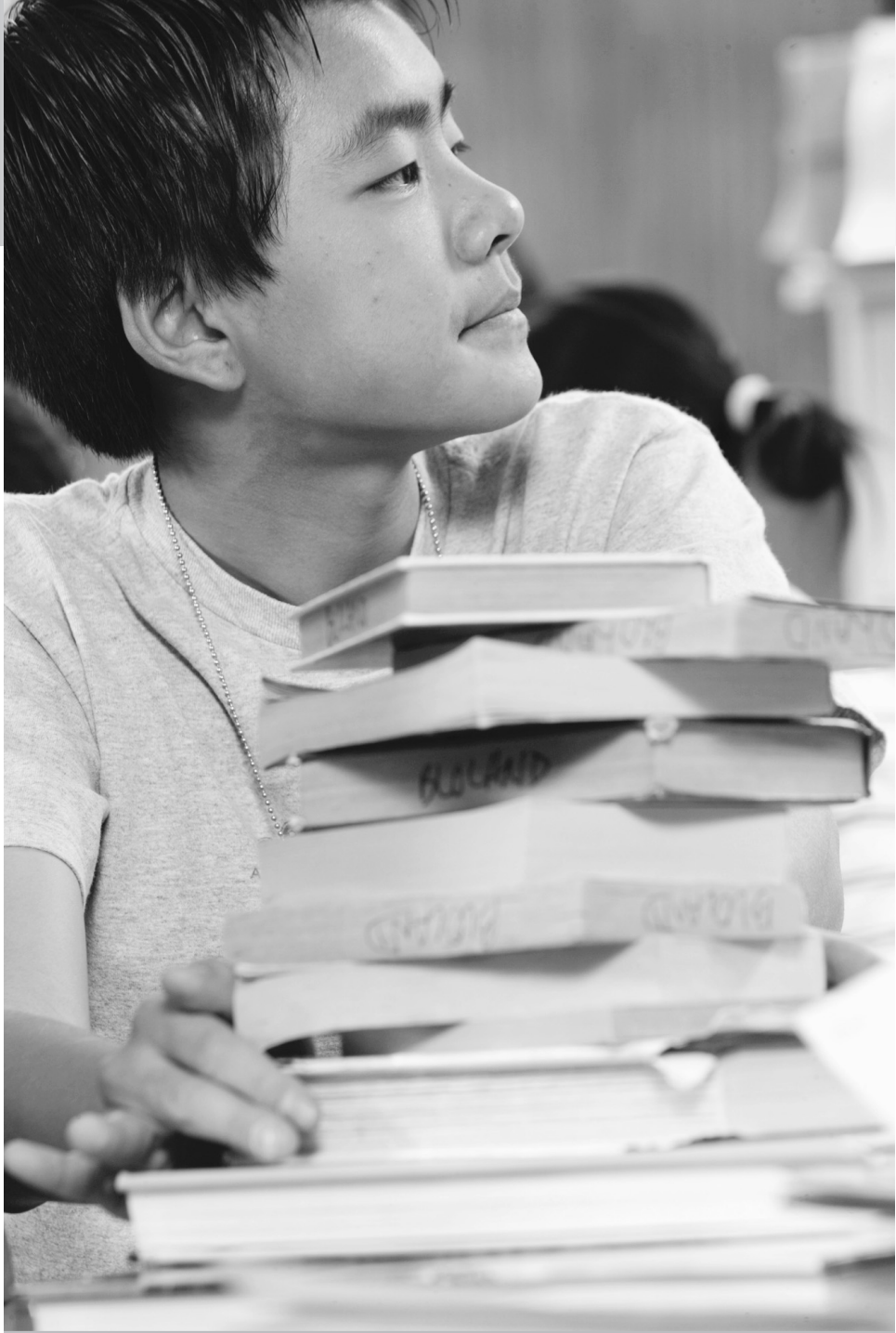


Subjects Matter



Robb Hill

Subjects Matter

Every Teacher's Guide to Content-Area Reading

Harvey Daniels
Steven Zemelman

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To our mothers: Carol Atwood Daniels and Ethel Kissin

With 176 years of mothering between them (and still counting), these *grandes dames* bring new meaning to the term “lifelong learning.” Thanks, Moms, for giving us the gift of language, an ear for a story, and the love of books.

Contents

Acknowledgments	ix
1. Reading for Real	1
Read This for Friday	6
Why Content Teachers Care About Reading	8
Why the Public Is Concerned	10
Two Visions of Reading	13
The Goals of This Book	14
Notes	18
2. How Smart Readers Think	21
Reading Lessons	22
What Does It Mean for Our Teaching?	31
Notes	32
3. Why Textbooks Are Not Enough	35
The Central Role of Textbooks	36
The Trouble with Textbooks	37
So What Can We Do?	46
Notes	48
4. Toward a Balanced Diet of Reading	51
A Balance of What?	54
Building a Classroom Library	63
Notes	67
Great Books for Middle and High School	68

5. Tools for Thinking: Reading Strategies Across the Curriculum	99
Showing Kids How Smart Readers Think	102
Before: Activities That Prepare Students to Read	104
During: Helping Students Construct, Process, and Question Ideas as They Read	114
After: Guiding Students to Reflect on, Integrate, and Share Ideas	124
Learning Vocabulary	138
6. How to Use a Textbook	145
The Curse of Coverage	145
What's Really on the State Test?	147
Six Ways to Use Textbooks More Effectively	148
One Final Suggestion: Get a Better Textbook!	164
Notes	165
7. Building a Community of Learners	167
Taking Action in All Subjects	169
A Look into One Classroom	180
Notes	181
8. Independent Reading Workshop in Content Areas	183
What Reading Workshop Looks Like	184
Conducting Minilessons	188
Keeping Students on Task During Reading Time	190
Conducting One-on-One Conferences During Reading Time	191
Recording Your Observations of Students' Reading and Understanding	191
Making Student Sharing and Presentations Really Work	192
What About Assessment?	192
Notes	196
9. Book Clubs	199
Book Clubs Across the Curriculum	200

Getting Started with Book Clubs	204
Notes	215
10. Inquiry Units: Exploring Big Ideas	217
Why Is Extended Inquiry Important for Reading?	219
Starting on Your Own	220
Moving to Team Projects—Challenges and Successes	221
So Just What Do We Mean by Inquiry Units?	223
Tips for Making Inquiry Projects Work	225
Accountability and Assessment	227
Can I Fit This In?	228
Notes	231
11. Help for Struggling Readers	233
Building Supportive Relationships	236
Modeling Thoughtful Reading	238
Activities That Build Engagement	239
Promoting Students' Self-Monitoring	240
Using Materials Students Can Successfully Read	240
Providing Books and Articles on Tape	242
The Kids Evaluate Their Progress	242
Notes	243
12. Recommendations from Reading Research	245
Key Points	248
Our Own Research: Where Do Avid Readers Come From?	258
Conclusion	259
Bibliography of Research Studies	260
13. What Our Students Tell Us	267
Themes of This Book	267
Final Thoughts	270
Index	272

Acknowledgments

The two of us have now written five books together, and we are still friends. Remarkably, on this summer's canoe trip with the guys (our 12th), we each had several perfectly good chances to drown the other, but didn't even try. So, we'd like to begin by saluting the longevity of our partnership. It has been great to teach, write, and grow up (not old) together. We couldn't have done it without us.

Now that we have patted ourselves on the back(s), we can talk about where this book *really* came from. Like all our other books, this one is built on the wonderful ideas of working teachers, people who are already making reading real for their students every day. We have visited their classrooms, observed their strategies, talked through their plans, interviewed their students, looked at their materials, and tried to carefully and faithfully write down what they do. Our job is not so much to generate brand-new ideas as it is to spread rare but promising practices to a wider audience. In fact, we have often thought of ourselves as “the delivery boys” of education, writing and speaking about great things we have seen in real classrooms.

So we are especially happy to thank the following outstanding educators for giving of their time, classrooms, and teaching strategies: Melissa Bryant-Neal, Mike Cannon, Matt Feldman, Theresa Hernandez, Sonja Kosanovic, Mike Myers, and Peter Thomas at Best Practice High School; Sushma Sharma at the South Shore Small School for Entrepreneurship; Terrence Simmons, Karon Stewart, and Kelly Vaughan at the South Shore Small School for the Arts; Brenda Dukes and Kenya Sadler at the Foundations School; Jacqueline Sanders at the Nia School; Vanessa Brechling and Sarah Lieberman at Perspectives Charter School; Scott Sullivan at Highland Park High School; Nancy Steineke, Jeff Janes, and Mike Dwyer at Victor J. Andrew High School; Margaret Forst at Lake Forest High School; Ralph Feese, Don Grossnickle, and Katy Smith at Addison Trail High School; Kathleen McKenna at Baker Demonstration School; Jodie Bonville and Jude Ellis, our confederates in upstate New York. And thanks to our fellow author Jim Burke, who kindly gave permission for us to use his textbook guide on pages 150–151.

The recommended book list in Chapter 4 was built with input from scores of teachers, including the faculty at Best Practice High School and the staff of

the Walloon Institute. Extra-special help, including specific book blurbs, was supplied by Dagny Bloland, Barbara Dress, Nancy Steineke, Elaine Daniels, Rich Katz, Scott Sullivan, Angela Whetstone, Mike Myers, Matt Feldman, Arthur Hyde and our Pet pals at Texas Instruments. Kylene Beers, one of the profession's top experts on books for adolescent readers, vetted the final list, adding some wonderful titles and helping us balance the reading levels.

Marilyn Bizar, the Chair of Secondary Education at National-Louis University, probably should have written this book herself, since she knows more about reading than the two of us put together. But in the arcane rotation of co-authorship that has guided us three friends through a half-dozen books, this was Marilyn's hiatus, during which she led the growth of a very successful secondary MAT program at the University. The good thing, Marilyn, is that the mistakes aren't your fault.

Over the years, we have grown a wonderful professional family of about 20 people, all of us irreverent readers and almost indefatigable school reformers. Sometimes this crew is known as the Center for City Schools, sometimes as the Walloon Institute faculty, and at other times, simply the world's most ill-behaved book club. All of these people have contributed in some way to the contents of this book. But mainly, they are our friends. They give us the energy to keep writing, and regular reality-checks to make sure we don't think we are some kind of big stuff. Hugs all around to Marilyn Bizar, Jim Vopat, Nancy Steineke, Mike and Susan Klonsky, Nancy Doda, Barbara Morris, Yolanda Simmons, Toni Murff, Marianne Flanagan, Pete Leki, Jessica Swanson, Linda Bailey, Lynnette Emmons, Natasha Schaefer, Sara Nordlund, Melissa Woodbury, Brenda Bell, Mary Hausner, Barbara Dress, Pat Bearden, Kathy Daniels, Alice Perry, Lea Mc Donald, and the Walloon Gopher Crew under DJ Marny D. If for some peculiar reason you'd ever like to meet these people, come and join us at the Walloon Institute; together, we conduct teacher seminars around the country each summer.

In 1996, against all odds and good sense, we gathered with several veteran teachers to establish a new small public school on the west side of Chicago. Working with a cross-section of the city's kids, in a system with a drop-out rate of 50%, Best Practice High School now sends 80% of its graduates to college. This remarkable achievement is due to one thing: the brilliance, courage, and self-sacrifice of 28 amazing teachers. Though they must spend every day of their professional lives swimming upstream, coping with an unending onslaught of central-office mandates, bureaucratic interference, and doubting administrators, these brave educators consistently provide first-rate instruction and personal care to our wonderful, talented students.

After writing five books for Heinemann, and being officially counted among the “old-timers” (thanks a lot, Lesa Scott), we expect, but are not desensitized to, the TLC treatment which newborn books receive in Portsmouth. This time around, we were extra lucky to be assigned the editorial duo of Lisa Luedeke and Leigh Peake, who put a whole new spin on the “good cop, bad cop” routine (all good cop). We know that when all the skilled people in copy-editing, design, production, marketing, and sales are done with their fine work, there’ll be no one but the authors to blame for the shortcomings of the final product. As it should be.

When we first started writing books together, we both had a houseful of children—well, two each seemed like a houseful to us. Now we have four grownup kids scattered from San Francisco to Santa Fe, from St. Paul to western Massachusetts. And we continue to learn so much from their learning, as they build lives centered on dance, music, art, and forensic science. So the nests are empty now, but luckily they still contain the two best literary partners any writer could hope for. Elaine and Susan, thanks, one more time, for making our books (and our lives) so much better.

Walloon Lake, Michigan
Evanston, Illinois
August 2003

Robb Hill



CHAPTER ONE

Reading for Real

A McDonald's restaurant in downtown Chicago, Wednesday, lunchtime. On the street out front, a sidewalk preacher testifies to passersby with the aid of a portable P.A. system. Inside, the store is filled with shoppers, tourists, well-pierced students from the Art Institute, and traders from the nearby commodities exchange wearing their distinctive yellow-numbered vests. Customers contentedly chew their Big Macs and chicken nuggets. The air is thick with conversation and the smell of french fries.

The door swings open and two teenage boys walk in. They're big kids, about 17 or 18 years old, one Hispanic and one African American. They weave through the tables and up to the crowded window where people are ordering. Michael is carrying a stack of blue flyers, which he quietly places on the counter, so customers can easily pick one up while waiting for their food.

The flyer is headlined "What's in the Meat We Love?" and depicts the headless carcass of a steer, hanging upside down, just as it would in a slaughterhouse. Below is a grinning likeness of Ronald McDonald, swinging a butcher knife high over his head, with a caption underneath asking "Who profits from the killing floor?" The text warns readers of the prevalence of food-borne illnesses, especially those carried by the beef served in fast-food restaurants. As its source, the flyer cites the book *Fast Food Nation: The Dark Side of the All-American Meal* by Eric Schlosser.

Customers waiting for their burgers gradually become aware of the handout, and a few idly pick one up. Reactions differ: some look disgusted, some annoyed, some amused. There is a growing audience now, as the boys begin walking from table to table. Antonio approaches a middle-aged white woman who's eating alone, reading a book. He asks if she is familiar with *e coli* poisoning. Has she heard about the notorious cases of fast food restaurants sickening their customers? "No," she patiently replies, looking down at her lunch, spread out on its yellow paper wrapping. Does she know that every day in America, 200 people are sickened—and 14 die—from bacteria commonly found in hamburger meat? From his back pocket, Antonio pulls out his copy

SUBJECTS

MATTER

of *Fast Food Nation* and points out some key statistics on page 195. She leans down to read the page, heavily over-lined in yellow, with cryptic annotations in the margins.

“See,” he concludes, gesturing at her lunch, “it tastes good and it’s quick to get, but it could be a manure sandwich, is what I’m saying.”

The woman nods, but seems a little stunned by all this passionate attention to her health. Or perhaps she’s put off by Antonio’s barnyard analogies.

Meanwhile, the 30-ish manager has been alerted to the disturbance by his counter crew. He scoops up the leftover flyers and walks up behind Antonio, tapping him on the shoulder.

“You can’t bother my customers like this,” he says firmly, “and you can’t hand these out either.” He calmly dumps the sheaf of blue flyers into a nearby wastebasket, right on top of the ketchup-soaked napkins and empty soda cups. Antonio and Michael look at each other, silently deciding whether to raise the ante.

Discretion rules, and they shrug as the manager points to the way out. They go, but not quickly and not quietly. All the way to the door, as the manager herds him along, Antonio half-playfully hollers health warnings over his shoulder:

“Listen up, listen up people!”

“Coming soon—the new truth about McDonald’s!”

“You gotta know what your food contains!”

“You might be having an *e coli* sandwich for lunch up in here!”

And finally, at the door, he gives the manager one for the road: “You gonna put me out because I’m tellin’ the truth?”



Michael and Antonio are students at Best Practice, a small public high school we helped to design and open in Chicago in 1996. At BPHS, we believe in reading—real reading—in all content areas, across the curriculum. The boys’ truth-squad assault on the McDonald’s at State and Jackson happened after they had spent a month reading about the fast food industry and how it affects our health, agriculture, values, laws, economy, and society. The unit was designed by a cross-disciplinary team of senior teachers representing science, social studies, English, and special education, with help from faculty in math, technology, art, and ourselves, the university partners.

Like other lessons at Best Practice High School, the fast food project was built on the assumption that teenagers should not be “getting ready” to be life-long learners—but should be acting like them **right now**. The school’s faculty

believe that feeding students a steady stream of textbook chapters is not a healthy reading diet—or a grownup one. So they supplement kids' intake with generous servings of newspapers, magazines, websites, and nonfiction trade books—the same range of texts that thoughtful, curious members of the adult community around them might read.

In the fast food unit, the kids read widely and dug deep. First, each student received the paperback edition of *Fast Food Nation*. Reminiscent of Upton Sinclair's *The Jungle*, but ranging even more widely, Schlosser's book is an old-fashioned muckraking exposé which lambastes every link in the chain of industrialized agriculture, up to its ultimate crudescence in fast food restaurants. We used some grant funds to buy every student their own copy for two reasons: first, we simply wanted them to own the book, since our kids generally don't own a lot of books; and second, because we planned to use some reading strategies that required kids to actively mark up, underline, and annotate the text.

But the book was just the start. For scientific background (and also because it is mandated in the citywide curriculum), the kids read the biology textbook's chapters on nutrition, digestion, viruses, and bacteria. Each student also read several magazine articles, including a *Fortune* magazine piece about lawsuits brought (and dismissed) against fast food restaurants for causing obesity, one from *Science* magazine debunking the "fat myth" and arguing that fat may actually be good for you, and another from *Harper's* about how fast food companies intentionally target poor urban neighborhoods. Students also chose from six articles about animal cruelty downloaded from the PETA (People for the Ethical Treatment of Animals) website, sparking lively discussion about whether, for example, harvesting eggs or milking cows is really animal abuse. The more the kids and teachers dug into the topic, the more relevant sources seemed to pop up—in books, articles, and websites everywhere. One juicy favorite was the American Restaurant Association's stinging rebuttal called "The Truth About Fast Food Nation," a Web-based press release quoting the book's few negative reviews and pounding home the point that Schlosser wanted to deny people "the food they love."

The faculty didn't just assign all these readings and hope that kids would comprehend them. All year long, they had been teaching specific, practical **thinking strategies** that help kids to dig meaning out of a document in any content field. As a result, these kids knew how to:

- Visualize ideas and situations in the text
- Make connections
- Ask questions

SUBJECTS

MATTER

Draw inferences
 Evaluate and determine what's important
 Notice and analyze the author's craft
 Recall ideas
 Self-monitor while reading

Further, the teachers embodied these thinking strategies in concrete **tools** that helped students understand and remember what they read. In this unit, for example, the teachers made use of text coding tools, book clubs, dialogue journals, bookmarks, post-it notes, text annotation, admit slips, and exit slips, among others. With these kinds of scaffolding, students were able to enter some very challenging texts, make sense of them, monitor their thinking, bring ideas back to discussions, and apply what they had read to their own lives.

And, of course, there were lots of classroom and community-based activities that grew out of and extended the readings. Kids made anthropological observations at fast food joints, interviewed restaurant workers, kept personal diet journals, searched the Web for nutrition information, and joined in two elaborate simulations, one about life as a teenage employee in a fast food restaurant and another that dramatized the unionization of a slaughterhouse. The outcome of all this reading and experience was 80 kids with a lot of questions, concerns, and opinions. And that made things pretty easy when it came to the culminating experience—finding a public audience with whom to share ideas and concerns about the fast food industry.

Not all the kids chose “in-your-face” actions like Michael and Antonio. Jaisy, who was upset by the working conditions of immigrant employees in modern meat-packing plants, very diplomatically wrote her Congressman:

Dear Representative Davis,

My class and I are reading Fast Food Nation. This book addresses a lot of issues, however, the one I find to be most disturbing is the conditions of slaughterhouses, especially for the cleanup crews. That portion of the book was really hard for me to read. The descriptions were way too vivid for my liking! I am writing you because I want to know what the average person can do to increase the chances of workers having good working conditions in slaughterhouses. . . . I plan to make every effort to convince you to take action to better the conditions in the slaughterhouses. If you haven't read Fast Food Nation, I strongly urge you to; that will be the strongest influence over you.

Sincerely,

Jaisy R. Geans

Jaisy also created a petition made up of direct quotes from the book, and then solicited signatures around the school and the neighborhood. Jaisy brought her own special style to the petition process: she'd approach you in the hall, hand you the petition, and ask you to read the quotes. After about ten seconds, she'd start asking: "Isn't that awful? Isn't that just terrible?" And when you'd nod, she'd command, "Well, sign it, then!!"

Shawn's group wrote and illustrated a picture book called "What's in Your Happy Meal?" (*See the cow. See Jack kill the cow. See the french fries soaked in grease.*) They met with an interested teacher in the elementary school downstairs about visiting a first-grade class to read the book at story time and talk about fast food with the children. But they decided the younger children would be too upset with the idea of killing animals—but the teenagers were too, which is why they wrote the book. Indeed, of all the issues encountered during the unit, this was the one with the greatest emotional wallop; adolescents could care less what their cholesterol is, but once they learn what goes on in a slaughterhouse, it can change their thinking forever.

Another group of kids documented their own miserable school lunches by taking digital photos of each item being served and collecting wrappers from the other food sold in the cafeteria. Using these assorted materials, they created a huge collage and superimposed it on the U.S. Department of Agriculture's "food pyramid," the chart which specifies the officially recommended diet for Americans. Enhancing the 3-D effect were some napkins and plastic "sporks," hanging from the corner of the piece.

To drive home their point, the kids drew multicolored arrows from each cafeteria item (hot dogs, nachos with cheese sauce, Snickers bars) to the appropriate step on the food pyramid. The graphic was dramatic: almost all the arrows pointed to the top of the pyramid—to fats and oils, sugars, and red meat, categories from which people are advised to eat very sparingly. Fruits and vegetables, which are supposed to dominate a healthy diet, were virtually absent from the school food residue. The collage sparked a lively and still ongoing discussion about upgrading the food served in our own school.

Some of these projects may seem a little naive, heavy-handed, even—what's the word we're looking for—adolescent? Admittedly, hectoring innocent diners in a restaurant or reminding six-year-olds that their lunch began as Bossie does seem a little aggressive. But the thing was, these teenage readers were actually angry and concerned. They had learned things that really got them thinking, got them agitated, got them activated. The self-reflections at the end of the unit showed how deeply many students (admittedly not all—hey, this is a real school) were affected by what they learned.

SUBJECTS

MATTER

I really don't like eating McDonald's anymore. Before I read this book I had already stopped eating beef and pork, and this book really makes you wanna quit.

After this book, now at a fast food restaurant I don't eat the burgers—only apple pies and fries (I'm not going to starve myself)!

For about 1½ weeks I couldn't eat meat. However, that really sucked because I didn't have too much to eat without meat. Finally, I was pushed to the edge of hungriness and I ended up eating a chicken sandwich. I will definitely be more conscious of what I eat.

Will this change my eating habits? No way, except that I'll think about the facts and laugh ironically before I eat a delicious mean Burger King or McDonald's.

Ever since I read *Fast Food Nation* I only ate fast food one time. I thought differently about it and started to reduce my fast food servings.

I can't really eat any meat without thinking about the animal it used to be.

Read This for Friday

Mr. Cosgrove's biology class, Thursday, second period.

"Alright. . . . Jamie, sit down, please. Alright. Everyone, before the bell rings, let me give the assignment for tomorrow. I want you to read Chapter 17 in the textbook, and answer the questions at the end of the chapter. You're gonna turn those in at the start of class tomorrow, so be sure to use our regular format—name, date, and period in the upper right—you know the drill. Now, a word to the wise. Are you listening, Kathy? I would suggest that you pay special attention to the section on photosynthesis, because we might have a quiz on that one of these days. O.K.? Did everyone hear that? I said, we might have a pop quiz on photosynthesis sometime very soon. Any questions? O.K. See you tomorrow."

Cut to Friday. The kids straggle in, and after a gentle reminder, begin hunting in their backpacks for the homework. As usual, Jamie whines, "Oooh, Mr. C, can I go to my locker? I think I left my homework in there." As Mr. Cosgrove roams the aisles, collecting papers, a few routine excuses pop up. ("I had soccer last night." "I think it's on my kitchen table.") But most of the kids have

done the work—and here comes Jamie back from his locker, triumphantly clutching a crumpled sheet of notebook paper.

Flipping through the stack, Mr. Cosgrove is not especially displeased. Though some students' responses are more complete than others, almost every kid has written down something for each of the 12 questions from the textbook.

"O.K., gang," Mr. Cosgrove announces, "Remember my words to the wise yesterday—it's quiz time. Please clear your desks."

Pro forma resistance immediately breaks out. "Aw, Mr. C—that's not fair! You only said *maybe* a quiz!" "But we just had a quiz on Tuesday!" Inevitably, the 10-item multiple-choice quiz is distributed, and the kids gradually quiet down and bend to the task. There's some background sighing and pencil-tapping, and a few students gaze steadily up in the air, as if the correct answers might suddenly appear on a ceiling tile. When Steve calls time and collects the test papers, he notices a lot of blank, unanswered questions.

Once the quizzes are stacked on his desk, it is time for some class discussion. "So, guys," Steve asks, "What's the big picture here? Why is photosynthesis so important to life?" Twenty-seven eighth graders simultaneously look down at their desktops, apparently finding something utterly fascinating in the grain of the wood. "Who wants to start us off? Why is photosynthesis so important?" Mr. C scans the room, but no eye contact seems to be available, no glimmer of volunteerism emerges. Call on one of the reliable ones, Steve thinks. Christine, maybe. But as he gazes her way, she drops her pen on the floor and turns, in ultra-slow motion, to retrieve it. The silence is profound.

"Geez, guys, give me a break here. We read this stuff last night, you just had it on the quiz." Blank stares.

"O.K., why don't you take your books out and open up to Chapter 17 again." The kids heft the six-pound science books back onto their desks, opening to the chapter.

"O.K., everybody with me now? Alright, here's an easy one: what's the green stuff that is the key to photosynthesis?" There's the sound of pages flipping. And flipping. And flipping.

"Come on, you gotta know this."

More silence, and then, finally, a first tentative hand is raised.

"Uh, would that be carbon dioxide?" wonders Diane.

The phrase "pulling teeth" flashes through Mr. Cosgrove's head. For a split-second, he sees himself in a white dentist's smock, holding a shiny pair of pliers in one hand; the students arrayed before him resemble rows of deeply impacted, unpullable teeth—definitely **not** of the "wisdom" type.

SUBJECTS

MATTER

“Alright, guys, maybe this just isn’t a good day for a discussion. Tell you what, let’s just turn to Chapter 18 and start reading that for tomorrow. I’ll give you the last 15 minutes of class to get a head start on the homework. And be ready for a quiz on Monday.”

Later, grading the tests, Mr. C tallies two As, four Bs, seven Cs, seven Ds, and eight Fs. All the kids needed was to get six out of 10 answers half-way right. Sixty percent! Was that too much to ask? Apparently, even sitting at home last night, with the textbooks right in front of their noses, students couldn’t memorize the most straightforward points—even the ones sitting right there in bold-face type. They read it, but they just didn’t get it.

Not only do they not get it—they don’t seem to care. And this bothers Steve Cosgrove most of all. Steve went into teaching because he loved science—and especially ecology. Back in college, he took an advanced ecosystems course, where he studied global warming with a group of classmates. His life changed that day when he read about scientists who drilled into air pockets in Antarctica to find samples of the atmosphere trapped centuries ago. They proved that in the year 1700 the earth’s air had a third less carbon dioxide than it has now. When he read that study, Steve was stunned, concerned—and hooked.

Here at Cutler Middle School, Steve’s goal in teaching has never been just to push kids through the textbook, or help them pass a state assessment—though he cares about both of those necessary outcomes. Steve hopes for more. He wants his students to really understand how the earth works, how life interlocks, how thin and fragile the biosphere really is. He wants to awaken in young people a sense of wonder at the complexity of life. He hopes that they will feel concern, maybe get involved, see themselves as stewards of the environment, friends of the planet. But these kids, they can’t even (or *won’t* even) read the book.

Why Content Teachers Care About Reading

Studies consistently show that most of us are like Steve: that we middle- and high-school teachers chose our profession mainly because we loved a **subject**—physics, mathematics, art, history, political science, biology, chemistry, literature, a language. Elementary teachers, on the other hand, most commonly say they elected teaching because they “like being with children.” That’s a big difference. It doesn’t mean we secondary types don’t like young people (most of us are quite fond of them, actually), but we have another quite powerful dynamic going on in our heads: we care deeply about a particular

field, a body of knowledge, a special set of tools and procedures, an intellectual tradition, a heritage.

Looking back over our careers, we can feel the truth of this. We didn't sign up for this occupation, go to school for four or five years, get ourselves certified, and agree to this pitiful pay scale, just to push some state assessment score up a half a percent. Our imagination wasn't fired by some list of 3,000 state standards to be met in the first semester of ninth grade. We got into this job because we were fascinated by a field, usually our college major, and we wanted to transmit that excitement to young people. We wanted students to share our enthusiasm, our engagement, our wonder at the beauty and importance of ideas. We had something powerful and precious to share: *knowledge*.

We imagined students catching our fever of ideas. We pictured them exploring a Civil War battlefield on a summer vacation, or looking through a telescope in their back yard, or writing their own software on a home computer, or sketching a great artwork in a museum gallery, or authoring their own collection of poems. After having us as teachers, after we had lit the fire, we saw our students moving on to take more courses in math, in science, in literature, in art. We envisioned them going on to major in our subject in college—the greatest compliment a secondary teacher can get. They would make our subject a special part of their own lives, just like we did; some would even join the field, make a contribution, become fellow travelers, our colleagues and peers.

But even in these professional fantasies, we were realistic. We knew we'd never get them all; not every student would commit their working life to our subject area. However, we expected every kid to grasp the big ideas, to respect the field, to remain curious about it through life. When our ex-students read the daily paper, they'd scan for stories about the subject and understand the basic issues. Perhaps some would subscribe to *Scientific American*, *American Heritage*, or *Harper's*. Others would work through books of math puzzles, just for fun. Maybe they'd read popular books in the field: *Zero: Biography of a Dangerous Idea*, *Founding Brothers: The Revolutionary Generation*, *Nickel and Dimed*, *Salt: A World History*, *The Future of Life*, *Into the Wild*, or *Bodega Dreams*. And who knows? Maybe at least a small number of our alumni might be the kind of people who join in monthly book discussion groups, meeting with friends to talk about the latest novels or nonfiction trade books.

Of course, between our long-term dreams and the immediate realities, things can intrude. Here sit our students before us, first period, today. Before they can become lifelong learners and pillars of their intellectual

communities, there might be a few obstacles to overcome. Maybe these kids aren't ready to explore genetics at the level that excites us. Maybe, right at this moment, they are grappling with personal or developmental issues that tower higher than the pyramids. Perhaps their previous experience in school hasn't delivered them to our classrooms ready to tackle tariffs. And quite possibly, state standards, mandated curricula, departmental exams, and tests, tests, tests, are undermining our own ability to teach with passion and personality.

Yes, there are a lot of obstacles to young people falling in love with math, science, history, language, and the arts. But that doesn't mean that our idealism is sentimental and misplaced, or that we should give up the dream that binds us to this profession. It is right and reasonable to hope that kids can have a lifelong engagement with at least one, hopefully several fields of knowledge—and that they'll pursue it through reading.

Why the Public Is Concerned

We teachers are not the only people worried about knowledge, learning, and reading in middle and high school. As we write this book, a bright spotlight is being shined on the nation's public schools—and especially those at the secondary level. The country's president, governors, legislatures, researchers, task forces, think tanks and media are casting a cool, appraising eye at our schools—and apparently, finding little to like.

There are some problems that simply cannot be denied. Our high school drop-out rate, nationally about 11%, has dire personal and social consequences for millions of young people. In Chicago, where we work, the drop-out rate is listed at 50%, though many insiders peg the number closer to 60%. If you look over the enrollment records of a typical Chicago high school, you might find 600 freshmen listed, 450 sophomores, 300 juniors—and just 150 seniors left to march at graduation. And these tragic outcomes are replayed in big-city school systems around the country, where most of America's 3.9 million dropouts between age 16 and 24 can be found.

Among the great majority of teenage students who do stay in school, their scores on standardized achievement tests yield disappointing results and evoke many worrisome headlines. Some recent findings from the National Assessment of Educational Progress ("our nation's report card") are emblematic of the problem:

☞ In civics, just 24% of American eighth graders and 30% of seniors scored at the "proficient" level or above.

- ☞ NAEP science scores show no gains for eighth graders since 1996, while scores for high school seniors have dropped from 150 to 147.
- ☞ NAEP mathematics scores show modest gains for both eighth and 12th graders over the past 10 years, but a recent dip among seniors.
- ☞ Ten-year score trends on NAEP history and geography assessments show scores up slightly for eighth grades, but flat for high school.

Of course, each one of these tests—whatever its content area—requires, before anything else, that students be able to *read* passages, tables, problems, charts, and questions.

Now, educators might like to quibble about the validity of such measures. And, indeed, a few indefatigable researchers remind us of the very mixed picture presented by these imperfect measures (Bracey 2001; Allington 2000, 2002). One prominent example: both eighth and 12-grade reading scores were not down, but up significantly in the last national assessment. Still, in a political sense, the inconclusive findings and dubious validity of these tests may not matter very much, since most parties to educational policymaking have long since bought in to the idea of a decline. Nor do self-exculpating interpretations from inside the profession have much clout with a public already pre-sold on the idea that the public schools are a mess.

International educational comparisons don't offer much comfort, either. These studies sometimes show American kids performing at the middle, or even the bottom of world achievement levels. A much-quoted example was the *Trends in International Mathematics and Science Study* (TIMSS 2003), which tested young people from dozens of countries. The exam listed U.S. high school students toward the bottom of the pack, besting only students from Cyprus and South Africa. United States teenagers performed at about the same level as their age-mates from Russia, Italy, and the Czech Republic, but well below those in New Zealand, Canada, and all the Scandinavian countries. When the U.S. public and its policymakers read such reports, they are disappointed—and potentially, energized to act.

Again, professional educators might like to rebut such data. We'd remind critics that America's secondary schools are more broadly inclusive than those in other countries, that they enroll a higher proportion of young people, for more years than most nations attempt (Bracey 2001). We might also point out that America's top echelon schools compare favorably with the best in the world. On the same TIMSS exam that showed dismal results for average U.S. teenagers, a consortium of affluent suburban schools around Chicago voluntarily took the same test, and scored the equivalent of second in the world in

math and fifth in science. This proud “first in the world coalition” inadvertently highlighted the fact that only when you average in the results from America’s embarrassingly large proportion of poor, underserved school communities do test scores get “dragged down” to sub-world-class levels. But what a sad defense that is. And, as teachers, we know that all of our kids can do better, know more, be more engaged—and we certainly do not deny that some American schools have a really long way to go.

In addition to the “scientific evidence” provided by standardized tests, both foreign and domestic, there is a robust industry of public school debunking, with think tanks, pundits, and publications deployed in loud, unanimous doom-saying. Among these is the formulaic but always headline-worthy genre of “Shocking things today’s students don’t know” (Henriksson 2001; Ravitch and Finn 1989). These critics stun and alarm the public with news that, say, 54% of high school seniors don’t know who dueled with Aaron Burr back in 1804 (or was it 1805?). Though student-bashing critiques are designed more to incite than to enlighten, they do inadvertently raise some interesting educational issues. Here’s one: the “stuff-kids-don’t-know” anthologizers want us to infer that vital facts are being deleted and our nation’s history being dumbed-down by craven educators. But in fact, every single kid who attended an American high school in the last century probably was taught about Aaron Burr and Alexander Hamilton. The problem is: *they don’t remember it*. Now, that is an educational puzzle worthy of attention. That’s why making sure that kids *remember* and *think about* what they read in school is the focus of much of this book.

Looking at the adult community outside the schools, our country ain’t exactly a hotbed of literacy, either. Department of Labor studies consistently show that tens of millions of American adults are “functionally illiterate.” The spread of Barnes and Noble, Borders, and Amazon.com notwithstanding, the percentage of Americans who actually buy and read books remains relatively constant. We are not growing a bigger citizenry of readers; we are just changing the location where the readers gather, and adding a half-decaf-half-skim latte to the experience. Are you math teachers tired of hearing citizens (often the parents of your own students) tell you: “Oh, I hated math in school.” Well, English teachers are almost as accustomed to hearing the same folks happily declare: “Oh, I’m just not a reader.” Perhaps this kind of insecurity is what explains the popularity of the “Idiot’s Guide” and “For Dummies” series of books.

So, while there are many things we might like to change about literacy practices in the wider culture—and in the distorted world of standardized

tests—we’ve got to start where we are. And making reading a more meaningful, more effective, and more long-lasting learning experience is something that we teachers can start tackling today, in our very own classrooms.

Two Visions of Reading

So what’s the difference between our two opening stories of reading and learning, and how do they help us take on this troubling national puzzle? Well, to begin with, one of these stories really happened and the other was made up. Steve Cosgrove is not a real teacher, and there is no Cutler Middle School, as far as we know. We created “Steve’s” story to display some common problems that teachers of all subjects struggle with when we assign content-area reading “the regular way.” We tried to portray Steve as a nice person and a hard worker, because that’s what teachers are. He’s approaching reading the way he was taught in his methods class, and probably the same way he experienced it in his own schooling, in middle school, high school, and college. Admittedly, we did engineer every conceivable problem into Steve’s classroom; here’s hoping none of us ever encounters a real class as discouraging as his photosynthesis-proof group!

Obviously, we think the fast food reading story has a lot more to recommend it—and not only because it is about our own students, whom we love even when they go a little over the top. If your teaching experience is like ours, you might agree that we don’t see young people, teenage readers, this engaged very often. When we assign students to read pages 234–245 in the textbook and answer the questions at the end of the chapter, they hardly ever get on a bus and go share their learning with fellow citizens across town. And maybe you also feel the way we do—that we’d prefer to see students overly worked up than not worked up at all. We’d rather help a kid simmer down and find productive outlets for her rage, than to try to wake her up in the back row of the classroom, where she is snoozing face-down on a textbook.

Still, we realize that the fast food unit may sound a bit idealized, kind of complicated, and even a little unrealistic to people working in “normal” middle and high schools. We can almost hear you thinking: “Hey, excuse me, but I **do** have a textbook to get through. I have a curriculum to cover. It is mandated by the district and I can just barely cram it into the school year as it is. My kids have to take a departmental exam and a state assessment. If they don’t do well, both the school and I could be in trouble. And even if I wanted to, where would I find the time to bring in all these other readings and activities? I’ve got my hands full with my own subject area without trying to cook up some cross-

disciplinary project with my colleagues. We don't have any common planning time, anyway. And what about materials and money? I mean, you bought a book for every kid? What budget line did that \$900 come out of? And, really, so what if kids write their congressman or make collages? I'm here to teach the subject, not reform people's diets or stir up a controversy." O.K., O.K. We hear you! We're not saying that the fast food unit is what content-area reading must look like every day—or that this is where you begin. It isn't where we began, either.

At BPHS, the teachers of algebra, math, English, history, geometry, art, chemistry, Spanish, biology, and music have been working their way slowly and unevenly into big, complex units like these, which we now undertake for about 10 weeks per year. The rest of the time, our faculty are deployed in separate-subject teaching, just like middle schools and high schools everywhere. We have plenty of constraints, too, including citywide curriculum guides, local tests, and a brutal state assessment—and all our scores wind up in the *Chicago Tribune*, which ranks and compares us to the other 91 high schools in the city.

Nevertheless, when our faculty are working alone in their content-area classes, when they are leading kids through required curriculum and textbook chapters, they model and reinforce that same repertoire of thinking strategies, choose from the same range of materials, use the same reading tools, and structure the same kinds of classroom activities that we draw upon in the big thematic units.

The Goals of This Book

There are two main problems with reading in secondary subject fields: first, students are reading the wrong stuff and second, they don't understand what they read. Other than that, everything is fine! Students consume a drastically unbalanced and unhealthful reading diet, with negative side effects like low test scores, ignorance of vital information, and negative attitudes toward reading. They read too many textbooks, and not enough "real" books and articles. And while we assign plenty of reading, we don't teach kids how to understand and remember what they do read. There are specific and documented mental processes that effective readers use: questioning, predicting, connecting, visualizing, synthesizing, and more (Harvey 2000; Zimmerman and Keene 1997). But these thinking skills are not being consistently taught or used in middle and high school courses.

This book addresses both of these issues. We want to make sure that your students possess the cognitive strategies they need to understand the core

written information in your field—and that you, the teacher, have a repertoire of tools and structures to make this happen. And further, we want to be sure that your students are exposed to the best possible samples, those just-right texts and critical documents that can ignite genuine interest and curiosity about your subject matter.

Below is a preview of the changes we will argue for in the coming pages, what we mean by the *what* and the *how* of content reading experiences. As you look at these lists, you can think back over our two opening stories, the fast food unit and the attempted photosynthesis lesson.



In the coming pages, we will show how content teachers can take steps—carefully and thoughtfully—toward more promising reading activities. In the next chapter, we'll look at how our own brains work when we read so we can explain the tricks of the trade to students. Reading is not some unknowable

Successful Content-Area Reading—*What Is Read*

- ☞ Kids still use the textbook as a basic source of information, but they also venture far beyond it.
- ☞ The subject matter includes authentic, interesting, and current issues that affect young people's daily lives.
- ☞ Instead of relying upon a single authority, students consult a variety of sources and voices on the topic, constructing their own understanding of what is fact, what is true, what is right. The students are not only reading about settled facts and closed questions. They are also reading in the arena of the unsettled, the debatable, the still-emerging.
- ☞ Students sample a wide variety of genres including textbooks and other reference works, newspapers, magazines, websites, and popular trade books.
- ☞ Reading selections have a range of lengths, from short newspaper and magazine pieces to whole books.
- ☞ There's a premium on current information; many of the pieces used in a given unit were recently published (or posted).
- ☞ Many of the readings take an interdisciplinary approach, using the tools of multiple disciplines, combining science, statistics, history, biography, and more.

SUBJECTS

MATTER

Successful Content-Area Reading—How It Is Read

- ☞ The purpose for reading is not just to pass a test or get through the textbook. The students' work is to gather information, construct meaning, and apply knowledge about important issues.
- ☞ The teacher selects some, but not all, of the readings; students also make choices of their own.
- ☞ Not every student reads the same texts. There are some common readings and some "jigsawing" of related but different texts.
- ☞ Teachers teach (and kids use) a repertoire of specific thinking strategies that help them enter, understand, and apply the material they read.
- ☞ Teachers offer students practical tools that help them process different kinds of texts.
- ☞ Teachers organize classroom structures and activities that deepen student engagement with key written materials.
- ☞ Reading is seen as a social, rather than a solitary activity; there is plenty of collaborative work in pairs, teams, Book Clubs, or inquiry groups.
- ☞ Instead of an exclusive focus on "right answers," there's also room for debate and discussion, for differences of opinion and interpretation.
- ☞ Instead of receiving a string of 180 daily reading assignments, students do their subject area reading as part of longer, coordinated themes or inquiries.
- ☞ Reading is linked to action in the real world: young readers engage in research, documentation, correspondence, and advocacy.
- ☞ The assessment of kids' reading relies less on quizzes and worksheets, and more on complex performances, products, and exhibitions.

"black box" of cognition; it's actually quite easy to surface our own reading strategies, to name them, and then show them to students. Next, we need a new and more healthful diet of reading materials for young people—and we won't just generalize. We'll give you lists of the specific books, magazines, journals, and websites that have energized the curiosity of many young readers, across the whole range of content areas. We'll tell you about teachers who have integrated these new materials into their curricula, alongside the textbook, in harmony with the local curriculum guide, and with success on high-stakes tests.

We'll also share a repertoire of practical classroom structures and strategies that help kids understand and remember what they read—whether it comes from a textbook, a newspaper, or a novel. Some of the most powerful of these strategies take only a few minutes of class time to implement, and can reap huge dividends in comprehension. We'll cover a wide range of activities, from quick getting-started exercises to structures that guide kids through longer, harder texts. We'll show you how to make sure that kids enter texts thinking, demanding clarity along the way, and connecting their learning to real-life issues. We'll describe how to build whole units around “real” books in your own subject area—or even to create interdisciplinary units, planned and co-taught with colleagues from other departments. And we'll be sure to translate all these ideas to kids who struggle with reading. And yes, we'll face up to that scary old bugaboo, assessment, too.

If you're wondering about our authority: yes, we do have scientific research showing that these practices work—and plenty of it. In these times, it is vital to show that suggested classroom activities really enhance student learning, that they have been validated by both quantitative and qualitative research of careful design. Happily, there is more than 60 years of research showing the value of a varied reading diet and careful reading-as-thinking instruction, as measured by standardized test scores as well as improved reading habits and attitudes. In the interest of getting right to the classroom stuff, we have placed our research chapter toward the back of the book. But for people who want to see the proof right away, or for administrators or parent leaders who must consider policy questions first, you may want to begin with Chapter 12, and return to the instructional ideas later.

Improving reading in middle and high school can be a victory for everyone involved, a rare win-win-win deal. To meet the state mandates and pass standardized tests in any subject area, as well as to find personal meaning in a field, young people must be able to read key materials fluently, skillfully, strategically, and critically. To fulfill our entirely reasonable dream that every kid will fall in love with at least one discipline of knowledge, students must encounter each field's most galvanizing, tantalizing, and accessible documents. This means we teachers must do more than just “assign” reading, and we must help our students venture well beyond the textbook. But what an energetic and hopeful adventure this can be, with payoffs for all: for schools, to show the public what their students can do; for the kids, to lock in lifelong reading skills and maybe find a passion; and, for us teachers, to realize that vision we always dream of—“the light going on”—in lots of kids' heads, and maybe

hooking a few of them on the ideas that changed our own lives. Sound good? Let's get to work.

SUBJECTS

MATTER

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Robb Hill



CHAPTER FOUR

Toward a Balanced Diet of Reading

We've argued that teachers should use textbooks more sparingly, more carefully, and with explicit scaffolding strategies—which we'll detail in Chapters 5 and 6. But the corollary recommendation is that young people should be reading content material *in other genres*: newspaper articles, magazines, research reports, websites, primary sources, biographies, and full-length trade nonfiction books. But why? What is to be found in the wider world of reading that students are missing when they only read textbooks? Why is it so urgent that we change their reading diets? Here is an example of how “real” nonfiction text can be a valuable addition the curriculum.

Let's talk about Einstein. A typical physics textbook might give between a paragraph and a page to his world-changing equation, $E = MC^2$. So we can say that the concept is “covered” in school. The trouble is, if you go out on Main Street America today and ask 100 textbook-educated high school graduates what each symbol in Einstein's equation means, 99 of them will not be able to tell you. And the knowledge gap does not just afflict the *recent* alumni. Between us two, Harvey fell into the “normal” 99%, while Steve, who majored in physics (no fair!) knew the right answer. Now, if you further inquire of your random citizens what the equation actually *means* in daily life, most cannot say much at all. Sometimes people, shown the equation, just shrug their shoulders and say “Boom!” This is not what we could properly call “deep understanding.”

The noted science writer David Bodanis was worried about this ignorance of Einstein's equation as well. “There are plenty of books that try to explain it,” he says, “but who can honestly say they understand them?” So Bodanis took a distinctly non-textbook approach in his book $E = MC^2$, *A Biography of the World's Most Famous Equation*. “Everyone knows that a biography entails stories of the ancestors, childhood, adolescence, and adulthood of your subject,” he reasoned. So Bodanis takes each symbol in the equation, one at a time, and tells the story of the people who developed the big idea from its infancy. Believe it or not, his book is a page-turner, a stay-up-all-night-and-finish-it yarn. It takes 113 pages to complete the main biography, but by the time you've

Science

SUBJECTS

MATTER

heard all the stories, you feel that the equation, and indeed the theory of relativity itself, has entered your bones forever. How is this different from the textbook treatment? How does Bodanis provide readers both depth of understanding and page-by-page entertainment? Here's what it sounds like.

Toward the end of the book, Bodanis describes a 1938 breakthrough by Lise Meitner. Meitner, a brilliant Jewish scientist, has just been banned from working in Germany and exiled to Sweden. Her nephew, Robert Frisch, also a physicist, comes to visit her at a friend's country home. "After they finished breakfast," Bodanis explains, "they went for a walk in the snow," with Frisch on cross-country skis and his aunt marching briskly beside him on foot. Along the way, the two were talking about the uranium atom and its peculiar properties. As an idea started to dawn, they slowed down.

Meitner and her nephew weren't physicists for nothing. They had paper with them, and pencils, and in the cold of the Swedish forest, this Christmas Eve, they took them out and began calculating. What if it turned out that the uranium nucleus was so big, and so crammed with extra neutrons in there, that even before you started artificially pushing extra neutrons in, it was already in a pretty precarious state? That would be as if the uranium were a water droplet that already was stretched apart as far as it could go before bursting. Into that overstuffed nucleus, one more plump neutron was then inserted.

Meitner started to draw the wobbles. She drew as well as she played the piano. Frisch took the pencil from her politely and did the sketches. It was like taking a water balloon, and squeezing it in the middle. The two ends bulge out. If you're lucky the rubber of the balloon will hold, and the water won't burst out. But keep on with it. Squeeze in some more, and when the balloon spreads sideways, let go until it rebounds toward the center and then squeeze in the opposite way. Keep on repeating. Eventually the balloon will burst. Get your timing right, and you won't even have to squeeze very hard.

By the time their walk in the snow had ended, Meitner and Frisch had developed a hypothesis that would change the world.

The atom was open. Everyone had been wrong before. The way in wasn't by blasting harder and harder fragments at it. One woman, and her nephew, quiet in the midday snow, had now seen that. You didn't even have to supply the power for a uranium atom to explode. Just get enough extra neutrons in there to start it off. Then it would start

jiggling, more and more wildly, until the strong forces that held it together gave way, and the electricity inside made the fragments fall apart. This explosion powered itself. (2001, pp. 109–111)

What's the difference between textbook talk and this best-selling trade book? Of course, Bodanis, like all good nonfiction writers (including the more skillful textbook authors) uses solid organizational patterns. But he gives much more, to make the information readable and memorable.

- ☞ content that is important or engaging
- ☞ people we can care about
- ☞ a narrative structure or chronological line
- ☞ places we can visualize
- ☞ danger, conflicts, risks, or choices
- ☞ value, moral, ethical or political dimensions
- ☞ some ideas that reasonable people can debate, dispute, or disagree about

These are the elements of engagement which you'll find in any successful nonfiction book, in any content area, be it mathematics, science, history, economics, or art. In this example, with 113 pages of letters, diaries, conversations, and photographs (but no other formulas or equations) Bodanis brings to life some of the most complex and consequential ideas in scientific, indeed, in human history.

Now, about this time, any workaday teacher might want to interject: "Hey, this $E = MC^2$ stuff may be readable and engaging—maybe my kids would enjoy it. But it is 113 pages long, not three! I'll grant you that the students might understand the equation better if they read this book. Maybe they'd be more able to think through issues that stem from it; nuclear energy, radiation, and all that. But I don't have that kind of time! I have scores of mandated topics—and the state exam covers everything. What am I supposed to do?"

Fair question. Do we make time for the real book or not? Can we risk it? The answer, according to the content-area standards in each of our subject fields (Zemelman, Daniels, and Hyde 1998) is definitely yes. Unlike most state legislatures and education departments, the national curriculum standards consistently say that we should *go deeper into a smaller number of topics*. Which means, yes, we should step outside the textbook for a while, and have our students read $E = MC^2$, or *Material World*, or *The Joy of Pi*, or *War Is a Force That Gives Us Meaning*, or *Genome*, or *The Future of Life*, or *Postville*, or *The Year 1000*.

But it is hard to make yourself put that textbook down and “teach less,” giving up so much time for one book, covering just one big idea. Our friends in the social studies department at Stagg High School faced the same reluctance. Overwhelmed and exhausted by the annual race to “get everything in” to their U.S. history courses—and often finding themselves still on World War I in June—the faculty decided to take a drastic step. They went on a weekend retreat with the express purpose of deciding: what are the few absolutely key, core, central, gotta-have-em ideas in all of American history?

They were committed to identify just 12 vital themes, movements, phenomena. After what Department Chairman Wayne Mraz called “the longest two days of my life,” the department came back with what they dubbed “16 Fenceposts of History.” (O.K., 12 was too ambitious to hope for.) Each of these big ideas (topics like native peoples, westward expansion, immigration, reconstruction, etc.) became the focus of a two- to two-and-a-half-week unit (the fence rails, if you will). It also left room to mix the textbook, which they still used, with other readings, films, library research activities, and small-group presentations that gave deeper and more textured understanding of the big themes in U.S. history.

25 BOOKS A YEAR?

Back in the 1990s, it seemed like everyone in the field of education was issuing a “standards report.” Many of these documents went on to cause various varieties of grief, but one that we admired in many ways was issued by the New Standards Project. Headed by Linda Darling-Hammond and funded by the National Commission on Education and the Economy, the NSP eventually led to a whole new set of tests, probably the most sophisticated and authentic formative assessment tools ever developed—and also the most ahead of their time, since they are now rarely used.

Anyhow, before they ever designed a single assessment, the NSP made this declaration as their number one educational standard: all students in American public schools should read at least 25 books per year. 25 books a year? Huh? In middle and high school, we obviously can never accomplish this with just one

continued

A Balance of What?

We aren’t just talking about adding a few exciting nonfiction bestsellers here and there. We need to consider: if textbooks aren’t enough, then exactly what must be added to achieve a balance? What else should kids,

textbook for each of five or six courses! I mean, if you hang on to the regular textbook in every class, that only gives you five or six of the 25—plus students would have spent a huge amount of time on this handful of tough, 1000–page books. Then what? Where are the other 20 books supposed to come from? Maybe a couple of novels in English, but . . .

Obviously, the framers of the NSP standards wanted to see kids reading a wide variety of real books, across the curriculum, in and out of class, assigned and independent, all year long. This innocuous little standard holds the seed of a real revolution. Taken seriously, it changes everything. So it's not surprising it hasn't been widely adopted, and where it has been adopted nominally, it hasn't been faithfully practiced. Maybe this 25 books a year standard is a little *too* radical for most would-be school reformers, and a little too threatening to the textbook publishers, with their stranglehold on instructional materials budgets.

adolescents, teenagers, be reading? What range of genres, styles, length of texts, and so forth, are we looking for? One way to answer this question is to notice what the thoughtful, curious members of the surrounding adult community are reading. Among your local lifelong learners, what's in the literacy diet? Probably you'd find that these thinking grown-ups read from a wide range of genres, in assorted situations, and for varied purposes. They probably read some "required" material for work, some other texts to stay informed as citizens and consumers, still other materials to get practical informa-

tion, and some other stuff just for fun. And that's just how we should work it in school for kids, creating a balance along a number of continua, including the following:

Textbooks Vs. Other Genres

Here's a list of some genres of text that exist in our culture, roughly arranged from the most dryly factual to the most "made-up."

- Reference books
- Textbooks
- Manuals/Instructions
- Contracts/Legal documents
- News stories
- Feature stories
- Historical accounts
- Profiles

SUBJECTS

MATTER

Editorials
 Essays
 Reviews
 Biographies
 Narrated nonfiction
 Memoirs
 Travelogues/Adventure
 Historical novels
 Novels
 Plays
 Poetry

You might debate these classifications, but we'd still argue that a well-educated middle or high school student should be regularly sampling text in all these genres as she moves through her education. And we can't think of a single school subject that doesn't have its own published materials in many of these slots. There are memoirs of historical figures, biographies of mathematicians, profiles of artists, reviews of literature, reference books on artists—heck, we could probably even find a contract with a scientist (a patent, for example).

Most of these genres are familiar and employ everyday terminology. Perhaps the only unfamiliar term is “narrated nonfiction,” which refers to informational texts where the content is delivered through a personal voice. Like this: “Imagine you are standing at the edge of the ice-field, looking up at your first glacier.” While this pattern may sound a little childish, it's a trusty tool of magazine writers everywhere: “Nicole Kidman sits at a back table in Starbucks, absently stirring her latte and talking about dreams. She looks much smaller, paler, and more fragile than on the big screen. . . .” You know the drill.

Choice Vs. Assigned

Usually, all school reading is assigned by a teacher. But real readers, lifelong readers, assign themselves. Sure, they may have jobs that provide some “required” reading. But in their wider lives, deciding what to read is a definitive act of literacy. Will it be *The New York Times* or the *Chicago Tribune*? *Time* or *Mother Jones*? A novel or a biography?

It should be just the same for adolescent students in school. In every subject area, some reading materials should be chosen by kids for themselves, selections that reflect their own view of the topic, their own connections and

interests. Of course, young people will need practice and guidance in choosing books, articles, and Internet resources for themselves—after all, they may have experienced nothing but dependence, at least in school. So we'll help with a gentle hand, keeping in mind that giving kids choices is not a matter of "letting" them decide a few things; on the contrary, the flip side of choice is responsibility. When we invite students to find valuable reading materials for themselves, we are "requiring" them to do all the jobs that real readers do. We're refusing to spoon-feed them by locating, copying, handing out, and explaining every single piece of text they need to understand the Civil War. We're also saying, "You cannot choose to read nothing" and forthrightly enforcing that rule. With choice, we expect students to shoulder some work—and we'll explicitly show them how.

Fiction Vs. Nonfiction

In the content areas (English being the allegedly "content-free" exception) we are mostly concerned with creating a more balanced diet of nonfiction, and especially sampling a wider range of genres. This is a realistic adjustment in many ways; after all, 84 % of what American adults actually read is nonfiction. And most high-stakes standardized tests contain predominantly nonfiction reading passages—as much as 80 % on many of the big-name exams.

But there are times when fiction also has a very special place in science, math, history, and other content fields. Remember the big worry in Chapter 1 about the Hamilton-Burr duel? Well, *Burr* by Gore Vidal is one of a thousand historical novels that includes tons of factual background information, and makes both a person and a period come alive—and provides a detailed if not definitive account of the famed duel. Mark Slouka's recent novel *God's Fool*, about the world-famous conjoined twins Chang and Eng, provides a vibrant picture of life and culture in first half of the 19th century in Asia, Europe, and America, and culminates with a chilling view of the Civil War. And for a page-turner about the development of the Atomic bomb, including personal peccadillos of Robert Oppenheimer and his band of ego-driven physicists at Los Alamos, you can't top *Stallions' Gate* by best-selling novelist Martin Cruz Smith. We don't always need to match novels one to one with a particular fencepost; we can also use fiction simply to set the stage, to entice curiosity. If you are a science teacher trying to prime kids for a unit on time, space, or astronomy, an Arthur C. Clarke short story could provide a great sci-fi blastoff.

English class is where kids get their official doses of fiction and poetry, and maybe that's O.K. But perhaps we could re-balance the diet a bit here, too,

History

Science

opening up English to more nonfiction. After all, some of today's most celebrated, cutting-edge writing is nonfiction appearing in progressive magazines and edgy websites. And the hot book-length genre for the past few years has been memoir, which brings the tools of fiction to autobiography. Dare we suggest a little Dave Eggers in place of Jonathan Edwards?

Classics Vs. Contemporary Works

There are always steamy debates about whether kids should read "classic" works, or dig into contemporary young adult literature instead. In this endless and tiresome controversy, authoritative prescriptions abound. In his book *The Educated Child* (2002), former U.S. secretary of education William Bennett recommends 60 books for middle-school students. The list is heavily skewed toward the oldies including titles like *Great Expectations*, *National Velvet*, *A Boy of Old Prague*, *The Scarlet Pimpernel*, and *A Gathering of Days: A New England Girl's Journal, 1830–32*. Of the 60 authors on the list, by our quick tally, 56 are dead, 40 are (or rather, were) males, and 52 are of European descent. There's one Asian, one Hispanic, one Arab, and a handful of African-Americans on the list, including Booker T. Washington and, uh. . . . Sorry, but we just can't stop thinking how fun it would be to watch William Bennett try to teach *National Velvet* to some actual teenagers, like our kids at BPHS. Maybe he'd start by showing the black-and-white movie, starring teen heart-throb Elizabeth Taylor. But we digress.

Diane Ravitch, earlier cited as an expert on students' failure to remember historical facts, has a newer book that strongly endorses a diet of classic, or at least old, literature (2003). Among the titles she suggests for high school are John Millington Synge's *Riders to the Sea*, Rudyard Kipling's *L'Envoi to the Seven Seas*, and Richard Henry Dana Jr.'s *Two Years Before the Mast*. She scoffs at contemporary young adult literature with its focus on "evanescent" teenage-life issues. "A child who is suffering because of a death in the family," she sniffs, "is likely to gain more comfort from reading a poem by John Donne or Ben Jonson or Gerald Manley Hopkins than by reading banal teen fiction about a death in the family." Take that, Judy Blume! And, oh yes, topping the recommended reading list for eighth grade is (surprise!) Diane Ravitch's own collection, *The American Reader: Words That Moved a Nation*.

Anyway, the question is: do Bennett's or Ravitch's lists provide an appropriate and balanced reading experience for contemporary American teenagers? We surely don't think so. We are big subscribers to the "windows and mirrors" theory of book selection, which Ravitch mentions but misunderstands.

Some of what kids read in school should hold up a mirror to them, by including their story, their culture, their experience. This is a way of saying, you and your family are important, you are part of us, part of our country and culture. But other books should act as windows, where kids look out not at their own reflection, but upon other peoples, other time periods, other stories, and values, and ways of life.

We sure don't see many mirrors on Bennett's or Ravitch's lists, especially for the African American and Hispanic and, come to think of it, the white students we teach. Once again, it's all about balance. To bind young people to school and to reading, we need to invite them in, make them welcome, honor their heritage, and address their current interests. And, as educators, we also need to stretch them, to broaden their knowledge, enrich their experience, widen their world view, and grow their fund of information. Yes, we know that occasionally contemporary kids can identify deeply with protagonists in way-back times and far-off places. But if the school mainly assigns distant, alien, and anachronistic books (like the tales of long dead, upper-class British adults who populate the Bennett–Ravitch lists) you are pushing many kids away. You are saying, in effect and not by accident, “Hey buddy, this ain't your place.”

Hard Vs. Easy

While some reading should be challenging, students can also learn plenty of content (and increase their reading ability) when the text itself doesn't constantly trip them up. Today, too many students (some labeled “special ed” and others not) spend their entire school day staring at text they *cannot read*—and many times, it's a textbook. Now if a student spends six hours a day not being able to read what we put in front of him, what is the most likely consequence? That the kid rededicates himself to reading and to school? Or that he just feels kicked out of a club he doesn't want to join anyway?

We'll say it loud and clear: kids need to read stuff they can read. This is non-negotiable. Some time during every school day, students should be reading comfortable, fun, interesting text that they can zoom through fluently, without hesitation. If this means bringing third-grade materials into a ninth-grade room, fine. Let's start collecting that easy stuff right now.

If you are worried about pandering, under-challenging, or other concerns, think about it this way. Scratch a lifelong reader, someone who has grown up to be a sophisticated consumer of text, and you'll almost always find some Nancy Drew, Hardy Boys, or even—yike!—comic books in their

background. Maybe this even describes us. But like most grownups, we tend to forget parts of our own history, like the fact that young readers often grow by reading lots and lots of really easy, sometimes formulaic materials. So have faith. If we spend part of every school day helping kids to enjoy some reading, whether inside our content areas or out, we are giving a great and lasting gift.

Short Vs. Long

Kids' school experience already features plenty of **l o n g** selections, as embodied in the subject matter textbooks and novels we typically assign. But among real readers, a lot of important information comes from short clips, articles, reports, web pages, charts, tables, and pamphlets, too. Whatever our teaching field, we need to build a collection of these quick-reads. That means constantly scouring newspapers, magazines, and websites for relevant pieces for our kids, realizing that every school subject gets "covered" in the popular press, if we know where to look. Then we can feed class discussions with articles about air pollution in the community, the role of serotonin in brain function, the latest genetic engineering breakthrough, racial quotas in police department hiring, or a controversial art exhibit.

The Internet can really help you build this kind of collection. Most major city newspapers now have free electronic editions, with printer-friendly articles ready to be used in class two minutes from now. Many teachers we work with prefer www.newyorktimes.com for this service, which gives their kids access to "America's newspaper of record" every day. Some teachers also use the well-designed, mostly higher-order discussion questions that accompany some articles on the *Times*' educational website. You may prefer your hometown paper, especially for local news—including events that kids can experience or investigate firsthand. For example, some of our kids at BPHS have been using www.chicagotribune.com to keep track of a highly controversial gentrification project that is eating up their own neighborhood, displacing relatives and friends—and getting a well-earned drumbeat of mostly bad publicity.

Building a collection of short articles about your subject is helpful in many ways. To begin with, you'll want to use subject-related short selections when you teach kids the specific reading strategies outlined in Chapters 5 and 6. Obviously, your new-found inventory of "shorties" allows you to dip your toe into the water and step away from the textbook for brief experiments. You can add some "real" reading to the subject without committing large chunks of class

time, and see how you like it. Also, on any given day, short articles allow for a quick in-class read and immediate discussion that leaves no one out. This can bring reluctant readers (or kids who haven't done the homework) into the conversation.

Primary Vs. Secondary Sources

Many school textbooks are “secondary” sources, which means that their content has been gathered from other materials (sometimes other textbooks), and then combined, reshaped, interpreted, and presented by the authors. Sometimes these texts are published as anthologies, where the original source of each section is cited directly in the text; more often, information is simply combined and delivered with assorted sources embedded in each other, and no way to tell where any specific information came from.

Further, suffusing any textbook is the author's subjectivity. There is no such thing as “just the facts.” Consciously or not, willfully or not, no matter how hard they try to be “unbiased,” secondary-source authors always infuse the books they create with their own attitudes, views, and cultural stance. This doesn't mean there is anything wrong with secondary sources, by the way. We all depend upon them daily, from the spell-checkers on our computers to the “pill book” we consult to see which of our prescriptions might be interacting.

Primary sources are something else; they are the “raw material” of knowledge. Though we most easily see the importance of primary source materials in the humanities, especially history, they can be just as valuable in science and mathematics. Think of looking at the actual lab notes from a famous experiment, or reading the journal of a path-finding mathematician. Whatever the subject, when students go back to these uninterpreted materials, they have a rare chance to really construct knowledge, build theories, and develop conclusions. Working with primary sources puts kids more in the role of a real scholar, “doing” the subject, not just hearing the summaries and conclusions of others.

The University of California Library provides this list of key primary sources, many of which can be gathered and put to use in your classes:

- Diaries, journals, speeches, interviews, letters, memos, manuscripts, and other papers by participants or observers
- Memoirs and autobiographies
- Records of, or information collected by, government agencies

SUBJECTS**MATTER**

Records of organizations

Published materials (books, magazine and journal articles, newspaper articles)

Photographs, audiorecordings, and moving pictures or video recordings

Ideas and images conveyed in the media, literature, film, popular fiction, or textbooks

Research data such as anthropological field notes, the results of scientific experiments, and other scholarly activity

Artifacts of all kinds: physical objects, buildings, furniture, tools, appliances and household items, clothing, toys

While collecting such materials is a lot more work than adopting a single textbook, help is available through a variety of websites and your friendly school librarian. And, to their credit, some of the better history textbooks do now include sidebars and samples of primary text materials alongside their secondary-source backbone.

Multiple Texts Vs. Single Sources

As we move away from dependence on a single textbook, one of the wonderful possibilities is to show students the range of views, the variety of theories, the different schools of thought that make intellectual life in our subject interesting, controversial—dare we say, exciting. Is global warming a real threat or does it just represent normal variations in the temperature of the earth's atmosphere? Does evolution proceed at a steady pace, through "punctuated equilibrium," or by divine design? Should we revere Jefferson as a philosopher of human freedom or revile him as a hypocritical slave-owner? How important was Fibonacci's contribution to mathematics compared to other innovators? Which is the finest of Shakespeare's tragedies? None of these questions can be intelligently addressed unless we consult multiple authorities. As you gather nonfiction articles, it is especially useful to gradually create sets of pieces that take different angles on the same topic.

Using the recommended book list at the end of this chapter, for example, students could sample the assorted slants of Michael Moore and Ariana Huffington on the state of the U.S. government. Or they could get different views of the Holocaust by reading *Anne Frank: A Biography* (about a family of victims) and *Stones from the River* (about a German family who hides and saves Jews). Or students might compare Edward Wilson's guardedly hopeful predictions about our biosphere in *The Future of Life* to the apparently well-documented doom and gloom scenarios clogging the popular media. Getting

both sides (or the many sides) of the story is an adult-life skill that cannot be learned and practiced too early.

Building a Classroom Library

The outward manifestation of our break with the one-textbook curriculum is the classroom library, a growing assortment of interesting reading materials collected and offered to our students. What we are trying to create here is something like the living room of a big, eclectically literate family, a place where all manner of books, magazines, clippings, articles, brochures, and newspapers surround us. Some of this material will pertain directly to the subject at hand (algebra, history, etc.) while other parts of the collection can be deliciously random, chosen merely because it interests some, or many, teenagers.

So where do you get all this stuff? First of all: take your time and don't begin the process by spending lots of your own money. A good start is to go through old magazines, save newspaper articles, and scan the Internet. We know, hearing this, you may want to smack your forehead, thinking of all the years you've recycled or thrown away all those magazines, AKA valuable teaching materials. Well, don't grieve; just start bringing things to school tomorrow. And trust us, you can get kids going with even a small number of items. Later on, you'll be glad you got started when you did.

If your school or department has a budget line for supplementary materials—boy, are we jealous—and you better claim the money before we do. For the rest of us, it's beg, borrow, or steal—not necessarily an arduous or unpleasant process. We begin in our own homes, gathering up everything that might possibly fit in our classroom library. Sometimes we hit up relatives and neighbors for discards; and other times we scrounge garage sales, where 25-cent books aren't unheard of. If your students still participate in a book club like Troll, Scholastic, or Tab (middle-school teachers know all about this), the teacher gets points for everything kids order, which you then use to build your classroom library. Plus, you can ask kids to donate the books they've ordered (after they read them, of course, and write a review to guide future readers.) Remember, too, that students and their families can be a major source of materials. Some of our teacher buddies give a tear-jerking appeal for castoff books and magazines at every Fall parents' night, and then welcome the parade of kids schlepping in useful materials for days afterwards.

Now, before you start placing an order or rummaging around your basement, here are a couple of quick considerations about *what* to get. No matter

what grade your classes may officially represent, almost any actual group of students includes a very wide range of reading levels. So you'll need to find not just books for different interests but for different difficulty levels as well. While many high school kids can simply read adult trade books (David Bodanis' $E=MC^2$ is written at a much easier reading level than a science textbook), we also need plenty of books that are just right for younger middle-schoolers, for kids who struggle with reading generally, or for anybody who's just seeking an informative "easy read."

Where do we find such hard and easy, content-related, and generic materials? Twenty years ago, it was really tough to find rich non-fiction selections for young people—and at that time, it hadn't yet occurred to us to have the older kids simply read adult books. But now, through the publication of new materials (and by simply broadening our search) the gap has largely been closed. At the end of this chapter is an annotated bibliography of 150-plus nonfiction books (and some historical novels) that we and our teacher friends have used with success. But now, just to get warmed up, let us tell you about a few of the books that content-area teachers have used to get kids hooked on reading, as they begin to stock their nascent classroom libraries.

Starting at the easier, general-interest end of the spectrum, there are many nonfiction collections that

KEY INGREDIENTS OF A CLASSROOM LIBRARY

1. Interesting trade books, histories, and biographies of people in your field—and if you collect some titles in sets of three-to-five copies of each, students can read and discuss them in groups.
2. Current articles clipped from magazines and newspapers. For example, today's paper included an environmental science piece on the destructiveness of Louisiana crawfish when transplanted to an Italian lake—a typical example of the problems that occur when alien species invade an ecological system.
3. General interest magazines like *Time*, *Newsweek*, *U.S. News and World Report*, *Scientific American*, *Harpers'*, *Atlantic*, *The Utne Reader*, *Popular Science*, *Popular Mechanics*, which carry stories about many of the topics covered in secondary schools. Anything the teacher has a hobby in should come in also—photography, travel, fishing, whatever. Don't forget the "easy reading" dictum; that means *People*, *The Enquirer*, punk rock zines, fashion magazines, and car and motorcycle rags should all be welcome. We know, we know; just lower your standards and bring it all in.

continued

feature shorter, engaging pieces. The National Geographic's *Reading Expeditions* is a set of colorful, engaging 40-page booklets; among the most discussable titles are *Feeding the World*, *The Human Machine*, *The Great Migration*, and *Kids Care for the Earth*. A similar line of magazine-books from *Time for Kids* offers high-interest, well-illustrated nonfiction that parallels what appears in contemporary news magazines. DK books (whose motto is "showing you what others only tell you") offers a huge line of gorgeously illustrated, browse-worthy books on a range of fascinating topics, including architecture,

cavemen, government, crime scenes, tai chi, dinosaurs, religions, fishing, and Batman.

If you can get past the unfortunate name, the *Uncle John's Bathroom Readers* are a terrific source of quickie nonfiction, much of it worth discussing and none of it having to do with bathrooms. Each *Uncle John* book contains hundreds of short (one-paragraph to three-page) fact-filled pieces on a weird and wide array of fascinating topics: Why does popcorn pop? Who planned the White House? Where did the Miss America pageant come from? Why do wintergreen Life Savers make sparks when you bite them in the dark? Was Henry Ford really an anti-semiter? The *Uncle John* series is now up to 13 volumes, all of which ought to sit right beside the encyclopedias in every middle-school classroom.

The Guinness Book of World Records deserves a place in every classroom

4. Educational magazines on school topics, like *ChemMatters*, *Science News*, *Discover Magazine*, *Chance Magazine* (on statistics), and *Dell Math Puzzles and Logic Problems*, for math, *America's Civil War*, and *American History*, both lively history magazines from Primedia—and go to www.thehistorynet.com for a list of another dozen magazines focused on particular historic periods or events.
5. Website lists (or bookmarked on your classroom computers) keyed to various major topics in your course. For example, on radioactivity, BPHS chemistry teacher Mike Cannon has bookmarked www.physics.isu.edu/radinfo/risk.htm, which includes a group of articles on risks of exposure to radioactivity, www.aip.org/history/, which offers short bios of scientists who explored radioactivity, and www.heartcenteronline.org, which explores the medical applications of radioactivity. Math teachers can find great puzzles at the "Interactive Mathematics on the Internet" site, <http://wims.unice.fr/>, and fascinating instructions for making and learning about a wide variety of beautiful polyhedra at www.georgehart.com/virtual-polyhedra/vp.html.

SUBJECTS

MATTER

(you may want several copies) and not just because kids are fascinated with its contents. Many of the listings, from world-changing events to goofy stunts, are filled with math and science content—after all, every record requires some form of measurement. The annual editions of *The World Almanac* and *Ripley's Believe It or Not* feed the same curiosity about numbers and statistics. In a more applied-technology vein, our colleague Dagny Bloland, who teaches some of the most academically capable kids in Chicago, says that among the most popular books in her eighth-grade classroom are the *Chilton's Auto Repair Manuals* she has collected from gas stations and other donors.

More grownup in content and reading level are the collections *In Short* and *In Brief*, both edited by Judith Kitchen and Mary Jones, which include fine writers reflecting on assorted topics: how hummingbirds fly, the nature of attention deficit hyperactive disorder (ADHD), and why white people can't cook. A collection of longer pieces, *The Best American Magazine Writing, 2001*, features Robert Kurson's look back at his favorite teacher, who turns out to be a serial killer. There are several similar "best-of" nonfiction collections issued each year. The *2002 Best American Science Writing* was an especially strong edition, with pieces about the physiology of blushing, the nature of altruism, and the grounds for ecological optimism. Dave Eggers, who a few years ago wrote the best-selling novel, *A Heartbreaking Work of Staggering Genius*, has assembled collections called *Best American Non-Required Reading*, with short and often funny pieces skillfully addressing a youthful audience.

There are tons of historical novels aimed at younger readers, and there's no better core for a thematic unit than a book like *Morning Girl* (on exploration and conquest) or *Out of the Dust* (about the dustbowl and depression). The literature on the Holocaust, immigration, and the history of different American ethnic groups is especially well-recognized and available. But no matter what the issue, there seem to be "Young Adult" novels addressing almost any topic today. Amid the recent news reports on Islamic fundamentalism, our colleague Nancy Steineke was able to quickly build a collection of four illuminating YA novels with Islamic protagonists and settings.

As we create our classroom libraries, we are serious about something for everyone, especially our "reluctant readers." To be sure we hook the boys, we're quick to stock the room with Gary Paulsen's fiction and nonfiction, *Into Thin Air* and *Into the Wild*, both by Jon Krakauer, *The Perfect Storm* and *Fire* by Sebastian Junger, and *The Last River* by Todd Balf. All are adventure stories with tons of science information and strong narrative lines. For girls, we often go back to Nancy Drew, pile up the Babysitter's Club, stock plenty of Judy Blume, and even a few romances, if they want 'em.

As young readers grow stronger, the whole world of adult nonfiction opens up. Some of our partner schools in Chicago have been discussing selections from *Remembering Slavery* by Ira Berlin, Marc Favreau, and Steven Miller, a compilation of interviews from former slaves from all parts of the South. The autobiographical accounts, which were transcribed by the Federal Writers Project in the 1930s, provide first-person testimony, sometimes harrowing, sometimes puzzling, from the era of American slavery. The students we work with have also had lively conversations about *There Are No Children Here*, by Alex Kotlowitz, the all-too-real account of two brothers growing up in a Chicago housing project. *The Big Test* by Nicholas Lehman gives kids a chance to learn about the peculiar origins of the S.A.T. test they will someday face. Dava Sobel's books *Longitude* and *Galileo's Daughter* each dramatically recounts an invention that changed the world. Patrick Diamond's *Guns, Germs and Steel* offers a chilling and persuasive theory of why Caucasians have been able to dominate and exploit the other peoples of the world for two millennia.

And on and on. As they say, so many books, so little time!

A few final management tips: It will take some classroom organization to keep your library from being permanently borrowed out of existence. Appoint a student as librarian in each class, to keep track of everything. Organize the storage space so that books and articles can be returned to easily identified locations. And remind students how important it is to maintain materials in good condition for their classmates. Finally, try to accept the notion that a "stolen" book may be the highest possible compliment, and keep on collecting.

Notes

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Anticipation Guide

When to Use

✗ Before Reading

During Reading

After Reading

DESCRIPTION

Too bad the name is kind of clunky, because it doesn't really communicate the power of this strategy. Anticipation guides are brief sets of questions (3-to-5 items) that help kids activate their prior knowledge (including misconceptions), make predictions, engage important issues that will surface in the reading, and enter a text thinking. Students simply circle their answers or jot brief responses, and may talk them over with classmates before reading. The most powerful anticipation questions aren't factual recall, but invite students to take a stand on a controversy or a big idea in the reading.

WHY USE IT?

Getting students to think about key concepts *before they read about them* provides a tangible purpose for reading: namely, to compare what I believe with what actually turns up in the text. This process is sometimes called “frontloading” (Wilhelm and Smith), a great term for investing class time in activities that launch kids into the text with their brains switched on. Reading becomes a support for, or a challenge to, the positions students have taken. The questions guide students to focus on the big ideas in the reading. Instead of simply an assignment, reading becomes part of an ongoing conversation students have joined—maybe partly accidentally. Of course, some topics, like “kinetic molecular theory,” will call just for simple prediction about the content. Others, like “the discovery of radioactivity” more readily invite controversy and expression of important beliefs. But even the simpler prediction questions still help students think as they read.

Anticipation guides are easy to prepare and take little class time—they are a great way to dip your toe into pre-reading activities. A five-item guide might take two minutes for students to respond, two minutes to compare answers in pairs, and another two minutes to hear what one volunteer per question says about his or her answer.

HOW DOES IT WORK?

1. Create a few (3–5) short questions or statements related to the text, using true/false, yes/no, or agree/disagree formats. The best questions pose big, open-ended issues, rather than previewing micro-details from the text. If your students are reading Orwell's *Animal Farm*, you might ask: “It's never O.K. to have just a few people in charge of a government or organization—true or false?” Studying earth's biosphere, you might offer “Human pollution of the atmosphere is always wrong—agree or disagree.” For a Civil War unit: “Suppose you were in Lincoln's cabinet deciding whether to issue the Emancipation Proclamation, and a poll showed he would lose the next election if he signed it. Would you vote to: a) sign it anyway; b) not sign it; c) wait a few months and decide later?”
2. Kids can go right into the selection after completing the anticipation guide. This is meant to be a brief get-ready activity—correct answers are not what it's about. The questions you pose should not have single correct answers. All we are trying to do is activate prior knowledge, beliefs, and ideas, and send students into the text thinking.

Variation: With a little more time, you can deepen this strategy by having kids discuss their answers with a partner or small group. Then call the class back from these conversations to make some consensus predictions or surface a core disagreement, before reading. If kids are slow to talk, have them jot down their justifications first.

Variation: After reading, come back to the anticipation guide and compare the original responses with the students' deepened or changed thinking.

FOR MORE INFORMATION

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EXAMPLE

In the South Shore Small School for the Arts, Terrence Simmons prepared his freshmen to read LeAlan Jones and Lloyd Newman's *Our America: Life and Death on the South Side of Chicago*, with the following questionnaire. While this went beyond our "agree/disagree" format, it was extremely effective, drawing students into the issues explored in the book. Keep in mind that while there are some grammar errors in this example, it was written as a first draft for discussion, and not as an essay to be turned in or published.

1st period Literature
4/2/03 div. 681

1. Do you know anyone that lives in the projects? yes

2. If yes, do they have a temper. No, believe it or not she's a very sweet person.

3. Does living in a poor neighborhood cause people to be violent? ~~Not in my opinion.~~ I think so because when you're poor that causes people to steal money and material things.

4. What do you think happens in the projects? I don't really know. All I know is what I see on TV, which is stealing, ~~a lot~~ a lot of killing, and selling drugs.

5. Why do you think people live in the projects? Some people just like the life style, but for the most part its because that's all they can afford.

6. Do you view negatively of people that live in the projects? No, because I knew someone in the projects that is nice. I think that you can't have all the money in the world and be worst that someone poor.

Bookmarks

When to Use

Before Reading

✗ During Reading

After Reading

DESCRIPTION

By folding a piece of paper in thirds, each student makes a bookmark for keeping her place in the reading. On this bookmark, students write briefly and perhaps also illustrate their thoughts about key concepts or pieces of information as they encounter them in the text. Bookmarks can promote any of the thinking strategies good readers use—connecting, questioning, visualizing, inferring, summarizing. And they can be used after reading, in discussion groups, and as products to be reviewed by the teacher or by the students.

WHY USE IT?

While bookmarks can depict many kinds of thinking, a typical one is to connect the material with students' experiences or other things they've read. Personal connections bring a concept to life. Links with other materials the students know help them to organize knowledge into larger, more meaningful categories, and to notice related information that illuminates the topic. Connections in the larger world highlight the significance of the material. Bookmarks not only invite students to stop and reflect in the midst of reading, but also help recall important ideas as they read further.

HOW DOES IT WORK?

1. Model on an overhead transparency what a bookmark might look like for a particular concept. Provide specific directions for what to place on the bookmarks. For example, suppose your eighth-grade math students are reading *The Number Devil* by Hans Magnus Enzensberger, in which the young hero dreams that a devil constantly taunts him with math puzzles. The bookmark could include a) a description of one math puzzle that the Number Devil poses but doesn't completely solve; b) a diagram illustrating a puzzle; and c) on the second side a connection that one puzzle might have with some problem or situation in real life. In the sample on the facing page, the teacher has asked students to use a bookmark to jot down four kinds of notes: personal responses, important passages, questions, and important statistics from the assigned section of the book *Fast Food Nation*.
2. For practice, have everyone in the class read a page of material, complete a bookmark using the directions you modeled, and compare the results.
3. After reading, students should use their bookmarks to discuss in small groups or the whole class the material you assigned.

Variation: As they read the assignment, students can complete multiple bookmarks that identify and expand on particular spots in the text. The bookmarks should focus on passages that seem especially important, confusing, or helpful.

FOR MORE INFORMATION

Carol Porter and Janell Cleland. 1995. *The Portfolio as a Learning Strategy*. Portsmouth, NH: Heinemann.

EXAMPLE

Front

Back

"Fast Food
Nation"

English 7th pd.
11.22.02

Response

While I was reading how they killed the cattle in these huge slaughterhouses it made me very sad. I also can't believe that they feed the cattle a lot of meat waste. That's very unsanitary. It was also sad to read about how thousands of workers get injured & even killed on this dangerous job. It's scary to know about E. Coli and other food-poisoning viruses out there.

Important passage

"Getting rid of them makes a good deal of financial sense, especially when new workers are readily available & inexpensive to train"

Questions

Why do people work under these dangerous conditions?

Why don't they just close down F.F. restaurants that have ~~cases~~ ^{cases} of food poisoning?

Will they come up with a vaccine to help fight against food poisoning?

Important Statistics

- Injury rate in a slaughterhouse is about 3x's higher than the rate in a typical American factory. pg. 172

- 1,300 inspectors were responsible for the safety of more than 5 million work places across the country for OSHA
pg. 179

Vocabulary Tree

When to Use

Before Reading

✗ During Reading

✗ After Reading

DESCRIPTION

This graphic tool is focused on linking groups of related words or ideas, and allows for plenty of flexibility in the number and placement of branches (and roots, if the student so desires) to illustrate the relationships among the various words or sub-topics. The trunk is of course the core word or concept, and the branches show the connected elements, along with examples for them.

WHY USE IT?

Each of these vocabulary graphics focuses on a somewhat different aspect of the words and their relationships. The previous one takes a single word and asks the student to go deeper with it. The one that follows next helps students see relationships among a set of words from their reading. This one can work either way, allowing the student to expand on a single idea or topic or to link a word to others related to it.

HOW DOES IT WORK?

1. Ask students to choose several words from among a list of important words in the reading they are doing. Two to five words are plenty—the aim is to explore them in depth and pick up additional vocabulary along the way.
2. For each word, the student can draw a tree trunk on a sheet of paper and write the word near the bottom of the trunk.
3. As students read, they are to add related words, information, and/or examples, one to each branch. The branches, of course, may have branches of their own.

Variation: Have the whole class or small groups work together on vocabulary trees that are drawn on newsprint, hung on the walls, and added to as a study project proceeds.

FOR MORE INFORMATION

Dan Kirby and Carol Kuykendall. 1991. *Mind Matters: Teaching for Thinking*. Portsmouth, NH: Heinemann.

EXAMPLE

