. I finally got accepted, and I'm going to begin the whole thing in the fall. They offered for me to start the apprenticeship this summer, but I am so busy with a theater in Wilton, NH that I told them the fall would be better.

So I finally got a change, and if I ever want to go on to Boston to do an apprenticeship there, I can say, look, I've already had experience!

Tad Heuer of Massachusetts, now a student at Brown University, spent his fifteenth summer working as a legislative intern. Tad did his share of grunge work—typing names and addresses into databases, sorting the mail, etc. But many aspects of the work were interesting. In GWS #98, he writes:

When people had questions about bills, I would get a copy of the bill and additional information from the committee where it had been sent for review. This information went to Rep. Gardner, who gave me her position and an outline of a possible reply. I then wrote a letter to the constituent. When people requested information about laws, I would call the department that was most likely to have jurisdiction.

The Senate Legislative Education Office sponsored intern seminars almost every day. These were one of the best parts of my internship. They were given by representatives,

senators, lobbyists, press secretaries, etc. They spoke on a variety of issues and always gave us a chance to ask questions. One speaker discussed Hydro-Quebecois II's plans to flood Cree Indian land to create a massive power grid for the Northeastern U.S. Another told us about the first bill he introduced. It called for all deer killed by cars to be frozen and distributed to homeless shelters for stew meat! (It passed overwhelmingly.) The seminars were also a good place to meet other interns. Before each seminar, we had to stand up and introduce ourselves. Although all the other interns were college students, they were very friendly and didn't treat me differently because of my age.

Working as an intern was a wonderful introduction to the world of politics. Besides learning about the day-to-day life of legislators, I also improved my communication skills.

In GWS #112, Zoë Blowen-Ledoux writes about her puppetry apprenticeship. At times, Zoë actually lived in the home of her mentors—live-in arrangements were typical of apprenticeships in the past; they're not so common now:

For the past year, I have been doing a puppetry apprenticeship at the Figures of Speech Theater. . . . I've been learning about the Farrells' theories about puppetry, and I find that I accept and identify with them. I'm learning that, for me, puppets reflect some part of us that's not visible without some symbol to illustrate and illuminate it. . . .

The intensive training part of my apprenticeship began in September as I worked with John on wood carving. I began by reading through many books with photos of different puppets to get ideas of what style of puppet I wanted to carve. I spent four weeks making a clay head, a model of the one I was going to make in wood, and learning to sharpen carving tools. In October I went to a carving workshop that John was teaching at Haystack Mountain School of Crafts in Deer Isle, Maine. That weekend was the first time I'd done anything with wood, and I found I really loved it. . . .

In the month after Haystack, I continued carving. I loved seeing the figure and the personality emerge from the wood. I completed carving the head and set it aside in order to move on to pattern drafting. This shifted my time from being with John to being with Carol. I learned to sew on the machine and did many sewing exercises to make straighter, faster seams and have better control. I took on a project of drafting a set of clothing that I will be able to wear.

I've also been reading collections of myths and stories and the book *The Power of Myth*, by Joseph Campbell. I began this reading to find a story I could adapt into a character sketch for my puppet, but I've found myself really intrigued by mythology from all the different regions of the world. This has led me to the idea of writing my own myth, by incorporating aspects from different cultures, rather than choosing only one to use.

Overall, my apprenticeship has been a great chance to do focused reading. I've read many articles in theater and puppetry magazines, and lately John and Carol and I have had discussion about articles and theories. I enjoy talking and thinking with

them about the ideas that the articles pose, and I find that I absorb much more this way than if I just read them myself. . . .

Very few problems have come up in my apprenticeship. Those that have come up, we have managed to solve in a creative way. For example, earlier this winter I was frustrated with the way the schedule was set up and how short the periods of time were in which I could work. We adapted the schedule to allow me to stay at the Farrells' home for longer, more intense blocks of time.

At times, I've felt frustrated by how long it takes me to complete something I'm working on. When carving last fall, it seemed that I was taking too long to finish. Thinking about it now, I can see that in fact I was absorbing a lot, both of the more obvious quantifiable skills (like carving and tool sharpening) and also of the less obvious adjustments I was making to fit into the Farrells' lifestyle.

I've been challenged creatively in many ways throughout this year as I developed new skills and ideas. My training here pushes my boundaries of familiarity and presents many new possibilities to pursue.

33. volunteering



Everybody can be great. Because anybody can serve. You don't have to have a college degree to serve.... You only need a heart full of grace, a soul generated by love. And you can be that servant.

—Martin Luther King, Jr.

“Volunteer work is a tremendous use of time,” seventeen-year-old former unschooler Anthony Hermans told me. “It accomplishes a useful task, allows one to get away from the norm and provides many long-lasting friendships. I have volunteered in community service clubs, at the local library, our wildlife sanctuary, and a local history reenactment park. My sister has helped at a local homeless shelter for women and children.”

Two big thrills come with volunteer work: the knowledge that you are helping something you believe in, and a huge realm of possibilities. Volunteering can be a free ticket into any world you want to explore. You can set your own schedule, working as much or as little as you wish. Few groups will turn you away because of your age.* Volunteer experience looks great on a resume, and volunteer jobs often turn into paid jobs.

In the cities where I’ve lived, a variety of organizations are run mainly by volunteers: dinner delivery services for elderly people, soup kitchens, help desks for unhoused people, animal shelters, a non-profit Latin American import shop. Every city has its own counterparts to these, and also chapters of environmental, social justice, and political action groups.

But you don’t have to restrict yourself to groups that actively search for volunteers. You can always go to an organization, person, or business and speak your piece—“I’d like to get involved with what you’re doing—is there something I can do to help, for free?” or “I’m a mime, and I’d like to teach a free weekly class at the Immigration Center.” In GWS #100, Earl Gary Stevens shares how his son got a volunteer job at a Maine radio station, and how that job developed:

Jamie was eleven when he decided to go to WMPG [a local community FM station affiliated with a university] and volunteer his services, any services. He walked the four blocks to the station and told them that he was available and willing to do any kind of work—sweeping, filing, talking into microphones, whatever they had. A little while later he called to tell us that he wouldn’t be coming home for a few hours because he was working at the station. . . . After a week or so, during which Jamie was filing and labeling and getting to know everybody, the woman who co-produced “Chickens Are People Too” asked him if he would like to try hosting the show. With the bravery of the young and the non-schooled, he immediately nailed down a date and floated home to tell us about it. From clerical work to hosting “Chickens” in less than a month!

[Chickens was a children’s variety hour, normally hosted by kids. Jamie hosted a few shows.] Before long he was also helping out with spot announcements and making guest appearances on other shows. As he worked in front of the microphone he became interested in learning how to use the production studio and the equipment for splicing, mixing, and recording. He took a production studio course offered by the radio station and in due time was presented with his own key to the studio.

Jamie’s interest in radio entertainment led to an acting part in a radio play and then to parts in four productions of the Mad Horse Theater Company’s Children’s Theater. Jamie performed in *Matilda*, *The Prince and the Pauper*, *East of the Sun*

and West of the Moon, and Charlotte's Web. Now, at age thirteen, he is talking about the possibility of producing and hosting his own community radio show. . . .

Almost a year after Jamie's first day at WMPG I happened to run into the station manager while he was standing outside the station. When I introduced myself as Jamie's father, he smiled and began talking about Jamie's first visit. "It isn't often that we get a kid his age begging us to put him to work. We could see that he was very passionate about wanting to be one of us, so we gave him a tour and found him a job. We all appreciate his spirit; he has energized us, and he has made a difference at the station."

What a wonderful experience this has been for Jamie! He has hosted more than thirty radio show broadcasts, met interesting young college students who became his friends, found a niche for himself on the university campus, became involved in theater, and made many positive discoveries about himself. Occasionally he meets an adult who isn't respectful to kids there, but nearly everyone has been glad to meet and work with him.

Lots of unschoolers have volunteered happily at libraries, food co-ops, museums, radio stations, public access community TV stations, veterinary hospitals, Habitat for Humanity, and—ironically—in schools.

Though strange, that last idea makes sense. A volunteer, being voluntary, is more empowered than a student. And part of the unpleasantness of many schools ties to overcrowded classrooms and overworked teachers; therefore, a willing helper can make a positive difference. By participating in a new role, you can gain perspective on your own childhood and on the larger issue of schools in general. Plus, children can only benefit from being exposed to the calm, fresh perspective of an unschooler, a person who isn't going to harass them about the usual things. GWS #26 tells about a fourteen-year-old who spends two and a half hours every afternoon in an elementary school, and a thirteen-year-old who takes an hour each Thursday to read to elementary students and correct papers. And fourteen-year-old unschooler Jade Crown, of Washington, was invited to a public school to speak about children's rights.

Looking down the road, consider volunteering as a way to continue your education at the college level. Once you're eighteen or twenty-one, more opportunities will become available—especially if you have useful skills.

Volunteer work can lead to further opportunities. In GWS #118, Emily Murphy writes:

Because of the flexibility of my schedule, at an early age I was able to volunteer at a local museum, one of the most exciting and valuable experiences I have ever had. In addition to its being simply a fun experience, I was able to parlay this early experience into more jobs during my high school [homeschooled] and college years in libraries, museums, and archives. Because of this experience, when I applied for the position I now hold, as Assistant Registrar and Curator of Photographs at the Maryland State Archives, I found that all those jobs I had had since I was fourteen added up to four

and a half years of full-time experience in my field—more than enough experience to exempt me from the M.A. requirement for my position!

Unschoolers volunteering

A parent writes in GWS #36:

Since spring, our thirteen-year-old daughter has been volunteering at a science museum two days a week. To say that she loves it is an understatement! She's been doing a great deal of work in the museum's "mount room," cataloging their collections and learning names (in scientific as well as laymen's terms) of many birds and mammals in the process. . . . She's becoming quite the birder. Occasionally she gets to go on a field trip with the museum's naturalist. And we all got to go (at special staff rates) on a whale watch sponsored by the museum. . . .

The naturalist, by the way, has been very impressed by both of our children's obvious love of and knowledge of nature. He said that he'd be more than happy to take them out into the field any time. All the museum staff thinks that it's wonderful that our daughter had the chance to be doing this and have been very supportive, giving her a range of things to do to broaden her experiences there. Occasionally she will take over for the receptionist, and the accountant wants to teach her some of that. She can use the cash register and she helps get out mailings at times. Everyone has found out what a good worker she is and the demand has become high! Her major focus is and will be, at her request, the natural history work.

At thirteen, Alison McCutchen began volunteering at a library and in a veterinarian's office. Her mother Ruth writes in GWS #32, "She enjoys both but favors the vet. During her first week she saw a dog spayed and our two ten-month-old kittens neutered. She described it to us in glorious detail and we all found it fascinating. She wasn't fazed by any of it." A year and a half later, Ruth McCutchen sent this update to GWS #41: "Alison's (fifteen) latest volunteer job is at the local legal aide office where she is filing and summarizing social workers' case notes."

Alison's sister Deborah was sixteen when her mother wrote in GWS #46, "Deborah's latest volunteer jobs have been at the zoo: one in the Metazoo, an indoor exhibit with small animals, reptiles and microscopes, the other in the commissary where the diets are prepared."

Theo Giesy writes in GWS #26:

Darrin (fourteen) and Susie (twelve) volunteer three days a week at the Cousteau Society. They do all sorts of things, like work in membership. Darrin works mostly in the warehouse, packing things members have ordered (books, T-shirts, etc). He also drives the fork-lift.

Since they work there so much they were invited to the \$50-a-ticket reception the night before the Calypso sailed. Darrin couldn't go so I got to go in his place. I met Jacques and Jean-Michele Cousteau. Darrin has made friends with Jean-Michele's son Fabien—they are about the same age and have many common interests.

I like the Cousteau's attitude toward their employees and volunteers. They appreciate Darrin and Susie very much. They were worried about the lack of work permits and the number of hours spent, so I wrote a letter on Brook School letterhead saying that they were working there as part of the Brook School Curriculum and under the responsibility of Brook School. That satisfied everyone; it looks official.

Darrin runs the spotlight for Tidewater Dinner Theater, \$40 per week (six shows). That is why he couldn't go to the Cousteau reception. He hopes to be able to run the light board soon, \$115/week. He enjoys doing spotlight and is treated as an adult around the theater.

Frank Conley, twelve, writes in GWS #30:

I am presently taking a veterinary medicine course at Louisiana State University. (This course is being given for "gifted and talented" junior high and high school students—I had no trouble registering as a homeschooler.) I became interested in learning more about it and decided to ask a local veterinarian if I could help out at his clinic in return for the experience of watching them work.

It has been very worthwhile. The three vets who work there have been very kind and helpful to me. They explain everything they do and not only allow me to watch but actually let me perform certain duties. They say I'm "indispensable."

So far some of the most interesting things I've done are: watch an autopsy on a cat, learn to draw blood from animals and prepare slides, take temperatures and fecals, watch surgery performed, and go along on emergency calls.

I go to the clinic nearly every day now, for several hours a day. I plan to take an animal science course next.

I recommend this way of learning to everyone. At first I was afraid no one would want my help, since I'm only twelve, but the people I talked to were happy to have free help.

A mother writes in GWS #35:

My oldest decided she would like to do volunteer work at a nursing home so we found one nearby that would take her at age fourteen. She works two days a week from 10:00 a.m. until 3:00 p.m. The residents adore her and the feeling is mutual. The nurses have only praise for how well she has fit right in and all think she must be eighteen. She talks to residents, takes them for walks, holds hands, feeds them. The residents look forward to her coming. Most of all, Lauren loves to hear their stories of the old days. (We also like to talk about the criticism I heard that if my children don't learn to get up to go to school every day, they'll never be disciplined to get up and go to a job when they are older! Balderdash.)

Karen Franklin of Florida writes in GWS #72:

Adam, our twelve-year-old, spends a lot of time at the Science Museum. . . . Adam's big interest is marine biology, especially sharks. The director of the museum is an expert on this, has worked with the top people in the field. The main exhibit this summer was about sharks, so Adam, already quite an expert, led many tours and answered many questions.

Seventeen-year-old Sarabeth Matilsky, of New Jersey, writes:

There's definitely never a dull moment at the George Street Co-op, the store that has been the hub of my family's community since before I can remember. The co-op has been much more than a food store for us—it has been a place to meet people, to socialize, to network, to learn. I started working in the store by myself when I was nine (to fulfill my family's work requirements), and when I was thirteen I got my own membership.

Over the years I've worked hundreds of hours in the co-op, doing my own hours, other people's hours, and sometimes just working all day when there were no volunteers and the coordinator was going crazy. I have always felt respected while working in the store, if not always by strangers shopping ("You're WHAT? . . . Only twelve years old?") then certainly by the staff and most of the other members I've worked with.

As I've gotten older and more experienced, I've been offered more and more responsibility. On any given day that I come in to work I may stock shelves, price grocery items, package bulk food, stock from the overstock areas, package produce, fill pasta bins, bring food down from the upstairs freezer, scrub the floor, check in orders, run the register, organize refrigerators, process special orders, or do any other of the million and one things that need to be done in order to operate a retail store.

While doing these things I've learned many varied and useful skills, such as: understanding the math that's involved when members get their various discounts at the register, dealing with fussy shoppers, understanding the behind-the-scenes stuff that happens in a food store, including budget management from year to year and the nuances of profit margins, plus countless other things. The co-op has been an invaluable part of my education—not just because it's taught me about politics or social studies or math or geography, but because it's helped me learn all of that and more. It hasn't been my grade school or high school or college education, but rather a part of my life education.

Luba Karpynka of California writes in GWS #87:

My twelve-year-old son, Joaquin Gray, has volunteered at our public access TV station, KCTV, for about a year now, about twelve or more hours weekly. And he has just completed a six-month internship (among adults!). His prime interest is computer graphics, but his functions are directing (the entire crew as well as audio, technical, and floor directing), and doing computer graphics, camera, and lights. He produces a show for a local political group, meetings of which he attends with his dad. And he's in the process of creating his own science fiction mini-series.

All this has been possible because of his having been always homeschooled and having the time to focus on his various interests. He virtually taught himself everything about the Commodores 20 and 64, and as we can't afford an Amiga 2000 [computer], he familiarized himself with it at the station. Now he'll be giving paid lessons to crew volunteers (adults) on this Amiga.

Carmen Nolan of Florida, fifteen, writes in GWS #106 about volunteering in a zoo:

I have always loved animals with all my heart; I can't remember not caring for animals. My Mom deserves credit for getting me involved at the local zoo. She called to see what kind of volunteer opportunities were available there, and as a result I was enrolled in an eight-week, mini-zoology, docent training course. I graduated from the course in November and began volunteering as a docent immediately. Many people believe that volunteering at the zoo is mainly shoveling animal waste, but it is not! As a matter of fact, I don't do that at all! A docent is a volunteer teacher and, in that capacity, I have had to learn a great deal about a wide variety of animals, as well as about public speaking, in order to conduct tours, provide animal encounters, and participate in community outreach programs. I was very honored to receive the Central Florida Zoo's "Rookie of the Year 1994" award. . . . I am the youngest docent the zoo has ever had.

As a direct result of volunteering at the zoo, I have been able to affirm the career I would like to pursue. I started working with the licensed rehabilitationist there and have decided that I would like to do that type of work. Animal rehabilitation would be a very fulfilling and rewarding field for me. In addition, I am also interested in the study of primates and the use of sign language with them.

As of this date, in addition to being a docent at our local zoo, I am also a paid employee. I have been hired as a teaching assistant for one of the many educational programs for children that the zoo offers. This opportunity is especially thrilling because I feel that I have earned it through my volunteer work and dedication, and because I am still pretty young. I feel very privileged to have the adult world believe in me enough to give me a place in the working environment that I enjoy so very much!

Anna Barnett, fourteen, of Oregon, writes:

We first found out about WISTEC when my brother started homeschooling. The local science museum, Willamette Science and Technology center, isn't huge, just a few large rooms, but I loved and still love it.

It hosts traveling exhibits, and has several of its own permanent ones. WISTEC has a nature room with gemstones, a colony of bees, and all kinds of critters. It has a different theme each season, bubbles or physics or photography or whatever. I started taking Saturday Science classes. Once I took a summer class in photography and discovered that WISTEC had a darkroom, too. (Whoa, cool!) Mark Dow taught both Saturday Science and the photography class.

I think at this point that I had started homeschooling/unschooling. I had decided that I wanted to see what it was like doing volunteer work, and I chose WISTEC because I thought it would be fun to work there and I knew they needed volunteers. I called Mark Dow because he was the WISTEC person that I knew best, and my favorite teacher. I filled out a form and became an official volunteer.

The first thing I did was to help set up a huge exhibit from the Exploratorium in San Francisco. It was called "Finding Your Way" and it was all about navigation. I screwed and unscrewed things, and moved things around for people, but I generally got the hit that somebody else could have done the things I was doing, maybe better,

and people were figuring out jobs for me to do. Around then I wrote a letter to GWS about my job. I think I was eleven or twelve at this time.

The next thing I did was help at the huge annual Eugene Celebration. This Celebration lasts two or three days and spans all of downtown Eugene, blocks and blocks. They had a booth there promoting Finding Your Way and WISTEC in general. I was all over the celebration with my friends and every now and then I'd come by and work for an hour or so.

My work at the WISTEC booth was a different story than setting up the exhibit. The booth had activities for kids to do, flyers and coupons for the exhibit, and a couple people explaining how to do the activities, what WISTEC was, and what the exhibit was about. The volunteers manning the booth were very busy and grateful to have my help. I gave away a lot of coupons and got a lot of kids and parents interested in WISTEC.

I don't think I did any other jobs for a while after that. Mark never had any jobs for me when I would call him, and I got occupied with other things.

Then I took a class called WISTEC Apprentice through Saturday Academy. It was with Mark and we designed exhibits and built test models in the shop. After the class was over I continued to come in once a week to work on leftover ideas. It was great fun, and I also got over my phobia of power tools.

But after a couple months I started to get bored. I didn't feel like going to work to the shop anymore. Then my mother suggested that I take some samples of my computer graphics in and see if I could do that for volunteer work. I did and was immediately put to work on Superpaint (graphics paradise). Mark had me make an explanation, with diagrams, for an exhibit at the science corner. The next week I started work on an explanation for an exhibit for a conference. It took a month and I worked really hard on it.

Now I do a lot of computer graphics and I'm also generally a sort of museum elf. Once I helped Mark experiment with some different dye indicators for a Mr. Wizard appearance at a WISTEC birthday party. Another time I made a huge freehand scale drawing as sort of a poster explanation for an exhibit. I hang science photos, make copies, feed Beastmaster the iguana and Rock the tortoise. . . . It would take pages to tell all the odd jobs I do, but you get the picture. And the other job, the one I was saving for last, is helping with Friday Night Science.

Friday Night Science is a weekly class for elementary school kids. Each week the topic is different. I help with setting up, supervising the kids, and I do more odd jobs, which range from passing out freeze dried food on a "space shuttle mission" to pointing out signs of animals on nature walks. There's usually about a dozen wild kids so Randy, the teacher, can always use all the help he can get. A while ago I brought a friend, and she wants to come back and help again. And one of the best parts is that I get to do all the activities, too!

I really like being at WISTEC. I like my work and the place in general. I get along well with the other people that work there, and they appreciate my help.

As for my plans for the future, I guess WISTEC doesn't really have much significance. My career plans seems to be changing about once a month at this point, but right now I think I'd like to be a chef, or maybe an actress or a psychologist. I do plan to try volunteering at some other places once I get more time.

My advice for anyone who wants to try volunteering: Go for it! And, wherever you choose, don't be afraid to ask, either. You'd be surprised at how many different places, from the library to the hardware store, could use some help.

34. jobs

I was like many other fullbloods. I didn't want a steady job in an office or factory. I thought myself too good for that, not because I was stuck up but simply because any human being is too good for that kind of no-life, even white people.

—John Fire Lane Deer

Don't limit yourself to teenage stereotypes—you can do so much more than babysit, flip pancakes, and wash cars! Look for work by contacting local establishments that connect to your interests or skills. Walk the streets to discover possibilities. Put the word out that you're job-seeking through your parents' network of friends, through the homeschool community (including online), or through social media groups related to your interests.

Jobs in specialty retail stores are one of the best ways to get involved in a field that you love. Consider comic book stores, pet stores, bookstores, jewelry stores, vintage clothing stores, antique stores, feed stores, bike shops, cheese shops, bakeries, natural foods stores, piano stores, music stores. The people who work in such places are often very knowledgeable, and you will learn from being around them and from the stuff itself. Also, retail stores frequently hire teenagers.

Look up the child labor laws in your state. In the U.S. you typically have to be fourteen to get a work permit; employers are supposed to keep these permits on file for any employees under eighteen. You may have to get a permit through the counseling office of your ex-school. Some homeschoolers' employers, however, have only requested written permission from parents.

If you are especially young or have difficulty getting a job, consider offering to work for very low wages (where legal)—but only at first. Once you're good at what you do, don't feel embarrassed to ask to be paid more; if you work as well as an adult, you deserve an adult wage.

If you feel you're being taken advantage of, discuss with your boss. If that doesn't work, contact your state department of labor for information and help.

Another possibility is to work for trade—that is, in exchange for something other than money. If you are quite young, this might make the whole situation easier on your employer, who could categorize you as an apprentice or volunteer rather than an employee.

As an unschooler you have an edge on the best summer jobs, including live-in jobs at camps, resorts, and national parks, because such places prefer people who can work the whole season—often May through September, not just June through August. Search online to learn about summer jobs for teenagers and college students.



Unschoolers & their jobs

Rosalie Megli writes in GWS #20:

New opportunities are opening up for Lora, our thirteen-year-old daughter. She has made arrangements to begin part-time work at the local veterinary clinic, feeding animals and cleaning cages. She has also been made welcome to accompany the vets on farm runs and with office work. Since Lora loves animals and may be interested in veterinary science as a vocation, we are delighted with her arrangements. Lora got her work permit from the superintendent of schools with no stipulations regarding working hours. . . .

Lora also has a small craft business (she makes herb-filled potholder mitts) and is going to buy a microscope with proceeds from pre-Christmas sales.

Eileen Trombly writes in GWS #24:

Amy was interviewed and accepted and jumped into the Avon world with both feet. . . . She has done a good deal of baby-sitting and house cleaning . . . in recent months. She has been in great demand due to her reliability and dependable qualities. Her duties as sitter expanded over the years and she was called upon by parents of newborns as well as older children. During the summer months she even went on family sailboat cruises to Block Island, Newport, etc. . . . Alas, burnout at age fifteen set in and wages became insufficient for an ambitious ballerina who went through toe shoes faster than she could pay for them. . . .

Her first five days as an Avon representative were highly successful and she grossed a personal income of \$100 within that time. Additional calculating indicates that she is working approximately two hours daily (at her convenience) and earning [significantly more than minimum wage]. Not bad for a fifteen-year-old. If she chooses to work more hours, she'll make more—it's her choice. . . . Most of her customers are older people and are impressed by her confidence. In figuring out her finances even further she finds she is able to take additional ballet lessons, as well as save.

Pam Robinson writes about her twelve-year-old son in GWS #25:

Jared has overhauled a lawn motor mower, truck rear-end, and transmission. He works summers for a neighbor driving a tractor that pulls a hay chopper and large hay wagon. He is paid very well because he is one of the most responsible, dependable employees in the area. This year at twelve he had the job of training and breaking in all the new help, seventeen- and eighteen-year-old young men. He is not required by us to work, yet he often chooses to work long hours, Sundays, and holidays.

Erin Roberts, fourteen, wrote me about her work with horses. She has worked part time at a riding stable for four years, guiding trail rides and helping out. She also works at an Arabian farm, Windsor Arabians, as an assistant trainer. "I especially help break their three- and four-year olds," she explains, "but I also help out with halter breaking the young ones as well as miscellaneous tasks around the farm." She recently bought a three-year-old halter broken Arabian gelding and trained him to ride. When I heard

from her, they had just entered their first show and Erin said, “We didn’t win any ribbons, but we had a great time.”

Scott Maher, thirteen, writes in GWS #37:

In September I went down to the Wakefield Pet Shop and asked the owner Steve, whom I already had known, if there would be any way I could come down and help. I told him how I was a home schooler and that I could come down in the mornings. Steve said we could try it out for a while and see what we think.

I went down on a Monday at 10:30 and first he showed me around and showed me how things are done. . . . I started off feeding the birds and cleaning their cages. Next I swept the floor and fed the fish. Then I fed and watered the small animals, lizards, rabbits, guinea pigs, and cats. Some days I clean filters in the fish tanks and test the pH of the water; other days I clean the cages and clean the glass. I have helped unload shipments and put stock away.

I have been working there almost four months now. I have waited on customers, given them advice, taken inventory, and I even take care of the shop if Steve has to leave. Soon I will be learning how to use the cash register. . . .

I think the best part of it is learning about all of the different animals, fish and birds and learning how to take care of them. I have been put in charge of lizards and small animals. It is a lot of fun to help out customers.

A year later, Mary Maher, Scott’s mom, sent an update to GWS #43:

There have been many times when Steve, the owner, has called Scott at home and asked him to please come down for the day because he very much needed his help. On several occasions, Steve has had to leave the store for several hours and he has left Scott alone, in charge. When Steve opened a second pet shop in a nearby city, he often took Scott with him at night to get things unpacked or to set up displays or even to have Scott help put up paneling and install ceilings. Once in a while, Scott travels with Steve in the evenings to service or set up very large fish tanks for restaurants or private residences.

Customers don’t seem to mind that Scott is so young. They will engage him in lengthy conversations on how to take care of a particular pet or how to go about properly setting up a fish tank. One fellow, an older man, took all Scott’s advice on what fish were compatible for his new tank.

Recently, Steve has decided that he would like to sell pet supplies at a Sunday flea market in another town, and Scott will be in charge of the whole operation.

Eleadari Acheson, fifteen, writes in GWS #76 about her work at a used bookstore and as a coach at a gymnastics club:

During the past two years the store moved to a larger location and my hours have increased to three five-hour days per week. My income and responsibilities have increased as well. I now buy and price books, clean, organize displays, make business calls, write business letters, conduct book searches, answer questions, and restock shelves. In addition, when the owners are on vacation I handle mail and banking.

At first I was the only employee, but a few months ago three more employees were hired. . . . As senior employee, I am paid more per hour than the rest even though I am the youngest. When the owners are unavailable, the other employees call me when they have questions.

[About her gymnastics work:] When I started I wasn't strong enough to spot even a front limber with the older kids. Now I'm spotting the older kids' back handsprings by myself. I also lead warm-ups and teach the less complicated tricks while the head coach teaches the harder stuff. . . .

I consider my jobs the most important part of my homeschooling education.

Kristine Breck had been out of school six years by the time she wrote in GWS #70:

My main interest is animals. I recently had the opportunity to go from my home in Alaska to an exotic animal breeding compound in Florida, where lions, tigers, leopards, and other rare animals are raised. It was a dream come true for me because I had always admired the big cats and now I was going to live with them.

No doubt, I had worked for it, and it has been work I have loved doing. I trained several winning obedience dogs and a performing sheep, raised a musk ox, tamed a fox, trained and raced the World Champion racing reindeer, and taught my best friend, a horse, to do 35 circus tricks (so far).

Last summer when the Florida big cat people brought their educational exhibit to our small town in Alaska, I gave them a copy of my resume/portfolio. They said I had talent, and they came to our farm to give me an audition.

In February, I boarded the airplane for Florida. . . . Since I was working with very special animals, some endangered species, the owners trusted me a whole lot to take good care of the young baboon, the llama, the lion cubs, and the baby leopard. I tried very hard and used all my knowledge to be worthy of their trust. And I must have been a good "nanny," because I never had any problems, and they invited me and my mom to come back and live and work on the compound permanently.

People I met were very surprised at my adventure. They usually guessed, "And you're only sixteen or seventeen, right?" Actually, I'm fourteen, but under my circumstances, age was not important. Qualities such as knowledge, interest, and desire to learn were what mattered. It was a wonderful experience, and I think homeschooling is excellent preparation for the real world, because we live and learn right in it.

A year later, Kristine wrote in GWS #79:

This last summer I spent five months on the road, working for the Big Cat Show. I'd had other jobs before, but this one was intense, and in it I learned and practiced responsibility, financial management, and taking care of myself away from my family. I really enjoy traveling, and a person can learn a lot from the many situations and environments encountered. It seems like adjusting and making changes comes more easily after you've traveled. . . .

My next job was through people who knew me and said I was a mature, hardworking, ambitious young person, which I have always tried to be. . . . In this job I handled camels and Nativity animals in the Radio City Music Hall Christmas Spectacular. It

was a very impressive place to work and required staying in New York City for two months, which is truly an enlightening experience for anyone from a small town.

Kristine went on to live and work at an animal park in Maine, saving her money “to buy a vehicle and equipment to take my performing animal show on tour independently.” By the time she was nineteen, she had indeed performed throughout the U.S. with her horse, Magic, including appearances on the David Letterman show and Radio City Music Hall, and had moved to California. There, she started her own business which included an educational animal program, and also organized horse-drawn sunset dinner rides and children’s pony rides.

Randall Kern writes in GWS #67:

I am twelve and have been a homeschooler all my life. I have been programming computers for six years. A year ago I started going to an IBM computer club, even though I didn’t have an IBM yet. When we got one, last June, I became the consultant for our group.

The last meeting I went to was held in a newspaper office, because the computer they use for their accounting needed to be set up. When we got there we found out that the program they had bought didn’t do what they wanted. So they hired me to write an accounts receivable and account maintenance program for the newspaper.

GWS #43 tells about Jeff Gold, who at sixteen had dropped out of high school and was earning \$2,000 a week helping companies safeguard their computer programs.

Leonie Edwards, sixteen, loves her full time job as a dental assistant, and plans to become a dentist. She began working at fourteen as a sort of assistant-to-the-assistant. At that time, she wrote in GWS #64:

I work mainly with the dental assistant. I started doing things like cleaning rooms, sterilizing instruments, setting up trays, preparing the rooms for the next patient, and watching how the dental assistant did things. After a while they gave me more to do, such as getting the patients in and putting a movie on for them, filing, preparing syringes, making sure the rooms are stocked, and developing x-rays. Then I started assisting the dentist with several patients. Now the dentist calls me, instead of the dental assistant, to help with fillings and sometimes root canals.

“Thanks to homeschooling,” she writes now, “I can put ‘two and a half years of dental assisting experience’ on my college application.” At the same time, she’s working on a correspondence course from the University of Kentucky on Human Biology. The credits will build towards her pre-dental bachelor’s degree.

35. your own business

Life shrinks or expands according to one's courage.

—Anaïs Nin

Starting a business can mean freedom, creativity, self-expression, and fulfillment of your unique talents. It can involve nearly anything: breeding and selling tropical fish, cleaning attics, running a bead store, mending old books or jeans, training horses, designing websites or giving computer consultations, tutoring English-language learners.

For the most part, any adult-run micro-business could also be set up by a teenager. And just because you've never heard of anyone who made a business out of helping kids build treehouses doesn't mean it can't be done. Of course, you can try any kind of work as part of a job, too—working in someone else's bead store before opening your own.

In a business, you answer to yourself and your customers (or clients) instead of a boss. You have to stand on your own two feet, and that nonexistent boss can't write you a paycheck. If you act wisely and love what you do, you'll probably eventually make a profit. If the worst happens, you might lose your investment of money; if your business is something like childcare or petsitting, you could even be sued if a court held you responsible for damages. If you take care and don't make empty promises, though, you should have no trouble.

There are two reasons starting a business especially suits itself to teenagers.

First, you don't yet need to support yourself. You needn't worry about making fast money, so you can enjoy a slow start, learning gradually from your mistakes and successes. Adults cannot typically afford so easily to go into business. Or rather, most have to keep their regular jobs to support themselves until a business becomes profitable. Motivated adults find a way to make this work, but it can be stressful to juggle a job that pays the bills along with the many tasks associated with a business, not to mention all the other responsibilities of adulthood. Many businesses make no profit or even lose money their first year or so. That's mainly because most businesses require an initial investment—large or small depending on the type of business, your standards, and your ingenuity.

Typical retail businesses require a significant investment—renting a space and buying all the merch you plan to sell. (You can creatively cut costs, of course. I once ran a tiny retail business with almost no overhead expense; it consisted mainly of bringing a box of hard-to-find belly dance supplies whenever I taught a class or workshop.)

At the other end of the spectrum, a service business may require only minimal capital. To get started as a tutor, freelance photographer, guitar teacher, or website



designer requires only advertising and transportation costs plus the tools of the trade—camera, guitar, or computer.

I don't mean to imply that your business can't make a profit in its early stages. Especially if your main goal is to make money, you can do it. My friend Laura baked bread and cookies every day while she was a sophomore in high school, and by selling them to teachers and students, she paid for a trip to Scotland the following summer.

The second reason starting a business is a great idea? It's one of the few legal and exciting money-making opportunities for people under the age of eighteen. Many establishments can't (or won't) hire you until you're at least sixteen—and even then, finding interesting work isn't always easy. Yet no one can stop you from launching your own enterprise.

Make a plan

After decades running my own businesses (such as teaching and performing belly dance, publishing my own books, and directing a summer camp), I suggest that you set up clear financial records, right at the start. Look up (online) your state's Secretary of State for information on legalities and taxes. And do write a simple business plan:

List your startup costs (computer? fliers to post around town? a speaker or PA for when you teach blues dance?)

List your ongoing costs (postage? website hosting? subscriptions to specialized magazines? advertising? transportation? office supplies?)

Estimate your net income potential (all the money you expect to take in)

Estimate your potential profit (all the money you expect to take in, minus all your expenses)

Identify the competition (or think of the competition in a more friendly way, such as your "colleagues" or "community") and consider how their business will affect your business. It doesn't have to be a negative relationship—you might share subscriptions to expensive trade magazines, or refer clients to each other when you're overworked.

Resources

Many terrific books explain the legal and paperwork side of a business, give an overview of the possibilities, and/or give big picture guidance. I like these:

The \$100 Startup: Reinvent the Way You Make a Living, Do What You Love, and Create a New Future, by Chris Guillebeau. Also see Guillebeau's book Side Hustle, plus his website and blog.

Small Time Operator, by Bernard Kamoroff, explains record keeping, taxes, and other technical headaches.

The Practice: Shipping Creative Work, by Seth Godin, is a dense cookbook of useful principles. Godin's definition of "creative" includes not only artists and writers, but also entrepreneurs, as well as people in any field committed to delivering their personal best.

These two are older, but timeless:

Growing a Business, by Paul Hawken. Helps you design and start a business that reflects your own interests and skills. An original, conscientious economist and businessman, Hawken has no college degree but plenty of experience and common sense.

Wishcraft, by Barbara Sher, helps you get anything together, but it's especially terrific for a project like starting a business, which can be overwhelming if you don't know how to break it down and get the support you need.

Online: small-business blogs, websites, and social media groups overflow with advice and inspiration. Khan Academy offers free courses to get you up to speed on accounting and other financial tasks. (If theirs don't suit your needs there are other ways—online and off, fee and free—to acquire such skills.) Just don't get lost in all this good stuff. If the business you are starting is tiny, there's no need to spend a lot of time learning about business before you begin. You can grow as you go.

When are you ready to start?

Depends on what you want to do. You likely already have skills that could lead to a business without further training. My own school students, aged eleven to fourteen, already had the expertise necessary to operate dozens of businesses, such as:

- decorating and painting skateboards
- giving skateboard lessons
- giving figure skating lessons
- coaching hockey or tennis
- teaching sailing
- teaching or tutoring Japanese or Hebrew
- writing newsletters on various issues (which, these days, would translate to blogging or podcasting)
- designing and sewing clothing
- making tie-dyed and batiked clothing
- forming a band
- picking up neighborhood recyclables (with the help of a bike trailer or older friends with driver's licenses)
- producing videos
- raising and breeding various animals
- making and selling food—catering, cookies, etc.

Perhaps you'd like to do something you're not yet skilled in—but could be, with practice, guidance, and/or the right tools. A job related to your interests is valuable training for a later business, especially when you're new to the field. Or design an independent training ground. Maybe you're a tap dancer and would like to start a small professional troupe, but first you want to spend a year taking more lessons, giving amateur recitals, and studying all the old Gene Kelly, Fred Astaire, and Nicholas Brothers musicals you can get your hands on.

Yes, it's best to hold out long enough to ascertain that you're offering a quality product or service, but don't wait too long just because you have stage fright. Sometimes your interest can't develop any further until you put yourself on the line and start sharing your skill with the world. That happened to me.

After I'd taken a year of belly dance lessons, I knew I'd found one of my callings, and I set a goal of performing professionally in two years. I'd moved to a new city and had an impossible time linking up with other dancers for lessons, so I practiced on my own every day and painstakingly studied videos. Finally, I reached a plateau where I felt dead-ended and frustrated at the lack of contact. I took the big plunge and nervously phoned up a Moroccan restaurant—a year and a half before I had planned to start my “career.” To my surprise, they thought I was pretty decent. After my first performance I was signed on for a standing Friday and Saturday night gig. And although the first two shows were pure panic, in my bones I knew the timing was right. An audience was exactly the challenge that my dancing needed in order to progress.

To make your business successful on the most ultimate terms, be sure it is not only something you love and that the public will buy, but also something good for people and for this battered planet. I mean not only the type of business, but also your approach to it. In my belly dancing days I brought joy, friendly entertainment, and cultural awareness and affirmation to my audiences. I helped them celebrate, and that was worthy work. If I had perceived my art differently, I might have instead brought silliness, gimmicks, and cheap flash.

Run your business under the scrutiny of your own moral code—think about what you're doing and take time to do it right. If you open a catering service, consider an alternative to polystyrene foam (Styrofoam, etc.) packaging. As a fabric painter, find dyes and paints that don't harm rivers and frogs after you dump them down the drain. When singing for a crowd, aim not just to impress your listeners, but also to make them happy.

A lot of situations we think of as teenage jobs are actually small businesses—when you're babysitting or shoveling snow there's a fine line between “clients” and “bosses.” While this sort of work may not be as glamorous as designing rock gardens or custom cat palaces, you can make it more meaningful by thinking of it as a business, and becoming more creative and proactive in your approach. And unschooling can give you an advantage even in these typical endeavors. Lora Risley mentions in GWS #76, “I was allowed to babysit at children's homes and I earned quite a bit of money because I was available when the other babysitters were at school.”

Unschoolers in business

At age fourteen, Carey Newman of British Columbia wrote in GWS #68:

Right now I am working towards becoming a full-time artist. My parents have played a big part in my progress up to now. When I was twelve my Dad asked the Sooke Museum about me having a solo show of my wildlife sketches in their gallery.

The museum approved and said that I could have a show. . . . A lot of my time during the months before the show was spent preparing for the opening night, which close to ninety people attended. Through the next two months over half my drawings sold. I thank my mom and dad for pushing me to get everything ready for that show.

[Later] I started on Northwest Coast Indian art. My dad, an Indian artist himself, was very helpful in showing me the rules of Indian design. Soon after, my father received an application form for the Sooke Fine Arts Show, a juried show that takes place in Sooke every year. Jokingly, I said that I should enter my Indian designs and silk-screen-print them. My parents turned it from joke to matter and said that I should try. They supported me financially by lending me the money to enter the show, and to buy silkscreening material. An artist friend of mine helped me to do the silkscreening. Two of my designs were accepted and I went on to sell 59 prints over a period of ten days, bringing in just over \$2,000, from which I paid back my parents and bought more equipment and supplies to continue with this art form.

My mom later found out about the Okanagan Summer School of the Arts, got the application form, helped me apply for a bursary to cover expenses, and assisted me in composing a letter with samples of my work so that I could get accepted into a course that didn't normally accept anyone under sixteen.

At thirteen, Vita Wallace began earning money giving violin lessons.☒¹ GWS #64 pointed out that young teachers are sometimes better than older teachers since they know freshly what it feels like to be taught.

Amelia Acheson writes in GWS #42 about her twelve-year-old daughter:

She picked up a clowning book at the library last summer. Her first decision was to duplicate one of the costumes and gags she saw there for a Halloween costume. It turned out so delightful that she was invited to bring it to a day-care center to "show-off" and entertain the little kids. Over the year, that has grown to a business, and now includes all three of our kids. They have been paid for their clowning—they have their own business cards—they brought home a huge first place trophy from a parade—and, mostly, they have a lot of fun at it. They ride unicycles, juggle, do gymnastics. Tia does magic tricks (one of her magic books says that magic is a trade like no other—you have to learn it yourself at home). They sometimes work in partnership with a fourteen-year-old clown from another town who makes balloon animals—as a result, he is learning to unicycle, and they are learning to make balloon animals.

In GWS #24, a mother tells about her family's unschooling. They'd spent the first year with a fairly rigid curriculum and not especially enjoyed it. So they changed:

Into the second year, we started the family business. We sell and repair bicycles. We also sell all accessories associated with bicycling. The kids and I manage the store while Dad works his full-time job as a carpenter. (Unless you are very rich, outside income is necessary the first years in business.) He has an active role in the store evenings and weekends. Our fifteen-year-old son, who has the bike knowledge (from books and other places) manages the repair department, doing all repairs (training dad), keeping stock of parts and working with customers. Our sixteen-year-old daughter is the family

organizer, keeps us clean and orderly, manages the store, selling and keeping up with the accessory inventory. Mom's (that's me!) main job is to keep the office going, books, etc. . . . Sounds simple? It's not. But somehow it all works!

At sixteen, Carmen Rodriguez-Winter and her seventeen-year-old brother Javier opened their own shop, Back Alley Peddlers, in Toledo, Ohio. They sold vintage clothing, concert T-shirts, skateboards, hats, their own handmade jewelry, incense, hair dye, poetry written by their friends, lava lamps, and such. Carmen had fantasized about opening her own store ever since fourth grade, and a few years after she left school in eighth grade, she was ready. With their mother's help, Carmen and Javier decorated and renovated the building and launched their dream, traveling to Los Angeles, New York, and Chicago for fashion shows. "Without homeschool this wouldn't be a reality at all," she says, "I'd still be at school, just sitting there, being really super bored, and doing nothing with my life, just being a bum."

Emily Bergson-Shilcock, seventeen, of Pennsylvania, also opened her own shop:

I was homeschooled all of my life. The basic philosophy of my homeschooling education was "learn in the process of doing real work" (as opposed to "make work"—like math worksheets instead of purposeful measurement in the wood shop or kitchen). . . .

Just after my seventeenth birthday, I reached my life long goal and opened a retail store. I have always been interested in money and business, and my parents have supported my interest—for instance, when I was ten they gave me a real electronic cash register. Also, starting at age seven I was involved in numerous volunteer opportunities. Consequently, my life dream was to discover how I could combine business and helping others into a feasible career.

The Destination of Independence, selling products to make everyday living easier for people with disabilities, was born in April of 1995. My products include wall-mounted jar openers, reachers, long handled shoe horns, ergonomically designed garden tools, Arthritis Foundation award-winning kitchen utensils and doorknob grips and extensions; all designed and chosen to help people with Multiple Sclerosis, arthritis, Carpal-Tunnel syndrome, etc. Owning and managing my store has helped me to broaden my world and educate me in hundreds of ways: researching manufacturers and products, public speaking through demonstrations, writing business letters, handling State and Federal taxes, using a financial management system on the computer, increasing my sensitivity to the needs of the elderly and disabled, practicing continuous improvement, and realizing that with hard work and a positive attitude, anything is possible.

I have loved being a homeschooler not because it is the only way I think one can learn and flourish, but because I think it was the best way for me.

36. pigs & honey ~ agrarian work

To farm well requires an elaborate courtesy toward all creatures, animate and inanimate.

—Wendell Berry

Getting to know the plants and animals that we eat fills a big gap in our educations. I may overly romanticize this one, because I am not yet a small farmer. But no one ever argues convincingly against the goodness of contact with the fundamental building blocks of our lives. Any sort of agricultural project will benefit your brain. The Colfax family found that:

At home, our efforts to restore the land, to plant gardens, and to improve our livestock, stimulated interest in biology, chemistry, and, eventually, embryology and genetics. Clearing the badly damaged land provided lessons in ecology, and the construction of a house and outbuildings showed the boys the relevance of seemingly arcane subjects such as geometry. Drew, at seven, understood that the Pythagorean theorem was invaluable in squaring up his sheep shed foundation. Grant, at nine, discovered a Pomo Indian campsite on the ridge and was inspired to delve into North American archaeology, an interest which later broadened into studies of Mayan and Aztec cultures.☒²

One of the most delightful unschooling families I heard from was the Fallicks, from a small community near Davenport, Washington. They lived without any conventional utilities, generating most of their own electricity from solar panels. They grew much of their own food, used an outhouse, and got water from a creek. Jj, the mother, described the family's education in part as follows:

Our activities have a yearly sort of cycle, tied to the seasons and seasonal/climate factors. The kids spend more time during the winter in indoor activities and most of their time the rest of the year outdoors. Just living here is an education . . . about electricity (why do you disconnect the solar panels from the house/batteries during electrical storms?) and wildlife (the list of what lives here that Kate is compiling is over a page and includes a bear and cougar). . . . We play instruments (between us all piano, guitar, clarinet, recorder, mandolin, and percussion/washboard). . . . [We] read aloud, . . . sing, etc. The kids are involved in 4-H, mostly home economics projects and the arts, plus church, a gifted kids group and the homeschool community.

In GWS #28, Lynne Hoffman wrote, "I've drawn up a chart of common farm chores and checked off which academic subjects each suggests to me." Her chart included "plan garden," "plan pond," and "carpentry" under geometry, "make cheeses" and "freezing" under chemistry, etc.



Of course, no one in their right mind does anything wonderful just to fulfill an academic checklist. There is something rather unsavory about growing red hot chili peppers merely in order to learn agricultural science. But there is something savory indeed about growing red hot chili peppers because you want to grow red hot chili peppers, and accidentally catching a lot of sunshine, cooking skills, and agricultural science along the way.

My concern for your education, though, is not all that impels me to offer this chapter. Dig into a bit of farming and you just might help heal the world. Agriculture is in a bad way. Your breakfast eggs were the work of a hen who's never been outside; she lives in a wire pen barely big enough to turn around in, and the lights in her factory stay on all night to stimulate faster egg production. The grapes your boyfriend brought on Sunday's picnic were dusted with pesticides that threaten the lives of field workers. The steak sizzling in the pan oozes hormones.*

The modern agricultural expert, unlike the old-fashioned farmer, often forgets the health of rivers and wildernesses and small towns—and of the people who eat plums and spinach, milk and bacon. Sometimes, it seems, he sees only chemicals, yields, efficiency, and giant tractors. In order for everyone to keep eating, say wise farmers like Wendell Berry, many more people will need to start farming, organically and on a small scale. So, I admit, I kind of hope you will check out farming and get hooked. I figure that would help save human life on planet earth.

I also figure you might just plain have fun drying herbs, milking goats, and carrying chicken shit to the compost pile.

Farmy stuff to do close to home

Find a local farm where you can help. Many small farms rely heavily on young apprentices and interns from spring through fall each year. Sometimes these are live-in arrangements, and sometimes not. Your area may have an online directory of local farms, but even if it doesn't you can find them by searching online—or just chat with folks at the farmers' market. You'll want an organic, biodynamic, transitional, sustainable, or similar situation to avoid living and breathing pesticides. Tabitha Mountjoy wrote about her work as a farm apprentice in GWS #68:

I first met Ms. Chaffin, who owns the farm, by buying a horse from her. My new horse, Shari, is now boarding there, so I help out around the barn. I sometimes feed, which includes graining, haying, watering, and anything else that each horse needs. I might clean stalls or lead horses to pasture for their exercising. I am also learning to give the ill horses penicillin injections.

Look into your state or county 4-H group, particularly their horticulture and animal science programs. Elaine Mahoney wrote in GWS #28 about her daughter:

Kendra is a 4-H teen this year. . . . The 4-H teen boys and girls work on community projects, organize dances, go on trips together, and study animal care, health, nutrition, gardening, and energy. . . . Kendra went to the State House with 4-H and is going to

Washington D.C. with them in July. She also has a proposal application to request funding of a community awareness project that she has in mind, sponsored by Reader's Digest, through 4-H.

If you have a yard, try a project or two. Maybe your parents already have a garden but it's their thing, not yours. Ask if you can make your own fun. Due to city codes and neighbors with noses, you probably can't have piglets. You probably can have rabbits, kiwi fruit, blue corn, a greenhouse full of gourmet salad things in the winter, possibly even chickens. Entice yourself with Carla Emery's tempting Encyclopedia of Country Living or other books from the 630s and 640s region of your library: Cultivating Carnivorous Plants, Raising Your Own Turkeys, Growing Food in Solar Greenhouses . . .

Learn to save seeds. The Seed Savers Exchange has thousands of members who rescue old varieties of vegetables, fruits, grains, flowers, and herbs from near-extinction.

Contact your county extension office for help with gardening pests, soil testing, or other local issues. A good use of your family's tax money, extension agents are paid to help farmers, gardeners, and homemakers solve agricultural and family living problems. They should know about healthy, organic solutions for problems, as well as conventional unhealthy, poisonous solutions, so be sure to specify your preference. Or, they may refer you to a local Master Gardener, who is a regular person who took a bunch of classes and now knows the answers to your questions.

Maybe you want to become a Master Gardener? Typically, you get free gardening classes in exchange for volunteering a certain amount of time to answer questions from the public. The training is provided by county extension services.

Start a small business—growing strawberries or specialty vegetables (edible flowers and herbs bring a high price), raising chickens and selling eggs, learning to care for bees and selling honey, arranging flowers fresh or dried, growing mushrooms in your basement, making lavender sachets and calendula balm . . . the possibilities are endless.

Rent a plot in a community garden.

Organize or participate in an effort to convert your city into paradise, with more fruit trees, community gardens, even mini-farms amidst the shopping zones. See The Edible City documentary which showcases California projects. Get your hands on the old, out of print, but still useful Edible City Resource Manual, by Richard Britz. Search online for urban food forestry, urban farming, and similar topics.

Ideas & movements to explore

Discover permaculture—a rich, fascinating, whole-systems approach to designing gardens, farms, and communities that sustainably meet human (and other) needs. I've been inspired by the backyard projects of my grown-up-unschooler friends Damian Lester and Maya Toccata, who are converting their acre of bone-dry Mojave desert into a forest paradise. (Follow their Opuntia Garden Farm adventures on social media.) If everyone in their region used similar practices, Damian tells me, Los Angeles could

have adequate clean water just from rainfall—no more draining the Colorado River, exhausting aquifers, or piping in water from all over California. On the other side of the planet, the ambitious Sahara Forest Project is using the same strategies to reforest the world’s biggest desert. Different techniques, but the same underlying principles, lead to sustainable wonderlands in cities, mountains, prairies, and tropics.

Search online to find local meetups and other opportunities, as well as books, blogs, and videos. If you get excited, consider a permaculture design program. The acclaimed online course from Oregon State University offers both free and fee options.

Explore traditional, Indigenous, and rewilding approaches to land use. Hunker down and dream with Julia Watson’s exquisite compilation, *Lo-TEK: Design by Radical Indigenism*.

Read up on the farm workers’ movement—the heartbreaking (and unfinished) yet tremendously inspiring struggle for fair pay and humane working conditions. Our heroes are Cesar Chavez, Dolores Huerta, and the thousands of Mexican-American (and other) migrant workers who joined (and continue to join) the cause.

Learn about the agrarian, agroecology, and regenerative agriculture movements, catalyzed by visionaries like Wendell Berry and Vandana Shiva. (Both write prolifically; Shiva also appears in many videos and documentaries.) The organization A Growing Culture advocates for small farmers’ rights around the world. And an excellent overview is *The Essential Agrarian Reader: The Future of Culture, Community, and the Land*, edited by Norman Wirzba. From the introduction:

To be an agrarian is to believe that we do not need the hypothetical (often false, and perpetually deferred) promises of a bright economic future to be happy and well. What we need—fertile land, drinkable water, solar energy, communal support and wisdom—we already have, or could have, if we turned our attention and energy to the protection and celebration of the sources of life.

Go away & stay on a farm!

Go for two weeks, three months, or a year.

Post what you’re looking for on social media platforms—groups for homeschoolers, small farmers, permaculturists, etc. Be willing to work, of course, in exchange for room and board. You could seek a situation with other unschooled teenagers, or one with younger children (whom you might help to care for). You might end up at an organic apple orchard or a traditional cattle ranch.

Communicate clearly as to expectations, especially if you plan to stay a while. Be sure they know how inexperienced you are. Be sure you know how cold it gets, and what time you will have to rise and shine. Be sure you can coexist with each other’s choices. And be sure you know how much freedom they feel like giving you. Rural homeschooling families run the complete range, from conservatively religious folks who may not appreciate your music choices, to extremely relaxed parents whose

own teenagers live next door in a converted barn and completely control their own academic, personal, and social lives.

Discuss whether you will mainly help with preexisting chores, or whether you might undertake a new project, such as designing and planting an herb garden or building an outdoor solar shower.

Search the WWOOF, HelpX, and Workaway websites for opportunities, or search the internet for “organic farm internships” and related topics—then reach out to ask if an unaccompanied teen would be welcome. Or, as with all things unschooling, imagine an opportunity where none exists . . . yet. You might, for example, explore the “Farm Map” on the Regeneration International website, and then politely contact an intriguing pig farm to see if they’re open to discussing possibilities.

Search online for living history (or historical reenactment) farms. Some have residential volunteer staff. Even if there are official age requirements, they may be flexible if you demonstrate maturity and independence.

Thinking about farming as a long term possibility?

Connect with the young farmers movement for bountiful encouragement, knowledge, and community. Watch the lively short documentary *The Greenhorns*, which is roughly ninety percent inspiration and ten percent reality check. Check out the websites of the Greenhorns and the National Young Farmers Coalition.

If you don’t have a million bucks lying around with which to buy a farm, look up Agrarian Trust—their mission is all about land access for next generation farmers. (But look them up even if you’ve already got the farm or the million bucks, for their useful links and resources.)

Leah Penniman’s book *Farming While Black: Soul Fire Farm’s Practical Guide to Liberation on the Land* is a welcoming handbook, packed with details on everything from finances to farm skills training to seed exchanges to farming as activism.

Unschoolers on the land

GWS #15 reports on Grant Harrison, then fourteen and living in rural England:

He has a small business running 100 head of poultry, selling the eggs to callers who come to his egg-grading room. Surplus cocks, etc, he will calculate to the last pence for their rearing costs and add his percentage for his time, and these are sold to the house. He has ten different pure breeds. He experiments with cross breeding. He is in need of a metal turning lathe which we [his parents] will help him obtain. He wants to make parts for the clocks which he mends, make a steam engine, parts of spinning wheels, etc.

More stories from GWS:

We live on a working ranch in central New Mexico. . . . Our children (sixteen, fourteen, and seven) have been homeschooled their entire educational experience. .

. . Living on a livestock ranch, the girls have ample opportunity to practice some veterinary skills, drive tractors and trucks, and operate small machinery. There's also time for observing wildlife and plant life and learning something about their immediate environment. We often take "field trips" to various historical and interesting locations around our state. –Donna Spruill, GWS #45.

Since we are a farm family, quite a number of our science projects are closely tied to agriculture. The latest project is a fish farm—complete with ten-gallon-aquarium for the showy stuff and a five-gallon nursery tank. . . . Both boys did a man's work in the fields this past farming season. . . . We put them on the payroll and they did a swell job. . . . Mark (fourteen) learned how to operate the combine and he also drilled (planted) over one hundred acres of wheat this fall. Bill (thirteen) did most of the disking and field cultivating just ahead of the planter, plus hauling the harvested grain. –Virginia Schewe, GWS #35.

The girls (Star, thirteen; Deva, almost six) have been going visiting a woman who lives twenty miles from here. This woman invited two other girls of similar ages to share four days with her; she expects them to cook and care for themselves and help her with her gardening and other projects. She is a talented artist with fabric and crochet and plans to share her skills with them. . . .

Star was very involved with horses (more in imagery than reality, although she had her own pony for several years) and thought she would become more involved when we moved. But as she has grown she finds craft work, reading and gardening much more appealing to her than working with animals. She had a hard time letting go of her "images," even felt guilty that she didn't want to own a horse (as though she were betraying herself!). After much tearfulness, she gave away her six geese and their goslings when she realized the inefficient set-up she had and that she was not really that interested or attentive to them. She has been much relieved and happy now that they are gone and has put much energy into her garden, which is thriving. –Laurie Fishel-Lingemann, GWS #30.

Kirsten Rowe, of New York, tried a three-week experiment on a dairy farm and ended up staying for more than a year. In GWS #108, she writes:

When I started homeschooling, the summer before I would have been in eleventh grade, I thought it would be neat to try spending three weeks on the dairy farm that family friends owned in Earlville, New York. . . .

I found farm life to be completely different from the suburban life I grew up in. When I got to the farm, the farmers told me about how they get up at 4:30 in the morning, and when I asked them about days off, they looked at me strangely, saying that they didn't get days off. Nonetheless, I became enamored with life on the farm. The births of the calves were breathtaking to me. I loved feeding the calves and bedding down the heifers in the barn. Seeing the milking operation was also intriguing. During my visit I became even closer with our friends, and they invited me to live on their dairy farm as part of my homeschooling experience.

This farm is a 480-acre registered Holstein farm. We milk eighty cows and grow our own replacement heifers. My main jobs are feeding at the heifer barn and cleaning the horse barn. I relish the time I spend with my six-month-old registered Holstein calf, "Hop Along Cassidy."

Though it's been an incredible year and a half, the plan does have its disadvantages, including the separation from my best friends in Ithaca. I try to get back every other week so that I can see my friends and go to parties. All of my friends from school think it's so cool that I just moved to a dairy farm on sudden impulse like that. . . .

When I wanted to be able to share my growing excitement and knowledge about the dairy industry, I ran for the '95-'96 position of Chenango County Dairy Princess. Since winning this position, I've made many presentations at schools, camps, day care centers, senior nutrition sites, retirement homes, and area clubs. One big project involved producing a documentary on osteoporosis. I've learned a lot about this debilitating disease through the research I've done. It has even made me rethink some of my own dietary choices, and I wanted to be able to share what I've learned with other kids. As a teenager myself, I know that teenagers aren't always open to suggestion, so I decided that instead of standing in front of a class and spouting out facts, I could better reach kids through a documentary that could put a face on the disease.

I found a video production company nearby that was willing to film and edit the documentary at cost to them. My parents and I made up the remainder of the cost. I filmed interviews with people and spent a lot of time working on the editing. Then I decided that before the title page, I wanted the image of hands breaking a bone. I went to the pathology lab at Cornell University and was able to obtain the femur of a dog who had actually had osteoporosis. . . .

In conjunction with my dairy princess activities, I will be going to Honduras in November. The group I'm going with is called Heifer Project International. We will be giving area families a cow and asking that they pass on their cow's first born heifer to a neighbor. Because the villagers are new to farming, we will be building a milk dumping station and teaching the people how to care for and grow food for their animals. In the area where I will be going, 75% of the children are severely malnourished. The milk they will be able to get from the cows will drastically help to improve their nutrition.

Jesse Williams, twelve, of Washington, writes:

I gained a lot from doing the farmers' market this year: experience in growing fresh market produce, doing business, and dealing with various people.

We have always had a large garden at home. I have also grown mini pumpkins to sell. Two years ago when my pumpkin business was at its peak I sold four thousand pumpkins, supplying our two local grocery stores.

Early last spring when I was planting vegetable starts I had no idea I would be doing the market. I did know that I was getting tired of growing pumpkins for the grocery stores and I had become more serious about growing fresh produce on a marketable scale. Although I was unsure of where I would sell them, I began to start a succession planting of standard vegetables.

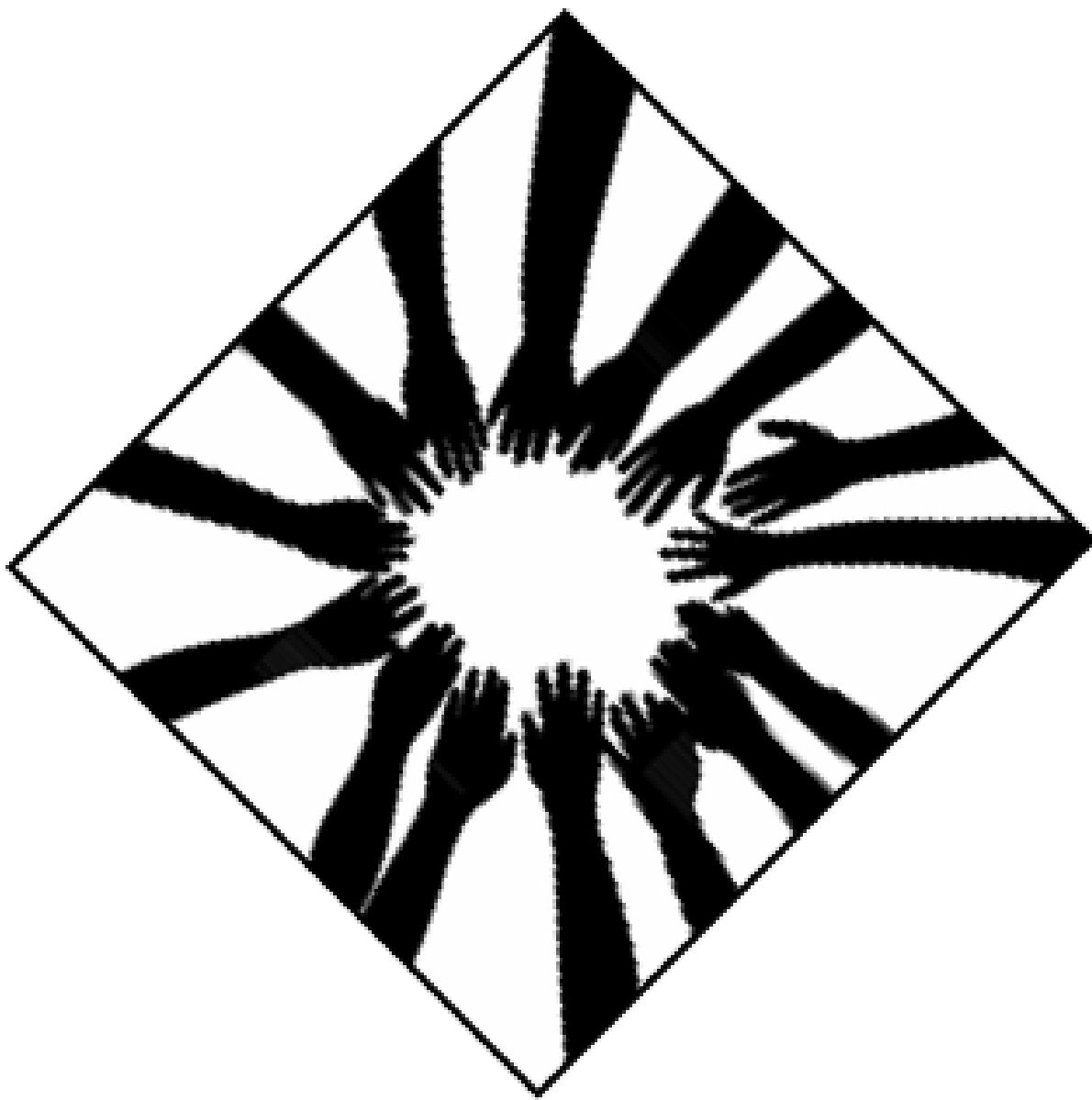
The best place I found to sell my produce was a newly started Friday farmers market in our town. I was quite ill-prepared on my first market day. For one thing I only had spinach and two types of lettuce for sale. I had a table but no awning and there were very few customers. I had paid for my space at the market through the end of the month; otherwise I might not have gone back.

With my first month I made many improvements. I built an awning, got a more effective display system, and got better at keeping the produce fresh in hot weather. Another plus was that as the season progressed I had a much wider variety of vegetables.

On market days I would get up around 6:00 a.m. My dad and I would drive to the farm and pick the produce. My dad would help me set up. Then I was on my own until the market ended. By the end of the season I was doing fairly well. I had made enough money to pay for several major additions to our gardening equipment. I also had a 36-name mailing list compiled of customers who signed up at the market.

I want to keep farming in the future. I'm not sure if I want to keep doing a market. I might try another distribution method. I also have a bit of interest in producing fresh market meat and dairy products. I do know that growing good food will always be a part of my life.

37. fixing the world ~ social & political activism



The way to right wrongs is to turn the light of truth upon them.

—Ida B. Wells

Being less than eighteen doesn't deprive you of a voice in the world, unless you let it. This has never been so obvious as now. At age sixteen, Greta Thunberg was named Time's 2019 Person of the Year for helping our entire species face up to the reality of climate change. Thousands more youth are also speaking out on the front edge of climate activism, and in other powerful movements: Black Lives Matter, Indigenous rights, gun legislation reform, and more. But this wave is hardly the first. In 1960, for example, Black college and high school students spent weeks sitting quietly at "whites-only" lunch counters in the South, surrounded by hecklers who threw food at them and waved Confederate flags. Their courage helped to end the Jim Crow laws that legalized segregation.

Activism isn't always so dramatic. Sometimes it saves one small beautiful thing, with less fanfare. GWS #68 tells about twelve-year-old Andrew Holleman, a Massachusetts school kid who kept a woodland in his community from turning into condominiums. Andrew researched zoning laws and wrote letters to legislators and TV anchor people. He got his neighbors together and told them what was going on, won their support, and circulated a petition. The developers' permit was denied.

Activism ~ political science in action

If you see that something's wrong in the world, you can help fix it by working through, around, underneath, or on our political system. The rest of this chapter considers a few different approaches—mix and match based on your own goals and temperament—and wraps up with a list of resources and organizations. Whatever path (or paths) you choose, my activist friend Heiko advises: don't try to do tough political work on your own. Surround yourself with support, both practical and emotional. At times, all your efforts will seem a failure. Don't give up—your role is small but essential. Drop by drop, water makes an ocean.

Get a law changed or passed

Since our government is a representative democracy, most laws (or "statutes" or "ordinances") are ultimately passed by legislators: national congresspeople, state representatives, city council members, and such. But potential laws—"bills"—are often initiated and written by ordinary citizens. And in many states, moments of direct democracy are possible through ballot measures, in which all the adults get to vote on a referendum or initiative.

Identify a law that needs changing—does your city have fair guidelines for skateboarders? Does your state need a better recycling law, or a statute that allows people of any age to earn a GED diploma? Should sixteen-year-olds be able to vote in city,

state, or national elections? Should representatives face penalties for breaking promises to their constituents?

If your issue is a popular one, others are already working on legislation—an online search should let you know. Plug into their efforts rather than start from scratch.

If your issue is less known, maybe you will be the person to spearhead change. Ideally with the help of likeminded people, write down what you think the law should say. Attend city council meetings, or contact your representative and senators, until you find someone who will consider developing and sponsoring your bill. Or to bypass the middlemen, see what kind of ballot measures (if any) are an option in your state.

See *How to Change a Law: Improve Your Community, Influence Your Country, Impact the World*, by John Thibault. And check out Thibault's iLobby website, a platform for working together with others who share your views.

Participate in nonviolent direct action or civil disobedience

otherwise known as sit-ins, blockades, marches, demonstrations, rallies, protests, and political street theater.

Nonviolent “direct action” usually refers to a dramatic public act intended to call attention to a societal wrong. Direct action can be legal or illegal.

Civil disobedience is the illegal version of nonviolent direct action, deliberately breaking a law that you consider wrong. The tradition has thousands of years behind it—Hebrew boys in the Bible, for instance, refusing to worship kings' idols.

Thoreau gave the practice new life in the 1800s when he refused to pay taxes that supported slavery and the Mexican War, and wrote about his convictions in the classic essay “On the Duty of Civil Disobedience.” As the story goes, Emerson came to see Thoreau the night he was in jail. “Why are you here?” asked Emerson accusingly. “Why are you not here?” countered Thoreau. For hundreds of galvanizing stories, see Swarthmore College's online Global Nonviolent Action Database.

Whether you want to go big and risk arrest (or tear gas or worse) or keep it legal by chanting at a vigil or marching peacefully through the streets, my activist friend Heiko suggests that you take a workshop in nonviolence.

Back in the 1950s and 60s, Civil Rights activists spent many hours preparing together. They learned songs. (“In terms of political and moral effectiveness, group singing is to group chanting, as an elephant is to a mouse,” says Civil Rights veteran Bruce Hartford.³) They role played (spitting on each other, pushing each other down, calling each other hateful racial slurs) and practiced tactical techniques. They knew that their public actions would be met with hatred and violence, and wanted to be genuinely ready. The goal was huge: not only to control their impulses and refrain from hitting back, but to actually respond to their attackers with love.

Today's typical nonviolence trainings may be less radical, but they are still important. Workshops are often offered in major cities, and there are also free resources and

online courses available such as through the International Center on Nonviolent Conflict and the War Resisters League. If you have trouble finding a local training, contact Unitarian and Quaker (Friends) churches, or college-based social justice groups.

Nonviolent resistance workshops vary, but may cover 1) the history and philosophy of nonviolent civil disobedience, 2) consensus process—how to reach agreements, not just majority wins/everyone else loses, 3) what to do when you’re involved in civil disobedience—how to deal with police, how to let your body go limp when they carry you off, what not to say, etc.

Don’t accidentally hurt the people you’re trying to help!

If you want to join a cause that’s all about who you are—let’s say you’re queer and you’re passionate about LGBTQ+ issues—perhaps you can mostly ignore these next few paragraphs. (“Perhaps” and “mostly” because even when everybody in the room shares the same color, gender, sexual orientation, socio-economic class, etc., issues of privilege can still arise. A helpful concept to read up on is “intersectionality.”) But a beautiful thing about humans is that we can truly care about others’ well-being, not just about the issues that affect us obviously and directly. If you get into activism, at some point you’ll probably work with people quite different from you, and there’s lots you can do to make that go well for everyone.

Activism is not always a great place to simply jump into the mix and learn as you go—ignorant mistakes can cause frustration and pain for others who are already exhausted. So, make an effort to learn activist manners before joining a group. Study up on microaggressions to lessen the chance you’ll carelessly hurt someone’s feelings in a way that they’re really, really sick of. (I’ve gleaned a lot from popular books like Ijeoma Oluo’s *So You Want to Talk About Race*.) Take time to reflect on your own privilege, particularly as it relates to others you’ll be working with.

Perhaps you fit into a category that has historically oppressed the people you want to support. Maybe you’re male, eager to help women stamp out sexism—wonderful! Thank you! And, it’s essential that you cultivate humility. Show up as an ally ready to share your energy, your generous spirit, your desire for fairness, your zeal for running errands or scrubbing toilets or whatever is needed, and the power that your privilege confers.

When you start going to meetings or showing up at events, begin by listening. If you have questions, that’s great. But sometimes people get tired of teaching newcomers the basics—especially if those newcomers hail from a demographic that has made things worse in the past. So unless you’re told otherwise, plan to find answers online, by reading books, and by asking other folks with the same privilege as you. (If you’re helping to organize an Indigenous Peoples Day celebration and you’re white, ask your questions of a white person who has previously helped out, not an Indigenous person.) As you get more involved you may sometimes have useful suggestions or comments, but don’t forget that you are a helper, not a leader or spokesperson.

If somebody gets irritated at you for something you said, did, or asked, it's natural to feel hurt. You care about the cause, and it's painful—or even humiliating—to be scolded. Your feelings matter, and you should absolutely do something to make yourself feel better. Chat with somebody who adores you unconditionally, watch a hilarious video, cuddle your dog, go for a run. Listen to a song or read a poem or scripture that affirms your own place in the universe and reminds you of all the love that surrounds you. Just don't try to feel better by regaling less-privileged colleagues with a dramatic story of your pain and how important it is.

When you're calmed down and feeling good, take a moment to figure out why your actions weren't welcome. The internet is usually helpful with this kind of education; a quick search should explain enough for the moment. When you have time, grow your awareness with longer reads, books, podcasts, or documentaries. The more you learn, the less you'll cause pain for yourself and others.

Communication as activism

Protests and other direct actions certainly grab public attention, and I shudder to think where we'd be without the changes they have catalyzed—my own ability to vote, for example. And yet some of the most effective activism is far more subtle. A number of studies suggest that if you want to convince others to join your cause, the best strategy is good old-fashioned human conversation. Talk about the issues face-to-face with sincerity, respect, and vulnerability. Don't rush. Share your personal story, ask about their personal experience, listen, and don't shame. Expect to learn something and to expand your perspective.

For an example of what's possible, watch Daryl Davis's TED talk, "Why I, As a Black Man, Attend KKK Rallies." There's plentiful advice on the internet for developing these skills. For expert-level guidance, try James Lindsay and Peter Boghossian's book *How to Have Impossible Conversations*. The best activist truly, deeply understands points of view other than their own, and sees the humanity in everyone.

Speak for yourself

Overwhelming issues like climate change, wealth inequality, systemic racism, environmental degradation, and world hunger certainly deserve your attention—and, your own rights specifically as a young person are important too. Consider: the voting age, driving ages, draft laws, gun laws, school and homeschool statutes, reproductive rights, legal drinking ages, cyberbullying laws, and child labor laws. Regardless of your opinions, these issues matter because they affect you directly.

For a grasp of where things stand, see Thomas Jacobs' book *What Are my Rights?: Q&A About Teens and the Law*, or his website, *Ask the Judge: Answers for Teens About the Law*. You might join forces with The National Youth Rights Association or

with Generation Citizen's Vote16USA campaign. See Adam Fletcher's online publication, *A Short Introduction to Youth Rights*, and his Freechild Project website. Read John Holt's still-radical classic, *Escape From Childhood: The Needs and Rights of Children*.

Stay human

You already know that your own actions count. It helps when you don't eat tuna caught in dolphin-killing nets, when you use your junk mail instead of new notebooks for scratch paper—and when you inspire others to join you in these commitments. Many individuals and organizations (and books and websites) stand eagerly ready to help you decide what changes to make in your own life. Unfortunately, though, some people acquire strange military pious personalities when they start changing for political/environmental/social justice reasons, losing touch with the things they care about most in the first place.

As you work to make the world a better place, don't turn into a robot. Keep it personal. Clean up a roadside pond and then go fishing. On your way to the recycling center, give your apple to somebody who looks hungry. Gestures will not, in themselves, get the work done, but they feed the spirit and keep the motivation alive.

Also, now that you live so correctly and sacrifice your time to Good Causes, don't condemn less perfect people. Remain humble. Recognize that no matter how lofty your intentions, as a twenty-first-century industrialized-nation human being, some of your activities harm the earth and perpetuate oppression. If you wear cotton, especially if it's not organically grown, you support cotton fields full of pesticides rather than habitat for diverse wildlife. If you wear polyester fleece—a petroleum product—you support an oil-dependent economy, climate change, and microplastic fibers infiltrating the bodies of marine animals. If you buy new socks or shoes or phones or gaming consoles, you're benefiting from a factory system that's sometimes disturbingly close to slavery. Don't kick yourself for what you can't do, but don't kick other people either. Kicking, in fact, prevents other people from getting involved—like when your parents used to nag you to do your homework it made you want not to do your homework.

In the company of your parents, remain extra humble. Recognize that not only did they invite you into this world at great cost to themselves, but they also exercised tremendous patience while you went through your own greedy or self-centered stages. Exercise a little patience and acceptance in return, and remember that they grew up in less enlightened times. Talk with your parents, of course, but don't preach at them.

Online activism

The internet offers myriad opportunities for not only learning about issues, but also for engaging and influencing others. A few of the endless possibilities:

Make and share memes or infographics that spark people to think in a fresh way.

Try activities from the MacArthur Foundation’s Digital Civics Toolkit to explore key questions like “How do I find my story and express it in ways that are civically meaningful?” “What does it mean to take action in the digital age?”

Post on social media. Choose your platforms, groups, and words with care. Thoughtful, personal, vulnerable posts can inspire people to shift their perspective. (Scolding, self-righteous posts tend to have the opposite effect.)

Join the work of MediaJustice, toward “a future where everyone has sustained and universal access to open and democratic media and technology platforms.”

If you’re sixteen or older, start a petition on Change.org. Look through the other petitions and sign those you want to support.

Contribute your own stories to projects like Everyday Sexism.

Plug into an organization (see a few ideas on the list near the end of this chapter) and find out how you can get involved with their work online.

Work as activism

Maybe you want to combine your convictions with another work project. Make a business out of recycling or planting organic gardens for busy professionals. Volunteer at the front desk of a law firm that takes on climate justice cases for free. Find an internship with a shelter for unhoused people.

Resources for making it better

The items here discuss activism specifically. To learn more about the bigger picture, refer back to Chapter 22 on social sciences. (The section titled “Liberty and Justice For All” is particularly relevant—but history, economics, political science, and the rest are connected too.)

As with other subjects, most of the best books are written for adults. But, since youth are leading the way in some pockets of activism, and also because some issues disproportionately impact young people, you may also want to hunt up expressly-for-youth books. One of the best I found is Michelle Roehm McCann’s *Enough is Enough: How Students Can Join the Fight for Gun Safety*—a fact-filled, action-oriented handbook. For more, check out the young adult lists on the Social Justice Books website—their picks are selected through a meticulous yet open-minded process.

General books about activism

Youth to Power: Your Voice and How to Use it, by Jamie Margolin. This one is an excellent place to start, and it’s a notable exception to my “best books are written for adults” proclamation. Margolin wrote her powerful, honest (sometimes funny), wise, strategic book when she was eighteen, after four years of engaged activism.

Beautiful Trouble: A Toolbox for Revolution, edited by Andrew Boyd and Dave Oswald Mitchell, packed with practical suggestions and fun real-life stories. It's easy to dip into any of the short sections such as "Tactic: Human Banner," "No one wants to watch a drum circle," or "Case Study: Justice for Janitors." (Their Beautiful Trouble website is also good.)

Building Powerful Community Organizations: A Personal Guide to Creating Groups that Can Solve Problems and Change the World, by Michael Jacoby Brown—a comprehensive guide to collaboration.

How We Win: A Guide to Nonviolent Direct Action Campaigning, by George Lakey. An activist elder shares smart strategies and wise perspective. "I believe that building successful movements now requires fancier dancing than back in the day. . . . This book is not only about strategy and tactics, but also about what goes on inside the groups that wage the struggle."

Becoming a Citizen Activist: Stories, Strategies & Advice for Changing Our World, by Nick Licata. Licata's eighteen years on Seattle's City Council inform this potent little book.

Books about activist mindset & philosophy

Most good books on activism (like those above) have at least a bit to say about the personal and interpersonal issues that lie beneath activist work—either moving it powerfully forward or sabotaging it. The following books dive in further, each with a unique perspective.

See No Stranger: A Memoir and Manifesto of Revolutionary Love, by Valarie Kaur, profoundly echoes the depth of the Civil Rights movement.

"Revolutionary love" is the choice to enter into wonder and labor for others, for our opponents, and for ourselves in order to transform the world around us. It is not a formal code or prescription but an orientation to life that is personal and political and rooted in joy. Loving only ourselves is escapism; loving only our opponents is self-loathing; loving only others is ineffective.

Emergent Strategy: Shaping Change, Changing Worlds, by adrienne maree brown, is inspired partly by the work of novelist Octavia Butler. (Also see brown's blog and her other books.)

Many of us have been socialized to understand that constant growth, violent competition, and critical mass are the ways to create change. But emergence shows us that adaptation and evolution depend more upon critical, deep, and authentic connections, a thread that can be tugged for support and resilience. The quality of connection between the nodes in the patterns. Dare I say love.

My Grandmother's Hands: Racialized Trauma and the Pathway to Mending Our Hearts and Bodies, by Resmaa Menakem, makes a compelling case that all of us (regardless of our color) need to physically heal from inherited racial trauma. Menakem offers guidance for this process. "We will not end white-body supremacy—or any form

of human evil—by trying to tear it to pieces. Instead, we can offer people better ways to belong and better things to belong to.”

The More Beautiful World Our Hearts Know is Possible, by Charles Eisenstein, conveys a big-hearted vision for human interconnectedness. “The transition we face goes all the way to the bottom. Internally, it is nothing less than a transformation in the experience of being alive. Externally, it is nothing less than a transformation of humanity’s role on planet Earth.”

A Field Guide to Climate Anxiety: How to Keep Your Cool on a Warming Planet, by Sarah Jaquette Ray, draws insights from psychology, sociology, and mindfulness to present an “existential tool kit” for you, the “climate generation.” (You’ll find additional climate resources in Chapter 20.)

People are profoundly disturbed by climate change, and being told that it is the fault of our own moral failings is not only demoralizing but factually wrong. It does not help us muster the stamina to stay involved in environmental work for the long haul. Instead, it can lead to various forms of self-erasure, or cause people to give up in despair, choosing short-term avoidance and apathy over long-term climate justice.

Online resources

The Human Rights Activist Toolkit offers an extensive searchable library of action guides, databases, documentaries, games, and websites.

Training for Change offers workshops and a “toolbox” with articles on key aspects of activism, such as how to de-escalate a tense moment.

Teaching for Change includes a “youth organizing” portal.

Most of the following organizations share excellent resources and links on their websites.

Organizations

Band together! Working with others makes it all possible, not to mention fun. Working alone can get meaningless fast. See if you can plug into somebody else’s club. There are hundreds, maybe thousands, of great ones. Most global or national organizations have local chapters, as well as opportunities to engage online.

The following list illustrates some of the range, from innovative dancers to feisty protesters to compassionate letter-writers.

The American Friends Service Committee is a longstanding organization that works internationally for social justice and peace. Like the Quaker religion from which it springs, the AFSC believes that “there is that of God in each person.” Hundreds of volunteers, who need not be Quakers, help in the work of supporting the rights of immigrants, refugees, and small farmers. They advocate on behalf of people who are hungry, unhoused, unemployed, and otherwise in need. They build health clinics, feed orphans,

build housing, offer information and support to queer youth, produce documentaries, etc.

Amnesty International works to end torture and free “prisoners of conscience” through letter-writing and more.

Amplifier creates and disseminates gorgeous, powerful artwork and media “to amplify the most important movements of our times.”

Black Lives Matter is busy ending white supremacy and organizing against police violence. “We work vigorously for freedom and justice for Black people and, by extension, all people.” (The BLM movement is often misunderstood. For essential backstory, read Patrisse Cullors’ gripping and tender memoir, *When They Call You a Terrorist*.) Also check out the Movement for Black Lives coalition (M4BL).

Bread for the World is a bipartisan Christian organization that advocates for ending hunger in the U.S. and throughout the world. You can join their letter writing campaigns and grassroots projects. “We are serving God when we raise issues of hunger and poverty with our government.”

Christian Climate Action—as the name suggests, an action-based (and faith-based) organization with many opportunities to get involved. Also offers trainings in nonviolent direct action.

The Climate Justice Alliance unites groups all over the world trying to protect human (and rainforest and maybe even polar bear) survival.

Cultural Survival advocates for Indigenous Peoples’ rights and cultures since 1972. Widely respected, they provide reports and expert testimony to the United Nations. They also host cultural festivals, provide platforms for Indigenous artists to sell their work directly to the public, publish a magazine, operate Indigenous Rights Radio, and more.

DanceAbility International brings people of all physical abilities together for profound movement experiences, and offers a teacher training program.

Future Coalition is a network of over one hundred youth-led organizations (such as the National Youth Rights Association, Climate Science Communication for Youth, and International Indigenous Youth Council). It fosters communication and collaboration among youth leaders and groups.

Greenpeace and Earth First! are known for visionary environmental activism.

The Human Rights Campaign “envision[s] a world where LGBTQ people are ensured of their basic equal rights, and can be open, honest and safe at home, at work and in the community.” Find internships, volunteer opportunities, and lots of information on their website.

The National Young Farmers Coalition. In addition to functioning as a powerful support organization for individual farmers, the Coalition works to influence policy. They advocate for land access, climate-smart programs that promote resilience, racial equity, and other essentials.

Oxfam America fights global poverty and hunger by working with grassroots organizations in Africa, Asia, the Americas, and the Caribbean. They sponsor large

anti-poverty and hunger events and campaigns, and are always looking for organizers. They offer support materials to help you host a “hunger banquet” or other event to raise both awareness and money.

PETA (People for the Ethical Treatment of Animals) works to stop unnecessary animal exploitation.

The Rainforest Action Network works to protect worldwide rainforests and the rights of their inhabitants through education, grassroots organizing, and nonviolent direct action.

The Sierra Club, World Wildlife Fund, and National Wildlife Federation are among the world’s oldest, largest, and most powerful environmental organizations.

Students Demand Action—“We’re young activists committed to ending gun violence in our communities.” SDA encourages interested youth to start local groups. Strategies range from organizing concerts, to hosting town halls and discussions, to vigils and marches.

The Sunrise Movement is led by “ordinary young people” seeking to “make climate change an urgent priority across America.” They offer leadership training and other ways to plug in.

TASH advocates for inclusion and social justice for people with disabilities, all around the world. Their “Action Alerts” page suggests concrete steps you can take.

The Union of Concerned Scientists uses “rigorous, independent science to solve our planet’s most pressing problems.” You don’t have to be an officially anointed Scientist to participate as a supporter; a simple science-positive (curious, reality-oriented) perspective will suffice. Their website has a section of “activist resources” —like, how to identify and interrupt dangerous disinformation.

The War Resisters League works “to end war and its root causes, including racism, sexism, and all forms of human exploitation.” Their website offers a plethora of resources on anti-militarism and nonviolence.

The Young Feminist Wire is a vibrant global online platform with many opportunities to get involved. Anyone (regardless of gender) is welcome as long as they care about gender justice for all.

Every organization has a different flavor and approach, and the first one you try may not be right for you. But if you care about humans (and/or other species), then regardless of your temperament, political views, or religious convictions there are groups where you can feel at home and among friends—so keep looking.

If you can’t (yet) find a group you want to join? Start your own. Spread the word through your friends, place of worship, unschooling acquaintances, or social media. Consider launching a club through a school, to reach as many people as possible. (Collaborate with a school friend or see if local regulations allow homeschoolers to engage this way.) Eventually, you could move meetings off-campus to someone’s home or a coffeeshop.

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Whether you join someone else's group, invite kindred spirits to join yours, or pour yourself into solo activism, the ultimate reason to work for a better world is the same as the ultimate reason to quit school and get a real life and education. It's a reason that we understand perfectly in the hugeness of our hearts, but that often feels too big for mere words. Now and then, words come close. "There must be more . . . more . . . more songs more warmth, more love more life," proclaims Bruce Cockburn in his passionate song, "More Not More." Many a morning, while I've climbed toward the end of this book, I've listened as his voice limns the shape of what we seek. Then I place my hands on the keyboard and return to this grand, ordinary feat—the feat to which I believe all of humanity is called. Each of us in our own way must cultivate the light within, then send it out to shine upon the world that surrounds.

postscript

The previous editions of this book included a section called “The Lives of Unschoolers.” There was a chapter that skimmed over the lives of sixty-five teenagers, most of whom had responded to my 1990 questionnaire. Another, “Your allies among the Rich and Famous,” listed prominent people who had succeeded without high school diplomas and/or college degrees. There were excerpts from the journal of unschooler Kim Kopel. This section was followed by an appendix packed with (among other things) bits of my correspondence with early readers.

To allow room for this edition’s new content, all that has been removed. The Teenage Liberation Handbook online repository includes some of the best outtakes. You can access the repository at TeenageLiberation.space.

Here are a few additional places to read about the lives of self-directed youth:

The wonderful website Grown Unschoolers: Profiles of Grown Unschoolers in Their Own Words. This is also a great place for you to share your own experience so that others can benefit from it!

Growing Without Schooling magazine, particularly the later issues, approximately #100 onward. You’ll find all 143 back issues online for free, thanks to Patrick Farenga and others at Holt Associates. All the issues are well worth reading, and the first several dozen embody the exciting narrative of early homeschoolers’ courage and innovation. I say “#100 onward” just because 1) this book is already peppered with stories from the first hundred issues or so, and 2) teenagers feature more prominently in the later issues.

It’s easy to google stuff like “famous homeschoolers,” “famous unschoolers,” “celebrity dropouts,” “famous people without college degrees,” etc. Quite a few people have taken the time to compile lists, or to build off of others’ lists. And the lists keep growing.

So now there’s just one chapter left in this final section. I still remember my visit to the Raymonds’ love-and-book-filled home with gratitude and affection. The memory exemplifies, for me, all that’s best in life and learning. It feels like the perfect way to bring this book to an end.

Thank you for reading these words, these true tales and wild ideas.

I wish you many great adventures of the heart, mind, body, and spirit.

Grace Llewellyn

Eugene, Oregon

April 2021



the life freestyle ~ Seth Raymond

A newspaper clipping on the refrigerator catches my eye—a photo of a boy balancing on the handlebars of his bike, a few words underneath. It's cleverly written, but contains one small mistake.

Seth Raymond, a fourteen-year-old Port Townsend High School student, spent part of last Friday studying physics, geometry, physical education, and possibly philosophy as well. The teacher was his bicycle; the classroom a slab of concrete near the beach at Fort Worden State Park. Raymond said he's getting ready for the February 4 Northwest Freestyle Association competition in Seattle. He's been studying his course only seven months, but by the looks of his twirls, hops, and balancing act, seems ready to graduate with honors.

Exactly. Except: Seth Raymond is not a Port Townsend High School student.

Instead, he is—as the clipping points out—a student of his bike, and also of a math textbook, some good novels, the marine science center on the beach, his parents, the Olympic mountains, and his Pentax camera. Seth Raymond is an unschooled student of life.

He is fifteen now, in October 1990, and I am visiting. I am welcomed not only by Seth, but also by his sisters Vallie, eleven, and Lydia, four, and by his parents, Kath and Dan. They live in an elegant, simple, spacious wooden frame house. The honest beauty of wooden beams, ceilings, floors, and door frames mixes with the warmth of worn oriental carpets and pumpkins heaped in the windows. Right off, the Raymonds strike me as being a lot like their house: in their company, there is no pretense, nothing doctored up or faked. No wonder—it turns out they built this house themselves, together, over a span of three years.

Seth has never been to school, thanks to his parents' courage and independence. Kath recalls the decision. A cousin had begun teaching school and given up in disillusionment. "I'd never put my kids in public school," she had warned Kath and Dan. Hoping to hear some good advice about other choices—Montessori, maybe, or alternative schools—they'd gone to hear John Holt speak in St. Paul. But he didn't talk about Montessori; he talked about unschooling. Kath reminded me of my own first reaction to Holt's books when she said, "I'd never even heard of unschooling before, but as soon as he started talking, I felt like I'd always believed in it."

Over the years, sometimes they have been legal, sometimes perhaps not. As far as they are concerned, it doesn't much matter. If they should ever have to fight for their right to stay out of school, they'll fight. All the same, they are thankful they've never been harassed.

As Seth grew, the family lived in different areas. Wherever he was, Seth took advantage of local opportunities and followed his own changing interests. At eight and nine, for instance, he took ballet classes from a “tough guy” teacher at the Minnesota Dance Theater in Minneapolis. The high point was performing in *The Nutcracker*—six times on stage and once for the half-time of a Vikings football game.

One of Seth’s largest memories is his work on the house. He recalls clearing and burning brush, cutting down trees, watching the excavation and laying of the foundation, helping with beams, pouring cement, running errands, nailing up sheet rock, helping install insulation under the house, sanding and gluing pipes, putting in windows, cutting siding, mudding, taping, painting, paneling. “It was a lot of fun,” he says, “I learned a lot. It will be a lot easier if I ever decide to build a house myself.”

Last year, he worked about eighteen hours a week at *The Shanghai*, a Chinese restaurant where no one else spoke much English. He bussed tables and brought food out to customers. After a year, he wanted more time for other interests, so he quit.

Academics

The Raymonds belong to a homeschool group with the local school district’s stamp of approval; the district pays a part time teacher, Marcie, who helps homeschoolers document their academic work, gives them credits for this work, and organizes a weekly educational activity, which takes two hours every Wednesday afternoon. In return, the school district gets to officially enroll the homeschoolers, which gives them more money.

Seth and Kath explain their mixed feelings about the program. “It isn’t the best part of homeschooling,” says Seth, “But it’s only two hours a week. It’s not like six hours a day, every day. And Marcie helps a lot with finding textbooks when we need them.” He recalls one time the group set a goal for how many books they’d read in a month. “That was fun,” he remembers, “because I did read more than usual.” Furthermore, in exchange for the minor bother of keeping logbooks and going to the weekly activity, Seth and Vallie are unquestionably legal, legitimate, and even working toward high school diplomas—though none of this matters a whole lot to them.

Clearly, the Raymonds do not feel the least bit dependent on the program. If it wasn’t there, they’d homeschool anyway. If homeschooling was illegal, they’d homeschool anyway—and they wouldn’t hide it. In Minnesota they knew homeschoolers who lived in fear and hiding; every time their doorbell rang the kids ran and hid under a bed. The Raymonds don’t want to live like that.

Seth enjoys the other teenagers in the group, who have their own “specialties” in dance, writing, and sports. His best friends, though, happen to go to school; they are his friends because they share his interests in biking and backpacking.

I flip through Seth’s log book. Some days there are entries for science, history, Spanish. Sometimes it’s just math, reading, and biking. There are brief notes under each category: “watched and identified birds,” “bike comp, placed 4th,” “edited music

tapes for biking,” “edited video for bike sponsor,” “made poster for room,” “bought used bike frame and started sanding it,” “marine center,” “read ‘Berniece Bobs Her Hair.’ ”

In the back of the logbook are some pockets full of academic paraphernalia and things Seth has written. There are a handful of bulletins (“teacher’s guides”) to accompany the PBS series *Scientific American Frontiers*, with instructions for labs and notes. “Explain to students,” says one of them, “That ordinarily, water freezes and ice melts at 0° Celsius.”

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I ask Seth about his work in various subjects.

Writing is not his favorite thing to do, although he sometimes likes creative writing. One of his stories won an honorable mention at Centralia College’s writing contest (mostly school kids entered) last year. Also, he keeps a journal. No one else reads it.

Last year he worked through most of the Harcourt Brace Jovanovich textbook *Biology*, doing the labs and reading—although he was also involved with the local marine science center. He started in the middle of the textbook, with the chapters that interested him most, and later went back to the beginning. He wrote away for more information on ectobiology, because the idea of life on other planets especially intrigued him. Also, he enjoyed a “science champions” day in Seattle, a sort of science fair populated mainly by public school students.

History? “I’ve always liked history,” he says, “but never used a textbook for it.” Aside from reading books on specific historical events, Seth explores history in the field. With his backpacking friend Reg, Seth figures he’s investigated every one of the thirty World War I bunkers at Fort Worden State Park.

Math, reading, Spanish, and physical education? I get to see these in action. While I am at the Raymonds, this is what happens after I get up on Monday morning:

Right off, I notice a conspicuous absence of the early morning frenzy that dominated when my siblings and I used to rush to get ready for school. People make their own pancakes, talk a bit, and at nine Seth and Vallie sit down at the dining room table to work math problems, with Kath occasionally answering questions. Seth uses the book *Mathematics: A Human Endeavor*, which he likes much better than some previous math texts that “try to trick you.” Math is okay, he says, but not his favorite thing to do. The clock ticks. Kath reads in the family room. I am overwhelmed by the calm, by the feeling of life happening instead of waiting to happen.

Vallie gets up a few minutes before ten and shuts her book. “How’d you do?” asks Kath. “Fine,” says Vallie, “I got one wrong because I divided instead of multiplied.” She gets a Shel Silverstein book off the shelf and curls up on the sofa.

At ten, Kath says to Seth, “Do you want to watch that star show?”

“It’s been on a long time, hasn’t it?”

“No, you just missed one.”

“Okay.”

But no one watches the star show. By the time it comes on at 10:30, Seth is upstairs on his bed, engrossed in his reading, *The Count of Monte Cristo*. It is his third novel since September. The others were *Of Mice and Men* and *To Kill a Mockingbird*. Since September, he has also read short stories by John Updike, Richard Wright, Ernest Hemingway, Willa Cather, and F. Scott Fitzgerald. He picks out his own novels, from the family's shelves, from booklists. He uses the public library heavily. "What if you started a book and didn't like it?" I ask. "I'd read something else," he says matter-of-factly, but points out that rarely happens. He loves to read, although he didn't start until he was about eight.

While he reads, Kath is next door at the neighbors'. Charming Lydia sings downstairs, "One of these things is not like the other," shaking the rattle she made last night out of two bowls and some beans. Dan is away doing construction work. Vallie works intently on a zigzagged friendship bracelet—today's mail brought instructions from DMC.

I look around in the quiet. C.S. Lewis and John Holt dominate the bookshelves. I also notice *Drawing on the Right Side of the Brain*, a jar of Play-doh, Steinbeck, Kipling, encyclopedias, A.A. Milne, Gibran's *The Prophet*, Bibles, *Black Elk Speaks*, *Othello*, *How to Stay Alive in the Woods*, *The Anatomy of an Illness*, a pile of *National Geographics*, *Pond Life*, *St. Francis of Assisi*, Robert Frost's *Poems*, *A Whale for the Killing*, *The Craftsman Builder*, *Woodstock Handmade Houses*. A globe sits on top of the shelves. Clearly, this is not one of those houses where they have a complete set of *The Great Classics* in order to appear intellectual in the upper-class way. Each book at the Raymonds' house makes sense, and each is worn and a bit creased.

On the walls in the family room, I find a map of the world and a glass encased poster commemorating Seth's dance debut. It has words: "Twentieth Anniversary Loyce Houlton's *Nutcracker Fantasy*, Minnesota Dance Theater."

I visit Seth again. In his closet hangs a sleeping bag and a wetsuit. From behind a stack of sweatshirts on the dresser, I catch the golden glint of three trophies from freestyling bike competitions. A stack of bike magazines—*Go*, *BMX Plus*—covers the desk. Seth sits on his bed, leaning comfortably against the wood paneling that he put up by himself. From a framed photograph across the room, a Seth original, the wide soft eyes of a deer gaze at him. In the window above his head sits his old Petri camera, gazing at me.

At noon Seth and I take sandwiches and sit down in the family room to watch *España Viva*, a Spanish instruction program on PBS. He has the accompanying workbooks, ordered through the mail, and completes one lesson a week to go along with the TV program.

After lunch, academics are sort of officially over, though Seth spends some more time with *The Count*. The rest of his day is dominated by biking, with a lot of conversation and a VCR movie on the side.

At dinner, we all hold hands and sing grace, and then Seth cuts a pineapple for dessert, far more elegantly than I ever could. Trained by *The Shanghai*.

With his calm schedule, Seth has had plenty of energy to pour into his major interests. At the moment, these are marine biology, biking, and photography.

The Marine Science Center

Last year, Seth's homeschool group organized a weekly class at the local Marine Science Center. Seth particularly enjoyed the center, discovering his love for marine biology, and he is now quite involved there, although the homeschool group has moved on to other activities. In the beginning, Seth recalls that they spent a lot of time just looking at the tanks full of starfish, crabs, anemones, fish, and octopuses, and listening to the director. The director, Frank D'Amore, talked about the names of animals, the food chain—"who eats who," and the care of different species. The homeschoolers also used the Center's gauges to keep charts graphing the weather, precipitation, cloud patterns, and water temperature.

Although Seth has enjoyed all his time at the center, he did notice a sort of "teacher-class" feel in the beginning, "like they were the adults and we were the kids." Later, this feeling eased as the homeschoolers took responsibility for chopping meat, feeding animals, cleaning tanks, helping to collect plankton, using microscopes, and answering the questions of school kids on field trips. As time went by, Seth spent extra time there on his own, anywhere from two to four hours a week, and came to feel more involved on a serious level.

Last summer, Frank offered Seth a job at the center, but various things got in the way. This year, however, Seth looks forward to continued working and learning at the center on an informal, individual basis. Last week, he helped during a fourth grade field trip, answering questions and setting up the microscope. Frank has talked about involving him in helping to set up a research project monitoring the ocean's temperature, collecting and studying plankton, or investigating the fragility of eelgrass. Next summer, Seth thinks he'll make working there a priority.

How will Seth's work at the center affect his future? He's not sure. He is grateful that it has awakened him to his love of marine biology. He'd like to combine this love someday with diving and snorkeling, preferably somewhere warmer than the Puget Sound. He does some skin diving now, but he explains that the Sound has low visibility, since algae grows thickly in cold climates.

Biking

Three things go whoosh. One is the crash of waves on the beach. Two is a seagull's wings. Three is Seth's bike making circles in the air. Not the whole bike, actually—one wheel stays on the ground. It's hard to describe where Seth is. Sometimes he's standing on a small lever at the hub of the front wheel. Sometimes he's kicking his legs over the

crossbar as it pivots around. Always, his eyes are intent. This weekend, he will travel to Lewiston, Idaho, for a freestyle bike competition.

Seth has been freestyling for a year now. When his friend Mike gets out of school, they head down to Fort Worden State Park and practice for two or three hours. When the weather's good, Seth starts earlier.

A local shop, Aurora Cycle, sponsors Seth and Mike, meaning that it donates brake cables and "stuff like that." Mike's been biking for three years. Other local teenagers have been involved off and on, but Seth and Mike are the hardcores. Their practice is quiet, focused work, hushed except for the whooshing and an occasional comment. The sky is a bit damp. Soft coastal scrub surrounds their concrete arena. After a few hours, they take turns photographing each other.

Then they go to the Raymonds' house to look at a bike frame Seth is working on. After that, they go to Mike's and invent a strange unicycle with handlebars and a wheel but no pedals. To ride it, they stand on the fender or on the levers by the hubs of the wheel. For two hours they ride it up and down the street, experimenting with a rope tied onto the handlebars like reins. The rope provides tension, a bit more control. Neighbor kids come out to watch. When Dan gets home, he and Lydia come out too.

Though he enjoys his day to day biking experience more than competition, Seth competes well. At North American Freestyle Association competitions in Eugene, Vancouver, and Portland, he placed third in the novice category. In Spokane and at the regional finals in Kelso, Washington, he took first. (A few months after my visit, I learned that at the 1990 finals in Bremerton, Washington, Seth took first in his division, and also came in first in total points for the year.)

How serious is Seth about biking? "I don't think of it as a possible career or anything," he says, "but right now I like it a lot. Sometimes I think it could be fun to design bikes."

Kath tells me that the homeschool group invited Seth to teach a class on biking, for pay. He refused. "If anyone wants to learn," he told them, "they can come along and do it with us, anytime."

Photography

Seth smiles when I mention that Ansel Adams quit school at the age of twelve, because Adams' photographs have inspired a lot of Seth's own work. I can tell, as I admire the black and white print that took the "Best of Show" prize (including a \$20 bill) at the 1990 Jefferson County Fair. A strangely angled view of a Victorian building, its hundred shades of grey give an almost 3D quality.

Seth works with a Pentax he bought last year. Before that, he'd taken photos for two years with an old Petri he bought at a garage sale. It had no light meter, which forced Seth to think especially hard about what he was doing. He reads books on photography and experiments a lot. His interest in camping and the outdoors has intensified along

with his photographic skills, and he sometimes dreams of a future in photojournalism. “I’m interested in outdoor work,” he tells me, “Not in studio photography.”

So far, Seth has put all of his focus into the first part of the photographic process—composing a picture, exposing the film. Now, he feels ready to get involved in developing his own prints, and is looking for access to a darkroom. There is talk in his homeschool group of setting up a darkroom this year. “That would be just great,” says Seth, with a faraway look in his eyes.

One evening, we all nestle into Seth’s bedroom. He shows slides taken during two Washington backpacking trips—one with his family in Neah Bay, the other with teenaged friends in the Olympics.

During the presentation, I gasp a lot. I find Seth’s slides even more stunning than his black and white prints, dramatized by color as well as pattern and shape. One, taken at the Point of Arches in Neah Bay, depicts a soft grey landscape of mist, beach, and water, punctuated by sharp triangles of huge rocks in the water. Another vividly presents three boys’ bare wet sun-tanned backs in front of a blue-white waterfall with a red flower in the corner.

Seth races through the slides, as if they don’t deserve long appreciation. I plead with him to go slower. He obliges. We pause at a portrait of a spiraling plant. “What is it?” asks Dan. “Skunk cabbage,” says Seth, “an alpine form.”

There are a bunch of close shots of bald eagles. They had been eating a dead dog, so intent on their feast that they ignored Seth’s artistic intrusion.

“For our national bird,” comments Dan, “They sure are scavengers.”

I pay special attention to a candid picture of Lydia minding her business about camp. “Seth doesn’t usually do people pictures,” laughs Kath, “If we want people pictures of our backpacking trips, we have to do that ourselves.”

“I like taking pictures of Lydia,” he tells me later, “She doesn’t pose. But I don’t like to line people up in front of things. It looks so fake.”

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No doubt, Seth’s unschooling works largely because his parents believe in it. There’s not the least bit of “school” feeling in the house, even in the mornings when the math books are out.

Kath and Dan sparkle when they talk about unschooling. “Sometimes people use the Real World argument,” says Dan, “You know—how are your kids going to survive in the real world if they don’t go to school and learn how to live with adversity? John Holt said that was like putting your head in a vise since you know you’re going to have a headache anyway. Also, part of the idea is that maybe instead of adjusting to the world as it is, you can help create a better one.”

“And maybe,” adds Kath, “people who watch homeschoolers will finally start to see that happy kids turn into happy adults.”

We talk about the issue of unschooling with two-career families. With four-year-old Lydia, Kath feels some conflict over the idea of going to work, but she readily admits that Seth and Vallie would be fine without her. If they ran into problems with academics, they could ask her or Dan in the evenings, just like other kids ask their parents for help with homework.

“Yes,” agrees Dan, “By the time kids are teenagers, parents don’t need to be heavily involved anyway.”

Kath points out that even though she’s at home during the day now, she’s not responsible for Seth’s education. “I don’t feel that I can, or should, keep up with everything he does,” she says.

Kath went to college for one quarter. Dan never went. “We were schooled out,” they tell me. “We probably went to the wrong end—we should have skipped all the early stuff and gone to college.” They want Seth to be able to go to college, if he wants to. He does want to, unless a better idea turns up.

One of the biggest unschooling challenges for Kath and Dan has been a sense of inadequacy. For one thing, Seth was a late reader. He’d listen attentively to very long stories from the age of five, but didn’t start reading until around eight. Kath read a lot of stories in GWS which told about kids reading at four and five. At times she panicked, certain they must be doing something wrong. Fortunately, she restrained her impulses to push reading on Seth, and when he was ready, it happened.

For another thing, as they have heard about the glamorous activities of other unschoolers, they have sometimes felt lacking. “We’d read about homeschoolers in a big city, with museums and concerts and all, and we’d think, ‘That’s where we should be, in a city!’ Then we’d hear about homeschoolers on a farm, raising goats and gardening, and we’d think, ‘That’s where we should be—on a farm!’ We’d hear about families who took long exotic trips, and we’d think, ‘That’s what we should be doing—traveling!’ ”

“But we couldn’t travel, because we were busy building a house,” laughs Kath, “And of course in our moments of sanity we realized that if any of those city, farm, or traveling people heard about us, maybe they’d say, ‘That’s what we should be doing—building a house!’ ”

I point out that Seth, with his expertise in biking and photography and his growing involvement in marine biology, is just as impressive as any other homeschooler. Then Dan speaks the truth: “And yet that’s not the point, is it? Homeschooling isn’t about competition. It’s about living a meaningful life.”

Seth (left) and friend Mike Nash prepare for a competition.

Seth’s shot of Lydia and Kath won the youth photography award at a 1991 contest sponsored by the Jefferson County Museum for National Library Week.





Notes

Note that “GWS” refers to Growing Without Schooling magazine, and all issues can be accessed for free online at <https://www.johnholtgws.com/>.

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About the author



Grace Llewellyn taught school for three years before leaving and then writing *The Teenage Liberation Handbook*, which was first published in 1991. In 1996 she founded Not Back to School Camp, a gathering for unschooled teenagers, which continues to bring joy, inspiration, community, and interesting challenges to her life. Along the way

there've been three other books, two self-directed education centers—and plentiful failures, surprises, mistakes, mysteries, adventures, and life lessons. Grace loves every kind of dance, especially Argentine tango. She lives in Eugene, Oregon with her favorite son and their timid cat.

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