A Sense of Commonality

AMERICAN ETHNICITY

E. D. Hirsch, Jr.

What We Need to Share
To Make Us United and Fair

With a List of What our
K-8 Children Need to Learn

American Ethnicity

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This book is dedicated to
the Core Knowledge pioneers – the hundreds
of independent-minded teachers, parents, and writers,
and the staff of the Core Knowledge Foundation –
who together have made real headway in overcoming
social disadvantage.

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Preface

Literacy and a More Perfect Union

A cult of ethnicity has arisen both among non-Anglo whites and among nonwhite minorities to denounce the goal of assimilation, to challenge the concept of "one people," and to protect, promote, and perpetuate separate ethnic and racial communities.

A. M. Schlesinger, Jr.[1]

What is an ethnicity? Here's an illustrative experiment taken from the pages of *Scientific American*.[2] It concerns Bostonian ethnicity, but the principle that is being illustrated holds for all groups and languages everywhere in the world. It illustrates how the shared background knowledge that makes up an ethnicity enables rapid and effective communication in a society.

A researcher goes to Harvard Square in Cambridge, Massachusetts (a major suburb of Boston) with a tape recorder hidden in his coat pocket. Putting a copy of the Boston Globe under his arm, he pretends to be a native. He says to passersby, "How do you get to Central Square?" The passersby, thinking they are addressing a fellow Bostonian, don't even break their stride when they give their replies, which consist of a few words like "First stop on the subway."

The next day the researcher goes to the same spot, but this time he presents himself as a tourist, obviously unfamiliar with the city. "I'm from out of town," he says. "Can you tell me how to get to

> *Central Square?" This time the tapes show that people's answers are much longer and more rudimentary.*
> *A typical one goes, "Yes, well you go down on the subway. You can see the entrance over there, and when you get downstairs you buy a token, put it in the slot, and you go over to the side that says "Quincy". You take the train headed for Quincy, but you get off very soon, just the first stop is Central Square, and be sure you get off there. You'll know it because there's a big sign on the wall. It says Central Square."*[3]

That's amusing, but it carries serious implications: The long explanation to the out-of-towner is, in its conveyed substance, entirely synonymous with the short phrase: "First stop on the subway." That's five words versus eighty words.

Now imagine a situation that isn't learning how to get to Central Square but is instead needing to obey a shouted command in the middle of a conflict. Or suppose it's just a peaceful domestic command. Shared ethnicity makes for high efficiency. For example, the following command takes about four seconds to say: "Polly put the kettle on. We'll all have tea." But to carry out the command takes a lot more than four seconds.

Efficiency of communication has been favored by evolution. It characterizes all human tribes and all modern societies. It is a universal characteristic of evolved human language that an accurate interpretation of what is said depends upon both speaker and listener sharing a lot of unstated knowledge. Professor Daniel Willingham of the University of Virginia has explained why this is so in his aphorism: "A reading test is a knowledge test in disguise."[4] That insight can be pressed further: An American reading test is an American ethnicity test in disguise. It's "in disguise" because the *shared background knowledge* – the shared ethnicity required for comprehension – is unstated.

Hence, in the modern, post-Gutenberg era there's a third way of describing a national ethnicity. It's the single word "literacy." Some people share enough background knowledge to communicate readily in writing with *strangers* who are also literate. That means that they can understand books and newspapers and lectures addressed to a general audience. The

Bostonian example was generalized as follows by the scientists who wrote the piece for *Scientific American*:

> What we see developing so slowly in our studies of children's communication is a constellation of knowledge and skills that reflects the child's interaction with the world and with other people and cultures. *The social use of language depends as much on that knowledge as it does on knowledge of language itself.* (My italics.)

Commonly shared background knowledge is just as essential to an understanding of the *written* word as it is to an understanding of the spoken word. That leads to the following inference:

Acquiring American literacy depends upon gaining American ethnicity. And, since literacy (coupled with numeracy) is a chief aim of the elementary school in modern nations, it is a chief duty of the American elementary school to impart American ethnicity to all its students.[5] Ethnicity is not inborn; it is learned. And one can easily learn more than one ethnicity. Historians of the modern world have shown that to impart to every young citizen the national ethnicity is *the* central purpose of the modern elementary school. As Ernest Gellner explained in his illuminating book *Nations and Nationalism*: "A school-transmitted culture, not a folk-transmitted one, alone confers usability and dignity and self-respect on industrial man."[6]

In every modern nation, the national literacy level is dependent upon citizens possessing in common a strong shared national ethnicity. Our increasing failure to impart American literate background knowledge in our schools explains America's declining literacy. It is contributing to our current disunity and bipolarity. Universal high literacy joins people together. Low and uneven literacy separates them. When America's patriotic sentiment is weaker than its party allegiance it's past time to raise our literacy levels!

This book about our decline in literacy and allegiance is a chapter in the wider story told by Robert Putnam in his illuminating 2020 book *The Upswing* which traces our modern American story "From I to We and Back to I" and about how we need to get to "WE" again. This book, *Amer-*

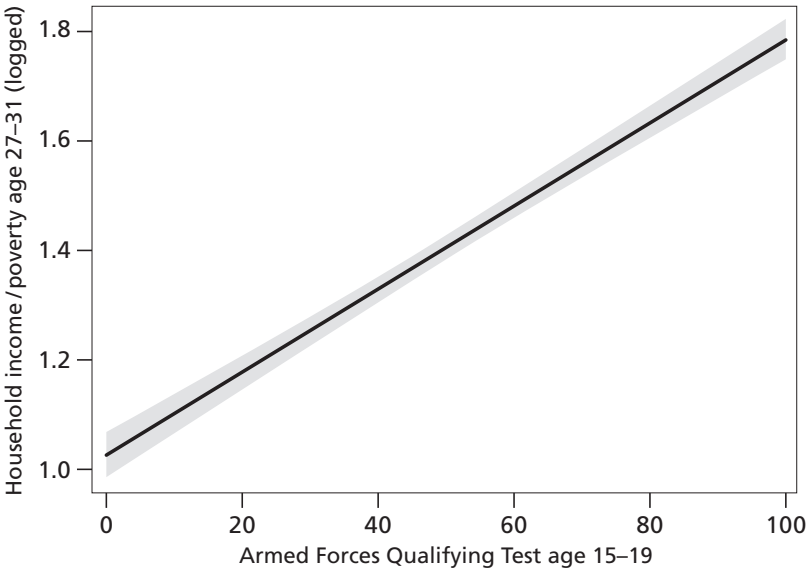
ican Ethnicity, shows that a decline of patriotism and unity in America is powerfully connected to the developmental, child-centered individualism of our early education. It took a big turn to the "I" rather than the "We" around the middle of the 20th century.

The great historian Karl Deutsch showed that sharing a common ethnicity throughout a nation is even more important to its unity than having a common national language! He developed this idea in his book *Nationalism and Social Communication*.[7] By "nationalism" he referred to the emotion of allegiance and commitment to one's co-ethnic group. He showed in detail that social communication and allegiance within the nation depends upon shared background knowledge.

One of his striking examples was Switzerland, a nation that is both unified and fiercely patriotic yet speaks and writes *four* different national languages. He quoted a German-speaking Swiss editor to illustrate his point. The German-speaking editor stated that he could communicate better with a French-speaking Swiss than with a fellow-German-speaking Austrian. That's ethnicity at work! One can learn more than one ethnicity, especially if the schools of a modern nation are doing an effective job of teaching reading and writing and arithmetic. Right now, our rank on the Program for International Student Assessment is twenty-fifth among thirty-five nations. This book explains how we can rise to the top.

In human speech over the world, much always remains unstated. Speed and precision of communication (plus the sense of fellowship and allegiance) have been advantageous for human survival. An American child who grows into adulthood *lacking* the literate background knowledge required for effective communication in speech and writing is left at a severe disadvantage in a modern nation, and is less likely to feel fellowship with her compatriots … and is less likely to be wealthy.

On that score, Professor Philip Cohen of the University of Maryland has proved the point. He looked at one measure of a mastery of American ethnicity – teenage scores on the Armed Forces Qualification Test – to see what the scores predicted for a young person's future income. (The AFQT is chiefly a literacy test; the verbal section is given twice the weight in the score as the math section.) Here is what Cohen found by plotting teenage scores on the AFQT test against adult income.[8]



With variance indicated by the gray area, the chart shows a linear relationship between higher teen literacy scores and later adult income. You need American background knowledge – American ethnicity – to understand American language whether in speech or in writing.

Equality and Literacy

In a few years, the USA will no longer be dominated by any single ancestral ethnicity or race or skin color – as Richard Alba and other scholars have shown.[9] After white rage over this looming fact has come and gone, we will still need to communicate effectively with each other via the shared background knowledge of American ethnicity. The specific details of its contents will be changed by history and by popular demand – with inclusion of more elements from non-Anglo cultures.

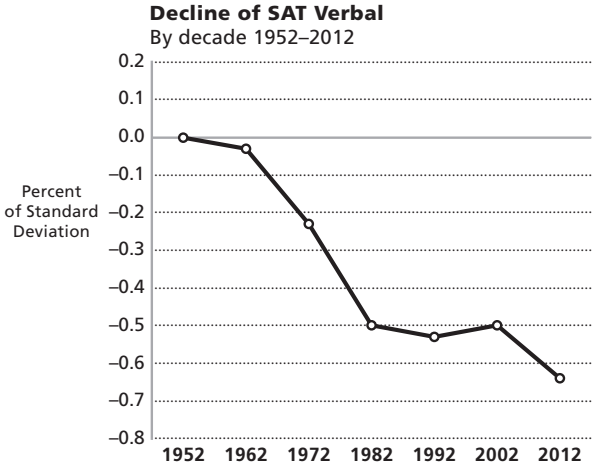
How that content will turn out precisely will be determined by the future – which is the hardest thing to predict. But we must not allow disputes over the details of non-Anglo inclusions to divert attention away from the pressing need to improve our literacy-competence and our equality.

Equality and the School

We used to score higher in literacy than we do now, because our schools used to try very deliberately to "Americanize" all students. That idea went out of fashion, but the connection between literacy and income ought to remove the issue from abstract culture wars and into forthright, popularly approved actions by our state legislatures and state officials. They need both to multicultural-*ize* and to American-*ize* the curriculum in a way that makes every group feel included, but that also enables Americans to understand books and lectures and newspapers and be able to communicate effectively with other literate Americans.

Many astute low-income parents emphatically recognize the literacy-wealth connection. They try hard to place their children in schools that impart American literate ethnicity. My first chapter reveals that each year, twenty-five thousand mothers in the low-income South Bronx try to place their child in the kindergarten of one of the seven Core Knowledge public schools in the Bronx. (The Core Knowledge Foundation does not run these schools. It produces a freely downloadable grade-by-grade *Sequence* that outlines the topics which, when followed, will impart American ethnicity and induce high reading scores by all students. Schools and anyone else can download these materials for free.)

Because our public schools have (through wrong theories) lost sight of the ethnic foundation of literacy, our literacy has declined. Here is a chart of the literacy scores of our best and brightest (those who take the Scholastic Achievement Test to gain admission to college) – from 1952 to 2012.



We can reverse that decline as well as temper our increased polarizations by reminding ourselves that while we in America welcome all *home* ethnicities, we should require our public schools also to impart literate American ethnicity – especially for the sake of those who do not acquire it at home. Shared background knowledge is an essential part of reading, writing, and arithmetic – and even of communication within the classroom itself, where all students need to understand the language of instruction. Third graders need third-grade ethnicity to grasp what the books and the teacher are saying! They need to have gained that background knowledge in kindergarten and grades one and two.

To foster this kind of improvement we will need to abandon a wrong theory that currently dominates our schools and that has precipitated our educational decline – the theory of natural "development." Current brain studies show that the "natural" development of the young human is not fostered when she is encouraged to go her own way in choosing her own books or by making her own discoveries through exercising her own "instincts and powers" (Dewey's phrase). Scientists have recently determined that this natural-development idea is not supported by the actual nature of the human child nor by the character of the human brain. Studies in cognitive psychology and brain function say that human education is conducted by tribal elders who imprint upon the neocortex of the child the shared mores and knowledge of the tribe – its ethnicity.

Ethnicity and Fairness

Which brings me to another urgent motivation for issuing this book: the educational scandal of our persistent black-white literacy gap.[10] Because of our history, when we enforced illiteracy upon slaves, blacks have had fewer home resources to counteract mistaken school theories. The black home environment has been less able to make up for the deficiencies of the elementary school. So, the nation's downward trend of SAT scores from 1950 to the present and the recent halt in progress for black literacy completely covers the period of the takeover of our schools by developmentalism, which has been the cause of the decline and of the stasis in black literacy.

For, unfortunately, developmentalism became dominant during the

very period when blacks gained greater equality through school desegregation. This rise of developmentalism explains a fact that has puzzled the Educational Testing Service – makers of the SAT – who report that that after initial progress, black reading scores came to a standstill.[11] Currently black literacy lags far behind white literacy. Here's by how much: Over the past thirty years, black eighth graders have scored in reading behind white eighth graders by thirty percentage points. That is to say: eighty percent of white thirteen -year-old boys and girls score higher in reading comprehension than fifty percent of black thirteen-year-old boys and girls. This book will show that *this thirty-percent gap is entirely overcome in schools that teach a coherent American-ethnicity curriculum*.

Proof of the Central Thesis of this Book

In every American elementary school – regular, private, and charter – in which the shared-ethnicity principle has been introduced, the level and the fairness of school results have vastly improved. These facts remain scandalously unacknowledged and even repudiated by our education schools which teach and certify our teachers, because it contravenes the dominant, natural-development theory.

But teachers and principals in the trenches care about results more than about theories. They have started using Core Knowledge and similar American-ethnicity-inducing curricula. Our public schools have started adopting these knowledge-based language-arts curricula. For instance, the *Core Knowledge Language Arts Program* created by the Core Knowledge Foundation is a literacy program that tries to help impart American ethnicity in a systematic way.

I just learned that the commercial version of this program grossed a hundred million dollars in sales this current year. (I make no money from any of this success, nor does any individual person at the Core Knowledge Foundation, which gets a royalty to continue helping schools.) Systematic knowledge building is making a comeback because American ethnicity is a reality. Principals and school boards want to do what works to raise reading scores and close gaps between rich and poor and between racial groups.

A person's ability to communicate effectively with other Americans (and to feel fellowship with them) depends on the possession of widely

shared background knowledge. Some of that knowledge is historically determined, as with all long-standing print cultures in any language. But a lot of its content changes with the times and is fully up for grabs.

What Shall Be Done?

I invite my colleagues in our education schools to accept what science is saying in their neighboring science departments about the incorrect, nation-weakening doctrines of developmentalism. I invite *parents* to get into the fray, not just when some issue related to sexual activity or race arises, but more systematically to help overcome our declines in literacy and community. Parents should be aware of the basic issues, which are not arcane or complex.

They should know that our prospective teacher is instructed to be a "*guide on the side, not a sage on the stage*." That brilliant slogan depends upon a *false analogy* between the natural development of the human body and the schooling and socialization of the human mind. The young mind *requires* a sage on the stage. The child's neocortex is a blank slate. It doesn't "develop." It gets instruction from outside – if not from the sage on the stage – then from influencers outside of the classroom. The child's neocortex awaits intelligent instruction from the elders of the tribe.

Finally, to those legally constituted legislatures and state officials who have a duty to create curricular guides, I say: "Attend to your duties. Get specific." That's a theme of Chapter 1, where the advantages of getting specific are illustrated.

Part I

Reversing our Educational and Communal Decline

Chapter 1

The Shanker Principle

What we really need—at the very least—are statewide curriculum frameworks and statewide assessment systems. Then, students and teachers in every school will know what kids are responsible for learning and whether or not they have learned it.

Albert Shanker, *NY Times* Dec 11, 1994

The brilliant and brave Al Shanker, long-serving head of the American Federation of Teachers until his untimely death was, I believe, the only person in an official job in the modern era of American education who has had the courage to publish such sentiments. They are accurate sentiments, and they are, as far as my knowledge extends, the only means by which our grade schools can become first rate and fair.

There is a technical reason for that. The alternative theory for universal excellence is to impart non-existent general skills without venturing to require a definite statewide curriculum framework. That's the fruit of a double delusion. First, it's a delusion to suppose that unspecific content guidelines serve *any* truly guiding purpose. And second, it's a delusion to suppose that there exist *all-purpose* reading-comprehension skills, and *all-purpose* critical-thinking skills, and *all-purpose* complexity-managing skills. Those would be fine goals if such all-purpose entities existed. *But they do not*, and any cognitive psychologist who claimed they do would lose reputation and respect from his or her colleagues.[12]

Shanker's observation about tests is especially compelling. Tests drive the system, but unless the tests are based upon the *topics* of the curriculum, they are inherently unproductive in the early grades. The tests simply reward children from advantaged homes, and do not test what schools have actually taught! How could they? The specific content being tested remains undefined and often untaught. Hence, Shanker's proposal of topic-based tests would gauge both the effectiveness of the school as well as the achievement of the student.

This is especially true of reading tests. To make early reading tests independent of school content (which they must be if the school content remains undefined) is unfair to disadvantaged students and indifferent to school quality with respect to those students. Curriculum based reading tests, especially in the early grades, would be a key element of a Shanker-ized elementary school! That reform of early tests would alone have a transformative effect! Suddenly disadvantaged students would be making higher scores because of fairer tests *and* more coherent knowledge-building by the school!

That cannot be done so long as standards remain unspecified. Take for example the current *Common Core State Standards*. They are good examples of the evasiveness and fear of the inevitable criticism that would certainly come initially with the specificity that Shanker calls for. I turn to our current so-called *Common Core* framework for first-grade language arts, and I find this:

> *Describe characters, settings, and major events in a story, using key details.*
>
> *Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.*
>
> *Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.*
>
> *Identify who is telling the story at various points in a text.*
>
> *Integration of Knowledge and Ideas:*
>
> *Use illustrations and details in a story to describe its characters, setting, or events.*

> *Compare and contrast the adventures and experiences of characters in stories.*
>
> *Range of Reading and Level of Text Complexity:*
>
> *With prompting and support, read prose and poetry of appropriate complexity for grade 1.*[13]

Note the implication of such "standards." We don't need to specify a definite shared story for first grade, because (so the standards imply) once you "identify words that suggest feelings or appeal to the senses," *then you will be able to identify a whole range of words that "suggest feelings or appeal to the senses."* That is the factually incorrect view that our current elementary schools operate upon.

But since the view is false, our students do not in fact gain those non-existent general skills. Being a good reader of a first-grade book does not make you a good reader of an eighth-grade book – even if some third graders can do so. A good swimmer is not necessarily a good runner. The technical literature on skills is clear: being expert in one domain does not make you an expert in another. Expertise is area-specific; skill and expertise are *domain specific* to use the technical term. *Acquired* human skills are not, by and large, transferable. Skill at cutting boards does not transfer to skill at hammering nails. Skills are not general. Hence nobody can gain a non-existent general skill.[14]

Disadvantaged children are unable to catch up when our schools do not provide the *specific* knowledge needed for the specific tasks at hand. The technical literature is clear on "*the domain-specificity of skills*."[15] The principle holds for pretty much every skill, not just verbal comprehension. If I were a principal, I'd consider putting that phrase in each classroom and in the teachers' lounge.

I'm particularly depressed by the tossing around of the term "complexity" in the Common Core standards. This term has zero scientific validity, because text-complexity is dependent upon familiarity, which varies from person to person. If you look closely at recent attempts to define what "complexity" means you will discover that one of the elements in complexity that you are referring to is the "readability" of the text. Then why not use that term? Answer: because measures of "readability" have been

proved nonsense since the early 1980s.[16] So, the new term "complexity" which is equally inaccurate and unscientific was substituted.

This maneuver to avoid curriculum specificity is similar in its terminological sleight of hand to the various terms used to describe "constructivism" (the idea that children learn best if they construct their own knowledge by doing projects and working conclusions out on their own). When an experiment shows that it doesn't work, we don't give up the natural-development, learning-by-doing idea, we stop calling it "constructivism" and we call it "discovery learning." This renaming maneuver is so prevalent that experimental studies disproving constructivism have employed descriptive titles like the following one by Kirschner et al. in refereed scientific journals: "*Why Minimal Guidance During Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential, and Inquiry-Based Teaching.*" Since Kirschner et al. wrote there have arisen new names like "challenge-based learning," and "activity-based learning."[17] When those get debunked, still newer terms will arise – so powerful is the developmental-project-method tradition in our teacher-training faculties. But the method, despite its persistent promotion, does not work. American elementary education is thus based currently upon two incorrect theories: namely that project-based learning is effective, and that general skills of reading comprehension and critical-thinking exist. These two fallacious assumptions are alone enough to explain the mediocre outcomes of American elementary education.

Decisions about content are of course contentious. They get avoided by legislators on noble-sounding grounds. "*We don't want the government deciding what our children shall learn. That's the road to tyranny. That's what dictatorships do.*" But we're only asking our legislatures to decide topic sequences, not how the topics are treated. You can say Jefferson was a hero or you can say he was a hypocrite, but legislatures need to say: you will teach about Jefferson in Grade X, and your pupils will be tested on whether they know some key facts about him.

To avoid concrete curriculum frameworks at the state level, our public discussions of education policy are currently about *structures* not content – except when the content can be politically scandalous stuff like sex acts and critical race theory. The discussions are chiefly about school funding

or about whether charter schools should be encouraged. Serious decisions about central content are off limits, or about content at all until something scandalous and politically useful can be offered in evidence like a novel whose plot includes sex.

The current conversation stopper about the Shanker principle is to respond with the phrase "Who decides?" That challenge now greets concrete proposals, thus cloaking educational irresponsibility in the mantle of virtue. Right now, of course, the answer is that individual makers of schoolbooks and materials must decide, because most of our current state standards are no more specific than those of the Common Core quoted above. ***That's because no one in current authority is as brave and insightful as the late, much-missed Al Shanker.***

But note Shanker's answer to the question "Who decides statewide curriculum frameworks?" Under the Constitution the states do. They have abandoned their responsibility by assuming that abstract "reading comprehension skills" and abstract "critical thinking skills" exist. That assumption masks a craven unwillingness to make concrete decisions at the state level. Topic-concreteness with shared-sequence of topics is the *only* avenue to making every child literate. It's essential that the public understand this scientific truth and exert pressure on our state legislators to abandon evasive scientific mistakes and get to work.

Everybody Gets Included

Besides its high practicality¸ there's another fundamental social and moral good served by the Shanker-principle. It not only leads to a more competent and unified citizenry (of high importance in a democracy). It also leads to greater equality of competence and of income. Here's why. The Cohen curve (reproduced in the preface) confirms the relation between teen verbal tests and adult income, but it doesn't fully explain it.

Let's quickly do so. Teen-age reading scores predict adult income because the wider the knowledge you have, and the more effective the vocabulary you have – then the more effectively you can communicate and the more effectively you can learn. You can better understand what's going on around you and can also understand new things rapidly and effectively. *It makes you operationally smarter*. That's an obvious explanation for the

Cohen Effect on adult income. A recent long-term study in Spain showed that higher income of students arises from two principles: the more specific knowledge you learn early about a *specific vocation plus the wide general knowledge* required to communicate well. [18]

Given the role of unspoken background knowledge in language, consider the effect of the Shanker principle on the egalitarian character of a post-Shanker classroom. Leaving native intelligence out of the picture, consider the readiness with which a child can advance in learning when she has the needed vocabulary and background knowledge to approach each new subject.

At first the American elementary classroom is inherently unequal because the vocabulary size of incoming students is hugely varied. Under current arrangements, that initial inequality is rarely overcome! But it is always overcome in shared knowledge schools, where each new class uses language based on knowledge and language from already studied subject matters. That builds up a language community in the classroom. Class-based difference is therefore overcome under the Shanker principle, which has the effect of equalizing student vocabulary for the classroom topic at hand.

Call this build-up of a classroom language community the principle of *effective inclusivity*. We now have physical inclusivity without mental inclusivity. We now have a lot of kids from diverse backgrounds sitting in the early classroom together but not all of them are grasping what is going on. Yet physical inclusiveness is worthless or even harmful without linguistic inclusiveness. The same communicative commonality or background ethnicity needed by the adults in a nation to enable the nation to work, is also needed by the children in the classroom to make the classroom work.

Adults need shared American ethnicity to be effective communicators. Third graders need third-grade ethnicity so they can understand what is going on and become enabled to make progress along with more advantaged children. That's the equality-effect that the Shanker principle can yield – *genuine inclusion*, not just token physical inclusion that leads to more frustration and inequality.

Based on that verbal inclusivity, consider the increased effectiveness of the classroom materials themselves. If the makers of those materials know what the child has already learned, consider how much more effec-

tive will be the examples, analogies, and allusions of the materials. Effective classroom communication depends on the whole fifth-grade class becoming "ethnic" fifth graders. Effective unity and competence in a nation depends on fully ethnic, communicatively competent adult Americans. In fifth grade, "We are all competent fifth graders" is the necessary technical prelude to "We are all competent Americans."

Let's Get it Done

So, my hope is that parents and patriots will start voting for legislators who commit to specific "statewide curriculum frameworks and statewide assessment systems," that offer curriculum guides specific and detailed enough to determine the chief grade-by-grade *topics* that the publishers will use in their materials for each grade. The term "topics" is key. Given basic accuracy, nobody would dictate how the publishers would present the topics. But the concepts and vocabulary of the topic would become sufficiently familiar to assure every child's ability to understand the language of the upcoming class.

To support these observations, I turn to three exemplary schools: in Alexandria, Virginia, in the South Bronx in New York City, and in Denver, Colorado. They exemplify the benefits of the Shanker principle. But instead of analyzing schools that use the specific topic sequence decided by a state legislature (None has yet decided upon one.) I'll analyze the results of schools using the topic sequence designed by the Core Knowledge Foundation. Whatever its defects, it offers the specificity needed to exemplify the benefits of the Shanker principle. For let it be stated as a key principle of elementary education in any nation: without specificity and commonality in the *sequence* of topics, there can be no equality!

This is a radical truth that currently upsets the American educational establishment. My good friends at the University of Virginia education school have warned me that the cancel culture of the developmentalists[19] on Facebook are saying that I'm just trying to sell a particular language arts program. The reader should therefore be aware that this is false, root and branch. Nobody at the Core Knowledge Foundation personally gets a cent of royalty on anything. The language program and other subject matters

can be downloaded and printed for free as open educational resources. They can be bought from the Foundation at a low price to cover warehouse costs and operations.[20]

My first example of the Shanker principle at work with the results of a specific curricular guide will be a *regular public school*. That category is important because the political debate over charter schools has some people claiming that charters "cream" students and don't reflect the problems of the regular schools. So, here's a plain vanilla, regular school in Alexandria, Virginia, with plenty of typical problems.

The Lyles-Crouch School–Alexandria, VA

The Lyles-Crouch regular public school in Alexandria, Virginia used to be an all-black public school before desegregation. Now it's not. But it still educates many black students and must accept all pupils. Dr. Patricia Zissios, the principal, wrote me as follows regarding the composition of her student body:

> Today, we have 441 students, 10% ELL [English Language Learners] (mainly Ethiopians speaking Amharic), 10% special education (with citywide autism class), and 28% living in poverty. We are 55% white, 30% black, 5% Asian/Pacific Islander, 7% Hispanic, & 3% other. Our mobility rate is 20% due to military families and state department personnel living in our attendance zone.

It's a very American and a very challenging student body. Nonetheless, Dr. Zissios goes on to say:

> Over the last three school years, we have outperformed all other schools in the Alexandria City Public Schools. We have had all scores in the 90th percentile or above. (In fact, in the subject of history, we achieved 99%; one student failed the exam.) Because of our excellent passing rates, over the last ten years, we have been awarded the Virginia Board of Education's Distinguished Achievement Award (2007–2010; 2012–2016) and Virginia Board of Education's Award of Excellence (2010–2011, 2016–2017) and

> have been recognized as a Best School in 2012 and named Top School for 2017 by *Northern Virginia* magazine. Our current scores put us in the top 5% of the entire Commonwealth of Virginia for academic achievement.

Well, a report from a proud principal is admittedly not an objective longitudinal study. But the stated data are eloquent. I'm touched that the school and its neighborhood used to be all black. And I apologize if the growing reputation of the school has caused any housing dislocations. But if so, the prior homeowners probably got a good price, since obviously some white families have moved into the neighborhood to send their kids to that school.

What about the topic sequence that is being followed by the school – the *Core Knowledge Sequence*? First of all, it is a telling fact that almost any public school can, without any problem, use that *Sequence*. If Alexandria itself had a detailed topic sequence like that of Core Knowledge it would of course be impossible. But if Alexandria *doesn't* have a detailed topic sequence, how can its public schools avoid the incoherence that will be described in the fourth chapter by two experienced teachers? Answer: the school systems don't avoid incoherence. When I go to the Alexandria website, this is what parents are told to expect in first grade. (Note especially the non-specific content of English language arts.)

> The Learning in Which Your Child Will Be Engaged Includes:
> **English Language Arts** • Plot Development in Fiction • Gaining Meaning from Informational Text • Discerning Main Idea in Non-Fiction • Examining Author's Craft in Narrative Writing • Reading and Writing Persuasive Texts • Studying the Power of Words in Poetic Texts
> **Mathematics** • Developing an Understanding of Adding and Subtracting • Whole Number Relationships and Place Value, Including Grouping in Tens and Ones • Developing an Understanding of Linear Measurement • Reasoning about Attributes of Geometric Shapes
> **Science** • Basic Needs and Behaviors of Animals • Weather, Sea-

sons, Sun and Earth • Water and Motion • Natural Resources and Plants • Understanding Patterns of Change

Social Studies • Understanding Communities, Diversity, and Citizenship • Investigating Geography and Location.

That is the very sort of thing experienced teachers complain of in Chapter 4. Such nebulous objectives force each teacher (or textbook maker) to decide the *specific* topics for themselves. By contrast, the *Core Knowledge Sequence* is what Al Shanker had in mind as a "curriculum framework."[21] That would ensure, Shanker said, "that students and teachers in every school will know what kids are responsible for learning and whether or not they have learned it."

Does the Alexandria framework offer schools and teachers enough guidance to prepare disadvantaged students to have a fair shot at the upcoming test? No! That makes our current testing system essentially unfair, and it assures ineffectiveness in overcoming the comprehension gaps between advantaged and disadvantaged students.

Here is the kind of specificity that alone can ensure "that students and teachers in every school will know what kids are responsible for learning and whether or not they have learned it." These are excerpts from the "curriculum framework," the *Core Knowledge Sequence*, that is being followed in Lyles-Crouch:

Kindergarten

Language Arts:

Mother Goose and Other Traditional Poems: "A Diller A Dollar," "Baa, Baa Black Sheep," "Diddle, Diddle Dumpling," "Early to Bed," "Georgie Porgie," "Hey Diddle- Diddle," "Hickory Dickory Dock," "Hot Cross Buns," "Humpty-Dumpty," "It's Raining It's Pouring," "Jack and Jill," "Jack Be Nimble," "Jack Sprat," "Ladybug, Ladybug," "Little Bo Peep," "Little Boy Blue," "Little Jack Horner," "Little Miss Muffet," "London Bridge Is Falling Down," "Mary, Mary Quite Contrary," "Old King Cole," "Old Mother Hubbard," "One Two Buckle My Shoe," "Pat-a Cake," "Rain Rain Go Away," "Ride a Cock Horse," "Ring Around the Rosey," "Rockabye Baby," "Roses Are Red," "See Saw Margery Daw," "Simple Simon," "Sing a Song of

Sixpence," "Star Light Star Bright," "There Was a Little Girl," "There Was an Old Woman Who Lived in a Shoe," "This Little Pig Went to Market," "Three Blind Mice"

Other Poems Old and New: "April Rain Song" (Langston Hughes), "Happy Thought" (Robert Louis Stevenson), "I Do Not Mind You Winter Wind" (Jack Prelutsky), "Mary Had a Little Lamb" (Sara Josepha Hale), "The More It Snows" (A. A. Milne), "My Nose" (Dorothy Aldis), "Rain" (Robert Louis Stevenson), "Three Little Kittens" (Eliza Lee Follen), "Time to Rise" (Robert Louis Stevenson),"Tommy" (Gwendolyn Brooks), "Twinkle Twinkle Little Star"(Jane Taylor)

Fiction—Stories: "The Bremen Town Musicians" (Brothers Grimm), "Chicken Little" (also known as "Henny Penny"), "Cinderella" (Charles Perrault), "Goldilocks and the Three Bears," "How Many Spots Does a Leopard Have?" (African folktale), "King Midas and the Golden Touch," "The Legend of Jumping Mouse" (Northern Plains legend), "The Little Red Hen," "Little Red Riding Hood," "Momotaro: Peach Boy" (Japanese folktale), "Snow White and the Seven Dwarfs," "The Three Billy Goats Gruff," "The Three Little Pigs," "A Tug of War" (African folktale), "The Ugly Duckling" (Hans Christian Andersen), "The Velveteen Rabbit" (Margery Williams), "Winnie the Pooh" (A. A. Milne), "The Wolf and the Kids" (Brothers Grimm), Aesop's Fables: "The Lion and the Mouse," "The Grasshopper and the Ants," "The Dog and His Shadow," "The Hare and the Tortoise"

American Folk Heroes and Tall Tales: Johnny Appleseed, Casey Jones Sayings: A dog is man's best friend • April showers bring May flowers. • Better safe than sorry. • Do unto others as you would have them do unto you. • The early bird gets the worm. • Great oaks from little acorns grow. • Look before you leap. • A place for everything and everything in its place. • Practice makes perfect. • [It's] raining cats and dogs. • Where there's a will there's a way.

Kindergarten History and Geography

Geography—Spatial Sense: maps and globes; rivers, lakes, and mountains; Atlantic and Pacific Oceans, North and South Poles The Seven Continents: Asia, Europe, Africa, North America, South America, Antarctica, Australia

American History and Geography

Name and location of town, city, community, state where you live North America, continental United States, Alaska, Hawaii

Native American peoples, past and present: the landscape and environment they lived in, how they lived, what they wore and ate, the homes they lived in, beliefs and stories, current status of tribe or nation

Early Exploration and Settlement

The Voyage of Columbus (Cristoforo Colombo), Queen Isabella and King Ferdinand of Spain, The Niña Pinta and Santa Maria, Mistaken "Indies" and "Indians," "New World" • The Pilgrims, The Mayflower, Plymouth Rock, Thanksgiving Day celebration • July 4th, "Independence Day," The "birthday" of our nation, Democracy (rule of the people): Americans wanted to rule themselves instead of being ruled by a faraway king • Slavery: some people were not free • Presidents Past and Present: George Washington The "Father of Our Country;" Legend of George Washington and the cherry tree • Thomas Jefferson, author of Declaration of Independence • Abraham Lincoln, Humble origins, "Honest Abe" • Theodore Roosevelt, National Park initiative • Barrack Obama, the first Black American president• Current United States president • Symbols and Figures: Recognize and become familiar with the significance of American flag, Statue of Liberty, Mount Rushmore, the White House

Kindergarten Visual Arts

Elements of Art

Color: Observe how colors can create different feelings and how certain colors can seem "warm" (red, orange, yellow) or "cool" (blue, green, purple) • Observe the use of color in: Pieter Bruegel, *The Hunters in the Snow*; Helen Frankenthaler, *Blue Atmosphere*; Paul Gauguin, *Tahitian Landscape*; Pablo Picasso, *Le Gourmet*; lice Neel, *Two Girls in Spanish Harlem*; Louis Smoky Kaulaity, *Lullaby*; Mandy Martin, *Evening Clouds*

Line: Identify and use different lines: straight, zigzag, curved, wavy, thick, thin • Observe different kinds of lines in Katsushika Hokusai, *Tuning the Samisen*; (Henri Matisse), *Purple Robe and Anemones*; (Joan Miró), *People and Dog in the Sun*; (Kathe Kollwitz), *Sleeping Woman and Child*; (William H. Johnson), *Li'L Si*s; (Horace Pippin), *Family Supper*

Sculpture: Recognize and discuss the following as sculptures: Northwest American Indian totem pole; Alexander Calder, *Lobster Trap and Fish Tail*; Sandy Skoglund, *Gathering Paradise*; Pieter Bruegel, *Children's Games*; Winslow Homer, *Snap the Whip*; Diego Rivera, *The Mother's Helper*; Henry O. Tanner, *The Banjo Lesson*; Maria Izquierdo, *My Nieces*; Mark Tansey, *Snowman*.

Architecture: Hall of Supreme Harmony, Eiffel Tower, Sydney Opera House

Kindergarten Music

Listening and Understanding: Recognize the following instruments by sight and sound: guitar, piano, trumpet, flute, violin, drum, • Become familiar with the following works: Edvard Grieg, "Morning Mood" and "In the Hall of the Mountain King" from Pier Gynt; Victor Herbert, "March of the Toys" from Babes in Toyland; Camille Saint-Saëns,"Carnival of the Animals"; (Ella Fitzgerald), "A Tisket A Tasket"

Songs: "The Bear Went Over the Mountain," "Bingo,""Go In and Out the Window," "Go Tell Aunt Rhody,""Here We Go Round the Mulberry Bush," "If You're Happy and You Know It," "Jingle Bells," "John Jacob Jingleheimer Schmidt," "Kumbaya," "London Bridge," "Old MacDonald Had a Farm," "Row Row Row Your Boat," This Old Man," "Twinkle Twinkle Little Star," "The Wheels on the Bus," "A Ram Sam Sam," "Fais Dodo," "Pin Pon," "This Little Light of Mine," "Oh John the Rabbit," "Are You Sleeping?," "Do Your Ears Hang Low?," "Did You Ever See a Lassie?" "Eensy Weensy Spider," "Five Little Ducks That I Once Knew," "Five Little Monkeys Jumping On the Bed," "Happy Birthday to You," "Head and Shoulders Knees and Toes," "Here is the Beehive," "I'm a Little Teapot," "Kookaburra," "Lazy Mary," "Looby Loo," "Oats Peas Beans and Barley Grow," "Oh Do You Know the Muffin Man?," "Oh Where Oh Where Has My Little Dog Gone?," "One Potato Two Potato," "Open Shut Them," "Pop Goes the Weasel," "Teddy Bear Teddy Bear Turn Around," "Teddy Bears Picnic," "Where is Thumbkin?," "Who Stole the Cookie from the Cookie Jar?," "You Are My Sunshine"

Whatever objections might be raised against this curriculum framework, it's obvious that it has raised the verbal abilities of its students to the top in its state.

Now let's leave Lyles-Crouch regular public school to win more awards and exercise more influence on its neighboring schools. (That's already happening!) and turn to a charter school implementation of the very same Core Knowledge curriculum in New York City.

South Bronx, NY, NY

In the South Bronx, 25,000 disappointed kindergartners are turned away from seven Core Knowledge schools every year. That potentially represents some 50,000 disappointed parents every year – assuming that both biological parents take an interest. That adds up. If some idealists and activists decided to get them organized, they might get some action at the district and state level to achieve the Shanker principle.

All the schools in the South Bronx could be doing this kind of thing! And several charters are doing so, like the Success Academies and the Classical Charter Schools in the Bronx. The South Bronx is the poorest area in New York City. If disadvantage is overcome in the South Bronx, it can be overcome anywhere in the USA.

Here is a triumphant photo showing the benefits of the Shanker Principle achieved by Core Knowledge Schools in the South Bronx in New York City.[22]

These low-income Core Knowledge children live in the lowest-income area of New York City. You can see that they are highly pleased with themselves, as they emphatically should be. They have just won their age division in New York City in a citywide debate contest. Contestant schools from every part of the city as well as nearby New Jersey and from every kind of school participated in the citywide "tournament."

Young as they are, the children in this photo are socially mature. They are articulate. A public debate is a public language-event. To perform effectively requires mastery of the public language with its publicly shared associations and values – shared ethnicity. These children are on their way to being good citizens – and good earners. And these children are not the only standouts from their schools. *Every single eighth grader in all seven of the South Bronx Core Knowledge schools proceeded to win admission to a selective high school!* Their schooling has overcome home disadvantage.[23] Their 100 percent admission to select high schools is especially striking. In the whole of New York City the rate of acceptance of the 28,000 ambitious eighth graders who take the admission test is 14 percent!

These low-income children in the picture had not been specially selected at an early age for kindergarten admission. On the contrary, they were randomly admitted by blind lottery. It was their *schooling* – conducted by their devoted teachers under the leadership of Superintendent Jeffrey Litt – that achieved the result.

Here below is the demographic rundown of the seven Icahn Core Knowledge K-8 Charter schools. Admission was by blind lottery. The numbers along the top are the school names, Icahn1, Icahn2, etc. Each school has about 375 students. Note that about 75 percent of them are in poverty; 90 percent are black or Latino; 6 percent are homeless; 4 percent are English language learners, and 8 percent are disabled. Those numbers are important mainly because charter schools are blamed for "creaming" only top students. New York City has decreed that all charters must accept all students. These students were all taken in as kindergartners in a blind lottery, and nobody leaves. Also to be noted: The financier Carl Icahn generously donated three buildings that house five schools;

the remaining schools are NYC DOE buildings, as well as rented space. It is important to note, however, that the schools operate on the very *same per-student budget* as any other comparable school in NYC.

Demographics of Icahn Charter Schools in NYC							
Icahn School	**#1**	**#2**	**#3**	**#4**	**#5**	**#6**	**#7**
Below Poverty Level	85%	58%	72%	66%	77%	85%	78%
Black	49%	33%	62%	61%	58%	51%	45%
Latino	50%	56%	29%	29%	30%	46%	49%
Disabled	4%	4%	8%	12%	7%	10%	8%
Homeless	7%	8%	5%	4%	2%	9%	6%
ELL	7%	4%	2%	2%	2%	8%	7%
Asian/Pacific	1%	4%	4%	4%	6%	1%	3%
White	0%	4%	3%	1%	5%	1%	1%
Native American	1%	1%	1%	1%	1%	0%	0%

Six of these seven schools have received the rare "Recognition School" awarded by New York State. The New York State website informs me: "Of the identified Recognition Schools, 232 are New York City public schools; 313 are public schools in the rest of the state; and 37 are public charter schools, of which 35 are located in New York City. Recognition Schools are those with high academic achievement and strong progress, that also perform acceptably for all subgroups for which they are accountable. This year's designees represent 13 percent of New York State public schools." Furthermore, four of the Icahn Schools have received the US Department of Education National Blue Ribbon awards. The man who accomplished this feat, the superintendent of the seven schools, Jeff Litt, is a gentle, self-effacing genius who years ago grasped the logic of the language/shared-background-knowledge argument.

Why did these disadvantaged students perform better in debate than their more advantaged rivals? It was because the Core Knowledge students had NOT been schooled under a "developmentally appropriate" mode of schooling, as their rival schools had been. The debates were a contest of theories as well as a contest of school teams.

The Core Knowledge theory had inducted these children into the public sphere systematically and early – the ethnic sphere where books and newspapers can be read with understanding, where commerce and democratic decisions can take place. When this knowledge is imparted early and systematically a cumulative effect starts taking place, which after a time cannot be matched by a hurry-up intensity in later grades. This is a feature of coherent growth: Induction into the *shared* public domain had been taught *less* early and fully to their young rivals, who were probably schooled under a developmental, child-centered, and project-based orientation that had stressed individual "growth" and "natural development."

Further retardation of learning beyond the "natural development" idea is imposed across the nation in our current schoolchildren by the convenient but false idea held by our schools that skills such as reading comprehension are general skills. There is no reliable technique for "finding the main idea" if, as is now understood in our psychology departments, "a reading test is a knowledge test in disguise," (Willingham), and the knowledge needed is specific to the text being read. The fruitless practicing of general comprehension skills simply wastes school time for disadvantaged children.

> *Did the high-performing* ***advantaged*** *child in Manhattan undergo fruitless comprehension exercises at home? No, she was too busy gaining more knowledge. These children from the South Bronx have caught up because they were systematically gaining more knowledge, and now know as much as the advantaged child.*

Denver, Colorado

The reason for my third and last example is its scientific punctilio. David Grissmer is an educational researcher well-known for the unchallengeable quality of his research. He secured five million dollars from the Arnold Foundation to research two questions, whether in fact charter schools worked, and whether Core Knowledge in particular worked as a curriculum. Core Knowledge is not a charter company. It's just a curriculum guide with some freely downloadable curricular materials. That's attractive to people who are dissatisfied with what their public schools are

doing. They have heard about Core Knowledge and its freely downloadable and inexpensive materials, so it has gotten popular with groups that want to start a local charter.

Professor Grissmer saw this as a research opportunity. There are a lot of CK charters in the Denver area. But they are oversubscribed, so the acceptance rate is limited. That presents a research opportunity using matched pairs of kindergartners all of whom applied to the CK schools. Grissmer could therefore study and compare the students who would attend the CK schools and those who would attend the regular public schools, because they lost the blind lottery and were denied admission to the CK schools.

Since the entire group of kindergartners who applied came from homes with solicitous parents, that factor touted by opponents of charter schools could be eliminated. Indeed, the current claim that charters succeed because their students come from more solicitous and helpful parents could be tested. At least half the Colorado students were turned away by the blind lottery; the parental solicitude-quotient would be equivalent in both groups. Grissmer could ensure that the outcomes from equivalent income groups could be monitored. His comparative experiment with the CK and non-CK groups has been going on for six years.

Professor Grissmer hasn't published yet, so I won't say too much here. I'll just reveal data for the low-income group, which of course showed the highest differential after six years. That's of course the group we are all most concerned about. The latest data show that after six years with the low-income set of matched pairs, the verbal effect-size is 1.46. (Just a few months ago it was 1.43, so it's getting bigger with time!)

Here's what the experts say about effect sizes- .10 is a small effect; .30 is a medium effect; .50 is a large effect; .80 is a *very* large effect. An effect size of 1.4 is not mentioned in the guide. Yet that is what Professor Grissmer found. I plotted the bell-curve meaning for a 1.4 magnitude effect size.

In the measurement of verbal skill, ***92 percent*** of the Core Knowledge low-income children scored above the average of the matched public-school low-income children. Professor Grissmer warns me that the sample size for the low-income groups is small.[24] Well, OK. I hope he'll be able to arrange for a bigger low-income-only experiment. But, given the effect size, does a hopeful kindergarten parent really need to wait to agitate

for more specificity and commonality in the Denver public schools? These results are highly consistent with what we have learned in the past four decades about the nature of language, and the effect of coherent common topic progression in the early grades. To institute that policy will require a change in mindset – away from the principle of developmentalism, the subject of the next chapter.

Chapter 2

Developmentalism

Developmentalism and Individualism

Some of the most important ideas that govern human affairs are simple ones – so simple that they remain unexamined. In this chapter I'll deal with two such ideas: developmentalism and individualism. My point will be that the current individualism in America which elevates the "I" over the "WE" has been helped along by the individualistic doctrines of developmentalism which completely took over our elementary education by mid-twentieth century.[25] Our so-called child-centered education has been individualistic education – on the principle, stated by John Dewey, that the child's "instincts and powers" should guide her education. Behind that principle is another, unstated one: The child's instincts and powers come from nature, and nature is the agent of God's providence. That unstated religious faith in the rightness of nature has been a powerful force in modern American life. We nod to nature's providential character every time we choose "organic" foods, and every time we choose a natural approach to early childhood education.

Our earlier view (just check those earlier American schoolbooks) had been that the child's instincts and powers are a mixed affair which need to be given content and guidance. Therefore, we concluded, it is incumbent upon adult teachers to lead the child in the right direction. The newer, developmental view, which became dominant in America by mid-twentieth century, assumes that the child's *natural* instincts are providential. When they are followed with empathy, the child will flourish. And, since individual children's inborn natures are different, those natural differences shall

be respected, precisely because they are inborn and from God. Hence, we honor individualism.

This individualistic developmentalism assumes that God's benign providence will ensure that following nature, will be optimally good, and if nature is thwarted, Providence will be thwarted. Underlying our child-centered education is the implicit assumption that natural growth – natural development – is *the* optimal mode of education – both ethically and psychologically.

But the latest work in developmental psychology and brain science paints a more complex, less benign picture of the child's inborn instincts and powers. In effect, this current work in psychology supports the idea that the human child is born with conflicting impulses of selfish individualism and empathetic altruism. According to evolutionary psychology, this doubleness infects the whole animal biosphere. In a famous article, David S. Wilson and E. O. Wilson summed it up this way: "Selfishness beats altruism within groups. Altruistic groups beat selfish groups. Everything else is commentary."[26] That universal biological inheritance persists in the human brain – the selfish instinct and the group-centered, unselfish instinct. Both are inborn, and it is up to human schooling to influence how they comport themselves within the child, and within the wider culture.

In stating this duality in human nature recent psychology and brain studies are rediscovering ancient ideas about human nature and human education. One very early writer is highly relevant. He was read by Shakespeare for whom human doubleness for good and evil was a consistent theme. The writer from the fifth century AD is still apt, because he understood explicitly the ultimately religious dimension about which we quietly leave implicit as we conceive the natural development of the child as being providential.[27]

That ancient writer is St. Augustine. He is the author, among other works, of a book entitled: *On the Proceedings Concerning Pelagius*. At issue in Augustine's attack on Pelagius was whether Adam's disobedience in eating the forbidden apple infected all of Adam's offspring forever. Pelagius had said: "No, we later-born humans are innocent of that guilt." Augustine (a good observer of the dualism in humans) said: "Yes! We *are* still guilty of Adam's disobedience and are still an infected mixture of good and bad."

Augustine's view is the one that the Church adopted. The church au-

thorities looked around at human behavior (as Shakespeare later did) to see that Augustine was on the right track. Shakespeare was also an anti-Pelagian who emphasized our innate mixture of good and evil. In one of his sonnets (144) he confronts those two angels within himself. And there's a memorable moment in Goethe's *Faust*, when Faust complains that "two souls dwell in my breast." Our deepest and most accurate writers have been anti-Pelagians like Augustine and Shakespeare, and Goethe. All this is relevant to our current educational policy because current science – and our earlier American traditions, which built the nation – dissent from our current faith in natural development.

This is not a matter of liberal vs conservative ideas – those two bins into which we currently toss incoming ideas, allowing us not to think. It's a matter of pragmatism. Do we want to continue having the twenty-fifth best elementary school system in the world, because we want to continue assuming that the child's natural instincts and impulses are providential and are to be honored and followed when in fact they are an unformed mixture of selfishness and altruism mixed uncertainly? Left to chance, it's probable that selfish individualism will dominate, as Robert Putnam observes in his new book *Upswing*, which shows that hyper-individualism (the "I" over the "WE") has recently dominated in America and has weakened our cohesion. (A COVID mask, for example, is an annoyance to the "I" but it is a life-saving protection to the "WE." Based on Putnam's data, I infer that an earlier, "WE"-oriented America, would probably have been less anti-mask.)

There's a completely *practical* – not just an ethical – implication in the upswing of individualism that has been prompted and promoted by our schools' faith in the natural-development of the child. Developmental education has been a cause of our *downswing* in literacy scores! The reason is not complicated: When children are assumed to be learning non-existent general skills by means of diverse self-selected reading materials, or uncoordinated materials selected by individual teachers, children's literacy will decline because literacy depends on shared background knowledge – shared ethnicity. When, by contrast, schools teach the communicative store of shared knowledge that constitutes an ethnicity, reading scores rise dramatically, as the prior chapter showed. For that to happen, we must remove from our backs the heavy incubus of developmentalism. The removal of that incubus needs to begin in kindergarten.

Which Kindergarten Shall My Child Attend?

In the prior chapter I observed that parents of some 25,000 children in the South Bronx try every year to place their child in one of the seven Bronx Core Knowledge (CK) schools where there are just 135 kindergarten places. In this chapter, I shall explain why these parents through their grapevine have come to believe that they want *their* child to go to a CK kindergarten, not to the local public kindergarten. Through their friends and their own observations, they have come to think that the kindergartens of the public school are a waste of valuable time – not because those schools lack resources and attractive surroundings. The public kindergartens have those! It's because parents have observed the big difference in methods and results and *have come to disagree with the pedagogical theory of the public school*!

Parents have a different pedagogical theory? While I'm no fan of uninformed parental incursion into schools, parents' common sense is sometimes more reliable than some of our current educational theories. For example, our *teachers* are being taught that the most generative principle of natural human learning and development is self-esteem. According to that view, human development is being generated by four forces: biological, psychological, sociocultural, and life-cycle forces.[28] But note how *unnatural* is one of the listed forces – the "socio-cultural." It's one thing to describe the universal unfolding of *physical* development into puberty. It's quite another to describe as natural the "unfolding" of a child into gaining a particular tribal or national culture.

That distinction between physical and cultural "development" makes the path of human mental development inherently *variable*, and *artificial* – something imposed from the outside, not developed from within. It is not natural in the same sense that physical development is. This is exactly the conclusion being reached by the latest thinking in developmental psychology – especially in the work of the three scientists and their colleagues often cited in this book: Susan Carey, Nir Kalisman, and Harold Stevenson.[29]

It turns out that parents tend to agree with this recent science more than do our developmentally trained teachers. Without actual data based on interviews with parents I'd never venture that proposition, but, thanks to professors Sverdlov and Aram who have conducted interviews in the

USA, we know that American parents take the common-sense view that yes, the main aim of kindergarten is to begin learning reading, writing, and arithmetic, whereas their children's teachers are being taught in their training that prematurely to impose such material directly, instead of allowing the child to develop those concepts naturally is harmful to the proper psychological development of the child.[30]

That is not true, but it is nonetheless what these teachers have been taught. The Sverdlov and Aram study asked parents and kindergarten teachers: "What are the chief goals of kindergarten?" I quote from the abstract:

> The study examined the beliefs of kindergarten teachers (K-teachers) regarding the goals of kindergarten. The results reveal an incongruence between K-teachers' perspectives and parents. K-teachers view positive self-esteem as the most important goal and promoting literacy and mathematics skills as the least important. Parents believe, however, advancement in literacy and mathematics skills are the most important goal. [31]

Self-esteem is number 1, literacy and numeracy number 2! The natural-growth metaphor is still powerfully dominant among our teachers who have been trained in many of our schools of education. So powerful is our schools' devotion to the idea of natural development that it has gravely weakened our national literacy, and with it, our national unity. The two are connected, because literacy depends on shared background knowledge, and so does the emotion of tribal unity.

More is at stake in this divergence of views between parents and teachers than simply reading, writing, and arithmetic. Making self-esteem the primary goal is consistent with a developmental conception of childhood education. If you encourage the sense of self-worth, then you will be motivated to be self-confident. You will be motivated generally. You will *develop* faster and better. That is the theme in the textbooks our teachers are required to read: Here's a characteristic passage from a representative, currently required text (copyright 2019) in our teacher training on human development:

> Self-esteem is normally very high in preschool children but declines gradually during the early elementary school years as children com-

> pare themselves to others. By the beginning of adolescence, self-esteem has usually stabilized—it neither increases nor decreases in these years (Harter, Whitesell, & Kowalski, 1992). Evidently, children learn their place in the "pecking order" of different domains and adjust their self-esteem accordingly. However, self-esteem sometimes drops when children move from elementary school to middle school or junior high (Harris et al., 2017). Apparently when students from different elementary schools enter the same middle school or junior high, they know where they stand compared with their old elementary school classmates but not compared with students from other elementary schools. Thus, peer comparisons begin anew, and self-esteem often suffers temporarily.[32]

This is development as self-centered individualism. To be fair to the authors, while there are ninety-seven references to self-esteem, there are also fifty references to altruism, though none to patriotism.[33] The chief moral idea is that of Kohlberg's universal, eight stages of moral unfolding.

According to the developmental theory, mental growth is natural to each child's temperament and is promoted by self-esteem. But the claim of universal naturalness is problematic – as the disciplines of history and anthropology disclose. For one thing, those conflicting impulses of *selfishness* and *empathy* develop differently in different societies under different forms of tutelage. (*Empathy* has twenty mentions in the developmental textbook versus the ninety-seven for *self-esteem*.) In human *moral* development, tribal difference, not human sameness, takes center stage. But it's not just moral development that differs in different societies; even basic development in something as neutral as number sense develops very differently in different societies, as Harold Stevenson and his associates have shown.[34]

Unfortunately, the child-centered, self-esteem-centered conception of development fully took over our elementary education by the mid-20th century, along with individualism generally, as Robert Putnam has shown.[35] And Susan Carey has shown that the "growth" of concepts in the child is not an organic development, but an arduous mental process based upon the active manipulation of symbols by the infant in alliance with sensory inputs; it is not an internal "development" like the growth of a plant from a seed; it is an arduous, constructive effort.[36] It takes place differently as the symbols are different in different languages and cultures.

Guides on the Side, Teachers Wandering Around the Classroom

In grade schools across the nation, we have changed the composition and arrangement of the classroom furniture. *That* physical change did not make our reading scores decline. But the *reasons* for the furniture change did make the scores decline. The elementary classroom used to look like this:[37]

Picture Courtesy *The Daily Herald*, Arlington Heights, IL

One good thing about those old wooden desks. They had spaces under the top, where you could store your pen and pencil and paper and a book or two.

When the education philosophy changed, (which caused our reading scores to decline) so did the furniture change. Here's the way the classroom looks today:

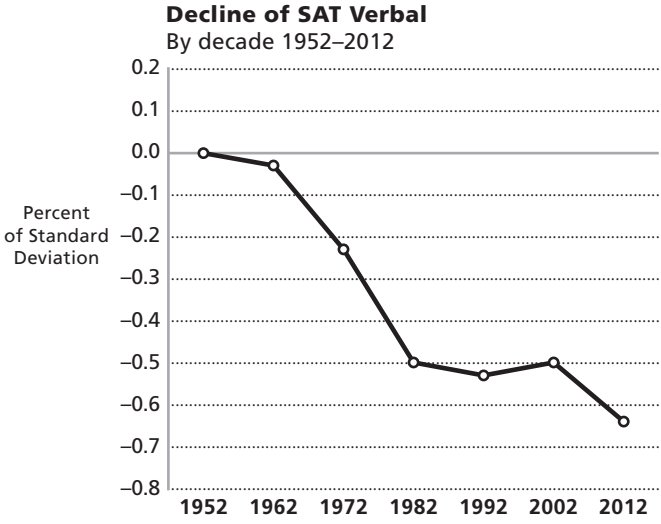
That's the look of the classroom under "child-centered" education. (One can find dozens of such pictures online from various image companies. This happened to show the character of the whole classroom.) This next picture shows the same kind of arrangement with multiracial students and up-to date-computers:

Even if a school decided to introduce a definite curriculum that is teacher-led rather than child-centered, we would still need to use this furniture. Currently, that's a little awkward. Many children need to turn away from the table to watch the teacher. Still, students and teachers who have changed to teacher-led schooling are *highly* enthusiastic about the change.

The Claim That Developmental Education is Natural

Romantic developmentalism (an educational idea that flourished in Europe in the early nineteenth century and took over American elementary education) is the single greatest barrier to educational equality and social justice in modern education. It *infantilizes* and *individualizes* and *delays* early education instead of quickly and equally bringing young people into the social world they are to inhabit. It hinders the school from overcoming home disadvantage so that all students can master the public sphere. The gravest tragedy of American public schooling in the past 100 years has been the rise of this "developmentalism" as a chief guiding principle of early education. It sustains the black/white verbal gap. It has miseducated our adult population – as recent interviews about the COVID pandemic have illustrated.

In 1983, the U.S. Government produced a study of our educational performance entitled *A Nation at Risk*, which showed that things had become worse educationally for the United States in comparison to other nations. After the report, we were not able to change the downward fall of those dismal results. But the descent of SAT verbal scores did level out for a while before the descent started again.



The reason that *A Nation at Risk* did not produce a more permanent reform which might have started the trajectory upward (which we desperately need to do), is this:

> The study group for *A Nation at Risk* was controlled by estimable people who were presidents of top universities, chairmen of corporations, and high school principals. The college presidents set the tone. The analysis was high-school-centric. It simply assumed that the early grades were doing the basic job. Their recommendations mostly pertained to the high school years.

In one passage of the report there was a suggestion that elementary school teachers should be more knowledgeable, but on the whole, the elementary years were ignored, except for the idea that sometimes not enough attention was paid to the skill of reading comprehension. The chief mention of the earlier years was this:

> The teacher preparation curriculum is weighted heavily with courses in "educational methods" at the expense of courses in subjects to be taught. A survey of 1,350 institutions training teachers indicated that 41 percent of the time of elementary school teacher candidates is spent in education courses, which reduces the amount of time available for subject matter courses.

In other words, *A Nation at Risk* was a brave and excellent effort that did not get to the heart of the matter - early reading scores. If only those 1983 university presidents knew then what we know now about the degree to which adult achievement is determined by early background knowledge, their report might have induced a reform of our elementary schools.

The chief agency of our grade-school failures since the 1950s has been the developmentalism of the early grades. Developmentalism fully took over our schools and our teacher training institutions in the second half of the twentieth century, when (as the previous SAT chart indicates) the decline began in a big way. We can get a feel for the enthusiasm with which our grade schools adopted developmentalism by watching a *March of Time* program circa 1940 which featured William Heard Kilpatrick and John Dewey.[38] Kilpatrick and Dewey were key players, but there was also

another early player who may have been even more influential – Elizabeth Peabody, who introduced the developmental ideas of Friedrich Froebel. But first let's consider the school philosophy that came before developmentalism–and created the United States.

The Common School

The developmental movement took hold in the 20th century in an already successful nation. Earlier in Massachusetts, where leadership of the American school system resided, there was not even school segregation of black students. All young people, including free black students, were required to attend the Common School. (The acceptance of black equality in Massachusetts was one reason the escaped slave Frederick Douglass first made his home there.) The influence of the Massachusetts Common School spread out beyond the state by virtue of its brilliant leader, Horace Mann who, in 1837, was named Commissioner of Education for the state. In all our history, Mann was the most imposing school official. He was advanced for his time. He started an influential educational journal for teachers throughout the United States – the *Common School Journal* (1838-on).

Mann knew of the originator of developmentalist ideas, Jean Jacques Rousseau, whose *Émile* had been published in 1763, but he rejected those ideas.) Instead, he wrote the following account on the aims of schooling in the very first issue of the Common School Journal:

> The human being is less endowed with instincts for his guidance than the lower orders of animated creation. Consider then his condition when first ushered into life. He is encompassed by a universe of relations, each one of which will prove a blessing or a curse, just according to the position which he may sustain towards it, and yet in regard to all these relations it is to him a universe of darkness. All his faculties and powers are susceptible of a right direction and control, and, if obedient to them, blessings innumerable and inexhaustible will be lavished upon him. But all his powers and faculties are also liable to a wrong direction and control; and, obedient to them, he becomes a living wound, and the universe of encompassing relations presses upon him only to torture him.

Our other thinkers of the early period had a similar view. Here is what a chief author of our Constitution, James Madison, said about human nature in Federalist 55:

> As there is a degree of depravity in mankind which requires a certain degree of circumspection and distrust, so there are other qualities in human nature which justify a certain portion of esteem and confidence. Republican government presupposes the existence of these qualities in a higher degree than any other form.

Madison's balanced view is essentially that of present-day evolutionary psychologists, who have explained why humans have evolved the double sidedness that Madison described. I've already quoted David Wilson, a top evolutionary psychologist, and E. O. Wilson, a top socio-biologist who stated you may remember, that within the whole of the biosphere: "Selfishness beats altruism within groups. Altruistic groups beat selfish groups. Everything else is commentary."[39] That's why both innate tendencies have persisted. Madison and Mann were right because both the selfish and altruistic sides of human nature have evolved successfully because both sides have had survival value.

Because Madison's and Mann's partly skeptical view of human nature prevailed among our founders, they placed a great deal of emphasis on schooling to inculcate altruism and loyalty to the whole tribe. The aim was to instill not just a strong ability to read and write, but above all, to develop the altruistic and patriotic side of human nature rather than the selfish side. Here is the brilliant Philadelphian Benjamin Rush on the subject in 1789: [40]

> Let our pupil be taught that he does not belong to himself, but that he is public property. Let him be taught to love his family but let him be taught at the same time that he must forsake and even forget them when the welfare of his country requires it. He must watch for the state as if its liberties depended upon his vigilance alone.

This was the kind of wary solicitude for morality and social allegiance that lasted in American schools well into the twentieth century.

Next Came the Nature Movement of the Nineteenth Century

We were lucky that Madison and Mann and Rush and other American leaders were not adherents to the religion of nature that swept Europe after Rousseau in the nineteenth century.

The successors to Horace Mann in Massachusetts – especially in the town of Concord, – the home of Emerson and Thoreau – made the state also a cradle of the new nature worship in America. And one of Emerson's disciples was Ms. Elizabeth Peabody, who was hugely influential in bringing developmentalism into our schools. Elizabeth Peabody is featured in our educational history as the originator of the kindergarten. True enough, but she was more. She was a prime introducer of the developmental idea to our teachers and parents. She was the introducer of Friedrich Froebel into our intellectual bloodstream.

Froebel was the German writer who invented and named the kindergarten. That's a German word that literally means "children's garden." That is to say: a place where you garden children. Froebel chose that metaphor as ideal for the developmentalist principle. By reading a bit of Froebel one comes to understand why developmentalists in the United States, and especially in our teacher training schools, are so confident of their principles. They don't state the underlying religious confidence expressed by Froebel, but the confidence is there. They use neutral abstractions like "constructivism" and the like. But behind the conviction that "self-esteem" trumps "rote learning" lies a firm, Froebelist faith in natural development. Here's a passage from that translation of Froebel issued by Elizabeth Peabody in 1890 which introduced Froebel to Americans:

> Education in itself must necessarily be passive, watchfully and protectively following; for the effect of the divine is, when undisturbed, necessarily good: in fact, it cannot be otherwise than good. This necessity must presuppose that the still young human being, even though as yet unconsciously, like a product of Nature, precisely and surely wills that which is best for himself, and, moreover, in a form quite suitable to him, which he feels within himself the disposition, power, and means to represent. So the young duckling hastens to the pond and into the water, while the chicken scratches in the earth. ….

> We give time and space to young plants and young animals, knowing that they then beautifully unfold, and grow well, in conformity with the laws which act in each individual. We let them rest, and strive to avoid powerfully interfering influences upon them, knowing that these influences disturb their pure unfolding and healthy development.
>
> So, parents, your children on whom you early and forcefully impress form and vocation *against* their nature, and who therefore wander around you in *languor* and *unnaturalness*, might also become beautiful, self-unfolding, and all-sided self-developing beings. All active, *dictatorial*, *invariable*, and forcibly *interfering* education and instruction must necessarily have a *disturbing*, *checking*, and destructive effect upon the action of the divine, in accordance with and upon the original, unviolated, and healthy state of the man-being.

This faith in the child's inborn instinct is the intense faith in the unspoiled and holy character of the natural. That is the central religious faith of developmentalism. It is a faith that is held as intensely in 2022 as it was held in 1890.

In 1897 John Dewey followed up Ms. Peabody's profession of faith with his own, even more influential developmental *Pedagogic Creed*.

> The child's own instincts and powers furnish the material and give the starting point for all education. Save as the efforts of the educator connect with some activity which the child is carrying on of his own initiative independent of the educator, education becomes reduced to a pressure from without. It may, indeed, give certain external results but cannot truly be called educative. Without insight into the psychological structure and activities of the individual, the educative process will, therefore, be haphazard and arbitrary. If it chances to coincide with the child's activity it will get a leverage; if it does not, it will result in friction, or disintegration, or arrest of the child's nature.

Dewey makes the social impulse of the child equal to the child-centered, psychological impulses of the child. But notice: he wants the so-

cial impulse to come from the independent impulses of the child, not to be imposed from outside. He does not think any special indoctrination is needed. Mastery of the social will be instinctive. No need for assertive instruction by the teacher. Dewey goes on:

> This process begins unconsciously almost at birth, and is continually shaping the individual's powers, saturating his consciousness, forming his habits, training his ideas, and arousing his feelings and emotions. Through this unconscious education the individual gradually comes to share in the intellectual and moral resources which humanity has succeeded in getting together. He becomes an inheritor of the funded capital of civilization. The most formal and technical education in the world cannot safely depart from this general process.

Dewey has made even *social* indoctrination developmental. It develops on its own, as part of a natural process. That's a bit more complex than Froebel but by no means acknowledges that the child's instincts and powers might be inherently selfish and evil, and in need of correction. For Dewey. the child unfolds, just as she does for other confident developmentalists.

The Project Method

Then, two decades later, after Dewey's *Creed* and Elizabeth Peabody's introduction to Froebel, William Heard Kilpatrick in the year 1918, writing from Teachers College, Columbia University, issued a nation-changing article, "The Project Method." It recommended a naturalistic, developmental approach to early knowledge-gain through working on actual projects.

Kilpatrick labeled it the "Project Method." The project method is now called "Constructivism," "Problem-Based Learning," "Discovery Learning," as well as other names, too. Many other names, for as soon as somebody accurately reports its failures, it gets an additional name. It also still gets supported by scientifically suspect "studies" of its successes. But that's only within the orbit of true believers. When mainline researchers study its effectiveness in properly controlled studies, the results are invariably negative.[41]

A decisive summary was recently provided in a study by an international team of psychologists in an article entitled: "Why Minimal Guidance During Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential and Inquiry-Based Teaching."[42] But even the favorable studies reported by adherents do *not* tend to include credible success stories among disadvantaged students. With the gradual triumph of "developmental" methods in elementary school, *all* American reading scores – including those of white students – declined in the twentieth century. That disaster was reported in *A Nation at Risk*. Today's reading scores remain low because of the dominance of developmentalism.

Current Science Debunks Developmentalism

Despite its disastrous outcomes, developmentalism still dominates our grade schools. Why? It's because it is held with religious conviction by those disciples of Dewey and Peabody and Kilpatrick who still instruct our teachers. It is held by them with religious conviction because its faith in nature *is* religious. Its theology assumes that its naturalistic approach is right because nature is God's agent on earth, and natural development follows God's plan.

Modern research has confirmed that while the neocortex of a new baby does bring into the world a pre-linguistic symbol-manipulating functionality, that capacity has little inborn material to work on.[43] The neocortex is eagerly waiting to acquire material to integrate and remember. That neocortex, where schooling mainly takes place, is neither instinctual nor pre-programed. Nature, through evolution, has determined that inventing how to accommodate to current circumstances is more helpful to survival than being born with a developmental blueprint. The latest evolved part of the brain – the neocortex–is basically a blank page ready to be written upon, as the cognitive scientist, Nir Kalisman stated in a memorable article entitled "The Neocortical Microcircuit as a Tabula Rasa."[44] The young child's *actual* instinct is to wait for instructions – which it then eagerly assimilates and actively correlates.

Beginning education students in American schools of education are typically required to purchase or rent an expensive textbook on the development of human beings over the human lifespan. But why? Even though such books are enormously expensive and time-consuming, they are as-

signed because "development" is the thought model of the American education school. Teachers are to be developmental assistants, not authoritarian conveyers of unnatural impositions.

So how do the big, thick books on development for first-year teacher candidates handle this discrepancy between a developmental model and current cognitive science? Here's a respectable example of 2019 from Kail and Kavenaugh, two knowledgeable professors of psychology (already cited) who offer a teacher's textbook on human development that has gone through eight editions. This is its most recent final comment on Piaget, the most popular developmental stage theorist in our education schools:

> Piaget's theory undervalues the influence of the sociocultural environment on cognitive development. Returning to the metaphor of the child as scientist, Piaget describes the child as a lone scientist, constantly trying to figure out by herself how her theory coordinates with data. In reality, a child's effort to understand her world is far more social than Piaget described. Her growing understanding of the world is profoundly influenced by interactions with family members, peers, and teachers, and it takes place against the backdrop of cultural values. Piaget did not ignore these social and cultural forces entirely, but they are not prominent in his theory. These criticisms do not mean that Piaget's theory is invalid or should be abandoned. As noted previously, it remains the most complete account of cognitive development. However, in recent years, researchers have attempted to round out our understanding of cognitive development using other theoretical perspectives.[45]

My cavil is this-The authors have it both ways in this 2019 edition, one way for the knowledgeable scientist who has repudiated the stage theory of Piaget, and another to please the education professor who is devoted to developmentalism and some version of universal stage theory. After explaining why Piaget's theory is invalid because culture overrides nature ("takes place against the backdrop of cultural values,") they write: "These criticisms do not mean that Piaget's theory is invalid or should be abandoned." But it does mean that! You can't logically say that "unfolding" is universal and then say that the "unfolding" is *not* universal but is depen-

dent on culture. Research has determined that only the second is correct. But these teachers' textbooks leave the theory of "unfolding" quietly intact.

We know now that the child does not "beautifully unfold, and grow well, in conformity with the laws which act in each individual." According to pathbreaking work by Harold Stevenson and his colleagues, advantaged Chinese children learn to count to 20 many months earlier than do advantaged English learners. *That is because of certain characteristics of the two languages*. However, American children learn the meaning of "one" and "two" six months earlier than Chinese children do. And that is also because of certain characteristics of the two languages, not human unfolding.[46]

Human development is language bound and knowledge bound.[47] The schools of different nations are *not* assisting in a *universal* unfolding. Rather, they are instructing children in an ethnicity – how to become mature, contributing members of a particular nation – sometimes with high success, but sometimes, as in the United States, with only moderate success.

Developmentalism has Caused Lower Literacy and Greater Unfairness

Because of the triumph of developmentalism in the United States, reading ability and language skill in the United States in recent decades have gone downhill – as *A Nation at Risk* dutifully reported, and as the international PISA reports continue to show. That was a consequence of the retarding, developmental approach. The reading and language skill of children from poor and ill-educated parents continues to lag far behind the skill of children from advantaged homes. Our reading decline and our persistent unfairness between groups are both owing to our current faith in the superiority of natural development over artificial instruction.

Dr. Paula Lombardi explains current sentiment as follows:

> In recent decades, the concept of direct instruction has taken on negative associations among some educators. Because direct instruction is often associated with traditional lecture-style teaching to classrooms full of passive students obediently sitting in desks and taking notes, it may be considered outdated, pedantic, or insufficiently considerate of student learning needs by some educators and reformers.[48]

But there *is* no internal blueprint for literacy – which arrived on the evolutionary scene far too recently for current nature to take notice. *Active instruction of the child from the outside is the only literacy blueprint available*. Literacy instruction must include not only the language of the tribe, but also the traditions, and moral imperatives of the tribe. These do not unfold. They must be explicitly taught.

Developmentalism Slows Down Effective Moral Education

Not only do our education schools support a wrong theory about reading as a natural skill (it is not); their developmentally oriented professors also support a wrong theory about the aims of schooling as being determined by nature. They subscribe to the false faith that because nature is God's providential agent, nature is therefore benign. Hence natural education is moral education, according to Dewey and his successors. But tell that to Shakespeare, who caused one of his worst villains, Edmund to pray to nature as follows:

> Thou, Nature, art my goddess; to thy law
> My services are bound. Wherefore should I
> Stand in the plague of custom and permit
> The curiosity of nations to deprive me.

"The curiosity of nations" – that means a society's customs, its laws and moral restraints that hold a society together. These curiosities constrain impulse and cheating – so to hell with them, says Edmund, I'*ll rape and cheat and murder*. Thus did Shakespeare accuse nature.

As I observed at the start of this chapter, theologically speaking, developmentalism is an updated version of the Pelagian heresy that human nature if allowed to develop naturally is good and can be relied on. One current anti-Pelagian literacy expert, Professor John McWhorter of Columbia University and *The New York Times* recently felt he needed to write a piece explaining yet again why spelling and phonics need to be taught *directly* and not encouraged to unfold "naturally" and "developmentally."[49]

Nature is not a reliable guide to anything much in human schooling – not to "readiness," not to reading, not to math. Even math instruction turns out to depend on the child's ethnicity, as Professor Stevenson and his colleagues have shown.[50] The nineteenth-century

religion of nature is not a reliable sanction for developmentalism in education. Its slowness and confident laissez faire is inconsistent not just with the ancient philosophers – but as we now understand, *with nature herself,* according to current evolutionary psychology, sociobiology, and current brain studies.[51]

Unlike the rest of "animated creation," as Horace Mann observed in humans, nature has *encouraged* artificial, non-instinctual activities that allow human tribes to outwit non-human creatures and other humans, and to accommodate human tribes to varied environments. What other large species is so independent of climate and is so widely distributed? Or can fly such great distances unnaturally through the air?

Our artificiality, not our accord with nature, has done the trick. Naturalistic, project-based learning is, moreover, elitist. It does not work efficiently, nor with equal effect upon rich and poor. Project-based, constructivist learning is the enemy of fairness. Why do we continue to adhere to it although it is debunked in the research literature, and its failure is documented in the steady decline in our international educational ranking? I would say: "It's mainly because our education schools teach, and our schools continue to believe, that the natural is good and the artificial is bad." That is often true. But as Horace Mann correctly observed, nature has withheld reliable instinctive guidance from the human child.

Developmentalism is Self-Contradictory

Advocates of developmentalism do not credibly explain why, if children should proceed at their nature-determined pace, do rich children proceed faster than poor children. Developmentalists excuse its unfair results by blaming home "disadvantage," which is described as an insurmountable barrier. Hence, they say it's ok to persist in the grave slowness and ineffectiveness of developmental education. But note the inconsistency in that view! Project-based, discovery learning holds that the child's own "instincts and powers" will make learning develop naturally. Yet, when it comes to excusing the schools' dismal results for disadvantaged children, the adherents of developmentalism concede that those children were prevented from unfolding naturally, because they lacked the rich surroundings of the advantaged home.

Those are *indeed* hugely serious handicaps! Home disadvantage in language and nutrition, and in poor adult modeling and poor opportunity

to gain key knowledge are grave disadvantages. Of course, they are! Nonetheless, good, *non*-developmental, *non*-project-based schooling, starting in kindergarten, does gradually overcome home disadvantage in effective schools in the early grades. In fact, by grade six, disadvantaged children are ahead of their advantaged age group who have undergone a child-centered developmental education down the street.[52]

Developmentalism a Chief Cause of the Persistence of the Black/White Gap

The first step in inoculating our teachers against its false theology will be to show the incorrectness of developmental-stage theory and age-based "developmental readiness." For, it is demonstrable that early human education does not consist of an unfolding in stages, and that children's progress in the school is less dependent on the child's age than on what the child has already learned.

The best researchers in our education schools, (like Professor Susan Neuman) are by no means fully trapped inside the natural-development point of view. Her book, *All About Words,* advocates quite explicit vocabulary instruction, with advice about effective vocabulary building that is demonstrably sound and valuable. Yet even Professor Neuman advocates some of the developmental, indirect, naturalistic pedagogy for young children, characteristic of the developmentalist faith, namely that *self*-constructed learning is effective, and desirable. For, along with her advocacy of *explicit* contextualizing of word meanings, she also advocates implicit modes of developmental pedagogy like discovery learning: For instance, in *All About Words,* she says: "We created a 'Discovery Center' for exploring interesting new discoveries about plants." Discovery centers are a hallmark of constructivist developmentalism. Discovery centers are suboptimal compared to whole-class learning.[53] Still, all honor to Professor Neuman for her strong support of explicit and systematic literacy instruction.

And all honor to Professor Susan Carey, whose brilliant research has established that language proficiency, not age, determines educational attainment.[54] Language is the lifeblood of human society *and* of human learning, which in humans is *not* a natural unfolding. To focus early education on "the *construction* of knowledge" by the child's own efforts is a profligate waste of time that penalizes any child, rich or poor. But it punishes the poor much more than the rich because poor children are getting

ineffective instruction in both the home and the school, while rich children are gaining lots of knowledge at home. The slowness and inefficiency of developmentalism penalizes any nation that adopts it. It's the chief case of our poor showing (twenty-fifth among the nations on the international PISA rankings). It's the chief cause of the black/white language gap. It is a gap we shall overcome.

Chapter 3

Developmentalism's Successful Attack On "Rote Learning"

One reason our eighth graders don't read very well is that they don't know very much about the subjects they find in books and on their reading tests. As Professor Susan Neuman has pointed out, that's because our teachers have been taught to disparage "mere facts" and "rote learning of mere facts," in favor of developing the general skill of reading comprehension and of critical thinking.[55] Since there is no general skill of reading comprehension or of critical thinking, the net result is that our students learn fewer facts than they should (upon which actual critical thinking is founded) and they gain neither high reading scores nor high ability to think critically. Overall, on the PISA tests, we score at position number 25 among the nations.[56]

American teachers in their training hear a lot of disparagement of "rote learning" and "rote memorization." Rote memorization is *not*, of course, something that should be encouraged – if what is meant is spouting a lot of words that one doesn't understand. But for both reading and critical thinking, relevant remembered knowledge is the key, no matter the subject. If our schools don't convey very much knowledge compared to schools elsewhere in the world, then it's inevitable that neither our reading, nor our learning, nor our critical thinking will be very high in comparison with those nations on the PISA international assessments.

The Willingham motto about reading comprehension being grounded in domain knowledge is invaluable and might well be posted in teachers'

lounges over the nation. "A reading test is a knowledge test in disguise." You can't say it too often! And since critical thinking is knowledge dependent, too, along with that message, one might add that "a critical thinking test is a knowledge test in disguise."

Nonetheless, despite the key importance of relevant knowledge in any human activity or skill, "rote learning" and "mere facts" have been disparaged in the United States since the 19th century. The *anti-traditional-knowledge* idea started early and admirably. The first American attack against rote learning occurred in 1776. The committee that was drafting the Declaration of Independence was working on Thomas Jefferson's initial draft. Jefferson had written "We hold these truths to be sacred and undeniable." Everybody on the small committee knew that it wasn't *really* a claim of a direct line to God. After all, Jefferson said it was something that "we hold," not something handed down by priests who claimed to have a direct line to God. That idea had been mortally wounded by Locke and Hume and even more decisively in our framers' minds by the bloody wars of religion in Europe which fruitlessly cost so many lives – just because some people claimed access to "sacred and undeniable" truths which conflicted with the "sacred and undeniable" truths of another set of people. Hume had written the following, and our founders knew it:

> If we take in our hand any volume of divinity or school metaphysics, for instance; let us ask, "Does it contain any abstract reasoning concerning quantity or number?" No. "Does it contain any experimental reasoning concerning matter of fact and existence?" No. Commit it then to the flames: for it can contain nothing but sophistry and illusion. (*An Enquiry Concerning Human Understanding* (1748), sect. 12, pt. 3)

The stupid, murderous waste of the wars of religion, and the wasteful futility of claims about sacred and undeniable truths caused the framers to decide that there shall be in the United States no establishment of religion. In writing the Declaration, everybody, including Jefferson, agreed with Benjamin Franklin's emendation of Jefferson's original: Franklin (so the story goes) had recommended the finally accepted language, "We hold these truths to be self-evident." "Sacred and undeniable," no matter how metaphoric it was, still smacked of "priesthood" and therefore sophistry

and illusion.[57] Franklin's wording put the American principles on the level of Euclid and sound reason, not upon the level of the far from self-evident Tables of the Law handed down by priests as dogma.

Dogma was out for our founders. Logic and reason were in. And that lending of ultimate authority to logic and evidence and practicality and to thinking for oneself, and to rejecting the taking of orders from a king or a priest, was how our nation began. And gradually in the United States, and in other places during the nineteenth century, that anti-dogma, pro-empirical point of view also began to be applied to schooling. By 1879, when the Gilbert and Sullivan operetta *Pirates of Penzance* had its debut in New York City, the hit of the show was the pre-Sondheim song of Major General Stanley.

I am the very model of a modern Major-General
I know the kings of England, and I quote the fights historical
From Marathon to Waterloo, in order categorical.
I'm very well acquainted, too, with matters mathematical.
I understand equations, both the simple and quadratical.
About binomial theorem I am teeming with a lot o' news,
With many cheerful facts about the square of the hypotenuse.

And the song goes on through integral and differential calculus, and Aristophanes, and cuneiform.

But then the song slows down, and the major general concedes tunelessly that he knows nothing about modern warfare; that he can't tell a rifle from a javelin; that his military knowledge only goes up to 1800; that he knows nothing of modern gunnery; and no more of tactics than a novice in a nunnery. So maybe, he says, when he does learn some of *those* things, he'll become a good general after all. The General concedes the principle of the domain-specificity of skills!

But note also - some of the things being scoffed at in Gilbert's words are in fact both true and enormously useful – even to a general performing his duties. Integral and differential calculus especially are nothing to be scoffed at, even by a general in conducting military operations. Nonetheless, Gilbert could confidently depend on his audience going along with the song's attack on mere "rote" book learning. For by 1879, the importance of mere facts and of the memorization of those facts had taken a

double whammy in the USA, and Gilbert knew it.[58]

What had happened in the decades before 1879 was a double critique of memorization and mere facts. Towards the end of the 19th century, Gilbert wasn't simply disparaging Major General Stanley's lack of specific domain knowledge for his military craft. He was also exploiting America's celebration of "real-world" knowledge gained by one's own instincts and experience and efforts. As John Dewey had phrased it in the 1890s – the general was *not* being guided by his own "instincts and powers" – instead he only knew a lot of book learning.

That anti-mere-book-learning view was in strong contrast to the American schools of the earlier nineteenth century when America (under Horace Mann's leadership) had begun a highly functional system of common schools across the nation. In the latter nineteenth century, our schools had begun to be influenced by another kind of religion – the religion of natural development and the superiority of hands-on experience. On this doctrine, the major general could only be truly educated in his craft by direct personal experience, *not* by book-learning. *That* new developmental idea was taking America by storm. It formed the basis of the unstoppable, still flourishing "project method."

So, in General Stanley's description of *his* education, W. S. Gilbert, was exploiting two American critiques of bookish authority that were very different from one another. One was our 18th century attack on priestly dogma; the other was our attack on allowing bookishness to take the place of direct experience and natural instinct and independent insight. Behind the major general's conversion to real-world knowledge at the end of his song was the widespread conviction among Gilbert's American audience that their own experiences had greater weight than mere "book learning."

That conviction had been helped along in the 1840s by Ralph Waldo Emerson. In 1841, thirty-odd years before the debut of *The Pirates of Penzance*, he published a key essay that helped to form America's later 19th century pro Dewey thinking, in an essay entitled "Self-Reliance." Emerson's view was similar to that of the founders in that it rejected mere authority in bookish writings. But the founders had been lovers of learning and of books and they trusted rationality.

Their Enlightenment resistance was not to book learning, but to the *unearned*, empirically untested authority of priestly dogma. Emerson, by contrast, stated that we must rely chiefly on our *own* thoughts and our

authentic impulses and experiences, not on ancient books and traditions. We should place trust in our own souls, not in some external authority. Emerson preached self-reliance, in contrast to authority-reliance.

So, the debut of *The Pirates of Penzance*, at the end of 1879 arrived after two long-sustained American attacks against "mere" bookishness. First, our eighteenth-century attack on thick books of dogma in contrast to the self-evident truths of logic and empirical science. That confidence in clear thinking sustained our Declaration of Independence. It was followed by Emersonian-style nineteenth century declarations of independence against *any* bookish authority that claimed to replace one's own concrete experience, and instincts. Going beyond Martin Luther's radical notion of "Every man his own priest," we adopted "every man his own self-reliant guide"– so long as he authentically follows Nature.[59] "Nature" was the title of another key essay by Emerson. This American independent-minded, anti-bookish pride helped ensure that Major General Stanley's song, which had its live-audience debut in New York City, conducted by Sir Arthur Sullivan himself, would be a big success. The song was by all accounts the hit of the show.

But there's a powerful and important difference between the eighteenth-century attack on dogma, and the nineteenth-century attacks by Emerson and Elizabeth Peabody and John Dewey against mere-rote-learning. Jefferson and Franklin had been powerful advocates of science and schooling – as were all the intellectuals who started the USA. Schooling, they believed, would be the *key* to citizen making, and to uniting the colonies. The later, anti-intellectual individualism of Emerson and Elizabeth Peabody, and even in his bookish way, of John Dewey, were very, very different from the *pro*-book-learning insistence of the early founders.

The founders' critique of Jefferson's phrasing: "sacred and undeniable" was not against books. Far from it. It was against dogmas that claimed to have an unproved pipeline to God. Those dogmas disagreed with each other and caused useless, bloody wars to be fought. The Declaration's reference to "self-evident" truth was a reference to the kind of reasoning in Euclid's great axiom: "Things equal to the same thing are equal to each other." Our founders wanted to *obey*, not repudiate such rational, self-evident doctrines and implications. They did *not* wish to resist the results of empirical science and logic. They distrusted whim and dogma.

Romantics like Emerson worshipped whim as being a message from

God. Emerson said: "I would write on the lintels of the door-post, Whim." (*Self-Reliance*) We should obey the impulses of our God-given, true selves. The Godhood within us is in tune with divine nature outside us. This passage also comes from *Self-Reliance:*

> The highest merit we ascribe to Moses, Plato and Milton is that they set at naught books and traditions, and spoke not what men, but what they thought. A man should learn to detect and watch that gleam of light which flashes across his mind from within, more than the luster of the firmament of bards and sages.

Bookishness leads to subservience not to self-esteem! The independent discovery method is best. Learn by doing. Learn for oneself, not by mere books. Engage in hands-on learning, not by rote-memorizing passages. Emerson goes on to say:

> If anybody will tell me whom the great man imitates in the original crisis when he performs a great act, I will tell him *who else than himself can teach him*. Shakespeare will never be made by the study of Shakespeare.

Emerson also revered Wordsworth who had written:

> One impulse from a vernal wood
> May teach you more of man,
> Of moral evil and of good,
> Than all the sages can.
>
> Sweet is the lore which Nature brings;
> Our meddling intellect
> Mis-shapes the beauteous forms of things:—
> We murder to dissect.
>
> Enough of Science and of Art;
> Close up those barren leaves;
> Come forth, and bring with you a heart
> That watches and receives.

The vernal impulse is from the person who is admiring the vernal wood. Those "barren leaves" that Wordsworth asks you to "close up" are the leaves of books, not of trees. (Emerson in the 1840s paid a visit to the elder Wordsworth in the English lake country and wrote a memorable account.)

So, we in America have inherited two kinds of suspicion towards rote learning and mere schooling. First, was the Enlightenment suspicion of our founders towards any tradition that might impose dogmas that are unwarranted by science or reason. And second, our later romantic decision to rate anything artificial like books below personal experience and hands-on experience, and below anything that might run counter to the natural "instincts and powers" of the individual student.

Such exaltation of following one's own hunches as something reliable and holy, has been mainly a delusion. Despite my love of Emerson and Wordsworth, I would caution that their objection to bookishness makes for good poetry, but for second-rate educational policy. Twenty-fifth in the world! It is misplaced theology. There is no God-within us, as Emerson insisted. A human may be his own *priest* as Martin Luther said, but not his own God. The human neocortex is mainly a blank slate, awaiting instruction from the older persons, some of whom have bequeathed us books – including books of science and history that allow knowledge and insight to accumulate beyond the possibility of a human lifespan.

In America, we very much need to reinstate the traditional aims of human schooling: the gaining of knowledge that makes for a capable happy person within one's society, and also making a loyal, contributing member of our society. In our time, that means high American literacy–which is not an abstract skill but chiefly a body of shared knowledge.

The idea that *nature* is in charge is a false myth. Nature decided through evolution to put ***us*** in charge with our big neo-cortices. We need to accept nature's imperative to transcend instinctual nature. As Horace Mann said, nature withheld instructional instincts from humans, so we can figure out the survival needs of the current context we find ourselves in.

The nineteenth-century, romantic version of predestination that we follow is a nation-weakening false myth. That idea has zero support in current science. It is basically a religious dogma comparable to those our founders repudiated – the false dogma of developmentalism and its demand that we follow her inherent curriculum. Making the teacher a "guide

on the side" is a commandment from developmentalism – the religion of nature. But it's a false tenet of a false religion. The founders were right; we need to keep religion out of the public schools – even the religion of nature.

Chapter 4

Two Experienced Educators Describe What Works and What Doesn't

Recently, I interviewed Cathy Kinter and Dr. Michele Hudak, two highly experienced teachers who have each spent half their careers in child-centered elementary classrooms, and more recently in Core Knowledge schools. Dr. Hudak worked in Ohio and in Arizona, and Ms. Kinter in Florida and North Carolina. They give a reliable firsthand account of our current American practices and what can happen if we improve those practices by offering our children coherent, sequential knowledge building in the early grades.

They describe both the way American classrooms are now normally conducted under child-centered education, and they also describe what happens when the novelty of coherent common content is introduced into that elementary classroom – even with its big tables with the children looking at each other instead of the teacher.

I have arranged our recorded discussion under a few basic themes. The first part, (on state standards) has less to do with the child-centered mode of teaching than with vagueness and the way child-centered ideas have currently influenced the state authorities who set standards for the elementary years. What children are supposed to learn in common now tend to be vague general acquisitions like "language proficiency" and "critical thinking" skills. This means that the determiners of the specifics of curriculum often must be the individual teachers themselves – even with state standards. That was a big surprise to me. It's often the disorganized situation in today's elementary classroom.

Standards That Aren't Standards

MICHELE: I think in science there was one directive that said I needed to teach the three states of matter—solids, liquids, and gasses—but that was it. No further instructions. Teach these three states of matter. So, I decided that I was going to teach a unit on bubbles. I'm not really sure why. Bubbles are gasses, I guess, but that's what my colleagues were doing, so I taught a unit on bubbles, and we blew bubbles, and we talked about a bubble of gas, and I grabbed a couple of solids.

So, it was very disjointed. I mean, I don't know how else to say it-it was very disjointed. And even apples. You know, I think we had to teach the four seasons. So, I thought, "Well, the best way to teach the four seasons is to teach a unit on apples, because I can just go through the seasonal cycles of an apple tree."

EDH: That raises another quick question, I don't want to interrupt too much, but would you say, that is typical of districts across the country, that you're given only this really very general guidance about content?

MICHELE: Yes, yes. I told my own children I was going to teach in a new [knowledge-centered school][60] where we knew in advance exactly the things the children had already learned, and we also knew what we needed to teach this year, so I said to my kids: "Listen, Mom's going to go to this knowledge-based school." And even my daughter said, "Well, that's a good thing, Mom." My daughter said, "Mom, I think I'm going to come to your school." And I said, "Why? You don't have to," and she said, "Mom, every year, in science, since I was in kindergarten, I learned about plants. I've had the same packets on plants since I was in first grade." And she said, "I'm just tired of plants. So, I think I want to go to your school to learn something else."

Cathy Kinter on the Same Subject:

The way that I met those standards was left up to me. I may have a particular textbook that I would begin and then go through the whole year, or I may not. So—

EDH: That raises another question.

CATHY: Yes.

EDH: Do you mean that normally in what you're calling the child-centered classrooms, that the teacher will choose his or her own materials and

textbooks to meet these very general standards?

CATHY: Yes. I think back to when I first went to North Carolina, and I taught science in fifth grade. I had a set of North Carolina "standards," but I did not have any kind of curriculum or anything. It had no content. Think like a scientist and so on. Here are your standards, how you meet them is completely and totally up to you.

EDH: So you're looking at that issue from both angles, as a teacher and a mother?

CATHY: Yes. But the way that I met those standards was left up to me. I rummaged around to select my own materials.

Not Content, but "Skills"

EDH: So the standards were never content standards?

CATHY: No.

EDH: They were what?

CATHY: Reading standards, math standards, writing standards.

EDH: They were skill standards, were they?

CATHY: Yes, yes. Very skills based.

EDH: I see, okay. Now I'm getting the picture.

Constructivism

Another principle of the child-centered classroom is that children learn best when they help construct their own knowledge. From the standpoint of pedagogy, this is probably the idea that most distinguishes child-centered education. It's what changed the configuration of the classroom from desks facing the teacher to large tables where the children face one another.

MICHELE: Another child-centered idea when I was teaching first grade was that idea of centers—work centers for students, right? You put these centers in place so that children could explore. There were literacy and math centers, so I had this 180-minute block. That's a lot of minutes for a young child to be exploring. I don't even think I wrote lesson plans the first three years that I was a child-centered teacher, because I spent all this time creating these independent work centers with the kids.

And so they moved from one center to another and I had a bell and after fifteen minutes I would ding it and they would move to the next one. After five minutes they were done, and there was usually mass chaos en-

suing, so then I would have to create more centers because I knew that the kids could maintain attention for only five to seven minutes. So, there I was on the weekends at school, creating twenty-five centers. I had this graph of a movement system to get the kids to move through, and then at the end of the day I would be exhausted.

And you know there was no depth to any of it. You know, we'd say, "Let's make words." Well, how does a child make words when a child doesn't know how to read? And I was saying to myself, "There just has to be an easier way," but I was too young in the profession. You know, we were coming through those days of "invented spelling" [in which] it doesn't matter how they spell, because someday they will get it.

I tried to teach my standards through their interests. So, my guided reading centers might be like this: In this center we were building words about spiders. In this center we were reading a reading passage and answering questions about butterflies. In this center we were watching a video. In this center, which was my guided reading center, I might have leveled texts [books at different levels of challenge] about spiders.

Cathy on Centers

EDH: Cathy, could you say a little bit about centers. What was the idea of these centers and how did they actually work?

CATHY: The idea behind the centers was that you were able to differentiate, to meet students where they were and to take them as far as they could.

EDH: What does a center actually look like?

CATHY: It could look different in different classrooms. A center, basically, is a small group of students working on an activity together. Oftentimes they were student generated, in that there would not be a teacher working with them. To meet the needs of students, you couldn't give them whole-group instruction. So, you broke it down into small, manageable groups, with hopefully pretty high-interest activities so students would maintain engagement throughout them, even though you were not right there watching them.

[Author's note: There could not be a whole-class discussion, because the background knowledge of each child was so unpredictably different, largely because their prior classes had been on different individualized topics. Hence, there was no possibility of a successful speech community

in the class. This point will prove to be enormously important from the standpoint of equality.]

EDH: In a way, they were teaching themselves at these centers.

CATHY: Correct, yes.

EDH: Because the teacher couldn't deal with the whole class, because there was such varied background among the students?

CATHY: Correct. The teacher was usually at the reading center, where students were reading leveled books. So, you were working on reading skills and comprehension while the other students were working on different tasks related to a standard, but again, hopefully, high-interest enough that it was engaging to them and it would maintain their attention for fifteen minutes. And then they would switch.

EDH: How did you prepare? You're preparing for the class to come in, and so how do you prepare who goes where and, physically, what do the centers look like?

CATHY: It took a lot of preparation time. I would make games or find videos. At one point in my classroom I was lucky that we had [a place] where kids could watch a video and then I could create questions right after the video and they could record their responses to the questions. There would be a file folder of games.

EDH: So how many centers would there typically be?

CATHY: Most of the time it would depend on how many students you had in your classroom, because I always wanted somebody to have a partner. The idea of the centers is to generate some student involvement with each other. So. if I was teaching twenty-five students, you really never wanted more than five. It could be anywhere, honestly, from four to six centers that I had going in my classroom at the same time.

EDH: So, a lot of this, the interaction between the students, would be students teaching themselves. Have I got the picture right? Since it's not teacher directed.

CATHY: No, it's not teacher directed. There are times I would have a listening station where they would put headphones on and follow along with a book. Or there would be books about [specific] topics. We just didn't know what kind of conversations were happening over there in the centers. I was hoping for the most part that they were talking about the text that they were supposed to be reading or they were pulling some meaning from it. As long as they did not attract undue attention by being complete-

ly off task, that allowed me to work with my students at my current small group.

EDH: I see.

CATHY: Kind of terrible, huh?

Incoherence and Unshared Knowledge

CATHY: There was a lot of variation among the classes. We had five third-grade classrooms. You're now looking at 125 kids coming from every classroom with hopefully the same "standards-based" education, but not any kind of specific content. I could have taught those standards through an exploration of astronomy, or the rain forest, and my fellow teacher might have taught the same standards through a completely different subject matter—a novel or an old textbook or something she found from a secondhand exchange.

EDH: So different classrooms at the same grade level in the same school are teaching different content?

CATHY: Correct. There was no shared content at all. The next day, maybe they were interested in Blackbeard. So we were studying Blackbeard. It was connected through the day but it wasn't connected day-to-day.

Critical Thinking About Nothing in Particular

EDH: You're a guide on the side.

MICHELE: Yes. You know, the idea was if you want kids to think critically you need to let them solve their own problems, and I guess my argument to that is, give kids rich curriculum and let them ask questions about it, and there's your so-called critical thinking.

EDH: On that point, did you actually spend time on critical thinking as a process?

MICHELE: Yes, I would have critical thinking packets that I gave my kids, but I didn't see that it made any difference.

EDH: Let us go into that just a little bit more, if you don't mind, because I'm interested in how much time was spent on your critical thinking packets, and what is a critical thinking packet.

MICHELE: Sometimes I had to make it up. A lot of times I would go to Barnes and Noble, which had a teacher's section, so this was before the internet was widely used. I would find a little reproducible book that would say

"Critical Thinking." There would be things like analogies and logic puzzles, not content but things of a puzzle-type nature. I would buy it, copy it, put it in a packet, and then I would say to the kids who were way beyond what I was teaching that day in say, mathematics, to use their stapled packets. They would engage in something completely different from the math I was teaching that day.

What I found later on is that in a knowledge-based school, children don't have a lot of extra time to waste on so-called critical-thinking tasks. Every instructional minute matters because we have so much content to deliver. In a typical child-centered school, teachers will put these critical-thinking packets together for kids because they have more time on their hands.

At my current knowledge-based school, we just don't have any time on our hands for critical-thinking packets, because every subject carries equal weight. In a knowledge-based school, you are reading, you are writing, you are talking, in every subject area.

Child-Centered Civics

EDH: But look, if you're studying expanding horizons, is everybody studying the same neighborhood and then the same town and the same state? I mean, is some of the content overlapping in the different classrooms?

CATHY: I would imagine some of it is, because when you're thinking about student-centered, you are hitting the students where they are. So, we would be studying the same town, the same state, that type of thing.

On the other hand, when you are also thinking about student-centered education, if you have students or a student who moved in new to the state or, oftentimes, moved in from Mexico, it could be expanded as well, because you're thinking about the interest of the student.

EDH: It was the expanding-horizons kind of idea?

CATHY: Yes.

EDH: So, from the small group to the neighborhood, then to the city and then to the country, that sort of thing?

CATHY: Yes, correct.

EDH: Expanding horizons didn't give them a lot of history, did it?

CATHY: No, no, not at all.

Michele on Expanding Horizons

MICHELE: The social studies standards are such that they learn only the same old stuff: about themselves, their home, and their community.

EDH: Oh, my goodness.

MICHELE: And literacy, you know, in my child-centered days I had the 180-minute uninterrupted literacy block. I had just a half hour a day to teach history, science, and geography. Mind you those so-called child-centered materials were in the form of worksheets or little projects. Let's make a teepee or a totem pole to study Native Americans, and they could take their little packets of papers home. There was little to no content. And I can tell you as an educator I didn't even know where to go to look for content. But really it didn't matter, because you teach the big three and that's really where you spend the bulk of your time.

EDH: By big three you mean reading, writing, and arithmetic?

MICHELE: Yes. Going back to my days in a child-centered school, we did something called project-based learning in my first years. We had to create an authentic problem for students to solve in their community. So, my colleagues and I in first grade got together and we came up with a problem. We pretended the local park was going to be closed, and we had to generate a letter-writing campaign to try to keep the park open and provide reasons why the park should remain open.

And so those poor children really believed that they were closing one of their local parks, because we had to make it authentic. And there had to have been some kind of ecology tied to it, I don't know—maybe people were littering or something. But what can first graders do? They're learning how to write, and we're going to have them write a letter. It was just so artificial. They could see through it. They might not know how to write, but they were smart.

And then my colleague in second grade, her project was about how to choose the best class pet. So again, there was very little content to tie it to, and really, as the kids were diving into it, we would get books on ecology and things for the children to explore, but they were really prompted to make their own meaning and solve the problem, so to speak, in the best way that they knew how. So we did that for maybe a year, without much forward progress, and that kind of went by the wayside as well, because again, I don't know that we were getting any bang for our buck.

Personalization and Differentiation

EDH: It seems that the so-called child-centered school ends up being a kind of routine affair. I don't quite get it, because the theory and rhetoric of the child-centered school is that learning has to be personalized.

MICHELE: In my early years at a knowledge-centered school, I tried to differentiate instruction for the students who were identified as gifted. For example, when we studied astronomy, I had a lot of gifted students who had a passion for astronomy, and so I would set up a web quest for them. They already knew the information that I had to share because they were pretty passionate about it, and so I set them up in the back to just continue to further their knowledge. Within two days, the kids came back to the larger group. They wanted to be a part of the great conversation. They wanted to share their knowledge with their fellow students. They didn't want to sit there and necessarily learn more about astronomy. They wanted to have a conversation about it.

EDH: What about the differentiation of abilities in the two kinds of schools? In the so-called child-centered school, was there more differentiation of instruction and topic?

MICHELE: Yes. I'm not opposed to the theory of differentiation, because there are children who need more assistance. But what I found is, we were told to differentiate for the sake of differentiating.

EDH: That boggles my mind. It was done apart from of the particular needs of the kids?

MICHELE: Yes, the idea was that if differentiation is a good thing, do it for all kids.

EDH: Wait a minute. I'm a little confused. I thought differentiation meant you differed the instruction when needed for different kids.

MICHELE: In my experience it was, "We're going to differentiate for kids because it's good for kids, so make sure in your lesson plans that you always have a plan for differentiation." When educational ideas come forth such as personalized learning or differentiation, I think what happens is that educators or school districts jump on the bandwagon. They give a little bit of training and then say, "Now do it." In the knowledge-based school, it's, "We will do it if there's a need." And what we've found is, when you have a strong knowledge-based curriculum, the need for special help is no longer as great.

Michele on the Contrast between Child-Centered and Knowledge-Centered Schools

MICHELE: My son Ethan attended a knowledge-centered school, and it was the end of third grade. My husband and I were out to dinner with him one night and my husband said, "So Ethan. What was your favorite subject in school this year?" And he said "Rome." And he began with the story of Romulus and Remus, and I'm not exaggerating when I tell you that for one hour we sat and listened to him recite the rise and fall of the Roman Empire in detail. Ethan was in the first class of eighth graders that experienced a knowledge-based school all the way through elementary school. They were our test group. They are all freshman in college now, and their awards and scholarships and accolades and university choices are just unbelievable.

EDH: We know what the end-product is. You've just described it—college for all. But how would you describe the difference in what is actually going on in child-centered and knowledge-centered classrooms?

MICHELE: Okay. I'll give you a good example. In my daughter's third-grade child-centered classroom, they were given a basic reader. Some of the stories are excerpts of classic literature and other stories are just stories that a publisher makes up and puts in an anthology.

You come to a knowledge-based classroom, and the students begin their day with the Vikings. During reading we are exploring the Viking myths and having a rich discussion about that. We go to the domain-based read-alouds and we're now reading aloud about the Vikings.

Everybody feels they're getting somewhere from one day to the next. And they are using sophisticated tier-three words in conversation!

EDH: Would you say the kids are more engaged?

MICHELE: Oh my gosh, they love it. My husband and I used to joke with our own kids. They'd come home from school, and we would say at the dinner table, "What did you learn today?" And they would say, "Nothing." And my husband would then say to them, "Well, then don't go back."

And then once they got to a knowledge-centered school we'd say, "What did you learn in science today," or "What did you learn in history and geography?" And they talked and talked about it. Those are the conversations that the kids themselves are having. And I will tell you, the parents of our knowledge-centered school will say to me, "You know, Dr. Hudak, I cannot get over, my son and my daughter come home and they

are excited about school." When kids come back after the summer, they can't wait to come back to school. There's not this dull "Oh gosh we're here again and we're filling out packets of worksheets again."

Another huge contrast is that in a knowledge-based school, when you have children engaged in content, you need time. We don't have enough time to get all the information to the kids. So to get through it you're moving pretty quickly. But the benefit of moving pretty quickly is that you have less difficulty with behavior because the kids are so engaged in what they are learning. Kids who are supposed to be naughty coming to me are absolutely fine. Why? Because they are engaged.

These school districts are looking for silver bullets to end the achievement gap, but really, it's not that hard. Even our neediest kids are now freshmen in college. These were kids that came through my third-grade classroom – struggling students. But by the time they got to eighth grade they weren't struggling anymore. They were products of a great curriculum. They were hard workers. Their parents supported the movement. They struggled. And they're walking out successful.

When you have something that is coherent, cumulative, sequenced, something that kids could tie knowledge onto, it makes for a much more successful experience for struggling kids. When you look at the vocabulary that these kids are getting, tier one, tier two, and tier three, especially our tier-two vocabulary, these are rich, rich classrooms.

Cathy on the Contrast between Child-Centered and Knowledge-Centered Schools

CATHY: I spent fourteen years in what I would consider to be a more child-centered classroom, in which I was a primary teacher from preschool to sixth grade. I like to refer to the child-centered classroom as pocketed, isolated learning. We'd do one thing, then we would go to a different thing. The subjects weren't connected. So, we did our best. We'd have our standards, and we'd follow guidelines set by the school district.

EDH: Tell me something about the difference between the two kinds of schools.

CATHY: I wouldn't even know where to start. I will tell you my first memory of being a parent and completely being overwhelmed with emotion by what my child was getting at the knowledge-based school. I had a sixth-grade student who was in a child-centered school, and I had a first

grader who was at a knowledge-based school. We were having dinner at the dinner table, and I remember this like it was yesterday.

As most parents do, we said to the first grader, "So what'd you learn in school today?" And she said, "Mama, we're talking about Mesopotamia." Out of my peripheral vision I could see my sixth grader at the end of the table with her eyes wide open. My first grader continues to go on about how they're learning about cuneiform and how Mesopotamia's considered the cradle of civilization because every civilization since then etc., etc. She's going on and on. And I remember Taylor, my sixth grader, putting her hands down on the table, and saying, "Mesapawhat? Mama, I'm in sixth grade and I've never heard of Mesopotamia." My husband and I made eye contact, and I just said, "See? See? This is why we made the change we made."

This epitomizes the difference in the education they had. Taylor was the proverbial oldest child. We read to her every night. She had all the advantages. The other four came boom, boom, boom. I was in grad school, so we were busy. We didn't read every night. We didn't do everything we were supposed to do. But despite that, those later kids flourished in their knowledge-based primary and middle schools in a way that absolutely changed our family dynamics. Instead of going to the beach every summer, we would go places like Ellis Island or Washington, DC.

Yes. I know that might sound goody-goody, but they wanted to do it.

From a parental perspective, you couldn't give me enough time to speak about the difference in education it makes having a shared body of knowledge that builds up over time. When they're in the younger grades, they grow this small seed of knowledge, and then as it's continued, it cycles up and you're adding to it. It becomes that whole association and assimilation idea that I learned about in undergrad but was never truly able to help my students gain access to. I knew they had it in their minds somewhere, but they were never able to find it, because they had lots of little seeds, but nothing built up to a wider scheme of knowledge they could access and add to.

I see that that's what a coherent knowledge-based school does. Students can retrieve and connect things. As teachers, we're not having to guess about their prior experiences. We can absolutely tap into those prior experiences, and we can help them access them.

In the past, at a child-centered school, it was like, "Do you remember that?" "No." But now we can specifically say to a fifth-grade student,

"All right, so do you remember when you were in second grade, and you learned about President Lincoln's desire to keep the Union together?" And they all say, "Yes!" So, we as teachers, are empowered to be able to specifically tap into that important resource that helps students build their knowledge forward.

EDH: It seems to me that if I can interpret what you are saying, our memories are connected to specific knowledge. To build on past learnings, and even to communicate with the class, you need common reference points. If you can depend on the class having some common background knowledge, then your communications with all the students are better understood.

CATHY: Absolutely. The way that I would compare the two is this: child-centered schools tend to be more compartmentalized. We take our students on day one and we go as far as we can with them until day 180. But everything is kind of disconnected and self-contained, and it's different from student to student. Math did not connect to science, which did not connect to history or to language arts.

EDH: I take it in your child-centered days, when you received students from somebody else's class, you couldn't depend on all the students knowing the same things, could you?

CATHY: No. I couldn't depend on students knowing anything. Here in Charlotte in the child-centered county school, we had five second-grade classrooms, and I was teaching third and fourth grade.

On day one of third grade, my second graders would come in with all different kinds of content knowledge. It was standards based, so theoretically they should be coming in with the same standards. But the way that they got to those standards could have been any subject matter whatsoever. It's much harder to make significant progress with those students.

EDH: What's going on now that you're teaching in a knowledge-based school?

CATHY: I'm now an instructional coach for a beginning knowledge-based school in a very high poverty situation. Some of our kids are homeless, some of them live in a hotel. It's a very sad situation. This school is now currently in its fifth year, and we are starting to see remarkable progress.

It has been hard, because the teachers have to go through a lot of change in mind-set to move from a child-centered curriculum to a knowl-

edge-centered one. But now, for the first time in its history, this high-poverty school has moved way up in the rankings. And that's great, but that's not what it's all about.

What it's all about is being in those hallways and hearing the kids saying, "Oh, I remember learning that in first grade," and their being able to build from there. And watching them in sixth grade talking about the Mayans that they learned about in fifth grade. So, you're seeing a change in school culture. The children are so excited!

EDH: It seems to me that at the same time that a teacher can depend on certain background knowledge, the students are themselves making more of a community among themselves because they share some of the same background knowledge from the previous grade levels. So, it would stand to reason that a kind of culture and unity would develop in the student body itself. Is that what you're telling me?

CATHY: Absolutely, and it extends outside the student body, too, because that culture starts to develop in the families of those students as well. Just as our own family vacations changed, I watched that happen with the families in our own schools. We're very close to Myrtle Beach, so everybody always goes to the beach over the summer. But as our schools started becoming knowledge based, the vacation pattern changed. Students are starting to come in with pictures from their tour out west, because they wanted to go see the Oregon Trail, or going to Ellis Island and other places they've learned about. And mind you, these are regular public-school kids.

A third-grade class at one of the knowledge-centered schools I oversee here in North Carolina is in the middle of studying animal classification. On a recent visit I stepped back and took myself out of the conversation. The teachers had been teaching a long time in child-centered schools, one for fourteen years, the other for twenty plus. They were both talking about how this is the first time in their teaching career that students are so excited about what they're learning that they're checking books out of the public library. One student brought a snakeskin in, another an alligator necklace that someone gave him.

The school itself is becoming a community. They all have a lot they can share. They have all this knowledge now, and these kids are learning how to access it outside of school. That's so exciting.

EDH: Any final thoughts?

CATHY: I always try to tell skeptical parents and teachers this: "Think

about the ranges of students that you have in your classroom who all are being excited by this content. And because that content is so engaging, think how much easier it is to use this content to narrow those gaps and extend students even further. You can do so much more in terms of writing when you put second graders in an authentic situation where they're writing a persuasive letter to President Lincoln from the perspective of an abolitionist.

"Think of how you can get your students to understand and be more empathetic about our immigration situation today when they have gained knowledge from the immigration history that they learned in second grade."

For me, I don't know that I would still be doing this if I did not move to a knowledge-based classroom because I was so frustrated. In 2007, when I was able to move and could teach something besides reading skills and math skills, I said to myself, "Oh my gosh, this is why I came into teaching."

EDH: I wanted to ask you one other thing. There's a subtle decline of patriotism in the country that Gallup poll keeps recognizing every year, and I'm wondering whether this sort of communitarian approach encourages allegiance, the idea that we're all in this together and need to make our country better.

CATHY: From my perspective, the two things are connected. In a knowledge-based school, the students in the music room are practicing the "Star-Spangled Banner"; in another classroom they are studying the American Revolution—so many opportunities to develop citizenship thinking beyond the school community. Again, you've got that shared body of knowledge. I see more singing in the knowledge-based school. I see more general school-wide assemblies where students are talking about current events or talking about our national heroes of all races and backgrounds.

EDH: Absolutely. The original common school idea that "you kids are the upcoming citizens, and you will define the country" was paramount in those early days. Also, the idea that the more unified we get, the more competent we get, because the more you can communicate with one another, the more competent the country gets.

CATHY: Absolutely. In the child-centered school, everything is so isolated and compartmentalized. I recognize for the most part there are really good teachers out there and they're working really, really, really hard.

But when you are so focused on what I have to teach my fourth graders, for them to show proficiency on the end-of-grade test, skills become your focus.

But when you are focused on the shared curriculum, your perspective really opens up. As a teacher, it puts us back where many teachers were when education was more successful, and we looked at the student in a much broader sense as a future citizen, and not just, "I've got to get this kid to pass a test at the end of the year."

EDH: It makes sense to me. Absolutely.

Months Later:

A final comment from EDH. I'm enormously grateful for these inside glimpses of our current elementary education, which does a disservice to our children and nation. To my mind, in retrospect, the most telling exchange was this one:

CATHY*: There was a lot of variation among the classes. We had five third-grade classrooms. You're now looking at 125 kids coming from every classroom with hopefully the same "standards-based" education, but not any kind of specific content. I could have taught those standards through an exploration of astronomy, or the rain forest, and my fellow teacher might have taught the same standards through a completely different subject matter—a novel or an old textbook or something she found from a secondhand exchange.*

EDH*: So different classrooms at the same grade level in the same school are teaching different content?*

CATHY: *Correct. There was no shared content at all.*

"There was no shared content at all." Consider the hardship this works upon the teachers and students – and most of all upon disadvantaged students. The *only* way disadvantaged students can overcome disadvantage is when the lessons are based upon knowledge and concepts and vocabulary that have been developed within the school in prior classes. But in our public schools those students do NOT overcome home disadvantage.

All this unfairness and second-rate performance is excused by the incorrect claim that the schools are teaching general skills of reading comprehension and general skills of critical thinking. But the fact that these do not exist has now been known for a long time.

One could not invent a more unfair and incoherent system than one

in which there is zero opportunity for the concepts and language of later classes to build upon earlier classes. It is a system in which content decisions are left up to individual teachers.

The general public should be aware that this enforced second-rate arrangement and this unfairness in our schools are not the fault of our teachers. They are the fault of wrong theories in our education schools, yes, but most emphatically it is the fault of the irresponsibility and lack of courage of our state legislatures. I'll quote Shanker again in that regard.

> What we really need—at the very least—are statewide curriculum frameworks and statewide assessment systems. Then, students and teachers in every school will know what kids are responsible for learning and whether or not they have learned it.
>
> Albert Shanker, *NY Times* Dec 11, 1994

To that must be added that the kids who are disadvantaged will by these means alone be able to make reliable progress by fully understanding the language of the classroom.

State legislatures have fewer greater obligations and responsibilities. They must cease hiding behind slogans about skills and set *specific* grade-by-grade topics. It's up to us, the public, to make legislators feel more endangered by not making such decisions than by making them. One way around the aversion of politicians to losing the next election is to appoint a brave and knowledgeable Secretary of Education and let her take the heat! Nothing is of greater long-range importance to our national competence and our social justice.

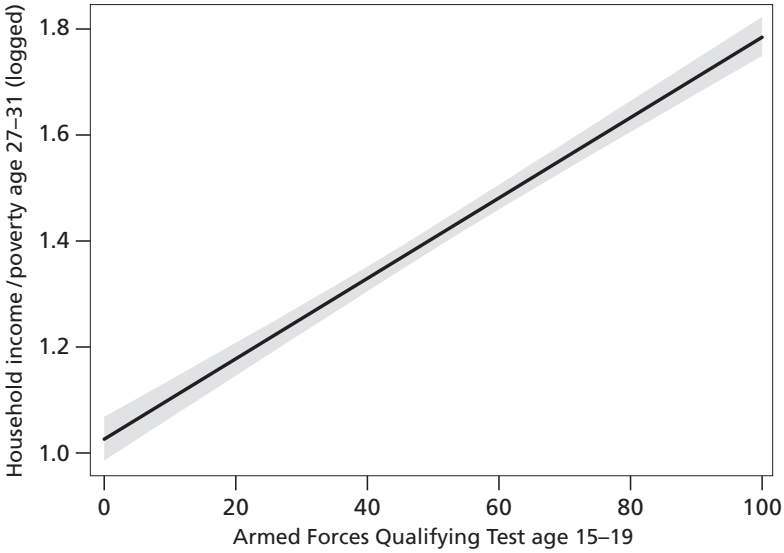
I will be devoting the second half of this book to the science and scholarship that offers concerned parents and other citizens the background knowledge *they* will need to bring active pressure upon our state legislatures to do their duty in this matter.

Chapter 5

Summary of Part I: The End of School-based Inequality

This chapter will serve as a summary of the foregoing pages, and as an introduction to Part II, which offers the specific scientific and historical background that counters the dogmas and pseudo-science behind many of our current school doctrines.

Thanks to the work of Philip Cohen, we know that grades K-8 are the years when a person's financial life chances are usually determined. Remember the Cohen curve that plots teen-age reading comprehension against adult income. Here it is again:



Those teen years are also the years when a future citizen adopts a nation's values and allegiances. Those years determine (statistically) how competent you will become *and* how altruistic and communal you will become.

The preponderance of the altruistic element or the selfish element in human nature is deeply influenced by the character of early schooling. Child-centered, developmental education can easily lead to self-centered adulthood, and according to sociological research has done so.[61] The movement in America between the WE sentiment and the I sentiment has been traced by Robert Putnam in a fine recent book entitled *Upswing*. The recent dominance of the "I" motif traced by Putnam has been aided and abetted by developmentalist, child-centered education. It's observable in whole segments of the American population who have taken an "I" approach to the wearing of masks during the COVID crisis. Masks discomfort the "I" but protect the "WE." The WE, patriotic, communal education accompanied the rise of the United States. Child-centered education has helped produce our academic and moral decline. If we renew coherence and whole-class instruction in early education America can regain her communal footing. But if we continue to miseducate and individualize and perpetuate incorrect developmental theories our educational, cultural, and political slide will continue.

There is no natural human mental development

We can now see from this distance in time why the report of 1983 entitled *A Nation at Risk* failed to grasp a key point about the critical early grades. It mainly ignored them. It assumed that if we improve our high schools, and improved the general education of our elementary teachers, all would be well. It said little about the elementary curriculum, which is the heart of the matter. So, despite the improvement of our high schools after *A Nation at Risk*, our pre-college-level language scores continued to decline. That's because we did not improve our grade schools.

Was there a causal connection between the fall in test scores and the removal of the desks facing the front of the room in elementary school? The removal of the desks was meant to encourage a natural unfolding. But the metaphor of the children-garden, (the *kinder-garten*) must confront the scientific finding that there is little inherently there to spade and weed. The relevant area of the kindergartner's neocortex is a blank slate.

The romantic myth of natural mental development has been exposed

as a sentimental fiction. John Locke's principle of the "blank slate" has been proved correct – at least for the neocortex. The child's mind does not unfold like the child's body. Education languishes when there is little being offered coherently from the outside. The term "kindergarten" implied that the child is like a plant that will grow in a healthy way if only it is gardened properly. But the laissez faire approach is a jungle – a tangle of unguided inputs. That's not a place where learning can progress effectively on its own.

Nor is it a place where language inputs can optimally arrange themselves on their own. Human language is inherently inexplicit and ambiguous. Since shared background knowledge is essential to accurate social communication at every age, conveying it to the children of the tribe is the central and chief duty of human education.

Unequal possession of relevant background knowledge explains a lot of the inequality in the United States, and even a lot of the us-versus-them polarization. It explains the large black/white reading gap. Shared topic sequencing in K-8 can entirely overcome the large black/white reading gap, and it has demonstrably done so in exemplary cases described in this book.

Why did we change the classroom furniture?

This book has also explained how a widespread mind-change about natural child development shifted classroom furniture from front-facing desks to tables where children faced each other. Historical dates that the book has highlighted in that transformation were 1890, 1897, and 1915. These were respectively the years when Elizabeth Peabody issued Froebel's *Education of Man*; when John Dewey's issued *My Pedagogic Creed*; and when W. H. Kilpatrick's issued *The Project Method* – all near the start of the 20th century.

Those personalities were adherents of a viewpoint that intellectual historians name "romanticism."[62] That word came to mean faith in nature to reliably take care of human life so long as we "let nature take her course" and so long as we don't impose artificialities. This nineteenth century romanticism powerfully influenced the founders of our current grade schools – Froebel, Peabody, Dewey, and Kilpatrick, and they influenced a whole generation of Americans in the 20th century.

Romanticism was a church-free religion that overtook Europe and then America, after eighteenth-century rationality had brought organized religion into disfavor among scientists and intellectuals. Nature, if you

followed her, it held, would guarantee that you were following something from God, something beneficial and right. Following nature rather than artificial human interventions became a watchword of the early 20th century.

Why did black students cease making progress in literacy?

The subsequent decline which that change caused in schooling was slow, and we failed at first to detect the continued erosion of language abilities in K-8. We continued along our "developmental" path – making the teacher a guide on the side instead of a sage on the stage, changing the classroom furniture, and ignoring the descent of early reading scores, perhaps assuming it was a temporary consequence of desegregation.

That would be a libel. Black students did not lower our scores. The quality of white students' reading got worse as that of black students' reading got better. Then, when the general descent of our literacy collided with the progress of black students and halted it, the College Board issued a puzzled 2008 report noting that the progress of black students had stopped. This is from the abstract:

> In the decades of the 1970s and 1980s, NAEP (National Assessment of Educational Progress) reported large reductions in the [black-white] gaps in reading and mathematics scores. Second, the report focuses on the period from about 1990 until 2008, when **the gap wobbled around a generally straight trend line**. (My bolding.)

1990 to 2008 and now to 2022 – that's a long time for the progress of black students to have halted. And the halt has remained, and the reason for the halt has continued, as these chapters have shown.

When K-8 schooling became unfocused and "developmental" instead of instructional; when instead of imparting a definite curriculum with grade-specific knowledge goals, this helter-skelter policy became ineffective in building the shared background knowledge necessary to group literacy.

Schooling needs to provide grade-targeted knowledge that arms all children, rich and poor with the information and the vocabulary that will make next-year's lessons easy and exciting, and ultimately erases the black/white gap, and enables our future citizens to gain the shared knowledge that constitutes current American ethnicity and literacy – the shared

knowledge essential to comprehension of speech and writing in our society. That content is up for compromise and negotiation as the multiculturalists rightly assert, but only slowly, not leaving out mother and dad, and the books in the library. Determining what that productive negotiation shall consist of is what, in a democracy, state legislatures are supposed to do – exactly as Al Shanker stated.

But instead of adopting that shared-knowledge principle, our schools have tragically adopted the scientifically ill-based aim of following the child's unique inherent, individual, (non-existent) differentiated mental development, along with all-purpose (non-existent) general comprehension skills. So, the solution to the puzzle as to why progress for black students stopped around 1990 is the general mediocrity that was lowering the reading scores of white students. *This increase in white mediocrity and the decline of white verbal scores were caused by the topic-incoherence of developmentalist education*. The decline did not descend from the clear blue sky because of immigration or integration or the hippy culture. It happened because our elementary education adopted developmental child-centered theories that are incorrect.

Two false premises

To recapitulate: Developmental theory assumes two principles that are incorrect: (1) the notion that a child has an inborn individual developmental potential that is meant to unfold according to the child's "instincts and powers," to use Dewey's phrase; and (2), that there exist general skills, such as the general skill of reading comprehension, and the general skill of finding the main idea. That has been the dominant approach, as Cathy and Michele informed us in the fourth chapter. The basic idea of our current early schooling is that we should allow the child to unfold with individualized "differentiated" material, that will be supplemented with work on non-existent general skills like "finding the main idea."

You can't find the main idea if you don't accurately understand the various contenders for the main idea. We adopted the myth of a general reading-comprehension skill to make an incorrect and impractical theory seem practical and effective. But the individualistic developmental doctrine *cannot* be made practical and effective. There is no *general* speech comprehension skill. Hence, there is no general *reading*-comprehension skill. Speech comprehension is a knowledge-dependent, topic-dependent

skill. It is a speech-community-dependent skill; it is an ethnicity-dependent skill.[63]

That's because speech comprehension is a specific skill within a specific culture that depends in each case on understanding a lot of specific things that are not being explicitly stated. If you don't know those unspoken, implied things, you can't find the main idea. If you do know them, you usually have no need to go main-idea-hunting. It's noteworthy that main-idea-hunting and other promoted methods haven't succeeded in a practical way on reading tests where our scores keep declining.

Teachers should be made aware that the best way to prepare students for a reading test is to plug away at true progress in language and reading – which is to build each current lesson on knowledge and words that prior lessons have prepared for, so *all* the students understand the language of the classroom. In that way, they will all reliably gain new words from the language of their books *and* the language of their classroom. In that way, as this book has demonstrated, they will overcome home disadvantage.

School and Ethnicity

Education into a human society is an artificial, ethnicity-making formation by each different society. Ancestry plays no innate role in ethnicity.[64] That was an implicit principle of the American founding. Every normal human baby of any race can be taught any ethnicity – and more than one ethnicity. Human education is an acculturation into a tribal ethnicity – which is made up chiefly of a communicative store of shared knowledge and values and loyalties. That tribe can be made up of many different physical human types and ancestries and races who share the same ethnicity, with the same communicative store.

That communicative store must be taught to every young member of the tribe because effective use of the language requires commonality of associations and inferences, to make communications accurate, fast and efficient. We must not blame Dewey or Peabody or anybody else for not knowing that every child needs to learn a lot of the same things as every other child in the same tribe to enable all to become literate and to make communications fast and accurate, whether in speech or writing. We must not blame anyone for not knowing this. That fact about language was not *fully* understood until after around 1960.

Our education professors have not yet accepted that significant new

insight about the dependence of national language proficiency *upon a specific body of knowledge*. They have fought against the insight because it conflicts with developmentalism and other dysfunctional social ideas. It conflicts with being a guide on the side, with following child's unerring "instincts and powers." That essentially religious conviction does not correspond to reality. It does not correspond to the human neocortex which is a blank slate.

In short, we must abandon the long-lived deeply incorrect ideas of developmentalism that started with brilliant poets and philosophers as early as 1807 when Wordsworth wrote: "The soul that rises with us, our life's star has had elsewhere its setting and cometh from afar."[65] 1807 was also the publication year of Hegel's *Phenomenology of Spirit* which said a similar thing and left "a permanent deposit" in the mind of John Dewey. When developmentalism does go, that will invigorate and renew our embattled schools of education.

It is no disgrace to have held an incorrect theory. We humans *were* able to abandon the phlogiston theory of fire. Our education schools can abandon the developmental theology of human education. It is incorrect. It is a false theology. It has not worked. It has produced America's low reading scores and America's failure to narrow the black/white reading gap. That gap is currently almost a full standard deviation, an injustice that is the fruit of that incorrect theory, which is a false religion. We must give up the theory and adopt a better one. This is not a very complicated point, and I hope parents and politicians as well as teachers will begin to understand it.

The Way Forward

Because language is inherently inexplicit and ambiguous, shared background knowledge is essential to accurate social communication. Unequal possession of relevant background knowledge explains a lot of the inequality in the United States. It explains the large black/white reading gap. But shared topic sequencing in K-8 can *entirely* overcome the gap, and it has demonstrably done so.

That is because of a second technical fact about language and early schooling outlined in the book. The reader will pardon me if I stress the point yet again. Language comprehension, spoken or written is not a general skill. It depends in each case upon specific invisible, inaudible

background knowledge shared between reader and writer or speaker and listener. This shared background knowledge is what makes up an ethnicity.

The black-white reading gap is now almost a full standard deviation. No amount of cultural inclusion can mask this tragedy or compensate for it. Yet common topic sequencing in early grades wherever it has been applied in America has fully overcome the black-white reading gap.

In modern times the shared content of a nation is a print culture, even when it is manifested on radio, TV or over the internet. In modern times the print language and culture has had to be artificially invented just as the various modern oral national languages were invented. Artifice, not nature, is in charge of all human culture, as John Locke rightly argued. Considering the diversity of human languages and cultures, how could any of them be natural or innate?

That being so, it is up to our appointed leaders (our state legislators) to decide precisely what the shared knowledge shall be that enables us to unify, to communicate, to defend ourselves, and to promote the general welfare. And to arrange those determinations in grade-by-grade curriculum frameworks. It is NOT up to each locality. That is an impractical and sentimental myth – and a passing of the buck until it gets passed to brave, put-upon teachers like Cathy and Michele. Yes, the localities should be in control of the local water supply, but not of the shared national language, and of the shared knowledge that makes it work.

The states have the legal power and the duty to do so in cooperation with other states. They have the duty to enfranchise every American child. There is an intellectual enfranchisement that goes with democracy that is just as critical as the voting enfranchisement. And it happens also to be the case that intellectual enfranchisement leads also to financial enfranchisement. Nothing could be more important for a state legislature to do.

When such a change is put into effect in actual classrooms, the cumulative effect of that approach is next to miraculous. In disadvantaged students, the effect size is 1.43 (ca. 92%), well over a standard deviation – an enormous yet theoretically predictable effect. This policy not only completely erases the black/white reading gap it causes black students to make higher reading scores than the average white students who have not experienced such a common-topic-sequenced curriculum. No child is left behind, because every child has been enabled to understand the language

of subsequent classrooms in middle school, high school, and then college, and then in the workplace. At every later stage of life, content commonality in early schooling will have provided the needed foundational background knowledge for later language comprehension and ongoing language gain.

That is the structural reason why a shared sequence of grade-by-grade topics in elementary school is essential to classroom fairness and, ultimately, to greater social justice in the nation.

In short, this book calls for an educational revolution in the United States. A mandatory commonality in the sequence of school topics (though not in the interpretation of those topics).

If that breaks sharply with the child-centered "developmental" approach that our public schools have followed since the 1940s – so what? Change and improvement will be invigorating for everybody, including the staff of our teacher training schools. For young children who love mastering grown-up things, school will be more fun and more satisfying.[66] Just ask the children at shared-knowledge schools. The idea that commonality in schooling leads to robotic mind control is the opposite of the truth. It leads to empowerment and liberation, and equality, and pride. Look at those faces on page 26. Does that look like mind control?

Part II

Ammunition for Activists:

The Scientific Basis for the Reform of Early Schooling

Chapter 6

The Most Decisive Educational Experiment in History

This is a short chapter to introduce the scholarly and scientific background to the revolution in our schooling that this book advocates. There is a lot of variability in the quality and applicability of current educational research. Two big problems are sample sizes and accurate, complete record keeping. And sometimes, I regret to report, there is suppression of evidence which does not support the researcher's worldview. I ran into *that* troublesome characteristic in reviewing research on the efficacy of concept maps.[67] In reading educational research one has to be wary and careful. But there is one piece of research that is so massive and so reliable, so punctilious in accurate record keeping, that I'm inclined to name it the most decisive educational experiment in history.

But the research has a rhetorical (but not a scientific) drawback. The millions of children involved were French. That leaves open the question to a desperate developmentalist (whose premises are pulverized in the experiment) that French grade-school children are different from American grade-school children. But as Shakespeare's French version of Shylock states so truly

> I am a French child. Hath not a French child eyes?
> Hath not a French child hands, organs,
> Dimensions, senses, affections, passions? Fed with
> The same food, hurt with the same weapons, subject

To the same diseases, healed by the same means,
Warmed and cooled by the same winter and summer, as
An American child is? If you prick us, do we not bleed?
If you tickle us, do we not laugh? And if you teach us
do we not learn?

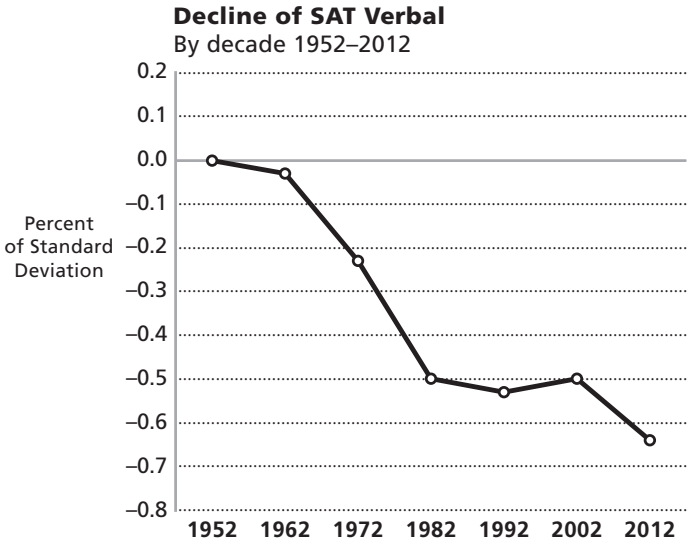
Recently, French President Macron stated that France would cease paying attention to the educational and social ideas emanating from American universities, because they were destroying France as well as America. This chapter will offer some of the backstory to his impatience with American academics.[68] Having already wrecked *American* schooling, developmental ideas came to wreck French schooling which had been highly effective and egalitarian. Earlier French education had encouraged plenty of diversity and disagreements and independence of thought, despite the fact that every French boy or girl studied exactly the same things in each early grade. (That's an important counter to the claim that common subject matter would make Americans think alike. The French are among the most highly disputatious people on earth.)

In the 1980s, the French unintentionally conducted a multi-billion-dollar experiment with child-centered developmental education that, coupled with our own multi-decade experiment with child-centered, developmental education, demolished the idea that subject-matter commonality leads to thought control. Our own current, content-lean schooling leads to ignorance that is far more likely to accomplish that! Witness the credulity of many of fellow citizens who believe that Bill Gates has conspired with the Russians to inject mind-control molecules into our arms with the Covid vaccines.

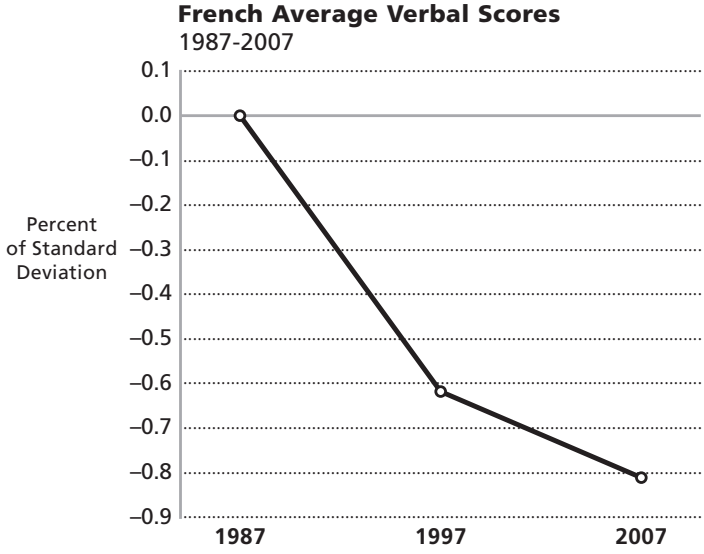
Here is how the unintended French experiment came about. After the second World War when American prestige was high, American ideas became fashionable in France. Top intellectuals like the famous sociologist Pierre Bourdieu began recommending that the schools cease teaching everybody the same thing and adopt American developmental, child-centered education. In the 1980's that is exactly what they proceeded to do. I needn't go into the details, which I have fully covered in another book.[69]

Here are the results of the experiment, stated in the decline of their average verbal scores, which I present here on the same statistical metric as our own 7-decade decline in scores.

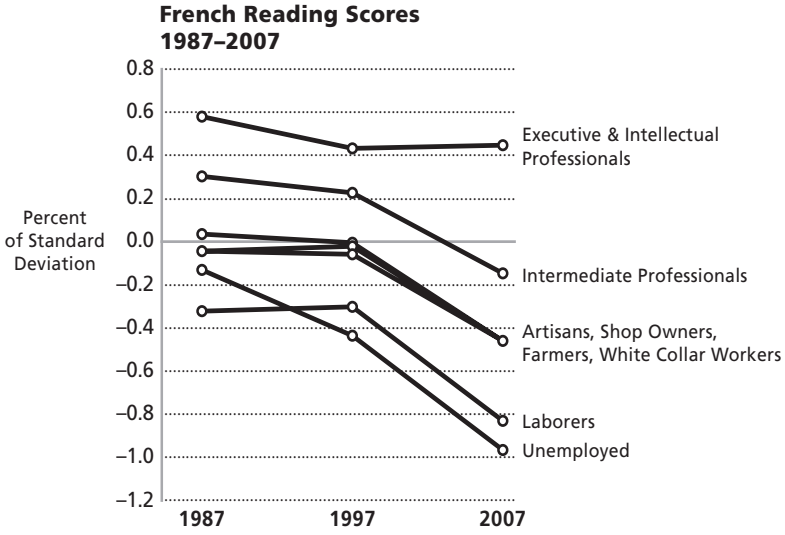
First, here is *our* multi-year record.



Using the very same metric (percent of a standard deviation), here is the two-decade decline in French verbal scores. Their decline was more rapid, because the transformation was introduced into all schools for all students all at once whereas our record includes only the top scorers who took the S.A.T. exam:



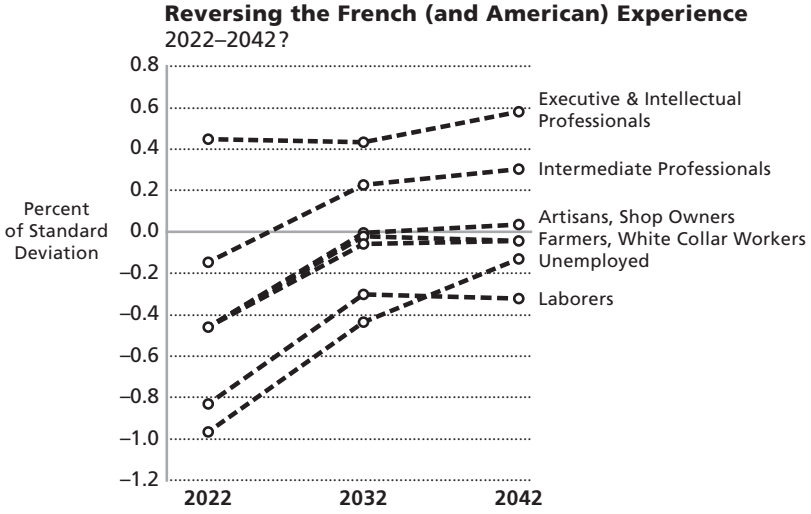
In twenty years they declined as far as we did in sixty years. However, our chart is of the top-scoring group, and as you will see, their high-scoring group also declined more slowly:



This chart, with a grain finer than anything we have, is a record of the effect on social justice in France. Their record keeping includes *all* the students in France, so the data points are far more numerous and precise than ours. For readers strongly concerned with social justice, this chart is significant. It is based on precise records and hundreds of thousands of data points.

It essentially ***proves*** *the inverse relation between child-centered education and social justice*. What it shows in essence is the difference that good schooling makes in overcoming accidents of birth. The home is also a school. Children of highly educated parents, those labelled "executives and intellectual professionals" tend to surround their children with wider vocabularies and more extensive experience and knowledge. Those are key advantages in what is labeled "an advantaged home." To overcome the disadvantage, it's essential to abandon the metaphor of natural development and impart to all children systematically the knowledge and vocabulary that enables *all* the children in the classroom equally to understand and participate. For this egalitarian aim to be accomplished, whole-class instruction (which is by far the most effective method of reaching all students) becomes both lively and egalitarian.

If we were to rationalize and universalize the topics of the early curriculum, as this book recommends, the French data suggests that this imagined chart is essentially what we would see – a rise of the whole group and dramatically increased equality of outcomes. To gauge what would probably happen, we can simply reverse the meticulously -documented outcomes of France.



For the most disadvantaged students that would mean a fast and steep rise in verbal scores in seven years, which is precisely what Professor Grissmer found in his Colorado study. For, with impeccable French record keeping, identical school buildings, identical schoolteachers, several millions of students, and huge magnitude of effects, it is unlikely that any educational experiment has ever been more decisive or could ever be more decisive than this French one – unless it be America's own national multi-decade experiment with child-centered education.

Ours has been less well documented, but equally decisive, judging by our decline in our reading scores. It's just that we don't have a centralized system that keeps such massive and precise records as France does. It defies rationality that the United States now persists in practices which constitute what *A Nation at Risk* correctly labeled an "act of war" against itself – and especially a war against disadvantaged children. Only a fervent commitment to the false religion of developmentalism can explain it.

Given the negative effect of developmentalism upon social justice, it defies rationality for minority groups in this country to support inconsistent and demonstrably ineffectual curricula in the decisive early grades. Yes, cultural groups should demand more diversity and inclusion, but they should also rise up and demand educational coherence – grade-by-grade content commonality at the state level. And so should every American who values social justice, and every altruist who values the unity, fairness, and basic effectiveness of this country.

Chapter 7

Ethnicity and Literacy: Six Decades of Research

Current science explains why the claim made by our schools that they are teaching general "reading-comprehension skills" is a delusion. It's a notion that was put in place to defend a helter-skelter curriculum that often had to be decided by the classroom teachers themselves. Since there *are* no general reading comprehension skills like "finding the main idea," once a person learns to sound out the words, the entire skill of reading depends on applying the right background knowledge. That alone enables a person to *disambiguate* and *amplify* the meanings of the written words. Hence the writer and the reader, speaker and listener, *must share the same relevant background knowledge* to infer (carry from) what had been implied in (folded into) the words.

One charming experiment that became widely known in the 1990s has persuaded a lot of teachers to accept this this insight about reading and shared background knowledge. The experiment concerned how much each student understood a written passage about a baseball game. The results were striking and persuasive. The children who knew a lot about baseball, but were technically poor readers, read the baseball passage a lot better than the good readers who happened not to know very much about baseball.

> Students with high reading ability *and* high knowledge did not recall better or summarize better than did students with low read-

> ing ability and high knowledge. It appeared to teachers therefore that knowledge of a content domain is a powerful determinant of the amount and quality of information recalled, *powerful enough for poor readers to compensate for their generally low reading ability*.[70] (My italics.)

But what is "generally low reading ability," given adequate decoding? It simply means low national-ethnic background knowledge shared by the good readers in a society. It just happened that those children with low ethnic knowledge did have high baseball knowledge, while the otherwise national-ethnically informed readers did not in this case.

General Research on Ethnic Background Knowledge in Reading

In 1985, Dr. Robert Glaser, president of the National Academy of Education, wrote in the foreword to a national report on reading that decades of scientific research "have produced an array of information which is unparalleled in its understanding of the underlying processes in the comprehension of language."[71]

What so impressed Glaser and his distinguished co-panelists on the National Commission on Reading? For one thing, new research refuted the old thinking that reading follows an orderly pattern. We don't first identify words, then word meanings, then combine word meanings to get the meanings of sentences, and finally combine sentence meanings to get the meaning of a whole text. This model isn't wrong in all respects, but we know that it is so oversimplified and incomplete that it presents a highly misleading picture of the way we understand texts.

The new picture that has emerged from language research is more complicated and more useful. It brings to the fore the highly active mind of the reader, who is now discovered to be not only a decoder of what is written down, but also a supplier of much essential cultural information that is not written down. The reader's mind is constantly inferring meanings that are not directly stated by the words of a text but are nonetheless part of its essential content.

The explicit meanings of a piece of writing are the tip of an iceberg of meaning; the larger part lies below the surface of the text and is composed of the reader's own relevant knowledge about the subject and about how others regard the subject.

The best introduction to the new research is a psychological insight that goes back some sixty-six years to George Miller's pathbreaking work on short term memory, which is a special function of our minds that lasts just a matter of milliseconds.[72] Short term memory is distinguished from long-term memory (what most of us think of as memory). Long term memory lasts from a few seconds to a lifetime. Miller noticed, though, that our capacity for remembering briefly presented and disconnected items is severely limited. The mind cannot reliably hold more than about four to seven separate items in short term memory, whether numbers, letters, points on the body, degrees of loudness, degrees of warmth, and so on.

Miller's observation holds true in every domain of experience, not just those presented in language. His discovery of this universal constraint has fostered further insights into the way we perceive the world and understand language.

If you want to test Miller's discovery about the limits of short term memory you can quickly do so with a series of numbers or letters, or indeed with any array of items. You will not reliably remember more than four to seven discrete items that have been presented once without rehearsal. That is a limit on memory experts, as well as on ordinary people. Memory experts have worked out indirect tricks to circumvent this universal limitation, but they can never directly overcome it, because the constraint is hardwired into our systems. Whenever we try to perform a task that consistently forces us to exceed the capacity of short-term memory, we fail to perform it reliably.

One device that memory experts have developed to resist this built-in limitation is "chunking." We can remember telephone numbers and other series of discrete items if we chunk the disparate items into a smaller number of groupings. The number 8032962632 is hard to memorize, but it becomes much easier when it is treated as 803-296-2632. What is true of numbers is also true of letters. After just one reading you can remember a short sentence like "The cat is on the mat," and later you can recall in correct order all sixteen individual letters that compose the sentence. But after just one brief presentation, without the chunking provided by the word groupings, you would not be able to remember sixteen separate letters.

These observations are connected with the new insights about language processing referred to by Dr. Glaser. Consider just one implication of the constraints of short-term memory. How did I remember "The cat is

on the mat?" I could manage it for subtler reasons than the length of the sentence fewer than seven words. I can also remember "The cat is on the road to Mandalay" and "The cat is on the verge of a severe nervous breakdown." None of this exceeds my memory capacity. Why? Because I can chunk words into phrasal units and apply my long-term memory capacities as well. How do I manage this?

Short-term memory is the mind's vestibule where incoming items enjoy a brief equality lasting just long enough for the mind to give them a structure. Short-term memory holds in momentary suspension items that have come in one after another, thus enabling us to convert them into a stable structure. Amidst the temporal flow of language, short-term memory allows us to form a few words into nontemporal structures. Then we transfer those structures to long term memory, leaving short-term memory free to deal again with the temporal flow of incoming words.

The limitation imposed by short-term memory accounts for the fact that all languages must form brief bursts of words into clauses. Every known language divides its sentences into semi-complete clausal units that are small enough to be structured within the limitations of short-term memory. As the psycholinguist T. G. Bever explains in three steps : "(1) The clause is the primary perceptual unit; (2) within each clause we assign semantic relations within major phrases; (3) after each clause is processed, it is recoded into relatively abstract form, thereby leaving short-term memory available for processing the next clause."[73]

This picture of the way we interpret language provides an answer to the question–*How do we remember the meanings of whole conversations and books if short-term memory is so fleeting?* Obviously, we manage to remember what we have heard or read and are able to connect past moments with what we are now hearing or reading. But if short-term memories are so limited, how do we manage to remember meaning? Bever's explanation is strongly supported by the current evidence. Bever says that language is transferred from short-term memory into long-term memory not as a literal recollection of words, but as a shorthand recoding of their gist, which normally erases from memory many of the individual words. On the basis of this account, we could predict that our memories for the literal words that make up sentences should be poor, whereas our long-term memories for their gist should be quite reliable. That is indeed the case, and this fact has fundamental implications for understanding the nature of reading.

From an evolutionary standpoint it is much more desirable that we forget the literal words we encounter and remember their meanings than that we have an absolute memory for both words and meanings. If we remembered all the surface details of our experiences, including all the words we ever heard or read, the hard disks in our minds would quickly fill to capacity, and we would have to erase them periodically. Instead, without cluttering our memories with detail, we are nonetheless able to recall and recognize meanings with quite remarkable subtlety and accuracy. Readers can probably recognize or recall the meaning of the previous two sentences of this paragraph, but not their precise form. Memory of surface form is lost very quickly.

In fact, experimenters have found that surface forms of sentences are lost to memory within a few seconds. In 1967 Jacqueline Sachs[74] reported a demonstration of this phenomenon. She read her subjects narratives that were one paragraph long. Each paragraph contained a target sentence. Shortly after hearing the target sentence, subjects were presented either of two incorrect test sentences, to discover if they had accurately remembered the precise words of the original. A typical original sentence was "He sent a letter about it to Galileo, the great Italian scientist." The two test sentences for this original were "A letter about it was sent to Galileo, the great Italian scientist" and "Galileo, the great Italian scientist, sent him a letter about it."

Half the subjects were given one incorrect recognition probe and half the other. Those who were given the first probe responded that it was the very sentence they had heard. Subjects given the second responded that it was not the sentence they had heard. Sachs inferred from these results, and later experimentation has amply confirmed her inference, that the original form of a sentence is rapidly lost to memory, whereas an accurate memory for its meaning is retained.

In 1966, S. Fillenbaum showed that subjects don't notice that a synonym has been substituted in a test sentence.[75] In one experiment, subjects were given a number of original sentences, including "The window is not closed," and were then given multiple-choice recognition tests, including this one:

a. The window is not closed. [correct]
b. The window is closed.
c. The window is not open.
d. The window is open. [preserves the gist]

Subjects selected (d) far more often than any other incorrect choice, showing that they had indeed preserved an accurate memory for meaning. But although they were fooled by a substitution like *open* for *not closed,* they were not fooled by a substitution like *cold* for *not hot*, presumably because *not hot* doesn't necessarily imply *cold*. Similarly, when the original sentence was "The man was not tall," subjects did not assume they had heard "The man was short," presumably because they realized that a man who is not tall isn't necessarily short. Most remarkable of all, it was discovered about a decade later that inferences regarding open versus not closed and short versus not tall are made at the time a sentence is understood, not later in recognition or recall.[76]

Other tests of synonym substitution were made in 1975, by W.F. Brewer[77], who found it to be a robust phenomenon. His subjects changed surface forms but preserved meaning in tests of both recognition and recall. And in 1974, Eric Wanner showed that listeners had already lost the exact wording of a sentence when only sixteen syllables intervened between the sentence and the test.[78] Other discussions and experiments regarding memory for meaning and loss of memory for surface forms of language abound in the experimental literature.[79] The two allied phenomena are now firmly established–it is known that accurate memory of surface form normally disappears in a few seconds, while accurate memory for gist is quite persistent.

The implications of such phenomena became a focus of psycholinguistic research within a few years after the Fillenbaum and Sachs papers. The next phase of work started in 1972 with an important paper by J. R. Barclay, J. D. Bransford, and J. J. Franks. In a series of experiments, they found that our initial understanding of a text depends on our applying relevant background knowledge that is not given in the text itself. Dividing their subjects into two paired groups, they conducted a series of recognition tests in which each group was given one of two slightly different sentences. One of these sentence pairs was as follows:

1. Three turtles rested beside a floating log, and a fish swam beneath them.
2. Three turtles rested on a floating log, and a fish swam beneath them.

Notice one difference in these sentences. In sentence 1, we do not necessarily infer that the fish swam under the log, and in fact it may not have done so. But in sentence 2, we can infer from our knowledge of logs, fish, and swimming that the fish did swim under the log. Subjects were later asked whether they recognized test sentences, of which this was one:

Three turtles rested (*beside/on*) a floating log, and a fish swam beneath it.

The (*beside/on*) notation means that if subjects had been given the sentence with *beside* as the original, they got the sentence with *beside* in the recognition test, and if they had been given the sentence with *on* in the original, they got the sentence with *on* in the recognition test.

At stake for the experimenters was a choice between two conflicting hypotheses about the way we understand language. According to one theory, we interpret the meanings of clauses and sentences and store them in long-term memory. But according to the other theory, we construct an elaborate model of what the words imply and store that. Under this second theory, we always go beyond a text's literal meanings to supply important implications that were not explicitly stated by the words of the text. We then store the fuller model of the text's meaning in long-term memory. This constructive hypothesis predicts that subjects who were read the sentence saying that turtles rested beside a log wouldn't mistakenly think the original had said that the fish swam under the log.

By contrast, subjects who originally heard the sentence that said the turtles rested on a log would think the original sentence explicitly said that a fish swam under the log, even though the sentence didn't mention how the fish and the log related to each other. Subjects consistently made this mistake about the explicit words of the sentence. The constructive hypothesis, in other words, proved to be correct.

The result was not altogether surprising in light of Sachs's demonstration that we have bad memory for words but good memory for meaning. In the *on-the-log* pair of sentences, the probe sentence that substitutes the word *it* for *them* has the same meaning as that of the original, if we assume that verbal meaning includes inferences based on our prior knowledge of turtles, water, fish, logs, and so on. If all these inferences belong to the basic meaning of the sentence, the meanings of the two different sentences, the original and the probe, would indeed be the same.

But this conception of meaning is exactly what is at issue. Is our background knowledge itself part of the meaning of a text? Are all these ex-

tralinguistic inferences part of the meaning we initially understand? The answer given by this, and other experiments is "Yes, that is the nature of verbal meaning-inferences based on prior knowledge are part of meaning from the very beginning." This constructive hypothesis of verbal meaning has been closely studied and reconfirmed many times in the past several years. According to R. J. Spiro, "The study by Bransford, Barclay and Franks served as a prototype for what was to become a near avalanche of demonstrations that inferential elaborations are a part of the process of understanding prose."[80]

From this finding we can predict that there will be mutual influences between the mental models we have in our minds on the basis of prior knowledge along with the words of the text as we read them. To make sense of what we read, we must use relevant prior knowledge to form a model of how sentence meanings hang together. The model constructed from our prior knowledge and the words of the text in turn helps us make sense of further words and sentences in the text. The idea was quickly tested by Bransford and his associates.[81] They used a passage written in language so general and vague that, in the absence of a context, it was difficult to construct a mental model from it. But if the passage was given a title that invoked relevant prior knowledge, subjects constructed a mental model that enabled them to understand and remember the sentences. The passage began:

> The procedure is actually quite simple. First you arrange the items in different groups. Of course, one pile may be sufficient depending on how much there is to do. If you have to go somewhere else due to lack of facilities that is the next step; otherwise you are pretty well set.

Some subjects were given the title "Washing Clothes" before they read the passage, some were given it after, and some were not given it at all. Only the group who had been given the title before they started to read could recognize sentences from the passage. The title enabled them to integrate the sentences into a mental model that they constructed from prior knowledge about washing clothes. This model gave the sentences meaning, and the sentences in turn adjusted the model of the passage that was finally stored in memory. Apparently, such an integrated model is essential to

understanding and remembering discourse. Bransford and his associates conducted further experiments, using pictures instead of titles to provide the appropriate model, and the effect on reading was the same.

It's easy to imagine variations on these Bransford experiments that would illustrate the connection between background knowledge and literacy. Persons who lack cultural knowledge are in just the position of the subjects who were given the clothes-washing passage without benefit of a title to form a context for the sentences. Informationally deprived people constantly run across passages that look like the Bransford one, because the texts contain important referential clues they can't understand. Although they can read the individual sentences, they can't make sense out of the whole.

In experiments with children, researchers have drawn significant conclusions about the importance of background knowledge for general reading ability. T. Trabasso and his colleagues discovered that differences in reading ability between five-year-olds and eight-year-olds are caused primarily by the older children's possessing more knowledge, not by differences in their memory capacities, reasoning abilities, or control of eye movements.[82]

Similar work by P. D. Pearson and his associates has shown that, among seven-year-olds who score the same on reading and IQ tests, those who have greater knowledge relevant to the text at hand show superior reading skills. In one experiment, equally talented second graders were tested to find out how much they knew about spiders.[83] Those who knew a little about them were much better readers of a story involving spiders than were the other children, even though the story contained no special concepts or difficult words. One might be tempted to say that these results are predictable and obvious. Nevertheless, educators have not acknowledged or acted on the implications of such results.

The Psychological Structure of Background Knowledge

As I write these words, I am glancing out my window. My view is blocked by some objects a few feet away that are flat, roughly oblong, and green, attached to irregular brown tubes of different sizes. These are leaves and branches, and, together with the roots beneath them, I know them as trees. All continuing experience is partial and fragmented like my view of those trees. Our cognitive life takes place through a small window of

attention that is framed by short-term memory. We use past knowledge to interpret this window of experience, to place its momentary fragments within larger wholes that give them a function and a place. The raw data of visual or linguistic perception come in bits and pieces, and they will remain meaningless if they continue to be nothing but colored flecks or mere sequences of letters or words. In our minds these transitory fragments can acquire meaning only by being placed within larger, not presently visible wholes that are based on past knowledge.

When I ask people what they see out of my window, they invariably answer "trees." They don't respond that they are seeing the out-of-doors or nature or woods. Those categories are apparently too broad. At the other extreme, they don't say that they see some ends of branches with oak leaves, although that is all they see directly. Without being able to view a single tree trunk or top or bottom, they nonetheless say that they see trees. In structural terms, this response parallels the perception by the subjects who read that a fish swam under a log, even though the sentence didn't explicitly say that. The unseen trunks and roots are parts of what we "see," just as the fish that swam under the log is part of what we understand from a sentence saying the fish swam under turtles resting on a log. We "see" trees when we see only ends of branches, because we know from past experience that the branches are part of unseen structures beyond the edge of perception.

But why should people interpret what they see from my windows as trees rather than branches or the out-of-doors, since those categories are also valid interpretations based on past knowledge? The answer is that, if no other constraints are at work, people tend to interpret their experiences through middle categories, that is, through classifications that are neither specific, like oak leaves, nor general, like flora. We normally interpret experience through the categories that have been most useful to us in the past. We try them out initially as the most efficient instruments for perceiving the world and acting in it. Research has shown that middle-level categories are the ones children learn first in acquiring language; they learn tree before oak, and they learn dog before animal.[84]

Eleanor Rosch has called these middle categories basic-level terms. We owe much of our recent insight into their primacy to work done by her and her associates. In a number of papers she has argued that middle-level categories are the basic furniture of our conceptual world.[85] She has demon-

strated that, in the absence of any special context or constraint, people understand the world in terms of basic classifications. Furthermore, people understand these normal classifications through commonly encountered examples. For instance, a typical association of the category *tree* for North Americans is leaves, rather than fronds.

In one experiment Rosch asked her subjects to arrange some specific names under the categories fruit, furniture, bird, and clothing, ranking the names from the most to the least typical.[86] The results were quite consistent from person to person. For instance, under fruit, the subjects agreed on the following order of typicality:

apple
fig
plum
prune
cherry
coconut
watermelon
olive

Under "furniture" Rosch found the following ranking

chair
lamp
dresser
cupboard
davenport
radio
footstool
ashtray

And under bird she got:

robin
pheasant
swallow
goose
eagle
chicken
crow
penguin

If people in our culture tend to agree that a robin is more typical than a pheasant in the bird category, it is likely that, other things being equal, they will think of a robin-sort-of-creature when they hear the word bird. With this in mind, Rosch asked subjects to compose isolated sentences using bird, and they produced sentences such as these:

> I heard a bird twittering outside my window.
> Three birds sat on the branch of a tree.

Then Rosch replaced the class name bird with various specific members of the class (e.g., robin, ostrich, chicken), asking other subjects to judge whether the sentences of the type shown above made good sense. She found that if you replace bird with robin in each of the above sentences, subjects always say that the sentences make sense, but if you replace bird with ostrich or chicken, subjects say that the sentences don't make sense. Chickens don't act the way the birds in the sentences do -- they don't twitter, sit on branches, or fly. In isolated sentences, when an untypical member of a class is substituted for the class name, sentences that previously sounded reasonable often fall into absurdity.

These two findings fit together neatly. People with the same ethnicity and literacy agree about typical examples of a class and the isolated sentences they make with class names work best with typical examples. The more typical an example is for its class, the more it accords with an isolated sentence that uses the class term. This finding suggests that we hold in our minds typical exemplars or prototypes of the category words we use and that these prototypes constitute the usual furniture of our minds. They are the classifications of things we use every day and keep at the ready in perception, conversation, reading, and writing. Rosch and others have shown that such prototypes are processed much faster than atypical examples in verifying the truth or falsity of isolated sentences. For instance, it takes a subject much longer to say true or false to the sentence "A chicken is a bird" than to "A robin is a bird." [87]

Researchers have concluded that our usual prototypes for terms like bird, tree, and so on, contain definite features that we match up when we verify sentences like "A chicken is a bird." Since a chicken isn't like the usual prototype, we take rather long to compare features of birds and chickens before reaching a decision. But we can make an instant decision about robins. The

consistent difference in the time it takes to reply true or false to typical and untypical examples suggests that part of our mental representation of a category is a prototype. For a bird in American culture, the prototype is a vaguely robin-like creature.

Knowing about prototypes is essential for understanding how the people within a given ethnicity apply past knowledge to the comprehension of speech. These mental models are the same as Hilary Putnam's "stereotypes."[88] We are able to make our present experiences take on meaning by assimilating them to prototypes formed from our past experiences.[89] Psychologists have been investigating these prototypes intensively and have given them various names such as frames, theories, concepts, models, and scripts. Researchers who have been relating these mental entities to reading, particularly R. C. Anderson and his associates, have chosen the word schema for them, and it is the term I shall use to refer to the phenomena. Schema and its plural schemata correctly suggest somewhat abstract mental entities rather than concrete images.[90]

If Rosch had tested her subjects in Australia, her results would probably have been different, and she would have found the typical bird schema to be unlike a robin in many respects. The creature nearest the Australian schema would be large and colorful, like a parakeet or a galah, with bright scarlet, green, and blue plumage, for those are the brilliant colors of the everyday birds one sees in one's garden in Australia. It would be odd indeed if the basis for an Australian bird schema were as drab a specimen as a robin. With this kind of qualification in mind, psychologists have amplified Rosch's work in one important respect. They have found that the initial schemata under which we create and interpret isolated sentences are not necessarily the initial schemata we apply in other contexts. Demonstrations of this variability have been conducted with the words *cup*, *eat*, *red*, and *held*.[91] It is clear that Rosch's work must be further generalized so that it reflects the context sensitivity as well as the ethnic, cultural sensitivity of our initial schemata.

The research with the word list just referred to has shown that our minds have a remarkable ability to change initial conception according to the situations in which we find ourselves. Such adjustments are largely unconscious, but one can perceive the pattern of the quick adjustments we make even with isolated sentences, as Anderson has suggested in the following sentences:

1. The punter kicked the ball.
2. The baby kicked the ball.
3. The golfer kicked the ball.

A different sort of ball is implied by each sentence. The punter is kicking a football, and the golfer a golf ball. Although a baby could be kicking either of these kinds of ball, this is not the inference that will be drawn by most readers. Instead, a ball a baby is likely to kick will be hypothecated as perhaps a brightly colored, inflated, plastic ball. Kick has different senses in the three sentences. Compare the smooth powerful kick of a punter with the hesitant, uncoordinated, possibly accidental kick of a baby. Golfers do not ordinarily kick their balls; this fact leads to the supposition that this one was angry or maybe cheating.[92]

Anderson and others have thus made an important adjustment to the principle that we interpret the world through a basic set of ethnic schemata. We are in fact much more flexible. In reading, for example, we adjust our initial schemata to the specific text. In a story about a Thanksgiving feast, our initial schema for bird is turkey, not robin.[93] Two-way traffic takes place between our ethnic schemata and the words we read. We apply past schemata to make sense of the incoming words, but these words and other contextual clues affect our initial choices of schemata and our continuing adjustment of them.

In light of what has been described so far, we can say in general how a reader actively brings past schemata to bear upon what he or she is reading. According to the picture sketched by recent research, the reader is confined to a rather narrow window of attention that is limited by short-term memory. Through this window, the reader constantly connects a few words into clauses that have meaning, and the clauses to appropriate schemata based on past experience. Thus, the reader is not just passively receiving meaning but is actively selecting the most appropriate schemata for making sense of the incoming words. Then the reader actively adjusts those schemata to the incoming words until a good fit is achieved. This process can work efficiently only if the reader has quick access to appropriate schemata. When the appropriate schemata are not quickly available, and the reader is forced to do a lot of pondering to construct them at the time of reading, the limits of short-term memory are quickly reached, and the process has to be pain-

fully restarted.[94]

Although we know in a general way what schemata are and how they function, psychologists do not understand many details. The latest view (that of Johnson Laird, for instance) is that we use at least two radically different types of schemata, one analogous to static pictures and another to scripts or procedures. In addition, we have not only general schemata of categories like birds but also memory traces of occasions when we perceived or read about birds. We know that schemata overlap and get embedded in other schemata, that we treat them as provisional theories open to revision, and so forth. Indications are that an accurate modeling of our use of schemata would be complex indeed. But we do not have to know the fine detail of the process to make intelligent practical advances in the teaching of literacy. We need to know how to put the principles of schemata to work to improve the performance of semiliterate people. What do we know about schemata that will enable us to do that?

We know that schemata perform two essential functions that are relevant to literacy. The first is storing knowledge in retrievable form; the second is organizing knowledge in more and more efficient ways, so that it can be applied rapidly and efficiently. Without appropriate background knowledge, people cannot adequately understand written or spoken language. And unless that knowledge is organized for rapid and efficient deployment; people cannot perform reading tasks of any complexity. Although there are sizable variations in reading rates among good readers, no good reader is a very slow reader. Slowness of reading beyond a certain point makes assimilation of complex meaning impossible. The limits of short-term memory do not allow the integration of "un-chunked" material, and so crucial parts of meaning are lost to memory, while other parts are being painstakingly worked out.

The evidence has shown that schemata are useful as a kind of mental shorthand that helps us work within the limits of short-term memory. One element of a schema represents many other subterranean elements, allowing us to deploy that one surface element as though the whole complex schema were a single item. In other words, a well-developed schema not only helps us make sense of incoming data but also helps us to manipulate and connect information rapidly. In this process, speed of comprehension is equivalent to quality of comprehension, because without the speed and the shorthand provided by well-organized schemata, our circuits get over-

loaded. We can't perform the necessary manipulations be fore we run out of memory, and we continually have to start over again.

Since use of schemata is, of course, common to literate and illiterate alike, we need to ask two specific questions. What sorts of schemata must people acquire to be really literate? And how can these particular schemata be made efficient enough to create good readers? A. M. Collins and M. R. Quillian published an important piece of work on this subject.[95] Their theory is that the knowledge most often needed is also the most directly available and is, so to speak, right at the surface of the schema. Other parts of the schema are "deeper" and take longer to retrieve. One of their examples also concerns a bird. They reasoned that general information about birds would be farthest from the surface and that specific information (e.g., direct information about robins or canaries) would be most often used and closest to the surface.

What does this experimentation tell us about the rapid deployment of background information in reading? Collins and Quillian's observations suggest that the top portion of a schema is the important part to know. The schema *canary* can yield an indefinite number of facts and association by remote inference from knowledge of the world: canaries have backbones; canaries have their own special pattern of DNA; canaries are descended from reptiles; canaries must drink water; canaries mate; canaries die.

One could go on this way for a long time, with specifications not only from biological but from physical knowledge: canaries obey the law of gravity and the laws of motion, and so on. But this secondary information about canaries is not important in communicating with fellow human beings. What is functional in reading, writing, and conversing is the distinctive system of traits in the schemata. We use the traits that differentiate canaries from other birds: their smallness, yellowness, ability to sing, use in human culture, being kept in cages, and so on. We need to know the primary traits commonly associated with *canary* in our culture to deploy the associations rapidly when we encounter the word *canary* in reading.

There is no substitute for simply knowing these primary associations. They must be called up with lightning speed in the course of reading and conversing. We do not have the luxury of figuring out such associations one at a time. We may do this with one or two words in a paragraph. That is the way we learn new words, but we cannot pause over many words at a time. When we encounter U. S. Grant, the primary associations must be

available to us in milliseconds: that he was an important Union general, that he became president, that he drank. These are some of the implicit associations needed to make meaningful what is explicitly written about Grant.

Research into the importance of primary associations thus introduces a subject of profound significance for teaching reading and writing. Successful communication depends upon shared associations. To participate in the literate national culture is to have acquired a sense of the information that is shared in that culture. No adult level discourse retreats to the rudiments of knowledge. If assumptions about rudiments could not be made, ordinary discourse would be so lengthy and intricate as to obscure its own point.

Educators in the Rousseau-Dewey tradition, who favor less emphasis on mere fact and more emphasis on the intensive study of a few cases, encourage us to believe that students will thereby understand general principles and learn how to think critically. But literacy requires us to have both intensive knowledge of relationships and extensive knowledge of specifics. We need not only a general understanding of the principles of biology (which would enable us to infer that canaries breathe and lay eggs), but also specific knowledge of facts about canaries. We need to know not only the broad social and historical significance of the American Civil War, but also who U. S. Grant was, and what the word *Appomattox* signifies. It is not enough to say that students can look these facts up. *The research reviewed above shows that in order for readers to integrate phrases into comprehensible meanings, they must already possess specific, quickly available schemata. When readers constantly lack crucial information, dictionaries and encyclopedias become quite impractical tools. A consistent lack of necessary information can make the reading process so laborious and uncommunicative that it fails to convey meaning.*

Skill as Knowledge and Knowledge as Skill

Researchers in cognitive psychology and the area of computer science known as *artificial intelligence* (AI) have come to strikingly similar conclusions about the knowledge-bound character of all cognitive skills. AI research demonstrates that the ability of humans to exercise a skill depends on their possession of specific schemata that are sufficiently numerous and detailed to handle the many varieties of the tasks they are called on to

perform. It is more accurate to speak of "reading skills" than of "reading skill." The graphs showing the community college students' high degree of skill in reading the essay on friendship but their lack of skill in reading about Grant and Lee accord with the recent discovery of AI and cognitive psychology that a skill is not a unified system of intellectual muscles that can be developed by calisthenics into a vigorous all-purpose ability. Dr. Herbert A. Simon, a leading figure in AI research, once wryly remarked that saying an expert performance is caused by a "skill" is like Moliere's doctor saying that the sleep-inducing properties of opium are caused by its "dormative power."[96] Simon, a Nobel laureate, worked for years on the detailed structure of cognitive skills. The discoveries that he and his coworkers made should induce a deep skepticism toward the belief that our schools can teach reading, writing, and critical thinking as all-purpose general skills applicable to novel problems. Simon and his colleagues have cast doubt on the idea that there are *any* general or transferable cognitive skills. All cognitive skills depend on procedural and substantive schemata that are highly specific to the task at hand.

Once the relevant knowledge has been acquired, the skill follows. General programs contrived to teach general skills are ineffective. AI research shows that experts perform better than novices, not because they have more powerful and better-oiled intellectual machinery, but because they have more relevant and quickly available information. What distinguishes good readers from poor ones is simply the possession of a lot of diverse, task-specific information. Probably the most dramatic illustrations of the knowledge-bound character of human skills came from some remarkable experiments conducted by Adriaan de Groot, a Dutch psychologist, who described his findings in a book entitled *Het Denken van den Schaker* (literally, *The Thinking of Chess Players*).[97]

De Groot discovered that chess masters are astonishingly skilled at remembering and reproducing chess positions after a very brief exposure to them. The subjects in his experiments were players of various abilities, as indicated by their official chess rankings. In one experiment, de Groot displayed for five to ten seconds a chess position from an actual game in which twenty-five pieces were left on the board. The subjects were asked to reproduce the position from memory. Grand masters performed this feat with 100 percent accuracy, masters with 90 percent accuracy. Weaker players were lucky if they could correctly place five or six pieces.

Then de Groot varied the conditions of his experiment in one respect. Instead of placing the twenty-five pieces in positions from an actual game, he placed them on the board randomly. The results were unexpected. All his subjects, grand masters, masters, class A players, and class B players, performed the same as novices did, placing only five or six pieces correctly. This experiment has been duplicated in several different laboratories, and structurally in several other fields, including algebra, physics, and medicine, always with the same striking results.[98] *When the configuration of a task is significantly changed, past skills are not transferred to the new problem*. In normal circumstances, of course, elements from past problems appear in present ones, and experts perform well with duplicated elements. But beyond similar or analogous circumstances, skill is not transferred.

Since the 1950s, when Simon introduced de Groot's work to the American research community, no convincing counterarguments or experiments have challenged these results. Researchers have consistently found that people do not develop general, transferable skills in problem solving, critical thinking, or in any other field.[99]

What are the reasons for these astonishing results? The fullest explanations have come from those engaged in making computer models of skilled and unskilled performances. AI scientists have formulated programs that conform extremely well to actual human performances and to the models currently inferred by cognitive psychologists. The convergence of the accounts from both AI and empirical psychology increases one's confidence in their correctness.

There is another reason why the AI research results should be taken seriously. AI models actually work. You can play chess against a computer program and lose. An up-to-date chess program behaves like a skilled player, not because the computer is directed to zip through every possible variation; it could not possibly do that in the few seconds it takes to respond–but because in some ways, though not in all, it imitates the knowledge-based procedures of experts.

I said that models from research in artificial intelligence and from experimental psychology are converging. Both approaches show that expert performance depends on the quick deployment of schemata. In the case of de Groot's chess experiments, the currently accepted models would explain the results as follows:

> When de Groot's subjects were exposed to a chessboard for about six seconds, the limits of short-term memory were quickly reached. The constraint of short-term memory explains, of course, why novices could manage to place only about six pieces--the range predicted by research. There's no difficulty, then, in explaining the poor performance of the novices. But what explains the superb performances of the experts?

In his second experiment de Groot proved that expert chess players have no better memories or general skills than novices. Like everyone else, they can remember only five or six pieces from a random pattern. But when they are asked to survey a position that is not random, they quickly match the observed patterns with specific schemata already stored in memory. That process instantly facilitates the cognitive task.

> Consider the arithmetic of the situation:
> If expert schemata for chess patterns average five or six pieces per schema, that would remove the burden of remembering twenty five individual items. Think of the experts as perceiving the positions of five or six pieces all at once – but as words rather than individual letters. Because they already possess positional schemata, experts would need to remember only four or five chunked items well within the range of short-term memory.

It is probable that the grand masters in de Groot's experiment quickly focused on one or two variations from known patterns, and that those one or two variations were all they needed to remember. They were in the masterful position we would be in if we were asked to spell out the sixteen letters of "The cat is on the mat" after an exposure of only six seconds. Our performance would be made possible by our possession of spelling schemata for the words. When de Groot's chess masters were asked to reproduce the original position, they needed only to recall two or three variations and were able to reconstruct the rest from the schemata they already possessed.

Skill in reading is like skill in chess in many respects. Good reading, like good chess, requires the rapid deployment of schemata that have already been acquired and do not have to be worked out on the spot. Good

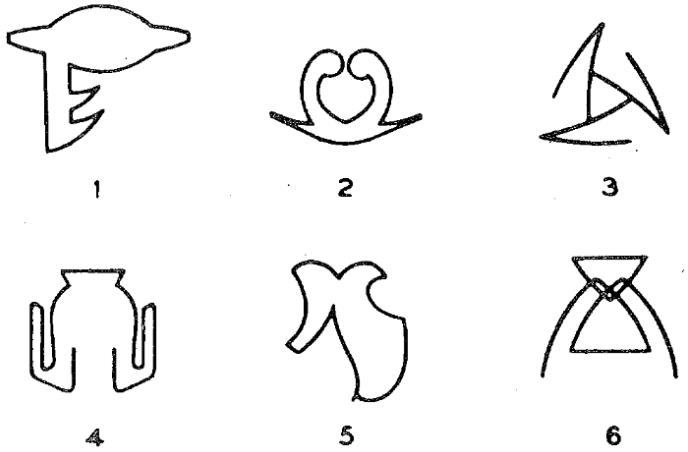
readers, like good chess players, quickly recognize typical patterns, and, since they can ignore many small-scale features of the text, they have space in short-term memory to take in an overall structure of meaning. They are able to do all of this because, like expert chess players, they have ready access to a large number of relevant schemata. By contrast, unskilled readers lack this large store of relevant schemata and must therefore work out many small-scale meaning relationships while they are reading. These demanding tasks quickly overload their short-term memories, making their performance slow, arduous, and ineffective.

How large is the "large number of schemata" that skilled persons have acquired? It has been estimated that a chess master can recognize about 50,000 positional patterns.[100] Interestingly, that is the approximate number of words and idioms in the vocabulary of a literate person. Is there any significance in this coincidence of numbers? Probably, according to Simon and Barenfeld.[101] A schema for a chess pattern is the functional equivalent of a schema for a word or idiom. There must be an upper limit to the number of schemata that we can effectively utilize, because we must have immediate access to them if they are to be effective. Apparently, a number in the range of 50,000 marks the upper limit of items to which we can have rapid access in any domain of activity. Using a significantly greater number of items would cause the process of search and retrieval to occupy too much time.

There are, of course, many more than 50,000 items stored in the full text of long-term memory. A basic vocabulary of 50,000 schemata serves merely as a quickly accessible index to a much larger volume of knowledge. Any of the 50,000 schemata can be related to others, and the further relationships can be stored in long-term memory. A useful illustration of the way one schema can serve as a mental shorthand for enormous complexes of associated schemata is the field of mathematics, where many decades of mathematical labor can be reduced to a single symbol that can be manipulated as though it were a mere digit like the number five. The term "Civil War" represents not just its own schema, but also whole ranges of further, associated schemata that can be applied when needed but do not obtrude into the window of the mind unless they are called forth. As we have seen, the most effective system for the mind, whether in chess or in reading, is to keep most of its indexed schemata at a medium level of generality. But although parallels between skill in reading and skill in chess are informa-

tive, the two kinds of expertise are structurally different in one respect. Chess players do not have to communicate their stored patterns to anyone else and can organize their schemata in whatever way they like. But when we use verbal schemata, we have less freedom. The patterns of association in the verbal schemata of one person must approximate those of another, otherwise we could not use surface meanings to represent larger systems of subsurface associations. Words and idioms therefore represent systems of association that belong not just to the individual mind, but to the language community as a whole. Words, idioms, and grammatical systems represent shared systems of association[102] – common to an ethnicity.

The last piece of research that I shall describe brings some of these strands together and proves the importance of American ethnicity in a striking way. The work was conducted and reported by R. M. Krauss and S. Glucksberg.[103] Imagine an experiment in which some of the special constraints of reading and writing are acted out physically in the laboratory. One constraint of reading is that author and reader cannot converse with each other. Only the author is the source of the words; the reader has no access to an author's gestures or facial expressions. To reproduce this constraint, we erect a physical barrier between two people so that only one of the subjects can be heard and neither can see the other. Then we give these two subjects a communication task to perform. The speaker must explain to the listener the order in which the six following unfamiliar shapes must be listed.



To establish a standard of performance, we run the experiment with pairs of literate adults, who find the task almost ridiculously easy. They make virtually no errors on their first attempt.

Then we try the experiment on six pairs of young children from four to five years old. Not one pair of children completes a trial correctly. Their messages are short and cryptic rather than full and elaborated like those of adults. Moreover, the messages depend upon associations that are not widely shared in the speech community.[104] A summary chart of some results with young children follows.

Form	CHILD				
	1	2	3	4	5
1 	Men's legs	Airplane	Drape holder	Zebra	Flying saucer
2 	Mother's hat	Ring	Key hold	Lion	Snake
3 	Somebody runing	Eagle	Throwing sticks	Strip-stripe	Wire
4 	Daddy's shirt	Milk jug	Shoe hold	Coffeepot	Dog
5 	Another Daddy's shirt	Bird	Dress hold	Dress	Knife
6 	Mother's dress	Ideal	Digger hudd	Caterpillar	Ghost

Later the experimenters tested older children from kindergarten through fifth grade. Krauss and Glucksberg give the following account of what they found:

> The results were somewhat surprising. Kindergartners performed no better than nursery school children and displayed the same lack

> of improvement with practice. Considering that adults made virtually no errors on the very first trial, the performance of children in the first, third, and fifth grades is even more surprising: they were no better than kindergartners on the first trial. The older children did show marked improvement with practice, but it seemed clear that even the fifth graders (who were about 10 years old) did not approach the adult level. . . . We proceeded to test children from grades three through nine in the Princeton school system. We were again surprised at the generally low level of performance of ninth graders, although they showed dramatic improvement in successive trials, still did not attain the virtually perfect accuracy that adults displayed from the very first trial.[105]

Krauss and Glucksberg inferred from this that the older children performed poorly *not because of their insufficient cognitive development, but because of their lack of information and insight into what other people might know*.[106] They had not acquired an easy sense of the degree to which their schemata were shared with strangers in the speech community. Their lack of information strained their cognitive capacities when they tried to carry out the task. They had not fully acquired American ethnicity.

When the demands of the task are relatively light, children do engage in social, nonegocentric speech, and they communicate rather successfully. As the demands become heavier, children may still attempt to employ social communication strategies, but they do so less effectively than adults. Finally, when the demands of the task become heavy enough, children may not have the opportunity to bring into play the social communication skills they possess.[107]

The performance of the young children in this experiment is like the performance of poor readers. Both are ineffective because of lack of information and cognitive overload. A semiliterate person reading or a young child describing strange shapes has to figure out too many things at one time. In effective reading, one must not only call up one's own schematic associations, but also monitor whether they are appropriate ones shared by the wider speech community. Literate adults have internalized these shared schemata and have made them second nature. As the Krauss-Glucksberg experiments indicate, *literate adults have a surer instinct for what will and will not be shared by others in the wider culture*. Young children and other

semi-literates do not confidently know what other members of the speech community can be expected to know. Thus, besides their lack of substantive information, young children and semi-literates also lack something equally important: readily accessible information about what is shared by others. In reading and writing, as in communicating shapes across a physical barrier, it is essential to know the other person's unspoken systems of association.

Such ethnic knowledge is not entirely a function of age. Some children acquire it rather early, and illiterate adults never acquire it fully. Experiments reported by Basil Bernstein suggest that the performances of children attempting tasks similar to those in the Krauss Glucksberg experiments vary according to the children's degree of literacy, and their performances therefore have, alas, under present circumstances, a strong correlation with social class.[108] In Bernstein's experiments, the most important variable was whether the children were used to talking with literate strangers and had thereby gained wide knowledge and a sense of the wider speech community. The shared schemata necessary for reading and writing are always those of the wider community. Bernstein's experiments reconfirmed that literacy is a function of a national rather than a local culture.[109]

Chapter 8

The Nationalizing of Modern Ethnicity

A school-transmitted culture, not a folk-transmitted one, alone confers usability and dignity and self-respect on industrial man.

Ernest Gellner, *Nations and Nationalism*

The Formation of Modern Ethnicities

I began this book by quoting Arthur Schlesinger. Jr. on the "cult of ethnicity" and the current connection of the word "ethnicity" with "non-Anglo whites" and "nonwhite minorities." Historical research into the origins of national languages and cultures directly reinforces the psychological research that I have just traced. In the modern era, ethnicities of any sort tend to be less connected with skin color and parental culture than with an artificially constructed, written-down literate language taught in schools that has also become a standard national oral language, and the chief sustainer of a *national* ethnicity.

There exist of course non-literate languages and cultures, usually associated with impoverished minorities. But to sentimentalize poverty is a morally corrupt adjunct of a developmentalism that in its "natural-development" orientation, slows down and hinders the effectiveness of elementary schooling. For most individuals in the modern world, one's literacy level – one's acquired ethnicity -- and one's wealth tend to be correlated. And one's literacy level depends on the breadth of one's acquaintance with a national print culture that is normally gained and amplified in school.

History shows why this connection between the content-assumptions of a national literacy and the schooling that imparts those assumptions is a general principle of modern times. It holds true for all modern nations and all literate ethnicities. For instance, the Latine ethnicity of Mexico is distinct from the Latine ethnicity of Brazil because each is the product of a different normalized, school-promulgated national language – Spanish and Portuguese. In large nations, many people possess both a home language and culture and a school language and culture. Such plurality and integration of races and ethnicities in the modern nation is one of the most significant moral advances of modernity.

If you drive in the French Riviera and stop at the town of Menton, you can find small children speaking rapidly in excellent French. Their easy mastery of French grammar and pronunciation will seem charming and enviable. If you then drive east from Menton for just a few minutes and pass over a line painted across the road, you will come to the town of Ventimiglia. There you can find small children speaking charming, enviable Italian. To the children on both sides of the painted line, and perhaps to you, it all seems quite normal: the easy mastery of French or Italian, the arbitrariness of the border, and the fact that the painted line determines which language the children speak.

We have come to accept such arrangements as being "natural," but from a linguistic point of view they are not. French and Italian, as well as English and all the other national languages, were just as consciously and politically constructed as the national borders that separate them. These standardized national languages were fixed in essentially their present forms by seventeenth-, eighteenth-, and (in some countries) nineteenth-century language normalizers who often made their decisions at the direction of a central national government. National languages and national borders are codependent artifices. Taken together they have generated one of the most important features of the modern world the huge, linguistically homogeneous populations of the industrial nations.[110] This implies that our states should not only decide the sequence of the elementary curriculum, but also that our states should cooperate with each other.

That small children should speak Hungarian inside the borders of Hungary (or Polish inside the borders of Poland), and that the language spoken in one place in Hungary should be the same as that spoken in another, is a situation that can exist with such precision only because it is

carefully sustained by the Hungarian system of education. Inside a national border, education helps to keep the national language stable by holding it to standards that are set forth in national dictionaries, spelling books, pronunciation guides, and grammars. In the modern world we therefore find linguistic diversity among the nations but, with a few exceptions, linguistic uniformity inside the nations. This pattern did not arise by chance; it is a self-conscious political and economic arrangement.

Consider the languages of Europe in their natural earlier state before they were standardized into national literary languages. In the Middle Ages it often happened that only closely neighboring dialects were dependably intelligible to one another. If you traveled four villages away instead of three, you might not be able to understand what people were saying. A dialect map for the fourteenth century would show isoglosses marking off domains of mutual unintelligibility between speakers.[111] No linguistic lines were painted across the road; the shifting linguistic borders could be drawn differently, depending on which dialect was used as a base.

What's more, these languages changed radically over time. A fourteenth century Rip Van Winkle waking from a sleep of a hundred, rather than of twenty, years might find it hard to understand the speech of his children's grandchildren. The natural law of oral languages is constant change, but that law has been amended by the development of national written languages sustained by national systems of education.

About a hundred and fifty years ago, in the 1870s, Henry Sweet, the distinguished linguist who was the model for Henry Higgins in *Pygmalion* and *My Fair Lady*, predicted that in a hundred years the English, Australians, and Americans would be speaking mutually incomprehensible languages because of their great distance and isolation from each other.[112]

Sweet was one of the most knowledgeable linguists of his day, and his prediction was one that other scholars of the time agreed with. Up to Sweet's time, languages *had* followed the universal law of constant change. Whenever people who spoke the same oral dialect divided from each other geographically, their languages also diverged. That is why, judging by previous linguistic history, Sweet's prediction seemed sound. Before the spread of literacy in the nineteenth century, speakers had neither an external standard nor an internal gyroscope to keep their languages stable. Thus, in the eighteenth century, Alexander Pope wrote:

Our sons their fathers' failing language see,
And such as Chaucer is, shall Dryden be.[113]

But Pope and Sweet were wrong. We not only understand the British and Australians today and they us, but we are still able to read Pope and Dryden, and most American schoolchildren can read *Gulliver's Travels* by Pope's contemporary Jonathan Swift. The modern English language has turned out to be far more stable than anyone in those days could have predicted. The same has been true of other European languages.

The monolingual nation as we know it developed alongside a new kind of social and economic organization - the industrial nation state. In earlier, agrarian times, when economies were local, one's occupation and position in the community were fixed. Because the economic unit was confined to a small area, an oral dialect sufficed, and the mutual unintelligibility of different dialects within a large region was no serious handicap to economic and social life. When foreign travelers and traders of those times needed a language beyond the local dialects, they could use an international language like the *lingua franca* or the *koine*. These were the earlier equivalents of the great modern national languages, each of which now functions as a *lingua franca* within a nation.

After the industrial revolution, sometime in the eighteenth century, economic arrangements required a different political and linguistic system. Economic units became larger, and economic advance became perpetual. The water wheel gave way to the steam engine, the steam engine to the internal combustion engine, and so on. The worker had constantly to adapt to new, more efficient methods. Because of the continually changing occupations that were increasingly demanded by large industrial societies, people had to communicate with a wider economic and social community. Achieving wider communication required literacy and a common language. At the same time, the political system had to become correspondingly bigger, requiring wider circles of communication to carry out laws and provide centralized authority.

The correlation of modern nationhood and the needs of industrial society is a thesis that Ernest Gellner develops brilliantly in his *Nations and Nationalism*.[114] The formation of the modern nation makes possible complex communication on a large scale, which makes possible, in turn, the specializations of modern industrial society.[115] To meet the needs of the

wider economy, the modern industrial nation requires widespread shared literacy. At the heart of modern nationhood is the teaching of literacy and a common ethnicity through a national system of education.

"Nationalism," Gellner writes, "is rooted in a certain kind of division of labor, one which is complex, and persistently, cumulatively changing." Consequently, what is needed is a general education in a common culture.

Gellner goes on to observe:

> The major part of training in industrial society is generic training . . . Industrial society may, by most criteria, be the most highly specialized society ever; but its educational system is the least specialized, the most universally standardized that has ever existed. It is assumed or hoped that every properly trained recruit can be retrained from one specialism to another without too much· loss of time.[116]

Because of modern economic needs, the goals of language standardization and universal literacy become ever more urgent. Gellner describes education in American ethnicity as the central requirement of industrial society:

> Universal literacy and a high level of numerical, technical and general sophistication are among [industrial society's] functional prerequisites. Its members . . . must be able to communicate by means of written, impersonal, context-free, to-whom-it-may-concern type messages. Hence these communications must be in the same shared and standardized linguistic medium and script.[117]

Gellner's analysis explains the underlying reasons for the development of standardized languages and cultures and modern national economies, and also explains why enormously expensive systems of education are universal in the modern nations. Totalitarian nations may pay only lip service to such ideals as free speech and free elections. But their guarantee of universal education is, as Gellner says, "*an ideal more honored in the observance than the breach. In this it is virtually unique among modern ideals, and this calls for an explanation.*" The explanation lies in the weighty

consequences that proceed from education in our society.

> The employability, dignity, security, and self-respect of individuals typically, and for the majority of people, now hinges on their education... A person's education is by far his most precious investment, and in effect confers his identity on him. Modern man is not loyal to a monarch, or a land, or a faith, whatever he may say, but to a culture . . . [This] school-transmitted culture, not a folk-transmitted one, alone confers usability and dignity and self-respect on industrial man.[118]

To be sure, large-scale social and ethnic unification based on general education and a standard written language were effects whose causes were sometimes obscure to the societies that produced them. But the manufacturer of textile goods certainly realized that he had to communicate in writing with his distant shippers, customers, and suppliers. The bureaucrat engaged in army raising or tax raising realized that he had to communicate with officials and citizens throughout the land. The new economy with its multiple specialties, and the new nation with its bureaucratic structures, required an ever-broader use of the written word, and people became increasingly aware of the need for universal literacy and a common language. Everywhere sentiment grew to stabilize national languages.[119] The internet has intensified this historic normalization of language.

The economic and technical forces that first led to language standardization and mass literacy have continued to gain momentum. Today, when economic transactions are instantaneous and global, national vocabularies have grown still larger in scope. Our national vocabulary has three distinct domains. The first is international. Basic literacy in the contemporary world requires knowledge of certain terms known by literate people everywhere in the world, no matter what language they speak. This core lexicon of modern education includes basic words from world history, world cultures, geography, mathematics, and the physical and biological sciences. Taught in all national educational systems, and not confined to any particular national language, it is the most broadly shared literate vocabulary in the world.

Lying beyond the core is the sphere of vocabulary needed for literacy in English, no matter in what country the language is used. Words like

Scrooge and *Falstaff* and *Cinderella* belong to American ethnicity in all nations where English is spoken, even if they were founded recently. This broad knowledge belongs to trans-national literacy in English, a sphere that is shared by literate Britons, Indians, South Africans, Americans, and Australians. Despite grumblings in all these countries about the all-too-Anglo character of these traditional elements, they are probably here to stay, because they form a useful basis for international exchanges in English.

But in addition to broadly shared, international spheres of knowledge, every literate person today has to possess information and vocabulary that is special to his or her own country. A literate Briton has to know more about the game of cricket and the Corn Laws than an American. An American has to know more about baseball and the Bill of Rights than a Briton. Textbooks containing a national vocabulary have always been developed in evolving nations.[120] In the early days of development, this dimension of American ethnicity is usually standardized along with the standard version of the national language. To explain the character and significance of this historical development, it is helpful to contrast Europe with China. Why did linguistic and national standardization arise in Europe in the eighteenth century but not in China?

By the seventeenth century, China had printing presses and a stable written language. But even after the arrival of printing, the oral Chinese language did not become standardized throughout the country. Until recently China was a polyglot nation of mutually unintelligible dialects. And in the early years of the twentieth century China presented a cautionary picture of what can happen in the modern world to a populous nation that lacks language unification and standardization. In the absence of a standard tongue, China was not able to function successfully as a modern industrial and economic What a change today! China's students rank at the top in the PISA assessments.

What kept China from achieving language standardization earlier? (She now ranks number one in the PISA rankings.) Part of the answer is simple and direct. European languages use an alphabetic system of writing that connects writing with speaking. The written spellings are stable, and because of the alphabetic principle, that is, semi-phonetic system of writing, the standardized spellings have a definite connection with spoken sounds. Widespread schooling in spelling and pronunciation keeps the

sounds of the language from straying very far. The chief dialects of China are, in fact, mutually unintelligible, and the only way speakers of different dialects can communicate is by writing notes to one another. Thus, the standardization of writing and the spread of reading did not have the same stabilizing effect on language in China as it had in Europe.

The example of modern Japan and modern China shows that effective standardization of the spoken language is possible without alphabetic script, as long as a national system of education enforces common standards for pronunciation and grammar. Nonetheless, the easiest way to standardize and stabilize a language is to follow the European pattern: fix upon a single dialectal norm, freeze its grammar at a particular time, fix standard spellings, and fix pronunciations that are reasonably well represented by the spellings. Conscious of this, China recently attempted the transcription of Chinese into western alphabetic script and has set up a single dialect, Mandarin, as the basis for the national language. The size, labor, expense, and dislocation of this undertaking have been breathtaking, and that China was willing to undertake it showed an appreciation of the importance to a modern nation of fixing a common national language in both spoken and written forms.[121] Needless to report, this has changed radically in China in 2022. And, because that huge nation has forcefully standardized its educational system China has prospered economically. Now, 90 percent of the nation is able to communicate in Northern Mandarin.

From the standpoint of American ethnicity, the interventionist character of eighteenth-century language standardizing in Europe is useful for illustrating the need for self-conscious planning in national education. Fixed national languages are deliberate constructs. In France, the process began as early as 1635, when the king issued a royal letters patent to the French Academy, instructing it to "labor with all care and diligence to give certain rules to our language; and to render it pure, eloquent, and capable of treating the arts and sciences."

Thus, the French Academy marched under the banner of "purifying" the language, and, indeed, purification was the usual ideology or metaphor under which the dictionary-making process was carried out. But the real job of the French Academy, and other dictionary making groups elsewhere, was to fix the usage, grammar, and spelling of the national language. They were to establish one form of spelling and pronunciation as the norm, to promulgate it in authoritative dictionaries and grammars,

and, in consequence, to eliminate all other dialects, spellings, and pronunciations in order to create a single standard language.

As it was in France, so was it in Spain. Because of the importance of Spanish on the current U.S. scene, it's worth mentioning that the language now spoken by Hispanics in our country was developed by exactly this same deliberate process. Spanish is no more a primordial "ethnic" language than French is. By the time of the conquistadores, efforts to standardize written Spanish had made headway, but the final consolidation came in the early eighteenth century, when the newly formed Spanish Academy, under the duke of Escalona, was given the task of purifying and improving the Spanish language under royal authority. The academy, called the Real (Royal) Academia de la Lengua, was to issue a dictionary that distinguished correct words from "low, obsolete or barbarous ones." In practical fact, court Castilian was set up as the dialect base of the Spanish national language -and forever after the Castilian-based *Diccionario* of the academy has been the permanent basis for school instruction wherever Spanish is taught and spoken.[122]

The standardization of English achieved the same result, but by more indirect means. Although England did not establish a national academy, prominent intellectuals in the seventeenth and eighteenth centuries, including Daniel Defoe and Jonathan Swift, proposed one, and others agitated to purify and ascertain the language in dictionaries and grammars. The famous authoritative dictionary issued by Samuel Johnson in 1755 was the most important member of this series. Webster's dictionary (1806) was based on Johnson's, but it added well-known, minor changes in spelling (as in dropping the *u* in *honour* and changing *theatre to theater*). With few exceptions since Johnson's day, English spelling, grammar, and punctuation, as well as the main features of usage, have remained stable. The only deviations from current forms that I find in the Declaration of Independence are *hath* for *has* and *compleat* for *complete*. Surprisingly, Jefferson and Hancock followed earlier dictionaries, not the Tory Johnson, in their spellings of *public* and *honor*, making their document seem all the more up to date to us.[123]

The most striking characteristic of language standardizing is its initial arbitrariness, which is similar to that of setting up almost any common standard. Early grammarians and the makers of spelling books and dictionaries were often forced to choose from among several accepted possibil-

ities, and in all cases had to freeze the then current form of the language, thus inhibiting further grammatical or phonetic evolution. When a group of scientists met in Paris in 1795 to decide on the length of the standard meter bar, they had an elaborate justification for the particular length they chose, just as Samuel Johnson offered justifications for his decisions about spelling.[124] But that justification was irrelevant to the utility of the meter as a common standard for measuring length. Any usable length would have served the purpose equally well.

Language normalizers have always offered justifications for their choices from among current forms. But beyond helping to give the decisions a socially persuasive force, little hinges on such justifications. The fact of commonality is much more important than the intrinsic character of the standard that is chosen. Those who should be engaged today in deciding what our children need to learn in elementary school should be aware in the twenty-first century that their decisions are now more highly constrained than in the eighteenth century. The length of the meter bar has been determined. For any new additions to shared language and knowledge agreement is more important than intrinsic worth. Our state and national leaders need to grasp this key point, reach broad agreement, and persuade all Americans to accept the kind of compromise that history itself imposed upon the the Angles, the Saxons, the French, and the modern dictionary makers and academies of the modern nations. Modern ethnicity in any contemporary nation is in part up for grabs and up for negotiation in its schools. However, it is enormously constrained by its older inhabitants, its millions of books and documents, and its effectiveness as a social, economic, and military union.

The meter bar, like the French language itself, was established by a central authority in Paris. By contrast, the British system of language standardizing was less imperious, less obviously imposed from above. But the British system achieved the same final result as the French. Both approaches to standardization always achieve the same result. An important difference between establishing the meter as a standard of measurement and establishing a standard written language is that the language must be constructed on less rational principles. The choice of forms and conventions of word order and grammar must all be taken from currently accepted forms, whether or not these have any inherent symmetry or efficiency. One form must be chosen from among several candidates and declared to

be the pure or correct one.[125]

Take, as an example of this process, what happened to the verb in standard written English. Long before the eighteenth century, the present tenses of verbs had begun to lose special endings, because English had largely dispensed with such inflections. Modern English indicates the grammatical relationships between words by the relative positions of the words. (Some of the special inflected forms we retain are the *s* to denote plural nouns and the final *d* to denote past tense in verbs.) But in modern English the special forms of verbs that denote first, second, and third person are no longer necessary. Nonetheless, despite the usual absence of inflection in the verb we still say:

- I run
- You run
- He/She/It runs
- We run
- You run
- They run

All the forms in the present tense are uniform except for the *s* in he, she, or it runs. The *s* is a special ending to denote the third person and distinguish it from first and second persons. But in modern English it is quite pointless to distinguish the person by a special ending. We don't say "runs" to mean ''he runs," as the Italians do. (If we did, it would make sense to use different verb forms for the different persons.) But since we always say "he runs," the *s* doesn't tell us anything about who is doing the running that we don't already know.

Hence the form "he run," used in some oral dialects, would not only be sufficient, it would make the verb entirely regular. People would need to learn just one form for the present tense. That arrangement would not only be more rational, it would represent a more advanced stage in the development of a syntactic language as the linguist Jespersen has argued.[126] It is a pattern that English would surely have reached if it had remained an oral language and been allowed to evolve further.[127] In fact, as a dialectal form, "he run" has evolved independently in many different isolated places, in both America and Britain. If plain run is good enough for I, you, we, they, why isn't it good enough for he, she, it? Because we have no choice in the matter. The decision was made by those who fixed our grammar at a certain stage of its evolution, and their decision will probably stand forever.

Even more pointless linguistically is the standardized form of the verb to be, where the related forms don't even sound related.

- I am
- You are
- She is
- We are
- You are
- They are

Contrast this model, from the standpoint of simplicity and efficiency, with the more advanced pattern developed in many oral dialects of English:

- I be
- You be
- She be
- We be
- You be
- They be

That is a far more effective and rational pattern. It, too, has developed independently in many different isolated oral dialects.[128] But for all its virtues, this superior pattern is highly unlikely to replace the arbitrarily fixed national standard.

Before Samuel Johnson's day, the first language normalizers of Britain were not content merely to fix certain illogical patterns of grammar. They were also illogical pedants in the matter of spelling, having left us some very peculiar spellings that, on the evidence, were never sounded as the letters indicate. The word *doubt*, for instance, never had a *b* sound in English.[129] Why then spell it with a *b*? Because schoolmasters chose to show a connection between the English word *doub*t and the Latin word *dubito*, an unwise decision that created a tension between the standard spelling and pronunciation of the word. But it would be even more unwise to tamper with established spellings that are now recognized by every one in hundreds of thousands of books. It is much better to stick to them, whatever their intrinsic drawbacks.[130]

These examples show that national languages are essentially different from oral dialects.[131] Even linguists have been known to miss the distinction between unconsciously evolving oral dialects and consciously created written languages. They have been corrected as follows by Dr. M. M. Guxman, a Soviet specialist in national languages:

> One should not separate the formation of a written language from the activity of normative theoreticians, from the creation of normative grammars and first dictionaries, or from the activity of language societies, academies, etc. The negative sides of this normalization in the history of individual languages are widely known. ... The normalization of the language in 16th and 17th century Italy or France was of interest, undoubtedly, to a relatively narrow social stratum. However, the formation of a new type of written language is impossible without conscious normalization, without theoretical comprehension of the norm, and codification of definite rules of pronunciation, usage, and inflection. As material taken from the histories of various languages shows, the formation process of the written norm of a national language is so complex, the regularities of the process so specific in contrast to the life of a regional dialect that the written norm is never in fact the simple codification of a system of dialect characteristics of any one region.[132]

The process of standard ethnicity formation has much in common with the formation of specific language forms. *In both cases the function of commonality is far more important than the intrinsic value of the choice to be made*. This key point about initial arbitrariness and subsequent non-arbitrariness is of enormous importance to state legislators if they decide to perform their Constitutional duty of normalizing grade-by-grade topic sequences in our schools. If one group of advocates is deeply desirous of representation and if social harmony is thereby enhanced, then that is what our legislators should decide. For once they make that decision, all our future Americans will take that as part of their inherent American-ness along with *I run, you run, and he runs*. Don't worry about the inherent arbitrariness of the decision. Any intelligent decision will be arbitrary – like the length of the meter bar. What's important is the *communally-shared-knowledge* characteristic, which will enable it then to be used in any way the speaker or writer might wish -- pro or con. That's why the dictionary definitions of words are so variable – depending on the occasion and the intention – but they are nonetheless widely communicable because-and only because-of the shared knowledge, shared ethnicity principle.

Chapter 9

Answer to the Learned Despisers of Specificity

Removing "Culture" from the Discussion

When I wrote the controversial book *Cultural Literacy* in the 1980's, I was innocent of the brewing debates over multiculturalism and diversity. These days, no one can be innocent of those debates. The first response to any document containing the word "culture" is to ask suspiciously "Whose culture?" And if you say something such as: "We need to have a national topic sequence for the early grades," the first conversation-stopping response is: "Who decides?" Americans don't like to be told what to do. That's part of our ethnicity too. It's **also** part of a defensive, evasive mindset that is worried about being criticized. Content laissez faire based on "reading comprehension" and "critical thinking" offer legislators and governors a way to evade responsibility. There is an inherent bond between our education schools and our politicians. Both gain comfort from positing general skills that do not exist.

But the victims of our not deciding to follow the Shanker principle, which reason, science, and patriotism demand, are our disadvantaged children, the economy, and the well-being of the nation.

The chapter that follows contains the non-science and math elements from the *kind* of "curriculum framework" (to use Al Shanker's term) that is needed. Chapter 2 showed that a knowledge-based elementary curriculum has, as a practical matter, fully overcome the reading gap between races and economic groups. So, whatever the defects, the principles of the

adult list have turned out to be sound. The elementary educations partly based on those principles have now proved the pragmatic utility of the approach, as was shown in the first chapter, which described a scientifically controlled study in Denver that offers a well-controlled longitudinal, matched-pair study that proves the efficacy of using a specific grade-by-grade topic list for early education.[133]

But inevitably two questions will arise for the legislators who are brave enough to undertake a specific topic sequence for their state. Those questions are the conversation stoppers: "Whose culture?" and "Who decides?" The first chapter dealt with the "Who-decides?" issue, namely state legislatures and state governors. This little chapter will deal with first the "whose-culture?" question, and then with how we gained agreement on this diverse, grade-by-grade list. It is simply an extract from the *Core Knowledge K-8 Sequence*, which has proved to be an immensely egalitarian and useful instrument which parents of all ethnicities and races have enthusiastically approved. Over ten thousand free copies of the full *Sequence* are downloaded to new users every year.

In a diverse society like the USA, inclusiveness demands conscious inclusion of elements from diverse home ethnicities to help every child feel included. That inclusiveness, in fact, has been the norm in the development of multi-tribal societies. The joining of the Angles with the Saxons produced Anglo-Saxon, which joined with the invading Norman French, produced modern English. And in this country, with still more diverse ethnicities, it is up to the leadership of American education and our state legislators to amalgamate still more inclusive elements, but on the understanding that the modern world has introduced two hindrances to wholesale amalgamation of diverse languages and ethnicities.

Those two elements are widespread literacy and longevity. Both tend to inhibit rapid or massive change in our American ethnicity. Considering the value of the books in the library that are readable only by virtue of that literate ethnicity, it would be stupid to abandon the American print culture. Prior chapters have shown that because of the huge inertia of national print languages, we can still pronounce and understand the print language of our Declaration of Independence and of our Constitution.

The literate *emigrés* who have come to America have, in their childhood, learned another print culture and another communicative store that is firmly set in *their* birth country. Neither their entrenched literate eth-

nicity nor ours is open to wholesale change. We are not like the Angles and the Saxons, nor are we as short-lived. More than half of our current population is over 40 years old. Nonetheless, for the sake of promoting the idea of universal acceptance we *should deliberately include a lot of elements from the print cultures of emigrés and plenty from American black and Latine cultures*.[134]

Every modern nation that has a standardized national literate language must also, to be successful, promote and teach a system of background knowledge that makes the language useable and effective for all citizens. Professor Ernest Gellner, an expert on modern nations, called it a "school culture." Professor Deutsch, another profound student of the modern nation, called it a "complementarity of social communication," thus avoiding the use of the inflammatory word "culture."

Another candidate term is "print culture," which in my experience tends to calm the discussion. Another term used is "national culture" which is accurate, but not usable, now that smart young Americans have been taught that "nationalism" is a bad thing. I have also found it useful to use the more technical linguistic term "the communicative store."[135] That term makes clear the *operational* need for shared knowledge.

Words themselves *must* be ambiguous, because there must be many more communicable uses than there are words. Nobody can foresee the varied uses to which the words would need to be put. So, the ambiguous sentences would need to be disambiguated and amplified rapidly and securely in *varied* circumstances.

In discussing the psychology of language comprehension, I illustrated how much the listener must quickly bring to the speech event to fill out its meaning. So, for effective communication to occur within the tribe, its children must be taught not only the grammar and syntax and words of the language; they must also be taught the tribal lore, the background knowledge that enables fast, effective disambiguation of the language.

It is this completely universal characteristic of human tribes and languages that caused evolution to force women to give birth to a baby with a large head holding a large neocortex. That is where the communicative store is lodged. All human tribes require teaching the young the "communicative store" that will enable the child's future contribution to the survival of the tribe. The tribe's teachers have an obligation to convey this lore to all the children of the tribe.

This logically implies that modern nations need to teach a national core curriculum in the early grades to achieve nationwide competence, overcome home disadvantage, and achieve social justice. Hard-headed, cogent thinking is needed on this issue. An America-wide communicative store is required on solid scientific as well as solid social and ethical grounds. Americans in both parties concerned with social justice should become unified on this issue-there is no income equality without high literacy and the knowledge equality it requires.

If the term "communicative store" instead of "American Ethnicity" will help obviate the question "whose culture?" and assist good-willed cooperation in making our schools more effective, fine. American culture is no more and no less inherent than any other culture. No culture is inherent. All are historical inventions. Let's get practical about the historical contingency of ethnicity and quit attacking one another with half-baked, uninformed hostilities using fancy terms like "cultural hegemony." It's not a dictatorial imposition, but an example of every modern nation's need for a shared language, and shared communicative store. It's imposed not necessarily by some powerful group, but by devoted schoolteachers who want everybody to have a chance. To think of shared school culture as an ethnic imposition is itself, as Leigh Wilton has shown, an up-to-date, unwitting form of essentialism and racism.[136]

Let's Remove General Skills from the Discussion

To that end, it's also useful to deconstruct the evasive use of "reading comprehension skills," and "critical thinking skills," used by educators to avoid tough decisions and deflect attention from the central job of imparting the communicative store. It's as if imparting that store were not necessary so long as students gained (non-existent) general skills like comprehension skills.[137]

Let's unpack that assertion. In the *Quiz* at the end of this book, there are a few statements that I labeled "false." The statements concern general skills like reading-comprehension skills and critical thinking skills. These are widespread terms offered by American states and localities to describe the aims of their schooling. It's the fallback position in the absence of anything concrete in the way of a topic sequence in the early grades. I like to quote a top expert on skills, Anders Ericsson on that issue, because it's so unclouded by any ifs and buts:

> A crucial fact about expert performance in general: *there is no such thing as developing a general skill*. You don't train your memory; you train your memory for strings of digits or for collections of words or for people's faces. You don't train to become an athlete; you train to become a gymnast or a sprinter or a marathoner or a swimmer or a basketball player. (My italics)[138]

Our young people are now being put through their paces with exercises in "finding the main idea," which is hard if you have no firm idea what the text is saying. Similarly, claims for general "reading comprehension" skills and "critical thinking" skills, even if hedged with ifs and buts turn out to have small effects at best, as we deduce from the current reading scores. And please note, that these non-existent general *skills* continue to be invoked so that our schools and districts and schools of education can say *something* about school goals in the absence of anything specific in the way of knowledge. That explicitness is hard to achieve on the theory that knowledge should be differentiated and accommodated to the individual child. No! The only worthy and useful education is tribe-centered education.[139] Human education is first and foremost induction into the tribe; it is not first and foremost the development of a non-existent inborn unfolding-plan.

To his credit as a clear thinker, John Dewey saw from the start in his developmental *theory of individual differentiation* the problem of classroom confusion and inefficiency. In 1910, he wrote a whole book on the subject entitled *How We Think*. It starts this way:

> Our teachers find their tasks made heavier in that they have come to deal with pupils individually and not merely in mass. Unless these steps in advance are to end in distraction, some clue of unity, some principle that makes for simplification, must be found. This book represents the conviction that the needed steadying and centralizing factor is found in adopting as the end of endeavor that attitude of mind, that habit of thought, which we call scientific.

Dewey was right about the structure of the difficulty, but later work in psychology has demolished his proposed solution. There is no reliable general expertise of "scientific thinking." Dewey was an advocate of sci-

ence and of pragmatism. In the light of current science, he would have changed his mind and his advice. Faced with criticisms of this technical sort, the Dewey-drenched education community has fought back, with the claim that there is no solid controlled scientific evidence that a knowledge-based approach to schooling leads to better reading skills.

Yet the scientific conclusion about background knowledge is not that general knowledge helps directly. It's rather that general knowledge (especially when carefully selected) is more apt than ignorance to supply the specific knowledge that's needed to understand a specific text. Within any speech community, including the one that a nation's schools have a duty to create, the range of shared knowledge is finite, and needs to be explicitly agreed upon. That's why the specificity of a topic list is helpful to curriculum making.

Although the American educational community has not yet conceded the basic point about their duty to teach shared background knowledge, its younger education scholars – and especially a group from Australia – have challenged the developmental status quo. In a 2021 issue of *Reading Psychology* a team of four researchers report on their thorough review of the psychological and educational literature regarding background knowledge. The conclusion is concise:

> This review highlights the importance of the systematic and sequential building of background knowledge for an increased ability to comprehend a range of texts in upper-primary school children.[140]

I will add another datum to their thorough review. There is also our historical decline of reading scores to consider. The false theory of general comprehension skills upon which our helter-skelter early curriculum has been based has led to steep declines in our children's reading abilities and a recent increase in the gap between advantaged and disadvantaged children. That historical fact also counts as a supporting scientific datum. The before and after number of "subjects" in the experiment number in the millions, thereby transforming a statistical probability into a near certainty.

Criticisms of the Original List

Many but not all criticisms of the original cultural literacy list were of the "whose culture?" and "white culture" sort. "Old-fashioned" was another complaint. Today's print culture does change very fast at the edges. Hence, a new list will balance the divergent realities of stasis and change. Any good practical list will need to include both the old and the new and will need to be consistently updated.

The defects of the original list are concisely explained in the following account by Professor Jay Kaufman, a scientist. With his permission, I quote generously from his critical article in the September 2002 issue of the journal, *Epidemiology*. It summarizes most of the complaints against the original literacy list so it's a convenient basis for carrying forward the discussion:[141]

> This suggestion elsewhere in this issue [of the journal *Epidemiology*] for improved education relies heavily on the notion of "cultural literacy" introduced in the 1980s by educator E. D. Hirsch. Cultural literacy is the theory that there are certain things that everyone in a modern society ought to know, and that it is the possession of these various pieces of knowledge that confers to individuals the means to understand, communicate, and succeed—both socially and materially.
>
> The methodology for generating this list has remained somewhat mysterious, however. Hirsch explained merely that "more than one hundred consultants reported agreement on over 90 percent of the items listed," without ever explaining how such agreement was ascertained (e.g., did each consultant generate his or her own list independently?), nor indeed how the consultants themselves were chosen. Furthermore, Hirsch alluded to rejecting some items from the list because they were in fact too commonly familiar, and thus failed to discriminate effectively between the truly literate and the masses. He also made the list occasionally prescriptive rather than descriptive by including items, especially from the natural sciences, that were generally unfamiliar to even the more culturally literate, but which he felt should be familiar.

"Hirsch's list is the disease for which it claims to be the cure," argued Neil Postman. "[T]hat is to say, its arbitrariness only demonstrates the futility of trying to do what he wants to do." Indeed, the original list and its variants have been savaged by some for their inexplicable capriciousness and by others for their overt bias. For example, in the arena of entertainment, Hirsch declared that all Americans ought to be familiar with P. T. Barnum, Greta Garbo, and the Barrymores, while omitting Orson Welles, Mickey Mouse, and Miles Davis. Likewise, seven leading businessmen and industrialists were listed, but no counterpart labor leaders such as Samuel Gompers or Jimmy Hoffa. Essential music in our common culture includes, according to Hirsch, "Yankee Doodle" and "White Christmas," but not "Louie Louie" or "Satisfaction." …

Similar observations were made by others, including Herbert Kohl, who concluded that Hirsch thought a culturally literate individual was "apparently a university-educated European-American, most likely male, who speaks in platitudes and has a passing acquaintance with words drawn from the sciences, the humanities and the arts." To illustrate his point, Kohl excerpted items beginning with the letter "P" with which Hirsch asserted everyone ought to be familiar:

"perfectibility of man, periodic table of the elements, pax romana, pay the piper, pearl of great price, peeping Tom, Peloponnesian War, penis envy, penny saved is a penny earned, persona non grata, Peter the Great, Phi Beta Kappa, philosopher king, photoelectric effect, plate tectonics, Pickwickian, Planck's constant, play second fiddle, pogrom, proof of the pudding is in the eating, and Pyrrhic victory."

Though I have a doctoral degree, I confess to a little bit of confusion about "Pickwickian." However embarrassing it is to admit this as a scientist, I am also not sure how well I could explain the photoelectric effect, plate tectonics, or Planck's constant, nor have I ever heard "pearl of great price" used in a conversation, ever. The question remains whether one qualifies as culturally literate mere-

> ly from having encountered these words, or whether one must actually understand what they mean, and if so, just how deep an understanding is required…

Kohl also noted that the list tended to downplay words and phrases that relate to subgroup thinking and non-Western cultures, and he listed examples of words and phrases that I opted to omit such as "*peace activists, pesticides, political prisoner, potlatch, premenstrual syndrome, prison, prophylactic, prostitution, pueblo and prime time,*" not to mention "*prick, piss, putz, pussy, patronize, palimony, prissy, putsch, pig, profligate, play politics, play the field, and play into one's hands.*" He went on:

> Who is to judge that these words are not equally at the center of our culture as those chosen by Hirsch? I certainly do better on Kohl's lists than on Hirsch's, despite generous helpings of elite education. This example highlights a certain arrogance in making such lists in the first place, presuming that Hirsch or any other individual is qualified to speak for what is essential for the rest of us to know. A reasonably objective or rational methodology for constructing such a list has never, to my knowledge, been suggested by any of the proponents of cultural literacy. …
> More importantly, in a diverse society there is simply no monolithic national culture, and no single set of facts or terms that everyone ought to know in order to succeed materially or socially. …
> Because Hirsch vacillated between prescriptive and descriptive strategies in the selection of items, no gold standard appears to exist for the validation of any derived scale. Therefore, although checklists have been administered and scores computed, this exercise provides no basis at all for Kelleher's confident assertion that cultural literacy is "something specific enough to measure," only that self-reported familiarity with items on Hirsch's lists is something specific enough to measure.

Response to the Criticisms

This is a formidable and mostly cogent critique, uncontaminated by the anger or self-righteousness, which colored much of the response to *Cultural Literacy*. I agree with Professor Kaufman's criticism of the list's

overt prescriptiveness when it comes to science. We unwisely mentioned scientific theories and principles we thought everyone *should* know rather than what educated people *do* know. There is too much of that same prescriptiveness in other domains too.

There is nonetheless still in our Core Knowledge work a touch of prescriptiveness in items from American history. Many educators and scholars have stated that civics and patriotism have recently been neglected in our schools. I plead guilty of some prescriptiveness in that domain. That's no scientific sin, however, if that fact is openly acknowledged for items in the area of American history and citizenship. In sum, the new, improved *Sequence* (upon which the revised *Core Knowledge Sequence* is formed) is more useful and accurate and up to date than the former one was. It tries to correct some of the flaws that Professor Kaufman and others have enumerated.

I will now offer a response to those critiques and show that despite such justified objections the list has a high degree of validity and utility. First, to the *validity* of the whole enterprise, which is questioned by Dr. Kaufman and others. One way to determine the existing shared knowledge in a speech community is to poll a sample of community-members to determine whether they in fact possess those pieces of knowledge.

The danger to the accuracy of such a sampling is in the narrowness of the group that is polled. That was a chief objection of Professor Kaufman. But we did not poll, nor did we set out to poll a representative sample of all Americans. That was not the aim. Our aim is to improve the wealth and happiness of the less rich, less well-educated, and less-fairly-treated members of our society; hence those poor and ill-educated people are not the respondents whom one *ought* to poll, if one wants to know what the high-scorers on reading tests know, since this will be useful to the low-scorers and their teachers. Since school-based knowledge is the main source of the communicative store of a modern society, the schools of a democracy have the duty to convey that liberating knowledge to every child.

This deliberate selectivity among our respondents induced resentment among the un-polled, especially among some blacks whose culture was neglected. Our "narrowness" led to the complaint by those who score low on reading tests that *their* culture is equally worthy, even if not deemed so by reading tests, which are said to be "biased" towards the white population and the well-off.

That's a reasonable response. And we have done a lot about that in the new *Sequence*. But it becomes a productive response only if we also focus on preserving the universalist, egalitarian communicative goals behind the census of American ethnicity. If critics of the effort did not themselves master this instrument against which they are objecting, they themselves would fail to communicate. To use resentment as a decisive blanket objection overlooks the demonstrably practical progress that the "core knowledge idea" has effected in children's lives in some 10,000 schools.[142] To have banned Core Knowledge from those schools would have kept poor children poor who might otherwise be capable of getting a college degree and a good salary as we showed in Chapter 1.

It's important to make every young pupil feel included, and it's also important to make everyone feel that bi-culturalism is a good thing. That has been the American version of multiculturalism as Mary C. Waters and Richard Alba have shown.[143] Bi-culturalism is indeed a good thing, in fact an essential thing to unify a multicultural nation: with everybody possessing both the culture of the home and the culture of the school. We should also have stated more emphatically than we did that non-literate cultures are indeed just as valid and estimable as literate cultures are. But would anyone contest that all modern *national* cultures are literate cultures? Literacy is the democratic, universal means of communication in the modern nation.

The claim by identity theorists of the equal validity of all cultures, while true, is not the only key topic that is at issue. To emphasize *exclusively* the point about equal worth of cultures is to change the subject away from *income equality and equal citizenship*. It's my personal belief that American black culture has a special place in the discussion. Black people came here unwillingly, unlike other immigrants. Blacks fought at Boston and Lexington, and Concord. Their culture has deeply infused our literate culture, just as the King James Version has infused theirs.

But we must not change the subject away from economics and citizenship. The people affected – the parents and children of the poor and ill-educated – emphatically do not agree with the exclusive, equal-worth, separatist emphasis of the professors of ethnicity. Low-income parents want their children to attend a high school and college and enter a well-paid profession. They apply to Core Knowledge schools in great numbers. Those parents may be poor and ill-educated, but they are smart. They do

not want their children to attend the content-scattered local public schools that produce low reading scores – and low incomes.

Consider the South Bronx. The residents are largely poor black and brown people, many immensely talented. They are shrewd enough to hate the inadequacies of their regular public schools, which praise diversity and teach ethnic pride, but do not impart high reading ability. Those parents are ignoring the ethnic-identity arguments because they have witnessed at first hand the *practical* results of the two theories. They are right to see the value of high reading scores. And they have seen at first hand that children in these Core Knowledge schools subsequently go to select high schools and thence to college.

These smart parents are a potential political force that educational reformers should consider and enlist. The scientific soundness and practical success of the Core Knowledge effort in the schools constitute strong evidence of the validity and utility of knowledge-centered-education as distinct from child-centered education.

What about the validity of the counter theories held by Professor Kaufman and other critics? I believe there is a fundamental defect in the underlying premise that has prompted their critiques. They all have the following characteristic – a reverence for "diversity."

For example, Dr. Kaufman in his analysis of the flaws in cultural literacy includes (like the other critics) the following general repudiation of the whole core knowledge enterprise. He says: "*More importantly, in a diverse society there is simply no monolithic national culture, and no single set of facts or terms that everyone ought to know in order to succeed materially or socially*." That statement is incorrect. Without shared knowledge of the print culture and allegiance to the country there is no inherent reason that diverse sub-tribes, instinctively distrustful of each other, should magically be able to communicate and work together effectively and get along with one another.

Their native distrust is diminished when they all feel allegiance to a larger American tribe to which they all patriotically belong – it's the: "we-are-all-Americans" principle. I believe that given the strong sociological and psychological evidence offered in the prior chapters that Dr. Kaufman as a scientist might now agree.

Note, too, the paradox that such praise of diversity and critique of Core Knowledge are uniformly taking place in standard American En-

glish, correctly spelled, elegantly stated, and grammatically correct. The critics themselves are in possession of American Ethnicity – of the American print culture. One critic says dismissively that the list had in mind: "*apparently a university-educated European-American, most likely male, who speaks in platitudes and has a passing acquaintance with words drawn from the sciences, the humanities and the arts.*"

That is undoubtedly true of the person who made this remark. But note its implicit essentialism: it presumes that only a person of that description would know the things that are known by a "European-American" (i.e. a white person) who is university-educated (i.e. got beyond American high school).

But why can't *anybody* learn and know those things? Where does education fit into the critic's scheme? This myopia reflects what social scientists name "cultural essentialism."[144] Are we to know only what is learned in the family? Where is the "Common School" in all this condescending cultural diversity?

A school can teach anything to anyone if it has a mind to. This is proved every regular school day in some 10,000 Core Knowledge schools on the following basic principle:

> We have chosen what is common, established, almost proverbial; what has become indisputably classic, what in brief every child in the land ought to know, because it is good and because other people know it.

"Because it is good and because other people know it." That's from the preface to the immensely popular school anthology "Everyday Classics" early in the 20th century. Sure, in those days it was lily white. But its *principle* is not lily white. Just the opposite. Its principle is multi-colored, multi-ethnic in a diverse land where everybody can talk and write to everybody else, because the schools are doing their job.

Isn't it a paradox that those who praise diversity and multiculturalism assume that the individuals themselves are not multicultural? But they are! People of all races and origins who are highly literate and competent have mastered the communicative store necessary to high literacy in American English, no matter what their origins. Widespread biculturalism currently exists.

In short, the invocation of "diversity" as a *dominant* rather than subordinate good is not a theory that accords with reality. At bottom, the cult of diversity depends on a confidence that if we let all those diverse tribes do their own thing, then all will work out marvelously within our "diverse society."

But consider that key term "society." It is a word that is often used in the commentaries just quoted. Diversity is indeed a great and desirable good *within* a well-functioning society. There's the rub. What is this "society"? That word is a modern term for a big tribe that formed itself into a modern, pluralistic nation with a standardized language. Coming from the Latin word for "companion," it originally meant a cozy club like the "Royal Society."

But in the 20th century scholars needed a new, more advanced general term for national groups in the modern world. "Tribe" would not do. Scholars adopted the new term "society" to embrace the study of human groups in general. So, in modern times "society" became a much broader and vaguer term embracing modern human collectivities.

As we see from the Kaufman quote above, the high vagueness of the term "society" permits evasions. It can *imply* the "unity" of a group even when that unity is slackening or gone. That is exactly the false implication in Dr. Kaufman's remark: "*More importantly, in a diverse society there is simply no monolithic national culture, and no single set of facts or terms that everyone ought to know in order to succeed materially or socially.*"

So writes Professor Kaufman. But no. A reading test is a knowledge test – a *shared* knowledge test – and it is, as Professor Cohen points out, an income prediction test. Cognitive scientists have proved that full language comprehension depends upon a shared ethnicity in a nation; it depends upon the print culture, the communicative store. The Daniel Willingham aphorism can be stated more precisely: "A reading test is an ethnicity test in disguise."

Do critics like Dr, Kaufman really wish to claim that scores on a *reading test* are irrelevant "*in order to succeed materially or socially*" in our society? The evidence already cited is powerfully against such a claim.[145] My hope is that thoughtful critics like Dr. Kaufman will come to "follow the argument whither it leads," especially now that, a third of a century since the original list was published, the evidence is now in. Statistically there *is* "a set of terms you need to know in order to succeed materially or socially." It is not gained by following the child's nature.

Nature indeed! Development indeed! America has flourished by virtue of its artificiality. That's true of all successful nations. Nature, like its evolutionary ally Time, is "intolerant/ Of the brave and innocent/ And indifferent in a week/ To a beautiful physique." Nothing in Nature says that a "diverse society" will naturally remain a unified or workable society. As a matter of urgent practicality, the USA needs a strong dose of curricular commonality to keep us unified and competent, and its citizens loyal to one another.

The laissez faire, natural idea of schooling cannot work, any more than can Dr. Kaufman's laissez faire view of "a diverse society". Nature's diversity is not itself providential. It is experimental. She has given humans a big, blank neo-cortex by means of which we can form with great artificiality and shrewdness an effective society that promotes the general welfare and secures domestic tranquility.

If the USA is to flourish in a dangerous and competitive world, our schools need to constrain the inherent selfishness of individuals and encourage broader group altruism; it also needs to constrain our instinctive narrow sub-tribal allegiances with a broader *national* tribalism in which we *all* support each another across the land. That cannot happen naturally. It will require devoting a lot of thought to the substance of the elementary curriculum and its moral teachings.

A grade-by-grade set of topics needs to come from state legislators, based on a list of what high income adult Americans tend to know, no matter their skin color. It has been used successfully by the Core Knowledge Foundation as the basis for a successful and popular elementary sequence, which is constantly being updated to include more black, Latine, and indigenous elements. But as sociologists point out, those home cultures when taught in school become, over time, part of the school culture that we *all* share.

The stakes could hardly be more massive. In the nineteenth century we had a de facto national curriculum. To move in that direction is not a radical departure; it's as American as apple pie. The *departure* was the naturalistic laissez faire idea of schooling that moved away from the idea of the Common School. The Common School enabled the early success of the United States. The shared-knowledge principle has been the basis of our fairness and prosperity. These demand the competence and hence the communicability of all citizens. We Americans created ourselves from the start. We need to keep doing so – starting in preschool and kindergarten.

Not much in any of the great civilizations of history – including that of the United States – is natural. Consider the diversity of human languages – especially those that have been codified and written down and used to form great nations. They are inventions of human ingenuity that differ greatly from one another. This book has described in its Part II the heroic historical normalization of the language we Americans use for our communication.

Accident and inventive human ingenuity – not nature – have formed the national habits and languages of the modern world. The same was true of the ancient world. Nature no doubt has given humans the *means* to invent, but she has not dictated what the inventions shall be. The 19th-century idea that nature should be our guide – still so powerful in modern America – is itself an artefact of history. That idea was a human invention – and has been a profound mistake. It has become a nation-threatening mistake for us Americans.

The Enlightenment conceptions that originated America stressed the non-natural character of us humans and our social arrangements. Our Enlightenment early educators saw that with clarity. Our greatest educator, Horace Mann, understood that nature formed us to make ourselves: "The human being is less endowed with instincts for his guidance than the lower orders of animated creation." We must therefore use logic and experience to make a good, enduring society. Neither religion nor tradition shall be our guide. Our American contribution to human thought has been pragmatism. We deeply need to rediscover our own profound invention.

Chapter 10

American Ethnicity Through Grade 8

As an example of the sort of "curriculum framework" that Al Shanker recommended to state legislatures, here is a tested model – at least that part of a model which concerns American ethnicity and ability to learn and communicate. To save space I have omitted math and science, which are centrally important, but which are also trans-ethnic. Shared ethnicity within the classroom *enables* effective learning of math and science! It makes the classroom a speech community in which every student understands the language of instruction in schoolbooks and classroom exchanges. Among the thirty-five nations in the Organization for Economic Cooperation and Development, which sponsors the PISA initiative, the U.S. ranked thirtieth in math and nineteenth in science. This embarrassing result is avoidable, as the Core Knowledge schools have shown.

Parents, teachers, and especially the children themselves who are using it are enthusiastic about what they are learning. In the debate between parents and some kindergarten teachers about whether to make self-esteem or reading, writing, and arithmetic the primary aim, it turns out that in this case, there is little to debate about, since learning all these grown-up things not only pleases the kindergartners enormously; it also makes them quite proud of all they have learned. It increases their self-esteem. There is no real conflict between the two goals – literacy, and self-esteem. It's both-and.

There's a lot at stake: both the competence and success of your child, and the competence and success of our country. Within the past few years,

there has been a lot of talk about America's level in the PISA rankings. China stands at number one. To change that we need to follow Al Shanker's advice. The full curriculum framework including math and science plus technical mastery of reading and writing is downloadable gratis from the Core Knowledge Foundation at www.coreknowledge.org.

What I am offering in this final chapter is an outline of what the great historian Karl Deutsch named "complementarity of social communication" that enables fast communication and fast learning to occur. That phrase, "complementarity of social communication" is equivalent to the title that summarizes this book – "American Ethnicity." It is the shared background knowledge that enables both efficient communication and efficient learning to occur. Learning occurs effectively in the classroom only when all the children share enough background knowledge to fully understand the language of the classroom. A nation becomes more competent, effective, and united only when its citizens communicate effectively and subtly with one another in speech and writing. *That* requires not just literacy in the international subjects of science and math, but also other also literacy in the shared knowledge within one's own society – its shared history, its shared stories, its shared images, music, songs, its values, and commitments.

By the end of grade 8, the die is cast. I have reproduced below the elements of the *Core Knowledge Sequence* K-8 in history, literature, and the arts. After much input from all over the United States over many years, it is a workable representation of American ethnicity through grade eight. Based on its documented results, we can at least claim that this shared knowledge along with its first-rate math and science, has prepared and can prepare *any* young American to excel in high school.

Here then is a condensed outline of the current year-by-year, K-8 history, literature, and the arts. (It is updated periodically as any such curricular guide must be.) It's the *kind* of "curriculum framework" that each of our states needs to legislate if we are to rise to our revolutionary ideals. We have proved that 8th graders who know the full *Core Knowledge Sequence* are ready for whatever even the toughest high school can throw at them!

Kindergarten

Language Arts

Mother Goose and Other Traditional Poems: "A Diller A Dollar," "Baa, Baa Black Sheep," "Diddle, Diddle Dumpling," "Early to Bed," "Geor-

gie Porgie," "Hey Diddle- Diddle," "Hickory Dickory Dock," "Hot Cross Buns," "Humpty-Dumpty," "It's Raining It's Pouring," "Jack and Jill," "Jack Be Nimble," "Jack Sprat," "Ladybug, Ladybug," "Little Bo Peep," "Little Boy Blue," "Little Jack Horner," "Little Miss Muffet," "London Bridge Is Falling Down," "Mary, Mary Quite Contrary," "Old King Cole," "Old Mother Hubbard," "One Two Buckle My Shoe," "Pat-a Cake," "Rain Rain Go Away," "Ride a Cock Horse," "Ring Around the Rosey," "Rockabye Baby," "Roses Are Red," "See Saw Margery Daw," "Simple Simon," "Sing a Song of Sixpence," "Star Light Star Bright," "There Was a Little Girl," "There Was an Old Woman Who Lived in a Shoe," "This Little Pig Went to Market," "Three Blind Mice."

Other Poems Old and New: "April Rain Song" (Langston Hughes), "Happy Thought" (Robert Louis Stevenson), "I Do Not Mind You Winter Wind" (Jack Prelutsky), "Mary Had a Little Lamb" (Sara Josepha Hale), "The More It Snows" (A. A. Milne), "My Nose" (Dorothy Aldis), "Rain" (Robert Louis Stevenson), "Three Little Kittens" (Eliza Lee Follen), "Time to Rise" (Robert Louis Stevenson), "Tommy" (Gwendolyn Brooks), "Twinkle Twinkle Little Star"(Jane Taylor).

Fiction: Stories*:* "The Bremen Town Musicians" (Brothers Grimm), "Chicken Little" (also known as "Henny Penny"), "Cinderella" (Charles Perrault), "Goldilocks and the Three Bears," "How Many Spots Does a Leopard Have?" (African folktale), "King Midas and the Golden Touch," "The Legend of Jumping Mouse" (Northern Plains legend), "The Little Red Hen," "Little Red Riding Hood," "Momotaro: Peach Boy" (Japanese folktale), "Snow White and the Seven Dwarfs," "The Three Billy Goats Gruff," "The Three Little Pigs,""A Tug of War" (African folktale), "The Ugly Duckling" (Hans Christian Andersen), "The Velveteen Rabbit" (Margery Williams), "Winnie the Pooh" (A. A. Milne), "The Wolf and the Kids" (Brothers Grimm), Aesop's Fables: "The Lion and the Mouse," "The Grasshopper and the Ants," "The Dog and His Shadow," "The Hare and the Tortoise."

American Folk Heroes and Tall Tales*:* Johnny Appleseed, Casey Jones.

Sayings*:* A dog is man's best friend. April showers bring May flowers. Better safe than sorry. Do unto others as you would have them do unto you. The early bird gets the worm. Great oaks from little acorns grow. Look before you leap. A place for everything and everything in its place. Practice makes perfect. [It's] raining cats and dogs. Where there's a will there's a way.

History and Geography

Geography—Spatial Sense: maps and globes; rivers, lakes, and mountains; Atlantic and Pacific Oceans, North and South Poles

The Seven Continents*:* Asia, Europe, Africa, North America, South America, Antarctica , Australia

American History and Geography

Name and location of town, city, community, state where you live, North America, continental United States, Alaska, Hawaii

Native American peoples, past and present*:* the landscape and environment they lived in, how they lived, what they wore and ate, the homes they lived in, beliefs and stories, current status of a tribe or nation

Early Exploration and Settlement

The Voyage of Columbus (Cristoforo Colombo), Queen Isabella and King Ferdinand of Spain, The Niña Pinta and Santa Maria, Mistaken "Indies" and "Indians," "New World," The Pilgrims, The Mayflower, Plymouth Rock, Thanksgiving Day celebration, July 4th, "Independence Day," the "birthday" of our nation, Democracy (rule of the people): Americans wanted to rule themselves instead of being ruled be a faraway king. Slavery: some people were not free.

Presidents, Past and Present: George Washington: The "Father of Our Country," Legend of George Washington and the cherry tree, Thomas Jefferson: author of Declaration of Independence, Abraham Lincoln: humble origins, "Honest Abe," Theodore Roosevelt: National Park initiative, Barrack Obama: the first Black American president, Current United States president

Symbols and Figures*:* Recognize and become familiar with the significance of American flag, Statue of Liberty, Mount Rushmore, and The White House.

Kindergarten Visual Arts

Elements of Art

Color*:* Observe how colors can create different feelings and how certain colors can seem "warm" (red, orange, yellow) or "cool" (blue, green, purple)

Observe the use of color in*:* Pieter Bruegel, *The Hunters in the Snow*; Helen Frankenthaler, *Blue Atmosphere*: Paul Gauguin, *Tahitian Landscape*;

Pablo Picasso, *Le Gourmet*; Alice Neel, *Two Girls in Spanish Harlem*; Louis Smoky Kaulaity, *Lullaby*; Mandy Martin, *Evening Clouds*

Line: Identify and use different lines: straight, zigzag, curved, wavy, thick, thin. Observe different kinds of lines in Katsushika Hokusai, *Tuning the Samisen;* Henri Matisse, *Purple Robe and Anemones*; Joan Miró, *People and Dog in the Sun*; Kathe Kollwitz, *Sleeping Woman and Child*; William H. Johnson, *Li'L Sis*; Horace Pippin, *Family Supper*

Sculpture

Recognize and discuss the following as sculptures: Northwest American Indian totem pole; Alexander Calder: *Lobster Trap and Fish Tail*; Sandy Skoglund: *Gathering Paradise*; Pieter Bruegel: *Children's Games*; Winslow Homer: *Snap the Whip*; Diego Rivera: *The Mother's Helper*; Henry O. Tanner: *The Banjo Lesson*; Maria Izquierdo: *My Nieces*; Mark Tansey: *Snowman*.

Architecture*:* Hall of Supreme Harmony, Eiffel Tower, Sydney Opera House

Music

Listening and Understanding*:* Recognize the following instruments by sight and sound: guitar, piano, trumpet, flute, violin, drum.

Become familiar with the following works: Edvard Grieg, "Morning Mood" and "In the Hall of the Mountain King" from Pier Gynt; Victor Herbert, "March of the Toys" from Babes in Toyland; Camille Saint-Saëns,"-Carnival of the Animals"; Ella Fitzgerald, "A Tisket A Tasket."

Songs*:* "The Bear Went Over the Mountain," "Bingo,""Go In and Out the Window," "Go Tell Aunt Rhody,""Here We Go Round the Mulberry Bush," "If You're Happy and You Know It," "Jingle Bells," "John Jacob Jingleheimer Schmidt," "Kumbaya," "London Bridge," "Old MacDonald Had a Farm," "Row Row Row Your Boat," This Old Man," "Twinkle Twinkle Little Star," "The Wheels on the Bus," "A Ram Sam Sam," "Fais Dodo," "Pin Pon," "This Little Light of Mine," "Oh John the Rabbit," "Are You Sleeping?," "Do Your Ears Hang Low?," "Did You Ever See a Lassie?" "Eensy Weensy Spider," "Five Little Ducks That I Once Knew," "Five Little Monkeys Jumping On the Bed," "Happy Birthday to You," "Head and Shoulders Knees and Toes," "Here is the Beehive," "I'm a Little Teapot," "Kookaburra," "Lazy Mary," "Looby Loo," "Oats Peas Beans and Barley Grow," "Oh Do You Know the Muffin Man?," "Oh Where, Oh Where, Has My Little Dog Gone?," "One Potato Two Potato," "Open Shut Them," "Pop Goes the Wea-

sel," "Teddy Bear, Teddy Bear Turn Around," "Teddy Bears Picnic," "Where is Thumbkin?," "Who Stole the Cookie from the Cookie Jar?," "You Are My Sunshine"

Grade 1

English Language Arts

Poetry*:* "Hope" (Langston Hughes), "I Know All the Sounds the Animals Make" (Jack Prelutsky), "My Shadow" (Robert Louis Stevenson), "The Owl and the Pussycat" (Edward Lear), "The Pasture" (Robert Frost), "The Purple Cow" (Gelett Burgess), "Rope Rhyme" (Eloise Greenfield), "Sing a Song of People" (Lois Lenski), "Solomon Grundy" (traditional), "The Swing" (Robert Louis Stevenson), "Table Manners" (Gelett Burgess), "Thanksgiving Day" (Lydia Maria Child), "Washington" (Nancy Byrd Turner), "Wynken, Blynken and Nod" (Eugene Field)

Fiction*:* Stories: "The Boy at the Dike" (folktale from Holland), "The Frog Prince", "Hansel and Gretel", selections from "The House at Pooh Corner" (A. A. Milne), "How Anansi Got Stories from the Sky God" (folktale from WestAfrica), "It Could Always Be Worse" (Yiddish folktale), "Jack and the Beanstalk," "The Knee-High Man," "Medio Pollito," "The Pied Piper of Hamelin," "Pinocchio," "The Princess and the Pea," "Puss in Boots," "Rapunzel," "Rumpelstiltskin," "Sleeping Beauty," *The Tale of Peter Rabbit*" (Beatrix Potter), "Br'er Rabbit Gets Br'er Fox's Dinner," "Br'er Rabbit Tricks Br'er Bear," "Br'er Rabbit and the Tar Baby," "Why the Owl Has Big Eyes"

Aesop's Fables*:* "The Boy Who Cried Wolf," "The Dog in the Manger," "The Wolf in Sheep's Clothing," "The Maid and the Milk Pail," "The Fox and the Grapes," "The Goose and the Golden Eggs,"-Different Lands, Similar Stories should be on the next line as a header that is the same size and font as Aesop's Fables-story names should follow after : beginning with "Lon Po Po" (China) and Little Red Riding Hood; "Issun Boshi" or "One Inch Boy" (Japan), "Tom Thumb" (England), "Thumbelina" (Hans Christian Andersen), and "Little Finger of the Watermelon Patch" (Vietnam)

Literary Terms*:* Characters, heroes, and, heroines

Drama*:* actors and actresses; costumes, scenery, props, theater, stage, audience.

Sayings and Phrases*:* a.m. and p.m. An apple a day keeps the doctor away. Do unto others as you would have them do unto you. Fish out of water. Hit the nail on the head. If at first you don't succeed try, try again.

Land of Nod. Let the cat out of the bag. The more the merrier. Never leave till tomorrow what you can do today. Practice makes perfect. Sour grapes There's no place like home. Wolf in sheep's clothing.

History and Geography

Geography*:* Pacific, Atlantic, Indian, Arctic, and Southern oceans, Canada, United States, Mexico, Central America, South America, Equator, Northern Hemisphere, Southern Hemisphere, North and South Poles. Geographical terms: Peninsula, harbor, bay, island, ocean, sea.

Early World Civilizations: Mesopotamia: the "cradle of civilization," Tigris and Euphrates Rivers, Farming methods, organized settlements, Development of writing, Code of Hammurabi, why rules and laws are important to the development of civilization.

Ancient Egypt*:* Transcontinental country (Africa and Asia); Sahara Desert; Importance of Nile River, floods and farming; Pharaohs: Tutankhamen, Hatshepsut (woman pharaoh); Pyramids and mummies; animal gods and goddesses; Sphinx; Hieroglyphics

History of World Religions*:*

Judaism*:* Belief, in one God, Story of the Exodus, Moses leads the Hebrews out of Egypt, Israel, Chanukah, Star of David, Torah, Synagogue.

Christianity: grew out of Judaism, Jesus, meaning "messiah", Christmas and Easter, symbol of the cross.

Islam: Originated in Arabia and since spread worldwide, Followers are called Muslims; Allah, Muhammad, Makkah, Qur'an, Mosque, Crescent and star.

Modern Civilization and Culture*: Mexico*: Geography; North American continent; locate Mexico relative to Canada and the United States; Central America, Yucatan Peninsula, Pacific Ocean, Gulf of Mexico, Rio Grande, Mexico City.

Culture: Indigenous and Spanish heritage, Mexican flag, Fiesta, Piñata, Day of the Dead, September 16: Independence Day

American History and Geography

Early People and Civilizations

The Earliest People: Hunters and Nomads

Crossing from Asia to North America (Beringian Land Bridge Theory or Kelp Highway); from hunting to farming; gradual development of early towns and cities

Early American Civilizations.

Maya in Mexico and Central America: Mayan Calendar; Culture: Farming methods, religious beliefs, temples; Aztecs in Mexico, Montezuma, Tenochtitlan (Mexico City); *Inca* in South America (Peru, Chile; Cities in the Andes, Machu Picchu.

Early Exploration and Settlement.

The Conquistadors: The search for gold and silver; Hernân Cortés and the Aztecs; Francisco Pizarro and the Inca; Diseases devastate Native American population.

English Settlers*:* The story of the Lost Colony: Sir Walter Raleigh, Virginia Dare; Virginia: Jamestown, Captain John Smith, Pocahontas and Powhatan; Enslavement of people brought by force from Africa, plantations in Southern colonies; Massachusetts: Pilgrims, Mayflower, Native Americans helped Pilgrims survive, Tisquantum (Squanto), Thanksgiving Day, Massachusetts Bay Colony, the Puritans, Development of towns and cities.

From Colonies to Independence*:* The American Revolution; Original thirteen colonies; The Boston Tea Party; Paul Revere's ride, "One if by land two if by sea;" fighting the British to gain their freedom; Minutemen and Redcoats, the "shot heard round the world"; Thomas Jefferson and the Declaration of Independence; George Washington, Martha Washington, our national capital city named Washington; Legend of Betsy Ross and the flag.

Early Exploration of the American West*:* Daniel Boone and the Wilderness Road; The Louisiana Purchase, Explorations of Lewis and Clark, Sacagawea, The Mandan Tribe and Fort Mandan, Port of New Orleans; Appalachian Mountains, Rocky Mountains, Mississippi River.

Symbols and Figures*:* Liberty Bell, current United States president, American flag, Bald eagle.

Visual Arts

Art from Long Ago: Cave paintings, *Running Horses* from Cave of Lascaux; Art of Ancient Egypt, Great Sphinx, Tutankamen, Coffin Bust of Queen Nefertiti.

Elements of Art

Color*:* Primary colors; Monet, *Tulips in Holland*; Whistler, *Arrangement in Black and Grey* (Whistler's Mother); Diego Rivera, *Piñata*; Romaine Brooks, *Emile d'ErIanger La Baronne*, Pedro Linares *Alebrijes*.

Line*:* Types of line; Jacob Lawrence , *Parade*; Henri Matisse, *The Swan*; Georgia O'Keeffe , *Shell*; John Audubon, *Trumpeted Swan*; Lola Alvarez, *Bravo El baño*; Elizabeth Catlett, *La Presa*; Leonard Freed , *Fire Hydrant*; Juan Quezada Celado, Mata Ortiz pottery.

Shape*:* Basic geometric shapes; Grant Wood, *Stone City, Iowa*; Sophie Taeuber, *Arp*, *Dada Head*; Marisol, *The Family*; Chuck Close, *Elizabeth*; Amy Bennett , *Nothing New Under The Sun*.

Texture*:* Qualities of texture; Edgar Degas , *Little Fourteen-Year-Old Dancer*; Albrecht Durer, *Young Hare*; Olga de Amaral, *Maria Azul*; Lina Iris Viktor, *In the Beginning was Chaos.*

Kinds of Pictures

Portrait*:* Leonardo da Vinci, *Mono Lisa*; Francisco Goya y Lucientes, *Don Manuel Osorio Manrique de Zuñiga*; Vincent van Gogh, *Self Portrait*; Frida Kahlo, *Self Portrait with Necklace of Thorns*; Horace Pippin, *Self Portrait* II; Amy Sherald, *The Make Believer*

Still Life*:* Vincent van Gogh, *Irises*; Paul Cézanne, *Apples and Oranges*; Clara Peeters, *Table with Orange, Olives and Pie.*

Murals*:* Diego Rivera, *The History of Medicine in Mexico*; David Alfaro Siqueros, *The Revolution*.

Architecture*:* Ziggurat of Ur in Ancient Mesopotamia, Great Pyramids of Egypt, Teotihuacan: Pyramid of the Moon.

Grade 1 Music

Listening and Understanding

Terms and Concepts

Terms: Adagio–slow, moderato–medium, Allegro–fast; Composer-someone who writes music; Mozart, Allegro (first movement) from *Eine kleine Nachtmusik*; The story behind Tchaikovsky's *Nutcracker Suite*; Louis Armstrong performing "When the Saints Go Marching In."

Orchestra*:* Strings, brass, woodwinds, percussion, conductor; shown in *Prokofiev's Peter and the Wolf.*

Opera*:* Humperdinck's *Hansel and Gretel*: "Brother Come Dance with Me" ; "I Am the Little Sandman"; "Children's Prayer."

Instrumental Music*:* Dukas: *The Sorcerer's Apprentice*

Ballet*:* Tchaikovsky: *Nutcracker Suite*

American Musical Traditions

Jazz*:* Louis Armstrong: "What a Wonderful World"; Lil Hardin Arm-

strong: "Doin' the Suzie Q," Lil Hardin Armstrong.

Songs*:* "My Country Tis of Thee," "Dry Bones," "For He's a Jolly Good Fellow," "Frère Jacques," "La Raspa," "Make New Friends," "Michael Row the Boat Ashore," "Oh Dear What Can the Matter Be?," "On Top of Old Smokey," "She'll Be Comin' 'Round the Mountain," "Skip to My Lou," "Take Me Out to the Ball Game," "There's a Hole in the Bucket," "When the Saints Go Marching In," "Yankee Doodle."

Grade 2

Language Arts

Poems*:* "Bed in Summer," Robert Louis Stevenson; "Bee! I'm expecting you," Emily Dickinson; "Buffalo Dusk," Carl Sandburg; "Caterpillars," Aileen Fisher; "Discovery," Harry Behn; "Harriet Tubman," Eloise Greenfield; "Hurt No Living Thing," Christina Rossetti; "Lincoln," Nancy Byrd Turner; "The Night Before Christmas," Clement Clarke Moore; "Rudolph Is Tired of the City," Gwendolyn Brooks; "Seashell," Federico Garcia Lorca; "Smart," Shel Silverstein.

Stories*:* "Beauty and the Beast," "The Blind Men and the Elephant"; *A Christmas Carol* (Charles Dickens), *Charlotte's Web* (E. B. White), "The Emperor's New Clothes" (Hans Christian Andersen), "The Fisherman and His Wife" (Brothers Grimm), "How the Camel Got His Hump" (Rudyard Kipling), "Iktomi Lost His Eyes," "Iktomi and the Berries," "Iktomi and the Boulder" (legends of the Plains Indians), "The Magic Paintbrush" (a Chinese folktale), "El Pajaro Cu" (a Hispanic folktale), *Peter Pan* (James M. Barrie) "Talk" (a West African folktale), "The Tiger, the Brahman, and the Jackal" (a folktale from India), "The Tongue Cut Sparrow" (a folktale from Japan).

Mythology of Ancient Greece and Rome

Gods of Ancient Greece (and Rome): Zeus (Jupiter), Hera (Juno), Apollo (Apollo), Artemis (Diana), Poseidon (Neptune), Aphrodite (Venus), Demeter (Ceres), Ares (Mars), Hermes (Mercury), Athena (Minerva), Hephaestus (Vulcan), Eros (Cupid), Hades (Pluto); Mount Olympus: home of the gods.

Mythological Creatures and Characters*:* Atlas holding the world on his shoulders, Centaurs, Cerberus, Pegasus, Pan.

Greek Myths*:* "Prometheus" (how he brought fire from the gods to men), "Pandora's Box," "Oedipus and the Sphinx," "Theseus and the Mino-

taur," "Daedelus and Icarus," "Arachne the Weaver," "Swift-footed Atalanta," "Demeter and Persephone," Hercules, (Heracles), "Labors of Hercules."

American Folk Heroes and Tall Tales

Paul Bunyan, Johnny Appleseed, John Henry, Pecos Bill, Casey Jones

Literary Terms

Myth, tall tale, limerick.

Sayings and Phrases*:* Back to the drawing board. Better late than never. Cold feet. Don't cry over spilled milk. Don't judge a book by its cover. Easier said than done. Eaten out of house and home. Get a taste of your own medicine. Get up on the wrong side of the bed. In hot water. Keep your fingers crossed. Practice what you preach. The real McCoy, Two heads are better than one. Turn over a new leaf. Where there's a will there's a way. You can't teach an old dog new tricks.

Grade 2 History and Geography

Geography*:* Locate: Canada, United States, Mexico, Central America, South America, Equator, Northern Hemisphere, Southern Hemisphere, North and South Poles.

More Geographical Terms and Features*:* coast, valley, prairie, desert, oasis.

Early Asian Civilizations

Geography of Asia*:* The largest continent with the most populous countries: China, India, Japan, Pakistan.

India

Geography*:* Indus River, Ganges River; Farming methods, written language made up of symbols.

Hinduism*:* Brahma Vishnu, Shiva, Agni; Many holy books including the Rig Veda; Diwali: Hindu Festival of Light.

Buddhism*:* Prince Siddhartha becomes Buddha, "the Enlightened One"; begins as an outgrowth of Hinduism, then spreads through many countries in Asia; King Asoka (Ashoka)

China

Area about as big as the USA; Yellow (Huang He) and Yangtze (Chang Jiang) Rivers, the Pearl River, the Haihe River, the Songhuajiang River, and the Liaohe River. Mountains. Farming methods, organized settlements, written language made up of symbols; inventions of paper and fireworks; Teachings of Confucius; Great Wall of China; importance of silk; Chinese

New Year.

Modern Japanese Civilization*:* Locate relative to continental Asia, "Land of the rising sun," four major islands, Sea of Japan (East Sea), Mt. Fuji, Tokyo.

C**ulture***:* Japanese flag; Big modern cities, centers of industry and business; Traditions: origami, kimono, tea ceremony.

Art and Architecture*:* Hokusai "The Great Wave," The Katsura Palace.

The Ancient Greek Civilization. Mediterranean Sea, Aegean Sea, Crete; Athens and Sparta as city-states: the beginnings of democracy; Persian Wars: Marathon and Thermopylae; Olympic Games; Mount Olympus, worship of gods and goddesses; Great thinkers: Socrates, Plato, Aristotle; Leader: Alexander the Great.

American History and Geography

American Government The Constitution

American government is based on the Constitution, the highest law of our land; Government by the consent of the governed: "We the people," "Form a More Perfect Union"; James Madison, the "Father of the Constitution."

The War of 1812: President James Madison and Dolley Madison; British impressment of American sailors; *Old Ironsides*; Charles Ball and other former slaves who chose to fight the British in exchange for the promise of freedom; British burn the White House; Fort McHenry, Francis Scott Key and "The Star-Spangled Banner"; Battle of New Orleans, Andrew Jackson.

Westward Expansion

Pioneers Head West*:* New means of travel: Robert Fulton: invention of the steamboat; Erie Canal; Railroads: the Transcontinental Railroad; Routes west: wagon trains on the Oregon Trail, The Wilderness Road; California Gold Rush; The Pony Express.

Native Americans. Sequoyah and the Cherokee alphabet; forced removal: the "Trail of Tears"; Displaced from their homes by the "iron horse"; effect of near extermination of bison.

The Civil War*:* Controversy over enslaved workers; Plantations, King Cotton; Harriet Tubman, the "underground railroad"; Fort Sumter; Northern v. Southern states: Yankees and Rebels; Ulysses S. Grant and Robert E. Lee; Clara Barton; Abraham Lincoln; Appomattox Court House; Emancipation Proclamation and the end of slavery.

Immigration and Citizenship*:* Meaning of "*e pluribus unum*"; Ellis Island and the Statue of Liberty; large populations of immigrants settle in major cities; the idea of citizenship: citizens' rights and responsibilities, citizen by birth, naturalization.

Fighting for a Cause*:* Elizabeth Cady Stanton, Lucretia Mott, Margaret Fuller, Sojourner Truth, Chief Standing Bear, Susan B. Anthony and women's right to vote, Eleanor Roosevelt and civil rights, Mary McLeod Bethune and education, Ruby Bridges and equal access to education, Jackie Robinson and race equality, Rosa Parks and the bus boycott, Martin Luther King Jr., Cesar Chavez.

Geography of the Americas

North America*:* Canada, United States, Mexico, The United States: fifty states, forty-eight contiguous states (plus Alaska, Hawaii, American Samoa, Guam, Puerto Rico, U.S. Virgin Islands); Mississippi River; Appalachians, Rocky Mountains; Great Lakes; Atlantic Ocean, Pacific Oceans, Gulf of Mexico, Caribbean Sea.

South America*:* Brazil: Amazon River, rain forests; Peru and Chile: Andes Mountains; Venezuela, Colombia, Ecuador; Bolivia, Simon Bolivar, "The Liberator"; Argentina: The Pampas; Main languages: Spanish and (in Brazil) Portuguese.

Symbols and Figures*:* U. S. flag: current and earlier versions; Statue of Liberty; Lincoln Memorial.

Grade 2 Visual Arts

Elements of Art*:* Recognize lines as horizontal, vertical, or diagonal; Observe the use of line/movement in: Hokusai, *The Great Wave at Kanagawa*; Pablo Picasso, *Mother and Child*; Yu Hong, *A Man Playing the Hula Hoop*; Liu Xiaodong, *My Hometown*.

Sculpture*:* Observe shape, mass, and line in sculptures including: Myron of Athens, *Discus Thrower*;(Ancient China) *Flying Horse One Leg Resting on a Swallow*; Auguste Rodin, *The Thinker*; Ruth Asawa, *Installation View*; Yin Xiuzhen, *Portable City: Hangzhou*, Cai Guo Qiang, *Sky Ladder.*

Landscape painting*:* Thomas Cole, *View from Mount Holyoke, Northampton, Massachusetts after a Thunderstorm*, *The Oxbow*; El Greco, *View of Toledo*; Henri Rousseau, *Virgin Forest at Sunset*; Van Gogh, *The Starry Night*; Clementine Hunter, *Murals*; Richard Mayhew, *Vista*; Xing

Danwen, *Urban Fiction No.13*; David Hockney, *Bigger Trees Near Warter*; Lois Dodd, *Night House with Lit Window*; Julie Mehretu, *Fever graph*; D.Y. Begay, *Winter in the North.*

Abstract painting*:* Albrecht Durer, *Young Hare*; Paul Klee, *Cat and Bird*; Pablo Picasso, *Bull's Head*; Elaine Marie de Kooning, *Baseball Players*; Henri Matisse, *The Snai*l; John James Audubon, *Passenger Pigeon*; observe and discuss examples of abstract painting and sculpture including Marc Chagall, *I and the Village*; Konstantin Brancusi, *Bird in Space.*

Architecture*:* The Parthenon, Great Stupa (Buddhist temple in Sanchi, India) The Baths of Diocletian, The Great Mosque of Cordoba, The Lakshmana Temple in Khajuraho, The Katsura Palace.

Grade 2: Music

Listening and Understanding

The Orchestra*:* Identify instruments in: Camille Saint Saens, from *Carnival of the Animals*: "The Swan" and "Elephants"; Antonio Vivaldi, *The Four Seasons*; Carlos Chavez, *Toccata for Percussion*,3rd movement; Evelyn Glennie, *A Little Prayer*; Abing Hua Yanjun, *The Moon's Reflection on the Second Spring*; Villa Lobos, *O Polichinelo.*

Keyboard Instruments*:* Mozart "Rondo AIIa Turca"; Beethoven, "Fur Elise"; Felix Mendelssohn, from *Songs without Word*s, "Spring Song"; Fanny Mendelssohn, "piano trio in d minor."

Composers and Their Music*:* Antonio Vivaldi, *The Four Seasons*; Johann Sebastian Bach, *Minuet in G major, Jesu Joy of Man's Desiring, Toccata and Fugue in D minor*; Ludwig van Beethoven, *Symphony No. 6 (Pastoral)*

Songs*:* "Casey Jones" (chorus only), "Do Re Mi," "The Erie Canal," "Follow the Drinking Gourd," "Good-Bye Old Paint," "Home on the Range," "John Henry," "Old Dan Tucker," "The Star-Spangled Banner," "Swing Low Sweet Chariot," "This Land Is Your Land," "When Johnny Comes Marching Home," "If You Miss Me From the Back of the Bus," "De Colores," "Jambo Bwana," "Song of the Volga Boatmen."

Grade 3

English Language Arts

Poetry*:* "Adventures of Isabel" (Ogden Nash), "The Bee" (Isaac Watts), "By Myself" (Eloise Greenfield), "Catch a Little Rhyme" (Eve Merriam), "The Crocodile" (Lewis Carroll), "Dream Variations" (Langston Hughes),

"Eletelephony" (Laura Richards), "Father William" (Lewis Carroll), "First Thanksgiving of All" (Nancy Byrd Turner), "For want of a nail the shoe was lost ..."(traditional), "Jimmy Jet and His TV Set" (Shel Silverstein) "Knoxville Tennessee" (Nikki Giovanni), "Trees"(Joyce Kilmer).

Fiction*: Alice in Wonderland* (Lewis Carroll), "Aladdin and the Wonderful Lamp" "Ali Baba and the Forty Thieves" (from *The Arabian Nights*), "The Hunting of the Great Bear" (Iroquois legend), "The Husband Who Was to Mind the House" (Norse/English folktale), "The Little Match Girl" (Hans Christian Andersen), "The People Could Fly" (an African American tale), "Three Words of Wisdom" (a folktale from Mexico), "William Tell" (Swiss folktale), "The River Bank" and "The Open Road" (from *The Wind in the Willows* by Kenneth Grahame).

Myths and Mythical Characters*:* Norse Mythology: Asgard (home of the gods), Valhalla, Hel (underworld), Odin, Thor, trolls; Norse gods and names for days of the week: Tyr, Odin [Wodin], Thor, Frigg [Freya].

Ancient Greece and Rome*:* "Jason and the Golden Fleece," "Perseus and Medusa," "Cupid and Psyche," "The Sword of Damocles," "Damon and Pythias," "Androcles and the Lion," "Horatius at the Bridge (T.B. Macaulay)."

Literary Terms*:* biography and autobiography, fiction and nonfiction.

Sayings and Phrases*:* Actions speak louder than words. His bark is worse than his bite. Beat around the bush. Beggars can't be choosers. Clean bill of health. Cold shoulder. A feather in your cap. Last straw. Let bygones be bygones. One rotten apple spoils the whole barrel. On its last legs. Rule the roost. The show must go on. Touch and go. When in Rome do as the Romans do. Rome wasn't built in a day.

Grade 3 History and Geography

World Geography*:* Identify major oceans: Pacific, Atlantic, Indian, Arctic, Southern; the seven continents: Asia, Europe, Africa, North America, South America, Antarctica, Australia; locate: Canada, United States, Mexico, Central America, South America, the Equator, Northern Hemisphere, Southern Hemisphere, North and South Poles.

Geographical Terms and Features*:* Peninsula, harbor, bay, island, ocean, sea, coast, valley, desert, oasis, prairie, boundary, channel, delta, isthmus, plateau, reservoir, strait.

Canada*:* Locate in relation to United States; slightly bigger in land area than USA; French and British heritage, French speaking Quebec, Rocky

Mountains; Hudson Bay, St. Lawrence River, Yukon River; divided into provinces and territories; Canadian Arctic; Inuit people and culture; major cities include Montreal, Quebec City, Toronto, Vancouver.

Important Rivers of the World. *Terms:* source, mouth, tributary, drainage basin; *Asia: Ob*, Yellow (Huang He) Yangtze (Chang Jiang), Ganges, Indus, Tigris, Euphrates; *Africa*: Nile, Niger, Congo; *South America*: Amazon, Paranâ, Iguazu, Orinoco; *North America*: Mississippi and tributaries, Mackenzie, Yukon; *Australia*: Murray, Darling; *Europe*: Volga, Danube, Rhine.

The Ancient Roman Civilization

Geography of the Mediterranean Region*:* Mediterranean Sea, Aegean Sea, Adriatic Sea; Greece, Italy (peninsula), France, Spain; Strait of Gibraltar, Atlantic Ocean; North Africa, Asia Minor (peninsula), Turkey; Bosporus (strait), Black Sea, Istanbul (Constantinople); Red Sea, Tiber River, Persian Gulf, Indian Ocean.

Background facts: BC/AD and BCE/CE; the legend of Romulus and Remus; Latin as the language of Rome; worship of gods and goddesses; the Republic: Senate, Patricians, Plebeians; Punic Wars: Carthage, Hannibal.

The Roman Empire*:*

Julius Caesar: Defeats Pompey in civil war, becomes dictator; "Veni vidi vici" (I came I saw I conquered); Cleopatra of Egypt, Marc Antony; Caesar assassinated in the Senate, Brutus; Augustus Caesar.

Life in the Roman Empire: The Forum; temples, marketplaces, etc.; the Colosseum: circuses, gladiator combat, chariot races; roads, bridges, and aqueducts; eruption of Mt. Vesuvius, destruction of Pompeii; persecution of Christians.

The Decline and Fall of Rome*:* Weak and corrupt emperors, legend of Nero fiddling as Rome burns; civil wars; city of Rome sacked; social and moral decay.

The Eastern Roman Empire: Byzantine Civilization*:* The rise of the Eastern Roman Empire, known as the Byzantine Empire; Constantine, emperor who made Christianity the official religion of Rome; Constantinople (now called Istanbul) merges diverse influences and cultures; Justinian, Justinian's Code.

The Vikings*:* Came from area now called Scandinavia: (Sweden, Denmark, Norway); Vikings also called Norsemen; Skilled sailors and ship-

builders, longships; Traders, and sometimes raiders of the European coast; Viking alphabet; Norse mythology: Thor, Thor's hammer, Asgard and Valhalla; Eric the Red and Leif Ericson (Leif "the Lucky"); earliest Europeans we know of to come to North America; Greenland, Canada, Newfoundland.

American History and Geography

The Earliest Americans

Crossing from Asia to North America*:* Theories that hypothesize how the first humans arrived in North America: Beringian Land Bridge Theory-A land bridge hunters cross from Asia to North America during the Ice Age; Kelp Highway Theory-Massive ice sheets covering western North America retreated allowing for the first humans to travel to and through the continent not only by foot but by boat; different peoples with different languages and ways of life eventually spread out over the North and South American continents. These early peoples include: Inuit people, skilled hunters, Anasazi, pueblo builders, skilled weavers and potters, and cliff dwellers; Mound builders.

Native Americans*:* In the Southwest: Pueblos, Hopi, Zuni, Dine, Navajo, Apaches; Eastern "Woodland" people: Woodland culture, wigwams, longhouses, farming, peace pipe, Shaman, and Sachem; Major tribes and nations (such as Powhatan, Delaware, Susquehanna, Mohican, Massachusett, Iroquois Confederacy); In the Southeast: Cherokee, Seminole.

Early Exploration of North America

Early Spanish Exploration and Settlement*: Settlement of Florida*; Ponce de Leon, legend of the Fountain of Youth; Amerigo Vespucci (source of our name), Hernando de Soto; St. Augustine (the oldest continuous European settlement in U.S); *Geography*: Caribbean Sea, West Indies, Puerto Rico, Cuba, Gulf of Mexico, Mississippi River.

Exploration and Settlement of the American Southwest*:* early Spanish explorers in Texas, New Mexico, Arizona and California; missionary settlements (missions) in Texas and California; Coronado and the legend of the "Seven Cities of Cibola" (of Gold); *Geography*: Grand Canyon and Rio Grande; conflicts between the Spanish and the Pueblos (1680 revolt led by Popé); impact of settlement on indigenous population.

The Search for the Northwest Passage*:* Many explorers undertook the perilous sometimes fatal voyage to find a short cut across to Asia including: John Cabot: Newfoundland; Champlain: "New France" and Quebec; Hen-

ry Hudson: the Hudson River; *Geography*: Canada, St. Lawrence River; The Great Lakes: Superior, Michigan, Huron, Erie, Ontario.

The Thirteen Colonies:
Life and Times Before the Revolution

Geography*:* The thirteen colonies by region: New England, Middle Atlantic, Southern; differences in climate from north to south: corresponding differences in agriculture(subsistence farming in New England, gradual development of large plantations in the South); important cities in the development of trade, and government: Philadelphia, Boston, New York, Baltimore, Charleston.

Southern Colonies*:* Virginia, Maryland, North Carolina, South Carolina, Georgia.

Virginia*:* Chesapeake Bay, James River;1607: three ships of the London Company (later called the "Virginia Company") arrive in Virginia seeking gold and other riches. Impact of colonization upon Native Americans; establishment of Jamestown, first continuous English colony in the New World; trade with Powhatan Native Americans, John Smith, Pocahontas, marriage to John Rolfe, diseases kill many people, both colonists and indigenous population; the Starving Time; clashes between Native Americans and English colonists; development of tobacco as a cash crop, development of plantations, 1619: first enslaved Africans brought to Virginia.

Maryland*:* A colony established mainly as a refuge for Catholics; Lord Baltimore

South Carolina*:* Charleston, plantations (rice, indigo), and enslavement of people.

Georgia*:* James Oglethorpe's plan to establish a colony for English debtors. Enslavement of people in the Southern colonies: economic reasons that the Southern colonies came to rely on enslavement of people (for example, slave labor on large plantations); the difference between indentured servants and enslaved people: enslaved people seen as property; meaning of the "Middle Passage."

New England Colonies*:* Massachusetts, New Hampshire, Connecticut, Rhode Island; gradual development of maritime economy: fishing and shipbuilding.

Massachusetts*:* Colonists seeking religious freedom: the Pilgrims;

1620, Voyage of the Mayflower from England to Holland to Massachusetts, The Mayflower Compact; Plymouth, William Bradford; Helped by the Wampanoag people: Massasoit, Tisquantum (Squanto); the Puritans: Massachusetts Bay Colony, Governor John Winthrop: "We shall be as a city upon a hill"; Emphasis on reading and education, the New England Primer. *Rhode Island*: Roger Williams: belief in religious toleration, Anne Hutchinson.

Middle Atlantic Colonies*:* New York, New Jersey, Delaware, Pennsylvania.

New York*:* Dutch settlements and trading posts in "New Netherland"; Dutch West India Company acquires Manhattan Island and Long Island through a (probably misunderstood) purchase from the Native Americans; Dutch establish New Amsterdam (New York City); English take over from the Dutch and rename the colony New York; Pennsylvania*:* William Penn; Society of Friends, "Quakers"; Philadelphia.

Grade 3 Visual Arts

Elements of Art

Light In Artworks*:* James Chapin, *Ruby Green Singing*; Jan Vermeer, *Milkmaid*; John Singer Sargent, *El Jaleo*; Alfred Ramo Martinez, *Florida Mexicana*; Hiroshi Sugimoto, *Ohio Theater*; Teatro Comunale Masini Faenza, *Everett Square Theater, Boston*

Space in Artworks*: Terms*: two-dimensional (height, width); three dimensional (height, width, depth); relationship between two and three dimensional shapes: square to cube, triangle to pyramid, circle to sphere and cylinder; how to make two-dimensional look three-dimensional by illusion ; examine (foreground, etc.), middle ground, and background in Jean Millet's *The Gleaners*, Pieter Bruegel's *Peasant Wedding*, Alfred Ramo Martinez's *Florida Mexicana*

Design*: How the Elements of Art Work Together*: Figure and ground, pattern, balance and symmetry; how the elements of art work together in Rosa Bonheur's *The Horse Fair*, Mary Cassatt's *The Bath*, Early American quilts, Mary Lee Bendolph's *Grandma Strips*, Edward Hicks's *The Peaceable Kingdom*, Faith Ringgold's *Tar Beach*, Henri Matisse's cutouts: *Icarus*, Edvard Munch's *The Scream*, Horace Pippin's *Victorian Interior*, Romare Bearden's *The Block and Quilting Time*, Frank Romero's *Le Monde*

Native American Art*:* Kachina dolls (Hopi, Zuni); Blankets and rugs,

sand paintings (Navajo, Dine); Jewelry; Nellie Two Bear Gates *Gathering of Clouds Woman's Valise*

Art of Ancient Rome and Byzantine Civilization*:* Le Pont du Gard, The Pantheon, Byzantine mosaics, Hagia Sophia

Architecture*:* Jomon Pit House; Neolithic Long House; Plains American Tipi; Cahokia, Mississippian Culture; Anasazi Pueblo, Chaco Canyon; Musgum (or Fali) compound in Cameroon

Grade 3 Music

Listening and Understanding

The Orchestra*:* Identify brass instruments in: Rossini's *William Tell Overture* (Trumpet), Wolfgang Amadeus Mozart's the *Horn Concertos*, (French horn),Claude Debussy's *Prelude to the Afternoon of a Faun* (Flute), Opening of George Gershwin's *Rhapsody in Blue* (Clarinet)

Composers and Their Music*:* Tchaikovsky's Suite from *Swan Lake*; John Philip Sousa's "*Stars and Stripes Forever*;" Aaron Copland's *Fanfare for the Common Man*, "Hoedown" from *Rodeo*, "Simple Gifts" from *Appalachian Spring*; Nikolai Rimsky Korsakov's *Scheherazade*, Part One: "The Sea and Sinbad's Ship"

Songs*:* "Alouette," "America the Beautiful," "Banuwa," "A Bicycle Built for Two," "Ding Dong Diggidiggidong," "Down in the Valley," "The Earth is Our Mother," "He's Got the Whole World in His Hands," "Hey Ho Nobody Home" (round), "In the Good Old Summertime," "Li'l Liza Jane," "My Bonnie Lies Over the Ocean," "Simple Gifts" (Tis a gift to be simple), "The Man on the Flying Trapeze," "The Sidewalks of New York"(chorus only), "This Little Light of Mine," "You're a Grand Old Flag"

Grade 4

English Language Arts

Poems

"Afternoon on a Hill" (Edna St. Vincent Millay), "Clarence" (Shel Silverstein), "Clouds" (Christina Rossetti), "Concord Hymn" (Ralph Waldo Emerson), "Dreams" (Langston Hughes), "the drum" (Nikki Giovanni), "Fog" (Carl Sandburg), "George Washington" (Rosemary and Stephen Vincent Benet), "Humanity" (Elma Stuckey), "Life Doesn't Frighten Me" (Maya Angelou), "Monday's Child Is Fair of Face" (traditional), "Paul Re-

vere's Ride" (Henry Wadsworth Longfellow), "The Pobble Who Has No Toes" (Edward Lear), "The Rhinoceros" (Ogden Nash), "Things" (Eloise Greenfield), "A Tragic Story" (William Makepeace Thackeray)

Terms*:* stanza and line

Stories*:* "The Fire on the Mountain" (an Ethiopian folktale), from *Gulliver's Travels*, Gulliver in Lilliput and Brobdingnag (Jonathan Swift), "The Legend of Sleepy Hollow" and "Rip Van Winkle" (Washington Irving), "The Magic Brocade" (a Chinese folktale), *Robinson Crusoe* (Daniel Defoe), "Robin Hood," "St. George and the Dragon," *Treasure Island* (Robert Louis Stevenson)

Myths and Mythical Characters*:* Legends of King Arthur and Knights of the Round Table: "How Arthur Became King," "The Sword in the Stone," "The Sword Excalibur," "Guinevere," "Merlin and the Lady of the Lake," "Sir Lancelot"

Literary Terms*:* Novel, plot, setting

Memoir*: Brown Girl Dreaming (Jacqueline Woodson)*

Speeches*:* Patrick Henry: "Give me liberty or give me death," Sojourner Truth: "Ain't I a woman?"

Sayings and Phrases*:* An ounce of prevention is worth a pound of cure. As the crow flies. Beauty is only skin deep. The bigger they are, the harder they fall. Birds of a feather flock together. Blow hot and cold. Break the ice. Bull in a china shop. Bury the hatchet. Can't hold a candle to. Don't count your chickens before they hatch. Don't put all your eggs in one basket. Et cetera; Go to pot; Half a loaf is better than none. Haste makes waste. Laugh and the world laughs with you. Lightning never strikes twice in the same place. Live and let live. Make ends meet. Make hay while the sun shines. Money burning a hole in your pocket; Once in a blue moon; One picture is worth a thousand words. On the warpath; RSVP; Run of the mill; Seeing is believing; Shipshape; Through thick and thin; Timbuktu; Two wrongs don't make a right. When it rains, it pours. You can lead a horse to water, but you can't make it drink.

Grade 4: History and Geography

World Geography: Measure distances using map scales. Read maps and globes using longitude and latitude. Time zones, hemisphere, map scales, Prime Meridian (0 degrees), Greenwich, England; 180 ^{0} line (International Date Line), relief maps: elevations and depressions

Mountains and Mountain Ranges Plates, folded mountains, fault-block mountains, dome mountains and volcanic mountains

Major mountain ranges: South America: Andes, North America: Rockies and Appalachians, Asia: Himalayas and Urals, Africa: Atlas Mountains, Europe: Alps

Highest mountains of the world: Asia: Everest, North America: Denali, South America: Aconcagua, Europe: Mont Blanc, Mount Elbrus, Africa: Kilimanjaro, Antarctica: Vinson Massif, Australia: Mount Kosciuszko, Oceania: Jaya Peak, (Mount Carstensz)

Europe in the Middle Ages.

Geography Related to the Development of Western Europe*: Rivers*: Danube, Rhine, Rhone, and Oder; *Mountains*: Alps, Pyrenees; Iberian Peninsula: Spain and Portugal, proximity to North Africa; France: Normandy region; Mediterranean Sea, North Sea, Baltic Sea; British Isles: England, Ireland, Scotland, Wales, English Channel

Background*:* Beginning about CE 200, nomadic warlike tribes began moving into western Europe attacking the western Roman Empire; city of Rome sacked by Visigoths.410 CE, The Huns: Attila the Hun; Peoples settling in old Roman Empire included Vandals (cf. English word "vandalism"); Franks in Gaul (now France), Angles in England (cf. "Angleland") and Saxons; Middle Ages are generally dated from about CE 450 to 1400; Approximately the first three centuries after the fall of Rome (CE 476) are sometimes called the "Dark Ages"

The Christian Church*:* Growing power of the pope (Bishop of Rome); Disagreements among Christians: split into Roman Catholic Church in Rome and Eastern Orthodox, Church in Constantinople; Conversion of many Germanic peoples to Christianity; Rise of monasteries, preservation of classical learning as an important part of feudal society; Charlemagne: Temporarily unites the western Roman Empire; He is crowned Emperor by the pope in CE 800, the idea of a united "Holy Roman Empire"; Charlemagne's love and encouragement of learning

Feudalism*:* Life on a manor, castles; Lords, vassals, knights, freedmen, serfs; Farming and three field system; Code of chivalry; Knight, squire, page

The Norman Conquest of Britain*:* Locate the region called Normandy. William the Conqueror: Battle of Hastings, Domesday Book.

Growth of Towns: Towns as centers of commerce guilds and apprentices; Weakening of feudal ties

England in the Middle Ages*:* Henry II: Beginnings of trial by jury, Murder of Thomas Becket in Canterbury Cathedral, Eleanor of Aquitaine; Significance of the Magna Carta, King John, 1215; The Crusades, Parliament: beginnings of representative government, The Hundred Years' War, Joan of Arc; The Black Death sweeps across Europe

The Spread of Islam and the Holy Wars

Islam*:* Muhammad: the last prophet; Allah, Qur'an, jihad; Sacred city of Makkah (Mecca), mosques; "Five pillars" of Islam are these: Declaration of faith, Prayer (five times daily) facing toward Makkah, Fasting during Ramadan, Help the needy, Pilgrimage to Makkah; Arab peoples unite to spread Islam in northern Africa, through the eastern Roman empire, and as far west as Spain; Islamic Turks conquer region around the Mediterranean; Constantinople becomes Istanbul; The first Muslims were Arabs but today diverse people around the world are Muslims.

Development of Islamic Civilization*:* Contributions to science and mathematics: Avicenna (Ibn Sina), Arabic numerals; Muslim scholars translate and preserve writings of Greeks and Romans; Thriving cities as centers of Islamic art and learning, such as Cordoba, Spain

Wars Between Muslims and Christians*:* The Holy Land, Jerusalem; The Crusades; Saladin and Richard the Lion-Hearted; Growing trade and cultural exchange between east and west

Early and Medieval African Kingdoms

Geography of Africa*:* Mediterranean Sea and Red Sea, Atlantic and Indian Oceans; Cape of Good Hope; Madagascar; Major rivers: Nile, Niger, Congo; Atlas Mountains, Mt. Kilimanjaro; Contrasting climate in different regions: Deserts: Sahara, Kalahari; Tropical rain forests (along lower West African coast and Congo River); Savanna grasslands, The Sahel(the fertile region below the Sahara)

Early African Kingdoms*:* Kush (in a region also called Nubia): once ruled by Egypt; Aksum (also spelled Axum): a trading kingdom in what is now Ethiopia

Medieval Kingdoms of the Sudan*,* Trans-Saharan trade led to a succession of flourishing kingdoms: Ghana, Mali, and Songhai; Camel caravans; Trade in gold, iron, salt, ivory, and slaves; The city of Timbuktu: center of trade and learning; Spread of Islam into West Africa through merchants and travelers; Ibn Batuta (also spelled Battutah), world traveler and geographer; Mali: Sundiata Keita, Mansa Musa; Songhai: Askia Muhammad

China: Dynasties and Conquerors*:* Qin Shihuangdi, first emperor, begins construction of Great Wall; Terracotta Warriors; Han dynasty: trade in silk and spices, the Silk Road, invention of paper; Tang and Song dynasties: highly developed civilization, extensive trade, important inventions (including compass, gunpowder, paper money); Mongol invasions and rule, Chinggis Khan and the "Golden Horde;" Khubilai (Kublai) Khan: establishes capital at what is now Beijing, Marco Polo; Ming dynasty, The "Forbidden City," Explorations of Zheng He

American History and Geography

American Revolution

Background: The French and Indian War

Also known as the Seven Years' War, part of an ongoing struggle between Britain and France for control of colonies in various regions around the world (in this case in North America); Alliances with Native Americans, Battle of Quebec, British victory gains territory but leaves Britain financially weakened

Causes and Provocations of the Revolution*:* British taxes, "No taxation without representation"; Boston Massacre, Crispus Attucks; Boston Tea Party; The Intolerable Acts close the port of Boston and require Americans to provide quarters for British troops; First Continental Congress protests to King George III; Thomas Paine's *Common Sense*; Patrick Henry, "Give me liberty or give me death"

The Revolution*:* Paul Revere's ride, "One if by land two if by sea"; Lexington and Concord, The "shot heard 'round the world," Redcoats and Minutemen; Bunker Hill; Second Continental Congress: George Washington appointed commander in chief of Continental Army; Declaration of Independence, primarily written by Thomas Jefferson; edited version adopted July 4, 1776, "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the pursuit of Happiness." Women in the Revolution: Elizabeth Freeman, Deborah Sampson, Phillis Wheatley, Molly Pitcher; Loyalists (Tories); Victory at Saratoga, alliance with France; European helpers (Lafayette, the French fleet, Bernardo de Galvez, Kosciusko, von Steuben); Valley Forge; Benedict Arnold.

Making a Constitutional Government

Main Ideas Behind the Declaration of Independence*:* The proposition that "All men are created equal"; The responsibility of government to protect the "unalienable rights" of the people; Natural rights: "Life liberty and the pursuit of happiness"; The "right of the people ... to institute new government"

Making a New Government:

From the Declaration to the Constitution

Definition of "republican" government: republican = government by elected representatives of the people; Articles of Confederation: weak central government; "Founding Fathers": James Madison as "Father of the Constitution;" Constitutional Convention: Arguments between small and large states, The divisive issue of slavery, "three-fifths" compromise

The Constitution of the United States

Preamble to the Constitution: "We the people of the United States, in order to form a more perfect union, establish justice, ensure domestic tranquility, provide for the common defense, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America." The separation and sharing of powers in American government: three branches of government: Legislative branch: Congress = House of Representatives and Senate, makes laws; Executive branch: headed by the president, carries out laws; Judicial branch: a court system headed by the Supreme Court (itself headed by the Chief Justice), deals with those who break laws and with disagreements about laws; Checks and balances, limits on government power, the veto; The Bill of Rights: first ten amendments to the Constitution including: Freedom of religion, speech, and the press (First Amendment); Protection against "unreasonable searches and seizures," The right to "due process of law," The right to trial by jury, Protection against "cruel and unusual punishments"

Levels and Functions of Government

(National, State, Local)

Identify current government officials, including President and vice president of the U.S, your State governor; State governments (established by state constitutions which are subordinate to the U.S. Constitution, the highest law in the land), like the national government, each state government has its legislative, executive, and judicial branches; Local govern-

ments: purposes, functions, and officials; How government services are paid for (taxes on individuals and businesses, fees, tolls, etc.); How people can participate in government

Early Presidents and Politics*: Define*: "cabinet" and "administration"; George Washington as first President, John Adams, Vice President, then second President, Abigail Adams; National capitol established at Washington D.C.; Growth of political parties: Arguments between Thomas Jefferson and Alexander Hamilton: two opposed visions of America, as an agricultural or industrial society; Present-day system: two main parties (Democrats and Republicans) plus independents; Thomas Jefferson, third president; Correspondence between Jefferson and Benjamin Banneker, Jefferson as multifaceted leader (architect inventor musician etc.); The Louisiana Purchase doubles the nation's size and gains control of Mississippi River; James Madison, fourth president; War of 1812; James Monroe, fifth president, the Monroe Doctrine; John Quincy Adams, sixth president; Andrew Jackson, seventh president: Popular military hero, Battle of New Orleans in War of 1812, Presidency of "the common man," Native American removal policies

Reformers: Abolitionists; Dorothea Dix and the treatment of the insane; Horace Mann and public schools; women's rights and the Seneca Falls convention: Elizabeth Cady Stanton, Lucretia Mott, Amelia Bloomer, Sojourner Truth, Angelina and Sarah Grimké

Symbols and Images*:* Recognize and become familiar with the significance of *The Spirit of '76* (painting), White House and Capitol Building, Great Seal of the United States

Grade 4 Visual Arts

Art and Architecture of the Middle Ages in Europe*:* Note the generally religious nature of European art in the Middle Ages, including examples of medieval Madonnas (such as *Madonna and Child on a Curved Throne*, 13th century Byzantine), illuminated manuscripts (such as the Chi Rho Page from *The Book of Kells*), tapestries (such as the "Unicorn in Captivity" from the Unicorn tapestries); Become familiar with features of Gothic architecture (spires, pointed arches, flying buttresses, rose windows, gargoyles, and statues) and famous cathedrals including Notre Dame (Paris), Chartres Cathedral

Islamic Art and Architecture*:* Become familiar with examples of Islamic art, including: illumination of the Qur'an (Koran), handwritten Qur'an, A Sultan and His Court, Court of the Lions, The Ardabil Carpet by an unknown artist of the Safavid Dynasty; Become familiar with examples of contemporary Islamic Art including Madiha Omar's *Untitled*, Shahzia Sikander's *Mirrat*; Characteristic feathers of Islamic architecture, such as domes and minaretsas seen in the Dome of the Rock in Jerusalem, and The Great Mosque of Damascus; The Taj Mahal, in India.

The Art of Africa*:* Note the spiritual purposes and significance of many African works of art, such as masks used in ceremonies for planting, harvesting, or hunting. Become familiar with examples of art from specific regions and peoples in Africa, such as the Antelope headdresses of Mali, African Bamana Headdress, sculptures by Yoruba artists in the city of Ife such as the Portrait Head of an Ife King; Ivory carvings and bronze sculptures of Benin such as the Benin Bronze Head, Face Mask, and Ivory Mask Become familiar with examples of contemporary African art including Wangechi Mutu's *Second born*, Yinka Shonibare's *Girl Balancing Knowledge*

The Art of China*:* Become familiar with examples of Chinese art, including silk scrolls, Tang Dynasty Scroll, Emperor Ming Huang's Journey to Shu, Calligraphy (the art of brush writing and painting), Porcelain, such as Ming Dynasty Vase; Become familiar with examples of contemporary Chinese art including Liu Guosong's *Which is Earth no. 7*, Ai Weiwei's *Dropping a Han Dynasty Urn*

The Art and Architecture of a New Nation*:* Become familiar with famous portraits and paintings, including: John Singleton Copley's *Paul Revere*, Gilbert Stuart's *George Washington, Washington Crossing the Delaware*, Patience Wright's *Bust of Benjamin Franklin*, Thomas Jefferson's Monticello.

Grade 4 Music

Elements of Music*:* Recognize verse and refrain, also introduction and coda; Partner songs; Continue work with timbre and phrasing; Recognize theme and variations and listen to Mozart, Variations on "*Ah! vous dirai-je, Maman*" (familiarly known as "Twinkle Twinkle Little Star"); Sing or play simple melodies; Recognize aurally frequently used Italian terms: Review–*adagio (slow), moderato (medium), allegro (fast), piano (soft), forte (loud), pianissimo (very soft), fortissimo (very loud), mezzo-forte (moderately loud), mezzo-piano* (moderately soft)

Listening and Understanding*: The Orchestra:* Benjamin Britten: *The Young Person's Guide to the Orchestra*, *Vocal Ranges of the female voice*: high = soprano, middle = mezzo soprano, low = alto,
Recognize vocal ranges of the male voice: high = tenor, middle = baritone, low = bass. Listening to Famous Voices: Renee Fleming, Maria Callas, Marian Anderson, Luciano Pavarotti, Caruso, Paul Robeson

Composers and Their Music*:* George Frederick Handel "Hallelujah Chorus" from *The Messiah*, Franz Joseph Haydn *Symphony No. 94* "Surprise," Wolfgang Amadeus Mozart, *The Magic Flute* selections.

Songs*:* "Auld Lang Syne," "Blow the Man Down," "Cockles and Mussels," "Comin' Through the Rye," "Loch Lomond," "My Grandfather's Clock," "Taps," "Deep in the Heart of Texas," "Waltzing Matilda;" Songs of the U.S. Armed Forces: Air Force Song, Navy Song: "Anchors Aweigh," The Army Song, "The Caissons Go Rolling Along," "The Marine's Hymn"

Grade 5

English Language Arts

Poetry*:* "To the Snake" (Denise Levertov), "This Is Just To Say" (William Carlos Williams), "Variations On A Theme" By William Carlos Williams," "When I Heard the Learn'd Astronomer" (Walt Whitman), "The Copper Beech" (Marie Howe), "My Father and the Figtree." (Naomi Shihab Nye) "Snow Dust," (Robert Frost) "A bird came down the walk," (Emily Dickinson), "Advice" (Dan Gerber) "Travelling" (Simon Orti) "One Art" (Elizabeth Bishop), "Strange Patterns" (Carrie Allen McCray) "IsIa" (Virgil Suârez), "Constantly Risking Absurdity" (Lawrence Ferlinghetti), "The Echoing Green" (William Blake).

Terms: Onomatopoeia, alliteration

Literary Terms: Pen name, pseudonym, literal and figurative language, imagery, metaphor and simile, symbol, personification

Fiction*:* Stories: episodes from *Don Quixote*, (Miguel de Cervantes), *Little Women* (*Part First)*, Louisa May Alcott, *Tales of Sherlock Holmes* including "The Red-Headed League" (Arthur Conan Doyle), *They Call Me Guero,* (David Bowles), *The Science of Breakable Things*, (Tae Keller), Myths and Legends: "A Tale of the Oki Islands," a legend from Japan also known as "The Samurai's Daughter;" "Morning Star and Scarface: The Sun Dance," a Plains Native American legend also known as "The Legend of Scarface," Native American trickster stories, such as "Coyote Raven" or

"Grandmother Spider."

Drama*: A Midsummer Night's Dream,* (William Shakespeare)

Terms: tragedy, comedy, act, scene, Globe Theater

Speeches*:* Abraham Lincoln: The Gettysburg Address, Chief Joseph Highh'moot Tooyalakekt: "I will fight no more forever"

Grade 5 History and Geography

World History and Geography: Spatial Sense: (Working with Maps Globes and Other Geographic Tools,): read maps and globes using longitude and latitude, coordinates, degrees; Tropic of Cancer and Tropic of Capricorn: relation to seasons and temperature. Climate zones: Arctic, Tropical, Temperate; Time zones, (International Date Line); Prime Meridian, degrees; Greenwich England; Arctic Circle; (imaginary lines and boundaries), and Antarctic Circle, From a round globe to a flat map: Mercator projection, conic and plane projections

Great Lakes of the World*: Eurasia:* Caspian Sea, Lake Baikal, *Asia*: Aral Sea, *Africa*: Victoria, Tanganyika, Chad, *North America*: Superior, Huron, Michigan, Erie, Ontario, South America: Maracaibo, Titicaca

Early American Civilizations

Geography*:* Identify and locate Central America and South America on maps and globes. Largest countries in South America: Brazil and Argentina. Amazon River, Andes Mountains.

Maya, Aztec, and Inca Civilizations*:*

The Mayas: Ancient Mayas lived in what is now southern Mexico and parts of Central America; their descendants still live there today. Accomplishments as architects and artisans: pyramids and temples.
Development of a system of hieroglyphic writing, knowledge of astronomy and mathematics; development of a day calendar; early use of concept of zero.

The Aztecs*:* A warrior culture at its height in the 1400s and early 1500s; the Aztec empire covered much of what is now central Mexico. The island city of Tenochtitlan: aqueducts, massive temples, Moctezuma (also spelled Montezuma.) Ruler-priests; practice of human sacrifice

The Inca*:* Ruled an empire stretching along the Pacific coast of South America. Built great cities, Machu Picchu, Cuzco, high in the Andes connected by a system of roads

Spanish Conquerors*:* Conquistadors: Cortes and Pizzaro; advantage

of Spanish weapons, guns, cannons, diseases devastate native peoples

European Exploration Trade and the Clash of Cultures*:*

Background: Beginning in the 1400s, Europeans set forth in a great wave of exploration and trade. European motivations: Muslims controlled many trade routes; profit through trade in goods such as gold silver silks sugar and spices; spread of Christianity: missionaries; geography of the spice trade; the Moluccas also called the "Spice Islands": part of present-day Indonesia.

Locate: the region known as Indochina, the Malay Peninsula, the Philippines; definition of "archipelago," "Ring of Fire": earthquakes and volcanic activity

European Exploration Trade and Colonization*:*

- **Portugal***:* Prince Henry's exploration of the West African coast; Bartolomeu Dias rounds the Cape of Good Hope. Vasco da Gama: spice trade with India, exploration of East Africa; Portuguese conquer East African Swahili city-states. Cabral claims Brazil.
- **Spain***:* Two worlds meet: Christopher Columbus and the Tainos; Bartolomé de las Casas speaks out against enslavement and mistreatment of native peoples. Treaty of Tordesillas between Portugal and Spain; Balboa reaches the Pacific. Magellan crosses the Pacific. One of his ships returns to Spain making the first round-the-world voyage.
- **England and France***:* Search for Northwest Passage; trading posts in India;
- **The Netherlands (Holland)**: The Dutch take over Portuguese trade routes and colonies in Africa and the East Indies; the Dutch in South Africa; Cape Town; the Dutch in North America

Trade and Slavery*:* The sugar trade; enslaved Africans on Portuguese sugar plantations on islands off West African coast, such as Sao Tomé;-sugar plantations on Caribbean islands, West Indies: Cuba, Puerto Rico, Bahamas, Dominican Republic, Haiti, Jamaica Transatlantic slave trade: the "triangular trade" from Europe to Africa to colonies in the Caribbean and the Americas; the "Slave Coast" in West Africa, the Middle Passage

The Renaissance*:* Islamic scholars translate Greek works and so help

preserve classical civilization; a "rebirth" of ideas from ancient Greece and Rome; new trade and new wealth; Italian city states: Venice, Florence, Rome; patrons of the arts and learning; the Medici Family and Florence; the popes and Rome; Leonardo da Vinci, Michelangelo; Renaissance ideals and values as embodied in *The Courtier* by Castiglione: the "Renaissance man," *The Prince* by Machiavelli: real-world politics

The Reformation*:* Gutenberg's printing press: the Bible made widely available; the Protestant Reformation, Martin Luther and the 95 Theses, John Calvin; the Counter-Reformation; Copernicus and Galileo: conflicts between science and the church: Ptolemaic earth-centered vs. sun-centered models of the universe

England from the Golden Age to the Glorious Revolution*: Golden Age*: Henry VIII, wives and children, the Church of England, Elizabeth I, William Shakespeare, British naval dominance, defeat of the Spanish Armada, Sir Francis Drake, British exploration and North American settlements

English Revolution: King Charles I, Puritans and Parliament, Civil War: Cavaliers and Roundheads, execution of Charles I, Oliver Cromwell and the Puritan regime

Restoration: Charles II restored to the English throne, many Puritans leave England for America

"The *Glorious Revolution*" also called the Bloodless Revolution; King James II replaced by William and Mary, Bill of Rights: Parliament limits the power of the monarchy

Russia*:* **Early Growth and Expansion**

Geography*:* Moscow and St. Petersburg, Ural Mountains, Siberia, steppes, Volga and Don Rivers; Black, Caspian, and Baltic Seas; search for a warm-water port

History and Culture: Russia as successor to Byzantine Empire: Moscow as new center of Eastern Orthodox Church and of Byzantine culture after the fall of Constantinople in 1453; Ivan III the Great, "czar" from the Latin "Caesar;" Ivan IV, the Terrible; Peter the Great: modernizing and "Westernizing" Russia; Catherine the Great; Reforms of Peter and Catherine make life even harder for peasants.

Feudal Japan

Geography*:* Pacific Ocean, Sea of Japan; four main islands: Hokkaido, Honshu, largest Shikoku, Kyushu; City of Tokyo; typhoons, earthquakes;

The Pacific Rim

History and Culture: Emperor as nominal leader, but real power in the hands of shoguns; Samurai code of Bushido; rigid class system in feudal Japanese society; Japan closed to outsiders; religions: Buddhism–the four Noble Truths and the Eightfold Path, Nirvana; Shintoism–reverence for ancestors, reverence for nature, kami

American History and Geography

Westward Expansion before the Civil War*:*

Geography: Rivers–James, Hudson, St. Lawrence, Mississippi, Missouri, Ohio, Columbia, Rio Grande, Erie Canal, connecting the Hudson River and Lake Erie, Appalachian and Rocky Mountains, Continental Divide and the flow of rivers east of Rockies to the Arctic or Atlantic Oceans, west of Rockies to the Pacific Ocean, Great Plains stretching from Canada to Mexico

Early exploration of the west, the Louisiana Purchase: Daniel Boone, Cumberland Gap, Wilderness Road, Lewis and Clark, Sacagawea, "Mountain men," fur trade, Zebulon Pike, Pike's Peak

Pioneers*:* Getting there in wagon trains, flatboats, steamboats, Oregon Trail, Erie Canal, railroads, Many pioneers set out from St. Louis where the Missouri and Mississippi Rivers meet, land routes: Santa Fe Trail and Oregon Trail, Mormons settle in Utah, Brigham Young, Great Salt Lake, Gold Rush'ers, "49-ers"

Native American resistance*:* More and more settlers move onto Native American lands, treaties made and broken, forced migration, Indian Removal Act, Trail of Tears, Tecumseh (Shawnee): attempted to unite tribes in defending their land, Battle of Tippecanoe, Osceola, Seminole leader

"Manifest Destiny" and conflict with Mexico

The meaning of "manifest destiny," early settlement of Texas: Stephen Austin, General Antonio Lopez de Santa Anna, Battle of the Alamo, "Remember the Alamo," Davy Crockett, Jim Bowie

The Mexican-American War

General Zachary Taylor ("Old Rough and Ready,") some Americans strongly oppose the war; Henry David Thoreau's "Civil Disobedience," Mexican lands ceded to the United States: California, Nevada, Utah, parts of Colorado, New Mexico, Arizona

Westward Expansion after the Civil War

Homestead Act; many thousands of Americans and immigrants start farms in the West. "Go west young man" (Horace Greeley's advice,) Oklahoma land rush and further displacement of Native American lands, Transcontinental Railroad links east and west immigrant labor, cowboys, cattle drives, the "wild west," reality versus legend: Billy the Kid, Jesse James, Annie Oakley, Buffalo Bill, "Buffalo Soldiers," Black American troops in the West, U. S. purchases Alaska from Russia, "Seward's folly," the closing of the American frontier (as acknowledged in the U. S. Census), the symbolic significance of the frontier

Towards the Civil War

Abolitionists*:* William Lloyd Garrison and *The Liberator*, Frederick Douglass, life of enslaved people, rebellions, industrial North versus agricultural South, Mason-Dixon Line, Harriet Tubman and the Underground Railroad, controversy over whether to allow the enslavement of people in territories and new states, The Missouri Compromise, Dred Scott decision allows enslavement of people in the territories, importance of Harriet, Beecher Stowe's *Uncle Tom's Cabin*, John Brown at Harper's Ferry, Lincoln: "A house divided against itself cannot stand;" Lincoln-Douglas debates, Lincoln elected president, Southern states secede.

The Civil War

Fort Sumter, Confederacy, Jefferson Davis, Yankees and Rebels, Blue and Gray, women's role in the war, Clara Barton, First Battle of Bull Run, Robert E. Lee and Ulysses S. Grant, General Stonewall Jackson, Ironclad ships, battle of the USS Monitor and the CSS Virginia (formerly the USS Merrimack,) Battle of Antietam Creek, The Emancipation Proclamation, Gettysburg and the Gettysburg Address, African-American troops, Massachusetts Regiment led by Colonel Shaw, Sherman's march to the sea, burning of Atlanta, Lincoln reelected, concluding words of the Second Inaugural Address, "With malice toward none with charity for all," Richmond: Confederate capital, falls to Union forces, surrender at Appomattox Court House, assassination of Lincoln by John Wilkes Booth

Reconstruction

The South in ruins, struggle for control of the South, Radical Republicans vs. Andrew Johnson, impeachment, carpetbaggers and scalawags, Freedmen's Bureau, "40 acres and a mule", 13th,14th and 15th Amendments to the Constitution, Black Codes, the Ku Klux Klan, and "vigilante justice,"

end of Reconstruction, Compromise of 1877, all federal troops removed from the South

Native Americans: Cultures and Conflicts

Culture and Life

Great Basin: Nez Perce, Plateau e.g. Shoshone, and Ute, Plains: Arapaho, Cheyenne, Lakota, [Siouxj Blackfeet, Crow, extermination of bison, Pacific Northwest: Chinook, Kwakiutl, Yakima

American Government Policies*:* Bureau of Indian Affairs, forced removal to reservations, attempts to break down tribal life, assimilation policies, Carlisle School

Conflicts*:* Sand Creek Massacre, Little Big Horn, Chief Crazy Horse, Chief Sitting Bull, Custer's Last Stand, The Nez Perce War and Chief Joseph, Apache battles and Geronimo, Wounded Knee, Ghost Dance

U.S. Geography

Locate*:* Western Hemisphere, North America, Caribbean Sea, Gulf of Mexico, the Gulf Stream: how it affects climate, regions and their characteristics: New England, Mid-Atlantic, South, Midwest, Great Plains, Rocky Mountain, Southwest, West Coast, Alaska, and Hawaii, fifty states and capitals

Grade 5 Visual Arts

Art and Architecture of the Renaissance

The shift in world view from medieval to Renaissance art, a new emphasis on humanity and the natural world, the influence of Greek and Roman art on Renaissance artists' classical subject matter, idealization of human form balance and proportion, the development of linear perspective during the Italian Renaissance; the vantage point or point of view of the viewer, convergence of lines toward a vanishing point the horizon line, observe and discuss works in different genres—such as portrait, fresco, Madonna—by Italian Renaissance artists including Sandro Botticelli: *The Birth of Venus*, Leonardo da Vinci: *The Proportions of Man, Mona Lisa, The Last Supper*, Michelangelo: *Ceiling of the Sistine Chapel*, especially the detail known as *The Creation of Adam*, Raphael: *The Marriage of the Virgin*, examples of his Madonnas such as *Madonna and Child with the Infant St. John, The Alba Madonna* or *The Small Cowper Madonna*, become familiar with Renaissance sculpture including Donatello: *Saint George*, Michelangelo: *David*, observe and discuss paintings of the Northern Renaissance

including Pieter Bruegel: *Peasant Wedding*, Albrecht Durer: *Self-Portrait*, Jan van Eyck: *Giovanni Arnolfini and His Wife*, Sofonisba Anguissola: *The Chess Game*, become familiar with Renaissance architecture including: The Florence Cathedral dome designed by Filippo Brunelleschi, St. Peter's in Rome, Andrea Palladio: *Villa Pisani*

Baroque Art and Architecture

Note the dramatic use of light and shade, turbulent compositions, and vivid emotional expression in 17th century, El Greco: *View of Toledo*, Rembrandt: *Self Portrait*, Artemisia Gentileschi: *Esther before Ahasuerus*, Judith Leyster: *Self Portrait*

American Art: Nineteenth Century United States

Become familiar with the Hudson River School of landscape painting, including Robert Seldon Duncanson: *Landscape with Rainbow*, Thomas Cole: *The Oxbow*, Albert Bierstadt; *Rocky Mountains, Lander's Peak*, become familiar with genre paintings including George Caleb Bingham: *Fur Traders Descending the Missouri*, William Sidney Mount: *Eel Spearing at Setauket*, become familiar with art related to the Civil War including, Civil War photography of Mathew Brady and his colleagues, *The Shaw Memorial* sculpture of Augustus Saint Gaudens, become familiar with popular prints by Currier and Ives: *Central Park in Winter*, Joshua Johnston: *The Westwood Children*, Mary Nimmo Moran: *My Neighbors Home*, Aaron Douglas: *Into Bondage*, Kara Walker: *Exodus of Confederates from Atlanta*

Native American Art

Become familiar with contemporary Native American work including Freda Diesing: *Mask, Old Woman with Labret*, Joan Hill: *Women's Voices at the Council*, Christi Belcourt: *The Wisdom of the Universe*

Art of Japan

Become familiar with The *Great Buddha*, landscape gardens: Sesshú Toyo: *Landscapes of Autumn and Winter*, Ando Hiroshige: *Number 52 One Hundred Famous Views of Edo*, Shinoda Toko: *Sound*, become familiar with contemporary Japanese art including Yayoi Kusama: *All the Eternal Love I Have for the Pumpkins*

Russian Art and Architecture

Andrey Rublev: *Old Testament Trinity*, Fabergé egg, *Imperial Coronation*, St Basil's Cathedral, Moscow

Grade 5 Music

Elements of Music

Through participation become familiar with basic elements of music (rhythm melody, harmony form timbre etc.), recognize accents, a steady beat, and the downbeat; play a steady beat, a simple rhythm pattern, simultaneous rhythm patterns and syncopation patterns, discriminate between fast and slow; gradually slowing down and getting faster; accelerando and ritardando, discriminate between differences in pitch: high and low, discriminate between loud and soft; gradually increasing and decreasing volume, crescendo and decrescendo, understand legato (smoothly flowing progression of notes) and staccato (crisp distinct notes,) sing unaccompanied, accompanied, and in unison, recognize harmony, sing rounds and canons, two and three-part singing, recognize introduction, interlude, and coda in musical selections, recognize verse and refrain, continue work with timbre and phrasing, recognize theme and variations, sing or play simple melodies while reading scores, recognize aurally frequently used Italian terms: very soft–*pianissimo* moderately soft–*mezzo-piano*, moderately loud–*mezzo-forte*, very loud–*fortissimo*, *largo*–very slow, andante –*moderate*; *presto*–very fast; understand the following notation and terms: names of lines and spaces in the treble clef, middle C, treble clef , staff, bar line, double bar, line measure, repeat signs, whole note, half note, quarter, note eighth note, whole rest, half rest, quarter rest, eighth rest, grouped sixteenth notes, tied notes and dotted notes, sharps, flats

Composers and Their Music

Ludwig van Beethoven: *Symphony No. 5*, Modest Mussorgsky: *Pictures at an Exhibition as orchestrated by Ravel*, Alice Parker: prolific choral and operatic composer, arranged of American folk songs and hymns, Joy Harjo Sapulpa: first Native American US Poet Laureate, composer and performer "Trail of Tears Song," "We Will Go Together"

Musical Connections

Teachers*:* Introduce students to the following works in connection with topics in other disciplines, for example: music from the Renaissance such as choral works of Josquin Desprez; lute songs by John Dowland; Felix Mendelssohn "Overture" Scherzo" and "Wedding March" from *A Midsummer Night's Dream*)

American Musical Traditions

Songs, Spirituals

Originated by African Americans, many spirituals go back to the days of slavery. Familiar spirituals such as: "Down by the Riverside," "Sometimes I Feel Like a Motherless Child," "Wayfaring Stranger," "We Shall Overcome," "Go Down Moses"

Performers: Mahalia Jackson: "Amazing Grace," "Silent Night," Pete Seeger: "If I Had a Hammer," Bob Dylan: "Blowin' in the Wind" "When Johnny Comes Marching Home"

Songs: "Battle Hymn of the Republic," "Danny Boy," "Dona Nobis Pacem," "Git Along Little Dogies," "God Bless America," "Greensleeves," "The Happy Wanderer," "Havah Nagilah," "If I Had a Hammer," "Red River Valley," "Sakura," "Shenandoah," "Tenting Tonight," "Que Sera Sera," "Pastime with Good Company," by Henry VIII, "Fifty Nifty United States," (Ray Charles), "Siyahamba", "The Elements Song" (Tom Lehrer)

Grade 6

English Language Arts

Poetry

"All the world's a stage" [from *As You Like it:* William Shakespeare, "Apostrophe to the Ocean" [from Childe Harold's *Pilgrimage*], (George Gordon), "I Wandered Lonely as a Cloud," (William Wordsworth), "If, " (Rudyard Kipling), "Mother to Son," (Langston Hughes), "Lift Ev'ry Voice and Sing," (James Weldon Johnson), "A narrow fellow in the grass," (Emily Dickinson), "A Psalm of Life," (Henry Wadsworth Longfellow), "The Raven," (Edgar Allan Poe), "A Song of Greatness," (a Chippewa song trans), (Mary Austin), "Stopping by Woods on a Snowy Evening," (Robert Frost), "Sympathy," (Paul Laurence Dunbar), "There is no frigate like a book," (Emily Dickinson), "The Walloping Window-blind," (Charles E. Carryl), "Woman Work," (Maya Angelou)

Terms: meter, iamb, couplet, rhyme scheme, free verse

Fiction

Stories: *The Iliad and The Odyssey*, (Homer), *FIying Lessons and Other Stories* (edited by Ellen Oh), *Calling All Minds: How to Think and Create Like an Inventor*, (Temple Grandin), *Ninety Miles to Havana,* (Enrique Flores Galbis)

Classical Mythology: Apollo and Daphne, Orpheus and Eurydice, Narcissus and Echo, Pygmalion and Galatea

Essays and Speeches: *The Blessings of Liberty – Voices for Equality and Justice*

Literary Terms: epic, literal and figurative language, imagery, metaphor, simile, symbol, personification

Drama: *Julius Caesar*, (William Shakespeare)

Sayings and Phrases

All for one and one for all. All's well that ends well. Bee in your bonnet. The best laid plans of mice and men oft go awry. A bird in the hand is worth two in the bush. Bite the dust. Catch-as-catch-can. Don't cut off your nose to spite your face. Don't lock the stable door after the horse is stolen. Don't look a gift horse in the mouth. Eat humble pie. A fool and his money are soon parted. A friend in need is a friend indeed. Give the devil his due. Good fences make good neighbors. He who hesitates is lost. He who laughs last laughs best. Hitch your wagon to a star. If wishes were horses, beggars would ride. The leopard doesn't change his spots. Little strokes fell great oaks. Love of money is the root of all evil. Necessity is the mother of invention. It's never over till it's over. Nose out of joint. Nothing will come of nothing. Once bitten, twice shy. On tenterhooks. Pot calling the kettle black. Procrastination is the thief of time. The proof of the pudding is in the eating. R.I.P. The road to hell is paved with good intentions. Rome wasn't built in a day. Rule of thumb. A stitch in time saves nine. Strike while the iron is hot. Tempest in a teapot. Tenderfoot. There's more than one way to skin a cat. Touché! Truth is stranger than fiction.

World History and Geography

World Geography

Special Sense: continents and major oceans, how to read maps and globes using longitude and latitude coordinates, and degrees, Tropic of Cancer and Tropic of Capricorn: relation to seasons and temperature, Climate zones: Arctic, Tropic, Temperate, Time zones: Prime Meridian, (o degrees), Greenwich, England, (International Date Line), Arctic Circle (imaginary lines and boundaries), and Antarctic Circle

Great Deserts of the World

What is a desert? hot and cold deserts, oasis, major deserts: *Africa*: Sahara, Kalahari, *Australia*: a mostly desert continent, the outback, *Asia*:

Gobi, much of Arabian Peninsula, *North America*: Mojave, Chihuahuan, Sonoran, *South America*: Atacama Desert.

Lasting Ideas from Ancient Civilizations

Ancient Greece: The Greek polis (city-state), and patriotism, beginnings of democratic government: Modern American democratic government has its roots in Athenian democracy (despite the obvious limitations on democracy in ancient Greece, for example slavery, vote denied to women, the Assembly, Suffrage, majority vote, the "classical" ideal of human life and works, the ideal of the well-rounded individual and worthy citizen, pericles and the "Golden Age," Architecture: the Parthenon, Games: the Olympics, Greek wars: victory and hubris, defeat and shame, Persian Wars: Marathon, Thermopylae, Salamis, the Peloponnesian War: Sparta defeats Athens, Socrates and Plato, Socrates was Plato's teacher; we know of him through Plato's writings, for Socrates wisdom is knowing that you do not know, the trial of Socrates, Plato and Aristotle, Plato was Aristotle's teacher, they agreed that reason and philosophy should rule our lives not emotion and rhetoric; they disagreed about where true "reality" is: Plato says it is beyond physical things in ideas, cf. ("allegory of the cave"), Aristotle says reality is only in physical things, Alexander the Great and the spread of Greek ("Hellenistic") culture: the library at Alexandria

Ancient Rome: Romulus and Remus, Roman gods, legends, daily life, the Roman Republic, class and status: patricians and plebeians, slaves; Roman government: consuls, tribunes, and senators, the Punic Wars: Rome vs. Carthage, Hannibal; Julius Caesar, Augustus Caesar: Pax Romana, Roman law and the administration of a vast diverse empire, Virgil, *The Aeneid*: epic on the legendary origins of Rome; Christianity under the Roman Empire: Jesus's instruction to "Render unto Caesar the things which are Caesar's and unto God the things that are God's" (Matthew 22:21) Roman persecution of Christians, Constantine: first Christian Roman emperor; the "decline and fall" of the Roman Empire: causes debated by historians for many hundreds of years (outer forces such as shrinking trade, attacks and invasions vs. inner forces such as disease, jobless masses, taxes, corruption and violence, rival religions and ethnic groups, weak emperors), Rome's "decline and fall" perceived as an "object lesson" for later generations and societies

The Enlightenment

Characteristics: Faith in science and human reason as exemplified by

Isaac Newton and the laws of nature, Descartes: "cogito ergo sum," two ideas of "human nature": Thomas Hobbes and John Locke, Hobbes: the need for a strong governing authority as a check on "the condition of man ... [which] is a condition of war of everyone against everyone," Locke: the idea of man as a "tabula rasa" and the optimistic belief in education; argues against doctrine of divine right of kings and for government by consent of the governed, influence of the Enlightenment on the beginnings of the United States, Thomas Jefferson: the idea of "naturaI rights" in the Declaration of Independence, Montesquieu and the idea of separation of powers in government, Voltaire and idea of limited monarchy

The French Revolution

The influence of Enlightenment ideas and of the English Revolution on revolutionary movements in America and France, French aristocrat Marquis de Lafayette, the American Revolution: the French alliance and its effect on both sides, the Old Regime in France *L'Ancien Régime*, the social classes: the three Estates, Louis XIV the "Sun King": Versailles Louis XV: "Aprés moi Ie deluge," Louis XVI: the end of the Old Regime, Marie Antoinette: the famous legend of "Let them eat cake," from the Three Estates to the National Assembly, July 14 Bastille Day, *Declaration of the Rights of Man*, October Women's March on Versailles, "Liberty, Equality, Fraternity," Louis XVI and Marie Antoinette to the guillotine, Reign of Terror: Robespierre, the Jacobins, and the "Committee of Public Safety," revolutionary arts and the new classicism, Napoleon Bonaparte and the First French Empire, Napoleon as military genius, Crowned Emperor Napoleon I: reinventing the Roman Empire, the invasion of Russia, exile to Elba, Wellington and Waterloo

Romanticism

Beginning in early nineteenth century Europe, Romanticism refers to the cultural movement characterized by: the rejection of classicism and classical values, an emphasis instead on emotion and imagination instead of reason, an emphasis on nature and the private self instead of society and man in society, the influence of Jean Jacques Rousseau's celebration of man in a state of nature as opposed to man in society:" Man is born free and everywhere he is in chains," the idea of the "noble savage," Romanticism in literature the visual arts and music

The Industrial Revolution

Beginnings in Great Britain, revolution in transportation: canals, rail-

roads, new highways, steam power: James Watt, revolution in textiles: Eli Whitney and the cotton gin, factory production, iron and steel mills, the early factory system, families move from farm villages to factory towns, unsafe oppressive working conditions in mills and mines, women and child laborers, low wages poverty slums disease in factory towns, violent resistance: Luddites.

Capitalism

Adam Smith and the idea of laissez faire vs. government intervention in economic and social matters, division of labor, Law of supply and demand, Growing gaps between social classes: Disraeli's image of "two nations" the rich and the poor.

Socialism

An idea that took many forms all of which had in common their attempt to offer an alternative to capitalism, for the public ownership of large industries transport banks etc. and the more equal distribution of wealth, Marxism: the Communist form of Socialism, Karl Marx and Friedrich EngeIs, The Communist Manifesto: "Workers of the world unite!" Class struggle: bourgeoisie and proletariat, workers' rights. Communists in contrast to Socialists opposed all forms of private property

Latin American Independence Movements

The name "Latin America" comes from the Latin origin of the languages now most widely spoken, Spanish and Portuguese, *Haitian revolution*: Toussaint L'Ouverture, Abolition of West Indian slavery, *Mexican revolutions*: Miguel Hidalgo, José Marfa Morelos, Santa Anna vs. the United States, Benito Juârez, Pancho Villa, Emiliano Zapata, *Liberators:* Simon Bolivar, José de San Martin, Bernardo O'Higgins, New nations in Central America: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Brazilian independence from Portugal

Geography of Latin America:

Mexico: Yucatan Peninsula, Mexico City

Panama: isthmus, Panama Canal, Central America and South America: locate major cities and countries including Caracas, (Venezuela), Bogota, (Colombia), Quito, (Ecuador); Lima, (Peru); Santiago, (Chile); La Paz, (Bolivia), Andes Mountains. (Brazil), largest country in South America; rain forests, Rio de Janeiro, Amazon River. (Argentina), Rio de la Plata, Buenos Aires, Pampas

American History and Geography 1830-1930

Immigration

Waves of new immigrants from about 1830 onward, Great migrations from Ireland (potato famine), Germany, and Russia (pogroms) from about 1880 on, many immigrants arrive from southern and eastern Europe, immigrants from Asian countries, especially China, Ellis Island, "The New Colossus" (poem on the Statue of Liberty, written by Emma Lazarus), large populations of immigrants settle in major cities, including New York, Chicago, Philadelphia, Detroit, Cleveland, Boston, San Francisco, the tension between ideals and realities, the metaphor of America as a "melting pot" or "mosaic," America perceived as "land of opportunity" vs. resistance, discrimination, and "nativism," resistance to Catholics and Jews, Chinese Exclusion Act B, industrialization and urbanization

The post-Civil War industrial boom

The "Gilded Age," the growing gap between social classes, Horatio Alger and the "rags to riches" story, growth of industrial cities: Chicago, Cleveland, Pittsburgh, Mmany thousands of African Americans move north, urban corruption, "machine" politics: "Boss" Tweed in New York City, Tammany Hall, the condition of labor, factory conditions: "sweat shops" long work hours low wages women and child laborers, unions: American Federation of Labor Samuel Gompers, strikes and retaliation: Haymarket Square; Homestead Pennsylvania, Labor Day, the growing influence of big business: industrialists and capitalists, "Captains of industry" and "robber barons": Andrew Carnegie, J. P. Morgan, Cornelius Vanderbilt, New inventions and patents, John D. Rockefeller and the Standard Oil Company as an example of the growing power of monopolies and trusts, capitalists as philanthropists, funding museums libraries universities etc., "Free enterprise" vs. government regulation of business: Interstate Commerce Act and Sherman Antitrust Act attempt to limit power of monopolies

Social Reform

Populism: Discontent and unrest among farmers, the gold standard vs. "free silver" William Jennings Bryan, the Progressive Era, "Muckraking": Ida Tarbell on the Standard Oil Company; Upton Sinclair, *The Jungle* on the meat packing industry, Jane Addams: settlement houses; Jacob Riis *How the Other Half Lives*: tenements and ghettos in the modern city, President Theodore, Teddy Roosevelt: conservation and trustbusting.

Reform for African Americans

Ida B. Wells: campaign against lynching, Booker T. Washington: Tuskegee Institute, Atlanta Exposition Address "Cast down your bucket where you are." W. E. B. DuBois: founding of NAACP "The problem of the twentieth century is the problem of the color line" The *Souls of Black Folk, Women's suffrage*: Susan B. Anthony, Nineteenth Amendment, The Socialist critique of America: Eugene V. Debs.

Visual Arts

Classical Art (The Art of Ancient Greece and Rome)

Observe characteristics considered "classic"—emphasis on balance and proportion idealization of human form—in The Parthenon and the Pantheon, *The Discus Thrower, Apollo Belvedere*, *The School of Athens*

Gothic (Medieval) Art and Architecture

Briefly review the religious inspiration and characteristic features of Gothic cathedrals. Look at examples of Gothic Revival architecture. Charles Barry and A. W. N. Pugin, *Palace of Westminster* Rebuilt between 1835-1870. Giuseppe Sacconi, *Vittorio Emanuele II monument* in Rome

Rococo Art (ca. mid to late 1700s.)

Decorative and "pretty" nature of Rococo art, use of soft pastel colors and refined sentimental, playful subjects: Jean Honore Fragonard, *The Swing*, Adélaide Labille Guiard, *Self-Portrait with Two Pupils*.

Neoclassical Art and Architecture (ca. late 18th- early 19th century)

Reaction against Baroque and Rococo; the revival of classical forms and subjects; belief in high moral purpose of art and balanced clearly articulated forms in: Jacques Louis David, *Oath of the Horatii*, Elisabeth Louise Vigée LeBrun, *Marie Antoinette de Lorrain et Habsbourg Queen of France and Her Children*. Neoclassical architecture: Jacques Germain Soufflot, *Church of Ste Geneviéve* now *Le Panthéon*, Paris France. Etienne Louis Boullée, *Cenotaph to Isaac Newton*

Romantic Art*:* (ca. late 18th — 19th century)

A reaction against Neoclassicism with a bold expressive emotional style and a characteristic interest in the exotic or in powerful forces in nature: (Francisco), Goya *The Bullfight*, (Eugene Delacroix), *Liberty Leading the People*, (Caspar David Friedrich), *The Chalk Cliffs on Rugen*.

Realism*:* (ca. mid to late 19 century)

The Realist's belief that art should represent ordinary people and ac-

tivities; that art does not have to be uplifting edifying or beautiful: (Jean Millet), *The Gleaners*, (Gustave Courbet), *The Stone Breakers*, American realism: (Winslow Homer), *Northeaster*, (Thomas Eakins), *The Gross Clinic*, (Henry O. Tanner), *The Banjo Lesson*, (Rosa Bonheur), *The Horse Fair*.

Impressionism, (ca. 20th century)

Edgar Degas Dancing Class, Eva Gonzales, *The Italian Music Hall Box* , (Berthe Morisot), *Young Woman Seated on a Sofa*, (Pierre Auguste Renoir), *Luncheon of the Boating Party*, (Mary Cassatt), *The Boating Party*, (Claude Monet): *Impression: Sunrise Bridge Over a Pool of Lilies*, *Cecilia Beaux, Mrs. Theodore Roosevelt and Her Daughter Ethel*

Post-Impressionism

Cezanne*: Apples and Orange*s, (Georges Seurat and pointillism), *Sunday Afternoon on the Island of the Grande Jatte*, (Vincent van Gogh), *The Starry Night*, (Paul Gauguin), *Vision After the Sermon Hail Mary*, (Henri Toulouse Lautrec), *At the Moulin Rouge*

Architecture in the Age of the Industrial Revolution

Examples including Henri Labrouste's *Bibliothéque Sainte Geneviéve*, *the Crystal Palace, the Statue of Liberty, The Brooklyn Bridge, The Eiffel Tower*

Grade 6 Music

Classical Music: From Baroque to Romantic.

Baroque (1600-1750) Counterpoint, fugue, oratorio, Johann Sebastian Bach: selections from B*randenburg Concertos* selections from *The Well-Tempered Clavier*, selections from the *Cantatas*, George Frederick Handel: selections from *Water Music*" *The Messiah* Francesca Caccini *La liberazione di Ruggiero*.

Classical ca.1750-1825. The classical symphony typically in four movements Wolfgang Amadeus Mozart, *Symphony No. 40*; the classical concerto: Wolfgang Amadeus Mozart Piano Concerto No.21, chamber music: string quartet sonata Franz Joseph Haydn String Quartet Opus 76 No.3, Ludwig van Beethoven "*Emperor Concerto*" and his Piano Sonata No. 14, "*Moonlight Sonata*"

Romantic ca. 1800-1900*:* Beethoven as a transitional figure: Symphony No. 9 fourth movement. Romantic composers and works: Franz Schubert lieder, art songs: Die Forelle {"The Trout", "*Gretchen at the Spinning Whee*l" Frederic Chopin: "*Funeral March*" (from Piano Sonata No. 2 in B flat minor), "*Minute Waltz*," *Revolutionary Etude in C minor*, Robert Schumann

Piano Concerto in A Minor, Clara Schumann *Piano Concerto in A minor*. Dame Ethel Mary Smyth, *The Wreckers*

Songs "It was a Lover and His Lass" by Shakespeare and Thomas Morley, "Lift Every Voice and Sing" by J. Rosamond Johnson, and James Weldon Johnson. "*La Marseillaise*", "Drink to Me Only With Thine Eyes" by Ben Jonson, "I Dream of Jeanie With the Light Brown Hair" by Stephen Foster, "Hard Times Come Again No More" by Stephen Foster, "I Am the Very Model of a Modern Major General" from *Pirates of Penzance* by Gilbert and Sullivan

Grade 7

Poems*:* "Annabel Lee" (Edgar Allan Poe), "Because I could not stop for Death" (Emily Dickinson), "The Charge of the Light Brigade" (Alfred Lord Tennyson), "The Chimney Sweeper" (both versions from *The Songs of Innocence* and *The Songs of Experience* William Blake), "The Cremation of Sam McGee" (Robert Service), "David's Old Soul" and "The Sculptor," (Nikki Grimes), "Dulce et Decorum Est" (Wilfred Owen), "Fire and Ice" "Nothing Gold Can Stay" (Robert Frost), "Heritage" (Countee Cullen), "Hope" (Georgia Douglas Johnson), "Macavity: The Mystery Cat" T.S. Eliot, "My Heart Soars" (Chief George Brown), "The Negro Speaks of Rivers" "Harlem", "Life is Fine" (Langston Hughes), "This Is Just to Say", "The Red Wheelbarrow", (William Carlos Williams), "Turtle Came to See Me", (Marguerita Engle), "Xiuhtezcatl Martinex" (George Ella Lyon)

Short Stories*:* "Colorstruck" (Zora Neale Hurston),"Bad Dog" (Joseph Bruhac), "Affrilachian Tales: Folktales from the African-American Appalachian Tradition" (retold by Lyn Ford), "The Gift of the Magi" (O. Henry), "The Necklace" (Guy de Maupassant), "The Tell-Tale Heart," "The Purloined Letter" (Edgar Allan Poe)

Novels/ Novellas*: Hello Universe* (Erin Entrada Kelly), *Dr. Jekyll and Mr. Hyde* (Robert Louis Stevenson), *The Time Machine* (H.G. Wells), *Code Talker: A Novel About the Navajo Marines of WWII*, (Joseph Bruhac), *Their Eyes Were Watching God*, (Zora Neale Hurston), of fiction: review aspects of plot and setting, theme, point of view in narration, omniscient narrator, unreliable narrator.

Essays and Speeches*:* "Shooting an Elephant" (George Orwell), "Declaration of War on Japan" (Franklin D. Roosevelt)

Autobiography*: Diary of a Young Girl*, (Anne Frank)

Drama*: The Tempest*, (William Shakespeare)

Foreign Phrases Commonly Used in English: *ad hoc, bona fides, carpe diem, caveat emptor, de facto, in extremis, in medias res, in toto, modus operandi, modus vivendi, persona non grata, prima facie, pro bono publico, pro forma, quid pro quo, R I P, sic transit gloria mundi, sine qua non, sub rosa.*

Grade 7 History and Geography

A Survey of American History

(Note some topics have already been studied, and others may need detailed emphasis and discussion. Students and teachers and principals must decide about the topics that deserve to be pondered, and those which can be passed over lightly in the context of the full panoply.)

How People first came to the Americas

Various theories regarding early migration, Walking over a land bridge; Walking across frozen waters and traveling by boat along coastal avenues; Kelp Highway Theory, different peoples with different languages and ways of life eventually spread out over the North and South American continents

Indigenous Societies in Central and South America

The Inca, Peru*:* Skilled warriors, masons, weavers, artists. Accomplishments: built great cities, Machu Picchu, Cuzco, roads, irrigation, systems. Emperor Atahualpa, *The Mayas*, southern Mexico and northern Guatemala: accomplishments as architects and artisans: pyramids and temples; invented a written language a day calendar and an early society to conceive of use the number zero, potential causes behind the Mayan empire decline: extended drought, warfare, overpopulation, *The Aztecs*, Mexico; capital city, Tenochtitlân, A warrior culture, accomplishments: aqueducts massive temples Emperor Moctezuma also spelled Montezuma, practice of human sacrifice, Aztec gods: Huitzilopochtli and Quetzalcoatl. *Spanish Conquistadors*, Pizzaro and Cortés, European weaponry, guns, cannons, disease: smallpox devastates indigenous population due to lack of immunity.

Indigenous Societies in North America

The American Southwest: Geographic features: mesas canyons plateaus. Ancestral Pueblo cliff dwellers, "Four Corners," potential causes of decline: thin soil, extended drought, descendants: Pima Zuni, Navajo Diné,"the people" farmers, shepherds, silversmiths, the American Northwest: Haida, Totem poles, Inuit "the people." Igloos, ice fishing, freezing fish, *The American Northeast*, Eastern Woodlands Lake Superior to the Atlantic Coast "The three

sisters:" corn, beans, and squash, wigwams, longhouses, Mahican, Iroquois, Haudenosaunee, confederacy system of government, five nations: Mohawk, the Onondaga, the Seneca, the Oneida, and the Cayuga, *The American Southeast*, Mound Builders, Midwest and Southeast Farmers; built cities roads and marketplaces, potential cause of decline: foreign disease, descendants: Creek, Cherokee, Choctaw, and Seminoles, Creek Confederacy, Cherokee, Sequoyah created written language of Cherokee; legends, shared cultural traits, oral traditions, polytheism, shamans.

European Exploration and Colonization of the Americas

The Vikings, Norsemen from Scandinavia, Sweden, Denmark, Norway, are the earliest known Europeans to arrive in North America: Bjarni Herjolfsson, first European to "see" North America, northeastern Canada, Eric the Red, first European believed to find Greenland; his son Leif Ericson Leif" the Lucky" discovered "Vinland" believed to be Nova Scotia.

Quest For Spices

Spices used to flavor and preserve food; long travel routes to acquire Asian spices, Arab traders and the Spice Islands; Venetian merchants, Marco Polo and the Mongols, diplomatic missions in service to Kublai Khan, the Travels of Marco Polo, Turkish trade route barrier, search for a New Route: Prince Henry, Bartolomeu Dias, Vasco da Gama; trading posts along the Swahili Coast

Early Spanish Exploration and Settlement

Columbus' proposed all-water route to Asia; Landfall in Hispaniola on October, impact of Exploration and Settlement, Spanish Conquistadors: Vasco Nuñez de Balboa, Juan Ponce de Leon, Hernando de Soto, Pedro Menéndez de Avilés, Francisco Vâzquez de Coronado, and Juan de Oñate, Gold seekers, founding of St. Augustine, Spanish missions, "Seven Cities of Cibola" of Gold de Oñate's slaughter and enslavement of indigenous people. Pope's Revolt, Bartolomé de las Casas and the encomienda system.

Search for the Northwest Passage

Search for a river passage through the American continent to Asia. French Explorers: Giovanni da Verrazzano, Jacques Cartier, Samuel de Champlain. Fishing fur trapping and trading in Canada, Relationship with indigenous people and settlement of New France. Dutch: Henry Hudson, the Hudson River, English: John Cabot, Newfoundland.

English Colonization of North America*:*

Beginnings of English Colonization in North America: Francis Drake

and defeat of the Spanish armada. Joint stock companies provide grants to wealthy people and businesses to build colonies. Sir Walter Raleigh established first colony in North America: Roanoke Island; Later remembered as the "Lost Colony; the Croatoan" carving.

Southern Colonies

Founded as economic centers. Virginia: The London Company later called the Virginia Company established the colony of Jamestown. Virginia climate; conflicts with Powhatan Confederacy; Chief Powhatan; starving time, captain John Smith as leader imposed mandatory work to support self-sufficiency and maintain peace with Powhatans. Pocahontas; daughter of Chief Powhatan; friendship with John Smith; marriage to John Rolfe, discovery of cash crop, tobacco, development of plantations. Maryland, named in honor of English Queen Henrietta Maria, granted to Sir George Calvert, Lord Baltimore, proprietary colony. Haven for Roman Catholics. *Carolinas,* Colonists planted rice and sugarcane. *Georgia*, established as a colony for prisoners and debtors. General James Oglethorpe

Enslavement of people in the Americas

European involvement in the African slave trade, Prince Henry of Portugal, the Middle Passage, Elmina Castle in Ghana, Plantations: labor-intensive work, enslaved indigenous people used to provide labor but many die: lack of resistance to foreign disease and war; Portuguese and Spanish import enslaved people to provide the labor; English first use enslaved people to provide labor in colonized islands in the Caribbean; Dutch take over the spice trade and much of the Atlantic slave trade, first enslaved Africans brought to Virginia

New England Colonies

Founded as religious sanctuaries, *Massachusetts*, Pilgrims, Mayflower Compact, common house, Wampanoag people, Samoset, Squanto, Massasoit, John Carver, William Bradford, Puritans, *A Modell of Christian Charity*, *The New England Primer*, *Rhode Island*, Anne Hutchinson, Roger Williams, Narragansett people, *New Hampshire, Connecticut, Maine*, Thomas Hooker, Fundamental Orders (framework for the government of the Connecticut colony from 1639 to 1662.)

Middle Colonies.

Founded for economical profit and as a religious sanctuary. Most populous cities most diverse population and highest number of free Black Americans of the colonies, New York, Dutch territories, War between En-

gland and the Netherlands, Duke of York, Establishment of New York City. *Pennsylvania*, William Penn, Quakers, Philadelphia, second largest city in the British Empire.

The Revolutionary War

Prior background: The French and Indian War also known as the "Seven Years' War" part of an ongoing struggle between Britain and France for control of colonies in various regions around the world, in this case in North America. Alliances with Native Americans. The Battle of Quebec, James Wolfe, Colonel George Washington, Pontiac's War.

Causes and Provocations

British taxes to pay for war debts: Stamp Act; "the rights of Englishmen;" "no taxation without representation." Quartering Act, Townshend Acts, Sam Adams, Sons of Liberty, Boston Massacre, Crispus Attucks, Paul Revere's cooper engraving, Tea Act, Boston Tea Party, The Intolerable Acts close the port of Boston and require Americans to provide quarters for British troops, First Continental Congress protests to King George III Patrick Henry "Give me liberty or give me death."

The Revolution

William Dawes, Paul Revere's ride, "One if by land two if by sea," Lexington and Concord, Ralph Waldo Emerson The "shot heard 'round the world," Redcoats and Minutemen, Second Continental Congress: George Washington appointed commander in chief of Continental Army, Bunker Hill, Breed's Hill, *Declaration of Independence*, Primarily written by Thomas Jefferson, Adopted July 4, 1776. Use of the term "Natural Rights." British army compared to Continental army, funding resources. Women in the Revolution: Deborah Sampson, Molly Pitcher. Black Americans in the Revolution: Majority of Black Americans supported the British side; Approximately five thousand fought on the colonists' side. Salem, Poor Peter Salem. Nathan Hale: "I only regret that I have but one life to lose for my country." Battles of Trenton and Saratoga French alliance, Valley Forge, Frederick von Steuben, John Paul Jones: "I have not yet begun to fight." Benedict Arnold, Loyalists, Tories, Cornwallis, Surrender at Yorktown.

Creating the Constitution.

Background*:* Main Ideas behind the Declaration of Independence, The Age of Enlightenment: John Locke, Jean Jacques Rousseau, "Natural Rights" and "the consent of the governed," The responsibility of govern-

ment to protect the "unalienable rights" of the people, Concept of a "limited government" From the Declaration to the Constitution, Second Continental Congress, Northwest Ordinance, Articles of Confederation: weak central government, James Madison and Alexander Hamilton, definition of "republican" government : the Constitutional Convention, the Virginia Plan vs. the New Jersey Plan, Separation of powers, legislative, executive, judicial branch, houses of government and number of representatives, Roger Sherman, bicameral system, three/fifths compromise, September: signing of the new constitution, federalists vs anti-federalists, the Federalist papers, the Bill of Rights.

Early Presidents and Politics

Electoral college, George Washington first president, first inaugural ceremony, setting precedents, early judicial system, District of Columbia, established as national capitol, Pierre L'Enfant and Benjamin Banneker, correspondence between Jefferson and Benjamin Banneker, John Adams second president, Abigail Adams, the President's House the White House, Thomas Jefferson third president, Louisiana Purchase Embargo Act of, James Madison fourth president, "Father of the Constitution," James Monroe fifth president, purchase of Florida, the Monroe Doctrine, John Quincy Adams sixth president, Andrew Jackson seventh president, Presidency of "the common man," Native American removal policies, Indian Removal Act.

The War of 1812

President James Madison and Dolley Madison. British impressment of American sailors, British burn the White House, Fort McHenry, Francis Scott Key and "The Star Spangled Banner," Battle of New Orleans, Andrew Jackson,

Westward Expansion Before the Civil War *(1820-1860)*

Exploration of the Western Frontier, Frederick Jackson Turner *The Significance of the Frontier in American History*, The Wilderness Road, the Cumberland Gap, Daniel Boone, Exploring the Louisiana Purchase, the "Corps of Discovery," Meriwether Lewis, William Clark, Sacagawea, Continental Divide, Zebulon Pike.

Pioneers Move West

Improvements in transportation stagecoach steamboats flatboats railroads, Oregon trade and settlement, Brigham Young and Mormon settlement, present-day Utah, California gold rush "forty-niners"

Native American Resistance

More and more settlers move onto Native American lands, treaties made and broken. Attacks on Wilderness road and raiding settlements; U.S. troops retaliate, battle of Wabash, battle of Fallen Timbers, Chief Tecumseh: attempted to unite tribes in defending their land, battle of Tippecanoe, Chief Osceloa, Trail of Tears [Nuna-da-ut-sun'y], Manifest Destiny.

Conflict with Mexico

Mexico wins independence. Stephen Austin, settlements in Texas, General Antonio Lopez de Santa Anna, battle of the Alamo "Remember the Alamo," Sam Houston, Republic of Texas, state of Texas in 1845, Mexican-American War, General Zachary Taylor, some Americans strongly oppose the war, Henry David Thoreau's "Civil Disobedience," Mexican lands ceded to the United States, California, Nevada, Utah, parts of Colorado, New Mexico, Arizona.

Toward the Civil War

Invention of the cotton gin. Life of enslaved people, Turner's Rebellion, the Missouri Compromise, controversy over whether to allow the enslavement of people in territories and new states, Abolitionists: William Lloyd Garrison and *The Liberator*, Frederick Douglass, Sojourner Truth, Harriet Tubman, Underground Railroad, Mason-Dixon Line, Compromise of 1850, Kansas-Nebraska Act, Dred Scott decision, John Brown, Harper's Ferry, Lincoln: "A house divided against itself cannot stand." Lincoln-Douglas debates, Lincoln elected president, Southern states secede.

The Civil War

Confederate States of America (Confederacy) Jefferson Davis, April 12, 1861: firing on Fort Sumter, North (Billy Yank) vs. South (Johnny Reb). North population twice as large, better equipment, more supplies, and greater access to railroad track. Most battles fought in Southern territory. Women's role in the war. First Battle at Bull Run (Manassas), Robert E. Lee and Ulysses S. Grant, General Stonewall Jackson, Ironclad ships, battle of the USS Monitor and the CSS Virginia formerly the USS Merrimack, Battles in the western front, Battle at Antietam Creek (Sharpsburg), The Emancipation Proclamation, Black American troops: Massachusetts 55th Regiment and Massachusetts 54th Regiment led by Colonel Shaw, Battle of Gettysburg and the Gettysburg Address, William Tecumseh Sherman's march to the sea, Lincoln reelected, concluding words of the Second Inaugural Address: "With malice toward none with charity for all." Richmond,

Confederate capital, falls to Union forces. Surrender at Appomattox Court House. Assassination of Lincoln by John Wilkes Booth.

Reconstruction.

The South in ruins. Thirteenth Amendment abolishing slavery. Freedmen's Bureau, and sharecropping, Andrew Johnson, Presidential Reconstruction, impeachment, Black codes, Congressional Reconstruction, Fourteenth and Fifteenth Amendments, Blanche K. Bruce first Black American to be elected to a full-term (Mississippi Senate), Ku Klux Klan, Incarceration of Black men, New laws established against vagrancy, homelessness, unemployment etc., Incarcerated Black men put to work to rebuild the South e.g. infrastructure., End of Reconstruction, Compromise of 1877, all federal troops removed from the South.

Increased Movement West

Favorable government policies encourage Americans to move west of the Mississippi River and west of the Rocky Mountains. Westward migration expands due to mining and ranching. Comstock Lode. Cattle ranchers, the "long drive" cowboys. Railroads: Transcontinental Railroad links east and west. Union Pacific Railroad Company and Central Pacific. Labor: Chinese and Irish immigrants, Mexican Americans, Black Americans, Native Americans, and army veterans. Homestead Act many thousands of Americans and immigrants start farms in the West. Myth of the "wild west:" Billy the Kid and Jesse James. Wild West show: William F. "Buffalo Bill" Cody and Annie Oakley. U. S. purchases Alaska from Russia. The devastating impact of this era on Native Americans. Impact on Indigenous People., Broken Treaties and forced removal to reservations, Bureau of Indian Affairs, assimilation practices. Carlisle School, Plight of the bison, Sand Creek Massacre, Apache battles and Geronimo, Little Big Horn: Chief Crazy Horse, Chief Sitting Bull, Custer's Last Stand. Lost homelands, barren reservations, Wovoka the Ghost Dance, Battle of Wounded Knee.

Immigration

"Land of opportunity," Emma Lazarus and "Mother of Exiles," The metaphor of America as a "melting pot" or "mosaic," European Immigration, and antiimmigrant movement. B. *Industrialization and Urbanization*. The post-Civil War industrial boom, American industry producer of a third of the world's manufactured goods, Mark Twain and *The Gilded Age*: *A Tale of Today* (1873), urban corruption, the condition of labor, deplorable factory conditions, Keating-Owen Child Labor Act, Oliver Wendell Holmes,

fair Labor Standards Act, unions and strikes, industrialists and capitalists, entrepreneurs "captains of industry" and "robber barons," "free enterprise" vs. government regulation, populism.

Social Movements and Reforms

The Progressive Era. Technological and scientific progress, muckrakers, settlement houses: Hull House; Greenwich House, conservation and trustbusting, John W. Burgess: *What is Real Political Progress?* Absolutism, laissez faire, reform for Black Americans, women's suffrage movement and the Nineteenth Amendment, the socialist critique of America, "the capitalist system," Dorothea Dix and the treatment of the insane, Horace Mann and public schools.

War with Spain and the Philippines.

Imperialists vs. anti-imperialists, antiimperialist League: Jane Addams, Mark Twain, and Andrew Carnegie, Imperialists: Captain Mahan, Teddy Roosevelt, William McKinley, and James G. Blaine. The Spanish-American War, Explosion onboard the U. S. S. Maine anchored in Cuba's Havana harbor. Yellow Press: running sensational exaggerated or fabricated news stories; Joseph Pulitzer's *New York World* newspaper and William Randolph Hearst's *New York Journal* newspaper. José Marti, Teddy Roosevelt and the Rough Riders, Spain gives the U.S. Guam, Puerto Rico, and the Philippines. But Filipinos desired their own independence. Philippines War: War for Filipino independence, Deadly: 4,200 Americans and perhaps as many as 200,000 Filipinos killed: Philippines gained independence from U.S. Building the Panama Canal: The "Roosevelt Corollary" to the Monroe Doctrine: "Speak softly and carry a big stick."

World War I: "The Great War" *(1914-1918)*

Entangling defense treaties: Allies vs. Central Powers, Archduke Ferdinand assassinated, the Western Front and Eastern Front, War of attrition and the scale of losses: battle of the Marne new war technologies for example machine guns, tanks, airplanes, submarines, trench warfare, U.S. neutrality ends: sinking of the Lusitania; Germany reinstates unrestricted submarine warfare; Zimmermann's telegram; "Make the world safe for democracy," America in World War I: two million U.S. soldiers; segregated Black American units; death toll, Armistice Day Nov. abdication of Kaiser Wilhelm , Treaty of Versailles, new central European states and national boundaries, German reparations and disarmament, Woodrow Wilson's 14 Points, League of Nations concept of collective security.

The First World War in Russia and Its Revolution

Largely agrarian society made up of poor struggling peasants ruled by Tsar Nicholas II. Tensions in the Russian identity: Westernizers vs. traditionalists Revolution of "Bloody Sunday" Russo-Japanese War, the last czar: Nicholas II and Alexandra, Economic strains of World War I, revolutions of 1917,: March Revolution ousts Czar; October Revolution: Bolsheviks, Lenin and revolutionary Marxism, Civil War: Bolsheviks defeat Czarist counter-revolution Bolsheviks become the Communist Party, creation of the Soviet Union.

The Twenties

Isolationism: restrictions on immigration, Red Scare, Sacco and Vanzetti, Ku Klux Klan, the "Roaring Twenties": flappers prohibition and gangsterism, St. Valentine's Day Massacre. Al Capone, "the Lost Generation" Ernest Hemingway, F. Scott Fitzgerald, Scopes "Monkey Trial." 19th Amendment, (Women's right to vote) Harlem Renaissance, Black Americans exodus from segregated South to northern cities, Zora Neal Hurston, Countee Cullen, Langston Hughes, "The Jazz Age": Duke Ellington, Louis Armstrong. Marcus Garvey, Pan-Africanist and Black nationalist movement, Technological advances: Henry Ford's assembly line production Model T, residential electrification: mass ownership of radio Will Rogers, Movies: from silent to sound, Charlie Chaplin, Pioneers of flight: Charles Lindbergh, Amelia Earhart, Decline of rural population.

The Great Depression

Wall Street stock market Crash of 1929 "Black Tuesday," Hoover insists on European payment of war debts, Hawley-Smoot Tariff Act, Mass unemployment, Agricultural prices collapse following European peace, Factory mechanization eliminates jobs, Bonus Army, "Hoovervilles."

The New Deal

Franklin Delano Roosevelt: "The only thing we have to fear is fear itself," New social welfare programs: Social Security, New regulatory agencies: Securities and Exchange Commission, National Labor Relations Board, Federal-government-owned corporation: Tennessee Valley Authority, Eleanor Roosevelt, Roosevelt's use of executive power: "Imperial Presidency" "court packing," The Dust Bowl: "Okie" migration, John Steinbeck's *The Grapes of Wrath*, Unions: John L. Lewis and the CIO, Congress of Industrial Organizations, A. Philip Randolph, Memorial Day Massacre, Protests: Huey Long, American Communist Party, Upton Sinclair, *The Jun-*

gle, Theory of British economist John Maynard Keynes

Origins of World War II Origins

Rising totalitarianism in Europe Italy: Mussolini establishes fascism, Germany: Weimar Republic economic repercussions of WWI; Adolf Hitler and the rise of Nazi totalitarianism: cult of the *Führer* "leader," *Mein Kampf*; Nazism and the ideology of fascism, in contrast to communism and democracy; Racial doctrines of the Nazis: anti-Semitism the concept of *Lebensraum* literally "living space" for the "master race" *Kristallnacht*; The Third Reich before the War: Gestapo mass propaganda, book burning, The Soviet Union: Communist totalitarianism: Josef Stalin "Socialism in one country;" Collectivization of agriculture; The Great Purge, Spanish Civil War: Franco.

Onset of World War II

Hitler defies Versailles Treaty: reoccupation of Rhineland, Anschluss, annexation of Austria, Appeasement: Munich Agreement "peace in our time," Soviet-Nazi Nonaggression Pact, *Blitzkrieg*: invasion of Poland, fall of France, Dunkirk, Battle of Britain: Winston Churchill: "nothing to offer but blood toil tears and sweat."

The United States in the Early Years of the War

Isolationism*:* Neutrality Acts, America-First movement, American Lend-Lease supplies, Hitler invades Soviet Union: battles of Leningrad and Stalingrad, The Holocaust: Millions killed including six millions Jews ;"final solution;" concentration camps, Four Freedoms Speech of FDR, Atlantic Charter, U.N.'s Universal Declaration of Human Rights

The United States Enters the War

Roosevelt applies economic pressure on Japan to leave China: Embargo on sale of industrial machinery, aviation fuel and scrap iron to Japan; freezing Japanese assets invested in the U.S., Pearl Harbor December 7: Japanese attack on U.S. naval base at Pearl Harbor, Roosevelt: "a date which will live in infamy," U.S. mobilization for war: War Production Board; Roosevelt pledge that the U.S. would become, "the arsenal of democracy;" rationing on the home front: ration cards/stamps "victory gardens" collecting metal rubber, clothing and paper, financing the war effort: war bonds increased income taxes federal deficit spending, desegregation of defense industries, "Rosie the Riveter," double V campaign, executive order 8802, Internment of Japanese Americans: Japanese Americans American citizens placed in internment camps in the American West, Segregated Military: more than

a million Black Americans and half-a-million Mexican Americans served in U.S. military during WWII; Tuskegee Airmen, War in Europe: D-Day: Allied invasion of Normandy, General Dwight Eisenhower, Battle of the Bulge, Surrender of Germany, Soviet Army takes Berlin. War in the Pacific: Bataan Death March, kamikaze attacks, Battle of Midway, Island amphibious landings: Guadalcanal Iwo Jima, Manhattan Project: nuclear bomb, Atom bombs dropped on Hiroshima and Nagasaki the Enola Gay, Surrender of Japan: U.S. dictates pacifist constitution for Japan, Emperor Hirohito

Immediate Aftermath

Yalta and Potsdam Conference Nuremberg war crimes trials, Creation of United Nations: Security Council Universal Declaration of Human Rights, United States emerges as an economic powerhouse and a military superpower.

Origins of the Cold War

United States*:* "First World" Soviet Union: "Second World" Truman Doctrine policy of containment of communism. Formation of NATO Warsaw Pact, the "Iron Curtain" Churchill, Post WWII devastation in Europe, Marshall Plan, Bretton Woods Conference, Berlin Airlift, Soviet satellite states and repression, eastern European resistance, Hungarian Revolution, Prague Spring, Berlin Wall, western fear of communist expansion Soviet fear of capitalist influences. B. *The Korean War*: Division of North and South Korea, Chinese entry removal of MacArthur, Partition of Korea truce line near the 38th Parallel.

America in the Cold War

McCarthyism, House Un-American Activities Committee, "witch hunts," Hollywood Blacklist, Spy cases: Alger Hiss, Julius and Ethel Rosenberg, The Eisenhower Years, Secret operations CIA, FBI's anticommunist counterintelligence program, J. Edgar Hoover. U-2 incident, Soviet Sputnik satellite, "Missile Gap," Yuri Gagarin, The Kennedy Years, "Ask not what your country can do for you ..." Attack on organized crime Robert F. Kennedy, Cuban Missile Crisis, Fidel Castro, Bay of Pigs invasion, Nuclear deterrence "mutual assured destruction" Nuclear Test Ban Treaty, Kennedy assassination in 1963, Lee Harvey Oswald, Warren Commission, Space exploration, U.S. moon landing, Neil Armstrong, American culture in the 50's and 60's, Levittown and the rise of the suburban lifestyle, automobile-centered city planning, Influence of television, Baby Boom generation, rock and roll, Woodstock festival, 26th Amendment (18-year-olds can vote.)

The Vietnam War

French Indochina War: Dien Bien Phu, Ho Chi Minh, Viet Cong, Domino Theory, U.S. takes charge of the war, Special Forces, Tonkin Gulf Resolution, Tet Offensive, My Lai Massacre, "Agent Orange," Antiwar protests, Kent State, the Pentagon Papers, American disengagement Nixon's "Vietnamization" policy, Kissinger, War Powers Act, Watergate scandal, resignation of Nixon.

The Civil Rights Movement During the Cold War

Segregation: Plessy v. Ferguson doctrine of "separate but equal," "Jim Crow" laws, Postwar steps toward desegregation, Jackie Robinson breaks color barrier in baseball. Truman desegregates Armed Forces. Adam Clayton Powell Harlem congressman, Integration of public schools: Brown v. Board of Education, Thurgood Marshall "Little Rock Nine," Murder of Emmett Till; Rosa Parks and the Montgomery Bus Boycott, Southern "massive resistance": Federal troops open schools in Little Rock; Arkansas Murder of Medgar Evers; Alabama Governor George Wallace "stands in schoolhouse door," Nonviolent challenges to segregation Woolworth lunch counter sit-ins "passive-resistance, CORE, Freedom riders, John Lewis, Black voter registration drives, Martin Luther King Jr., Southern Christian Leadership Conference, March on Washington, "I have a dream" speech, "Letter from Birmingham Jail," Selma to Montgomery March, President Johnson and the civil rights movement, The "Great Society," "War on Poverty," Medicare, Civil Rights Act of 1964, Voting Rights Act of 1965, affirmative action, Black American militancy, Malcolm X, Black Power, Black Panthers, Watts and Newark riots, Watts and Newark riots, Assassinations of Martin Luther King Jr. and of Robert F. Kennedy.

Social and Technological Change.

New technologies: Personal computers, cable television, video games, Internet email, medical advances: MRI and CAT scan machines, mapping of the human genome, shifts in pop culture: advent of rap and hip hop television that reflected divisions and social tensions in American society, introduction to the hour news cycle, CNN, the Rise of Social and Environmental activism, American Indian Movement(AIM) Indian Self-Determination and Education Assistance Act, Russell Means and Dennis Banks, Cesar Chavez and the United Farm Workers, Stonewall Riots, Feminist movement: "women's liberation" Betty Friedan National Organization for Women Roe v. Wade, failure of the Equal Rights Amendment, Title IX,

Civil Rights for Black Americans: fair Housing Act busing school children to achieve racial integration in public schools Affirmative Action, Emergence of environmentalism: Rachel Carson, *Silent Spring*; Environmental Protection Agency; Earth Day; Clean Air and Water Acts; Disasters such as Love Canal, Three Mile Island, Chernobyl, Exxon Valdez; Climate change.

Presidents and Politics

Gerald Ford 38th President, Whip Inflation Now" WIN, stagflation, Energy Policy Conservation Act, Jimmy Carter 39th President Camp David Accords. Withdrawal from the Strategic Arms Limitation Treaty (SALT II) embargo of American grain shipments to the U.S.S.R, Tehran hostage crisis, Ronald Regan 40th President, the "New Right," Reaganomics national debt, Court appointments, the "Great Communicator," HIV/AIDS epidemic, Relations between the U.S. and Soviet Union, nuclear arms reduction treaty Iran-Contra Affair, George H. W. Bush 41st President, End of the Cold War, Fall of the Berlin Wall, Tiananmen Square, end to apartheid and release of Nelson Mandela, Los Angeles riots, The Gulf War: Iraqi invasion of Kuwait, Saddam Hussain "Operation Desert Storm," Bill Clinton 42nd President, NAFTA the North American Free Trade Agreement, Newt Gingrich "Contract with America," Interventions in Somalia and the Balkans: "Black Hawk Down," the Dayton Accords, Terrorism: truck bombing at the World Trade Center; U.S. embassy bombings in Kenya and Tanzania; bombing outside the Alfred P. Murrah Federal Building in Oklahoma City, Impeachment.

American Society in the Early Twenty First Century

Smart phones and social media: Introduction of the iPhone and "smartphone revolution," Social media giants: Facebook Twitter Instagram TikTok, Changes and Challenges, technological change, globalization and the decline of unions contribute to U.S.'s growing economic divide; "Hollowing out of the middle class," trade tensions between the U.S. and China, Climate Change, Social and racial inequities and the fight for equal rights, Native Americans in the twenty-first century, Native American pride and heritage celebrations, Way of life: successes and continued struggles. President Obama describes poverty and high school dropout rate among Native Americans as "a moral call to action."

Presidents and Politics Party Politics

The Republican Party: strength among conservative voters in rural areas across much of the South and Midwest, the Democratic Party: strength

among moderate and liberal voters in urban areas in Northeast, MidAtlantic and West Coast states, Gerrymandering, George W. Bush 43rd President, Election of 2000, Court appointees, tax cuts, national debt, No Child Left Behind, September 11, 2001, terrorist attack, Osama bin Laden and Al Qaeda, "war against terrorism," Iraq War Weapons of Mass Destruction, Hussein overthrown, USA Patriot Act, Department of Homeland Security, Hurricane Katrina, the "Great Recession," Barrack Obama 45th President, First Black American president in U.S. history, Court appointees, The "Great Recession" Dodd Frank, Wall Street Reform, and Consumer Protection Act, Affordable Care Act, "Obamacare," use of drones; counterattacks against ISIL, Iran Nuclear Deal, U.S. relations with Cuba, Paris Climate Agreement, Climate Action Plan, Donald Trump 45th President, Tax cuts, increased military spending protectionist on trade, Court appointees, Pulled the U.S. out of the Paris Climate Agreement, and Iran Nuclear deal, Impeachment, Joe Biden 46th President, Oldest president in U.S. history, Kamala Harris first female first Black American, and first Asian American to serve as Vice President in U.S. history.

Grade 7 Visual Arts

Fauvism/Expressionism (1900-1935)

Examine representative artists and works including (Henri Matisse) *The Red Room*, (Edvard Munch), *The Scream*, (Suzanne Valadon), *Marie Coca et sa Fille*, (Silberte Emily Carr), *Indian Church*. B. *Cubism*: (1907-1914) examine representative artists and works including: Picasso: *Les Demoiselles d'Avignon, Girl Before a Mirror, Guernica*, (Georges Braque), *Woman with a Guitar*, (Marcel Duchamp), *Nude Descending a Staircase*, C. *Surrealism*: (1917-1950) Examine representative artists and works including: (Salvador Dali), *The Persistence of Memory*, (Rene Magritte), *The Treachery of Images*, Max Ernst: Example of grattage such as *Forest and Dov*., Example of frottage, such as *The Entire City*, Example of collage such as his Week of Kindness series, (Leonora Carrington), *Self Portrait*, (Frida Kahlo), *The Wounded Deer*, (Remedios Varo), *Creation of the Birds*

Abstract Expressionism *(ca. 1940-1950*)

Lee Krasner any from her "Little Image" series, (Jackson Pollock), *Painting* (1948), (Beauford Delaney), *Composition 16*, (Mark Rothko), *Orange and Yellow*, (Elaine de Kooning), *John F. Kennedy*. E. Other Developers of Abstraction, (Vassily Kandinsky father of abstraction), *Improvisation*

31, *Sea Battle*, (Piet Mondrian), *Broadway Boogie Woogie*, Paul Klee, Senecio, Georgia O'Keeffe Red Poppies, Lois Mailou Jones, *Les Fétiches*, Rufino Tamayo, *Heavenly Bodies*, the Gutai *Group Work*, Alma Thomas *White Roses Sing and Sing*, II. *Organic Architecture*: (around 1900) Victor Horta, Tassel House, Louis Sullivan, Guaranty Building Buffalo, Frank Lloyd Wright, Darwin Martin House, Antoni Gaudi, Casa Batlló, Barcelona.

Grade 7 Music

Romantic Composers and Works

(Johannes Brahms), *Symphony No.1*, fourth movement. (Hector Berlioz), *Symphonie Fantastique*, (Franz Liszt), *Hungarian Rhapsody No. 2 for piano*, (Richard Wagner), Overture to *Die Meistersinger von Nürnberg*. B. *Music and National Identity*: (Anton Dvorâk), *Symphony No 9 "From the New World"* Edvard Grieg, *Peer Gynt Suites*, Nos.1 and 2, (Peter Ilich Tchaikovsky), *1812 Overture*, (Manuel Ponce), *Estrellita*.

American Musical Traditions, Blues

Evolved from African-American work songs and spirituals, Twelve bar blues form, Huddie Ledbetter (Lead Belly) "The Midnight Special," Bessie Smith "Nobody Knows You When You're Down and Out," Robert Johnson "Cross Roads Blues." *Jazz*, African American origins, Improvisation, syncopation, Ragtime: works of Scott Joplin such as "The Entertainer" and "Maple Leaf Rag," Louis Armstrong: early recordings such as "Potato Head Blues," "West End Blues," Duke Ellington: "Caravan," "Take the A Train," Ella Fitzgerald, "Take the A Train" and "It Don't Mean a Thing," Miles Davis: "So What," Influence of jazz on other music: George Gershwin's *Rhapsody in Blue*, Mary Lou Williams, "Roll 'Em," Django Reinhardt "Nuages."

Grade 8

Poems

"Buffalo Bill's Defunct" e.e. cummings, "Chicago" (Carl Sandburg), "Do Not Go Gentle into That Good Night" (Dylan Thomas), "How do I love thee?" (Elizabeth Barrett Browning), "How They Brought the Good News From Ghent to Aix" (Robert Browning), "I dwell in possibility" Apparently with no surprise" (Emily Dickinson), "The Lake Isle of Innisfree" (William B. Yeats), "Lucy Gray or Solitude;" "My Heart Leaps Up" (William Wordsworth), "Mending Wall;" "The Gift Outright" Robert Frost "Mr. Flood's Party" (Edward Arlington Robinson), Polonius's speech from

Hamlet "Neither a borrower nor a lender be ..." (William Shakespeare), "Ozymandias" (Percy Bysshe Shelley), Sonnet "Shall I compare thee to a summer's day?" (William Shakespeare), "Spring and Fall" (Gerald Manley Hopkins), "A Supermarket in California" (Allen Ginsberg), "Theme for English B" (Langston Hughes), "We Real Cool" (Gwendolyn Brooks), "The Hill We Climb" (Amanda Gorman), "Little Prince," "Yoke and Star," "A Sincere Man Am I" (Jose Marti), "Flight," "No Place on the Map;" "More & More Meanings" Margarita Engle, "English Con Salsa" Gina Valdes, "A Wreath for Emmett Till" (Marilyn Nelson), "I Am Accused of Tending to the Past" (Lucille Clifton), "Frederick Douglass" (Robert Hayden), "Ballad of Birmingham" (Dudley Randall).

Short Stories

"The Bet" (Anton Chekov), "Dr. Heidegger's Experiment" (Nathaniel Hawthorne), "God Sees the Truth But Waits" (Leo Tolstoy), "An Honest Thief" (Fyodor Dostoyevsky), "The Open Boat" (Stephen Crane), *Us in Progress*: *Short Stories About Young Latinos* (Lulu Delacre)

Novels: *Animal Farm* (George Orwell), *Wolf Hollow* (Lauren Wolk), *Frankenstein*, (Mary Shelley)

Essays and Speeches*: A More Perfect Union*: *Voices for Equality and Justice*: "Ask not what your country can do for you" John F. Kennedy's Inaugural Address, "I have a dream"; "Letter from Birmingham Jail" (Martin Luther King Jr.), "The Marginal World," (Rachel Carson)

Autobiography: *Hunger of Memory* (Richard Rodriguez), *Narrative of the Life of Frederick Douglass*, (Frederick Douglass), *This Promise of Change: One Girl's Story in the Fight for Social Equality* (Jo Ann Allen Boyce)

Drama: *Twelfth Night*, (William Shakespeare)

Foreign Phrases Commonly Used in English

au revoir goodbye until we see each other again, *avantgarde* a vanguard developing new or experimental concepts, *béte noire* a person or thing especially dreaded and avoided [literally "black beast"], *c'est la vie* that's life that's how things happen, *carte blanche* [literally "blank page"j full discretionary power, cause célébre [literally a "celebrated case"] a very controversial issue that generates fervent public debate, *coup de grâce* a decisive finishing blow, *coup d'état*, overthrow of a government by a group, *déjâ vu* something overly familiar [literally "already seen"], *enfant terrible* one whose remarks or actions cause embarrassment or someone strikingly unconventional [literally "terrible child"], *Fait accompli* an accomplished fact

presumably irreversible, *faux pas* a social blunder [literally"false step" *merci*, thank you, *piece de résistance* the principal part of the meal a showpiece item. *raison d'être* reason for existing, savoir faire the ability to say or do the right thing in any situation polished sureness in society [literally"to know how to do"] *téte â téte*, private conversation between two people [literally "head to head"].

Grade 8 History and Geography

A Survey of World History Since 1914

World War I*: "The Great War" 1914-18*

Background*:* National pride tnd greed as causes: European nationalism, militarism, and colonialism, the British Empire: Queen Victoria, Italy becomes a nation: Garibaldi, German nationalism and militarism, Bismarck unifies Germany war against France, France cedes Alsace Lorraine to Germany, European imperialism and rivalries in Africa, Stanley and Livingstone, British invade Egypt to protect Suez Canal, French in North Africa, Berlin Conference and the "scramble for Africa," Entangling defense treaties: Allies vs. Central Powers, Archduke Ferdinand assassinated, the Western Front and Eastern Front, Gallipoli, Lawrence of Arabia, War of attrition and the scale of losses: battle of the Marne, new war technologies for example machine guns, tanks, airplanes, submarines, trench warfare, U.S. neutrality ends with the sinking of the Lusitania, "Make the world safe for democracy," Armistice Day, Nov.11, 1918, abdication of Kaiser Wilhelm II, Treaty of Versailles, New central European states and national boundaries, German reparations and disarmament, Woodrow Wilson's 14 Points, *League of Nations*, concept of collective security.

The Russian Revolution (1917-23)

Tensions in the Russian identity*:* Westernizers vs. traditionalists, Revolution of "Bloody Sunday" Russo-Japanese War, the last czar: Nicholas II and Alexandra, Economic strains of World War I, Revolutions of March, Revolution ousts Czar, October Revolution: Bolsheviks, Lenin and revolutionary Marxism, Civil War: Bolsheviks defeat Czarist counter-revolution Bolsheviks become The Communist Party; creation of the Soviet Union,

The Rise of Totalitarianism in Europe, Italy

Mussolini establishes fascism. Attack on Ethiopia, Germany, Weimar Republic, economic repercussions of WWI, Adolf Hitler and the rise of Nazi totalitarianism: cult of the Führer ("leader"). *Mein Kampf*, Nazism

and the ideology of fascism in contrast to communism and democracy, racial doctrines of the Nazis: anti-Semitism, the concept of Lebensraum literally "living space" for the "master race;" *Kristallnacht*, The Third Reich before the War: Gestapo mass propaganda, book burning, *The Soviet Union*, Communist totalitarianism: Josef Stalin "Socialism in one country," Collectivization of agriculture, Five-year plans for industrialization, The Great Purge, *Spain*: Spanish Civil War, Franco, International Brigade, Guernica,

World War II in Europe and at Home*:*

Hitler defies Versailles Treaty: reoccupation of Rhineland, *Anschluss* (annexation of Austria) Appeasement: Munich Agreement "peace in our time," Soviet-Nazi Nonaggression Pact, *Blitzkrieg* (lightning-war): invasion of Poland, fall of France, Dunkirk, Battle of Britain: Winston Churchill, "nothing to offer but blood, toil, tears, and sweat." Hitler invades Soviet Union: battles of Leningrad and Stalingrad, The Holocaust: "Final Solution," concentration camps, Dachau, Auschwitz, North Africa Campaign: El Alamein, D-Day: Allied invasion of Normandy, General Dwight Eisenhower, Battle of the Bulge, bombing of Dresden, Yalta Conference, Surrender of Germany, Soviet Army takes Berlin,

World War II in the Pacific and the End of the War

Historical background: Japan's rise to power, Geography of Japan review from Grade 5, Sea of Japan, and Korea Strait, High population density very limited farmland heavy reliance on imported raw materials and food, End of Japanese isolation, Commodore Matthew Perry, Meiji Restoration: end of feudal Japan, industrialization and modernization, Japanese imperialism: occupation of Korea, invasion of Manchuria, Rape of Nanking, Japanese-Soviet neutrality treaty, Pearl Harbor, Dec. 7: "A day that will live in infamy," Internment of Japanese-Americans, Fall of the Philippines: Bataan Death, March General Douglas MacArthur "I shall return." Battle of Midway, Island hopping, and amphibious landings: Guadalcanal, Iwo Jima, Atom bombs dropped on Hiroshima and Nagasaki, the Enola Gay, Emperor Hirohito announces surrender, U.S. dictates pacifist constitution for Japan, , Potsdam Conference, Nuremberg, war crimes trials, Creation of United Nations, Security Council, Universal Declaration of Human Rights.

The Decline of European Colonialism

Breakup of the British Empire

Creation of British Commonwealth, independence for colonial terri-

tories, "*Troubled Ireland*" Easter Rebellion, Irish Free State, *Indian nationalism and independence*, Sepoy Rebellion, Mahatma Gandhi, Salt March, Partition of India into Hindu and Muslim states, B. *Geography of India and South Asia*, Overview Legacy of British colonial rule: English language, rail system, Himalayas, Mt. Everest, very high population densities and growth rates, food shortages, Monsoons

Rivers: Ganges, Indus, Brahmaputra, Arabian Sea, Bay of Bengal, Pakistan, Karachi, Bangladesh, Sri Lanka,

India*:* Second most populous country after China, Subsistence agriculture, Caste system "untouchables," Delhi, Bombay, Calcutta, Madras, Longstanding tension between Hindus and Moslems

Creation of People's Republic of China

China under European domination, Opium Wars, Boxer Rebellion, Sun Yat Sen, Communists take power, Mao Zedong: the Long March, Defeat of nationalists led by Chiang Kai-Shek, Soviet-Communist Chinese 30--Year Friendship Treaty

The Cold War with Russia (1945-91)

Post-WWII devastation in Europe, Marshall Plan, Bretton Woods Conference, Western fear of communist expansion, Soviet fear of capitalist influences, Truman Doctrine, policy of containment of communism, Formation of NATO, Warsaw Pact, the "Iron Curtain" (Churchill), Berlin Airlift, Eastern European resistance, Hungarian Revolution, Berlin Wall, Prague Spring

The Korean War,*(1950-53*)

Inchon, Chinese entry, removal of MacArthur, partition of Korea, truce line near the 38th Parallel

The Vietnam War,(1955-75)

French Indochina War: Dien Bien Phu, Ho Chi Minh, Viet Cong, Domino Theory, U.S. takes charge of the war, Special Forces, Tonkin Gulf Resolution, Tet Offensive, My Lai Massacre, Antiwar protests, Kent State, The Pentagon Papers, "hawks" and "doves," American disengagement, Nixon's "Vietnamization" policy, Kissinger War Powers Act, Watergate scandal, resignation of Nixon, Vietnam Hanoi Ho Chi Minh City formerly Saigon.

Middle East Oil Politics; Israel and Palestine

Overview: Heartland of a great early civilizations, Nile River, Mesopotamia, "Fertile Crescent," Generally hot arid conditions with thin poor soils, generally speak Arabic except in Turkey, Turkish, in Israel, Hebrew,

in Iran Persian; Predominant religion is Islam, Sunni and Shiite sects, principal holy places: Makkah (also spelled Mecca) and Medina in Saudi Arabia, League of Nations' territorial mandates in Middle East

Egypt

Most populous Arab country, Nile River and delta surrounded by inhospitable deserts, Aswan Dam, Lake Nasser, Cairo, largest city in Africa, Alexandria, Suez Canal, Sinai Peninsula, Red Sea

Israel

Creation of Israel in 1948. David Ben Gurion, Formed by the United Nations in as homeland for Jewish people, Jerusalem: Holy city for Judaism, Wailing Wall, Temple Mount, Christianity (Church of the Holy Sepulcher) and Islam (Dome of the Rock) Tel Aviv, West Bank, Gaza Strip, Golan Heights, Jordan River, Sea of Galilee, Dead Sea. lowest point on earth, Gulf of Aqaba, Suez Crisis, Gamal Abal Nasser, Palestine Liberation Organization, Yasser Arafat, Arab-Israeli Wars, Six-Day War, Israel occupies West Bank, Gaza Strip, Golan Heights, Yom Kippur War, OPEC oil embargo, Camp David Peace Treaty

Oil and Middle East

Greatest known oil reserves concentrated around the Persian Gulf, Strait of Hormuz, shipping routes and national imports, extraction of Arab oil required Western technology which introduced competing cultural influences to Islam,

The American Policy of Détente

Diplomatic opening to China, Strategic Arms Limitation Talks, Jimmy Carter's human rights basis for diplomacy Breakup of the USSR, Arms race exhausts USSR economy, Afghanistan War, Helsinki Accord on human rights, Andrei Sakharov, Mikhail Gorbachev, Solidarity labor movement Lech Walesa, Reunification of Germany, demolition of the Berlin Wall.

Consequences of the Break-up of the Soviet Union

New European states from former Soviet Union: Belarus, Latvia, Lithuania, Moldova, Ukraine, Newly independent Muslim states in Asia with ethnic Russian minorities: Kazakstan, Kyrgyzstan, Turkmenistan Uzbekistan, Caucasus mountainous region where Western and Islamic cultures meet: Armenia, Azerbaijan, Georgia, Legacies of Soviet policies, Numerous internal republics, many language distinctions, Forced relocation of large numbers of ethnic minorities, Environmental poisoning from industrial and farm practices.

China Under Communism

[Note by EDH. This key segment is under revision because the older segment has become outdated. The dramatic rise of China. Its mastery of technology, its industrial power, its greatly improved educational system, its rivalry with the USA as the most powerful nation on earth. Its ability to achieve enforced national unity in the world's largest population, represents a historical crossroads in the ongoing struggle between democracy and autocracy. Hitherto, the influence and power of the USA has lain in the power of a free people with high natural and human resources, to form a more perfect union, by approving policies that increasingly benefit all citizens without drastically curtailing the rewards of talent and enterprise. Humans have a selfish and an altruistic side. Madison stated in Federalist 55 that democracy demands the encouragement of the altruistic side more than another form of human government. Lacking that, only autocracy can control what Madison called human "depravity." Will the rising internal conflict in America along with the rising power of an autocratic and unified and well-educated China prove Madison all-too-right?]

South Africa and Apartheid

British and Dutch colonialism in South Africa, Cecil Rhodes, Afrikaners, African resistance, Zulu wars, Shaka, Boer Wars, Union of South Africa majority nonwhite population but white minority rule, Apartheid laws, African National Congress, Nelson Mandela, Internal unrest and external pressures such as economic sanctions force South Africa to end apartheid in the 1990s, Mandela released

Contemporary Europe

Toward European Unity: European Economic Community, "Common Market," European Parliament, Brussels, Maastricht Treaty on European Union, France linked to Britain by the Channel Tunnel "Chunnel," European Union, Conflict and Change in Central Europe: Geography of the Balkan region, Ethnically fragmented mixture of languages and religions, Mountainous region, Danube River, *Seas*: Adriatic, Ionian, Black, Aegean, Mediterranean, Romania, Bulgaria, Greece, Albania, Northern Ireland, Countries that emerged from the breakup of Yugoslavia: Slovenia, Croatia, Bosnia and Herzegovina, Macedonia, Bosnian conflict, "Balkanization"

Iraq War *(2003-2011)*

Islamic fundamentalism, Iranian hostage crisis, Iran-Iraq War, Afghanistan, Persian Gulf War US intervention fails, September 11 attack

A Changed and Changing World

Globalization. Global balance of power shift with the end of the Cold War. Wars, territorial disputes, ethnic and cultural conflicts, acts of terrorism, advances in technology, expansion of human rights, changes in the global economy, population growth and life expectancy, rapid increase of global population in the 20th and 21st centuries, China: government one child per couple policy, increase in life expectancy; societal and governmental challenges, the increase of the elderly has placed burdens on many countries to provide adequate health care, mass migrations, societal and governmental challenges including: Brain drain out of developing countries, tension and conflict in some host countries especially immigrants into Europe from North Africa and other Arab nations. Illegal immigration, environmental impact. World population growth and the competition for energy supplies; Increase in greenhouse gas emissions, Loss of tens of thousands of plant and wildlife species, rapid decline of rainforests, Governments institute policies to reduce pollution and conserve resources, new environmental consciousness and movement for the sustainability of the world's resources influenced by the actions of citizen organizations Conferences to meet these challenges: "Earth Summit", " Kyoto Protocol."

Grade 8 Visual Arts

Modern Representational Painting *(ca. 1940-1970)*:

(Grant Wood) *American Gothic*, (Edward Hopper), *Nighthawks*, (Andrew Wyeth), *Christina's World*, (Diego Rivera), *Detroit Industry*, Jacob Lawrence work from *Builder* series, or *Migration of Negroes* series. (Horace Pippin), *Sunday Morning Breakfast*, (Charles Wilbert White), *The Contribution of the Negro to Democracy in America*, (Norman Rockwell), *Triple Self-Portrait*, Pop art including: (Andy Warhol), *Campbell's Soup Can*, (Marilyn, Roy Lichtenstein), *Whaam*, (Alice Neel) *Hartley*, (Betye Saar), *Black Girl's Window*, (Romare Bearden), *She-Ba*

20th Century Photography

(Alfred Steiglitz) *The Steerage*, (James VanDerZee), *Racoon Couple in Car*, (Margaret Bourke White), *Fort Peck Dam*, (Dorothea Lange), *Migrant Mother, California*, (Ansel Adams), *Moonrise Hernadez* (New Mexico, Gordon Parks), *Washington D.C. Government Charwoman*, (Henri Cartier-Bresson), *The Berlin Wall*, (Graciela Iturbide), *Our Lady of lguanas*, (Cindy Sherman a selection of her), *Film Stills*, (Barbara Kruger), *When*

I hear the word culture I take out my checkbook, (Carrie Mae Weems from her), *Kitchen Table Series*.

20th Century Sculpture

(Auguste Rodin), *The Thinker*, *Monument to Balzac*. (Konstantin Brancusi), *Bird in Space*, (Henry Moore), *Two Forms*, (Meret Oppenheim), *Object*, (Sargent Claude Johnson). *#2 Mask*, (Alexander Calder). *Lobster Trap and Fish Tail*, (Pablo Picasso), *Bull's Head*, (Louise Nevelson), *Black Wall*, (Eva Hesse), *Repetition Nineteen III*, (Judy Chicago), *The Dinner Party*, (Claes Oldenburg), *Clothespin*, (Maya Lin), *Vietnam Veterans Memorial*, (Damien Hirst) *The Physical lmpossibility of Death in the Mind of someone Living*, (Louise Bourgeois), *Spider*.

Contemporary Art *(21st Century)*

Jean-Michel Basquiat *untitled*, (Keith Haring), *Crack is Wack* or other, Anish Kapoor *Descent into Limbo*, (Kerry James Marshall), *De Style*, (Shirin Neshat from her photo series), *Unveiling*, (Christo), *Wrapped Reichstag*, (Banksy), *Girl with Balloon*, (Jeff Koons), *Balloon Rabbit (Red)*, (Nick Cave), *Soundsuit*.

Post-Modern Architecture Robert Venturi*:*

Vanna House, Peter Eisenman: House VI, Richard Rogers and Renzo Piano: Centre Pompidou, James Stirling Neue Staatsgalerie, Stuttgart, Peter Zumthor: Baths of Vals, Frank Gehry: Bilbao Guggenheim Museum, Zaha Hadid: Phaeno Science Center, SOM: Burj Kalifa Dubai.

Grade 8 Music

Music and National Identity

Jean Sibelius *Finlandia*, (Bela Bartok), *For Children*, (Joaquin Rodrigo), *Concierto de Aranjuez*, (Aaron Copeland), *Appalachian Spring*, *Florence Beatrice Price "My Soul's Been Anchored in the Lord,"* (Antonio Carlos Jobim), *The Girl from Ipanema*.

Modern Music

(Claude Debussy), *La Mer*, (Igor Stravinsky), *The Rite of Spring*.

Modern Musical Performers

Aretha Franklin, The Beatles, Bob Dylan, Carol King, Chuck Berry, Elvis Pressley, James Brown, Joan Baez, Joni Mitchell, Little Richard, Miles Davis, Nat KingCole, Ray Charles

Opera

Terms*:* overture, solo, duet, trio, quartet, chorus, aria, recitative, Gioacchino Rossini from *The Barber of Seville*, Overture and "Largo al factotum" Giuseppe Verdi, from *Rigoletto*: aria "Questa o Quella, duet: "Figlia… Mia Padre!"; aria, "La donna e mobile"; quartet, "Bella figlia dell'amore."

American Musical Theater

Irving Berlin "There's no Business Like Show Business," "Blue Skies," (Dorothy Fields), *The Way You Look Tonight and Sunny Side of the Street*, (George M. Cohan), "Give My Regards to Broadway," "Yankee Doodle Dandy," (Cole Porter), "Don't Fence Me In," "You're the Top" (Jerome Kern), *Showboat*: "Ol' Man River," (Rogers and Hammerstein), *Oklahoma*: "Oh What a Beautiful Mornin'," "Oklahoma," (Leonard Bernstein and Stephen Sondheim), *West Side Story*, "Maria," "America," (Andrew Lloyd Webber), *Phantom of the Opera*, "The Music of the Night," *Cats*, "Memory," Stephen Schwartz, *Wicked*, "Defying Gravity," (Claude-Michel Schönberg), *Les Misérables*, "One Day More," (Lin-Manuel Miranda), *Hamilton*, "Satisfied"

Song Ballads

"Ol' Man River" (Paul Robeson), "Day-O" (Harry Belafonte)

Appendix and Notes

Miss Peabody Introduces Developmentalism in 1890

I have argued in this book that below our reigning child-centered education with its so-called "scientific" foundations of "constructivism," and "differentiation of students," and "project-based learning" lies the non-scientific religion of nature. Its faith that "nature never did betray the heart that loved her" (Wordsworth) underlies the confidence – against the evidence – that our professors of education have in the nature-sanctified soundness and rightness of their theories.

I have argued in the book that this faith in nature has made the American people less competent and less devoted to America than in former years – despite our current racial progress. I have also argued that the road to equality and competence lies in repudiating the whole romantic scheme of education that has gradually transfixed our minds over the decades.

In the chapter on developmentalism I analyzed the religious underpinnings of developmentalism. I did not discuss the way in which it was secularized and made to seem scientific. This was critical to spread in the secular world. The secularization of the religion of nature was the hallmark of the successful spread of religious ideas. The secularization of the romantic religion of nature in our current educational research literature, with its mien of hardheadedness and scientific rigor is the technique that enabled romanticism to take over some of the ablest secular minds of the western world.

The prize example has been Hegel – who exercised a strong influence upon John Dewey. (Dewey said that Hegel had left a "permanent deposit" in his mind.) Hegel's seminal work *Phänomenologie des Geistes – The Phe-*

nomenology of Spirit was translated into English under the title *The Phenomenology of Mind*. That was a secular cover-up. term for the Holy Spirit is *heiliger* Geist. It was an early example of the way philosophers (with the help of Hegel himself) accommodated the religion of nature to the secular post-Enlightenment high culture. That translation of Geist as "Mind" says in English: "This is merely the process of how the human *mind* works:" It is "The Phenomenology of Mental History." Hegel's first edition in 1807 did something similar: *System of Science: First Part: The Phenomenology of Spirit.*

It was developmentalism on steroids. When Hegel wrote that difficult masterpiece, he was not six years out of the theological seminar in the University of Tübingen, and had deeper spiritual and philosophical ambitions. When he said *Geist* he meant *Geist*. He chose the word "phenomenology" in allusion to his predecessor Kant, who had made the distinction between the "phenomenon" the thing as it is known – in contrast to the unknowable thing in itself – the *noumenon*. Which is also the Being of God. So if the *noumenon* is Geist (God), what Hegel describes as the unfolding of thought in the world is nothing less than the manifest unfolding of the Divine within the historical human world.

My doctoral dissertation was partly about that period, especially Hegel's roommate at Tübingen, Friedrich Schelling, who early on was even more famous than Hegel – though far less cunning in secularizing his similar romantic views.[146] The two distinguished philosophers Schelling and Hegel both lectured at the University of Jena in precisely the period that the university was attended by Friedrich Froebel – the inventor of the kindergarten and influencer of Elizabeth Peabody and many other American teachers.

Froebel acknowledged that he was influenced by Schelling. Let's quote a bit from the Froebel book to which Elizabeth Peabody (who introduced our English-speaking kindergarten in 1860) wrote a short preface. Her tradition, as we have seen, was also to take over the later grades in America in the 20th century. Here's the title page and Peabody's preface, followed by a short excerpt from the book. That excerpt will illustrate how faith in nature morphed into "constructivism," "project-based instruction," "discovery learning," "differentiation," and "guide on-the-side-ism," all supported by "research" that is at odds with science in other parts of the university.

Notice too how Froebel uses the animal world to suggest that humans, like ducks and chickens, are born with an instinctive blueprint. Froebel

mocks the idea that the human child is moldable like a piece of clay. We know that being moldable like clay is precisely the case with that part of the brain that we try to educate in kindergarten and the later grades – the neocortex. Moldability is the very metaphor now in use in frontline neuroscientific research on the human brain. A whole branch of the subject is busily concerning itself with "cortical plasticity" at the most fundamental "microcircuits" of the neocortex.[147]

The Education of Man
By *Friedrich Froebel*
Translated by Josephine Jarvis (1885)

American Preface
By Elizabeth P. Peabody

This first work of Frederic Froebel, published in 1827, is imperatively called for by the American public, which has become so widely impressed with the value of his System of Education. This system embodies the wisdom of ages and is founded upon a deeper insight into the nature of children than has been expressed by any others, with the exception of him who pronounced them "of the kingdom of Heaven."

He had been for ten years engaged with friends in an attempt to educate children, who come to him at ten years old, and who, he found, had at that age much to unlearn. His work is addressed to mothers, whom he thought at the moment the only persons competent to educate children into the harmony of heart, intellect, and hand, during the first seven years of their age. It has in it all the elements of kindergarten nurture: for he tells what children need and must have for development. But in the course of the next twelve years he learned that no mortal mother could have the strength to do all that is due to children in order that justice may be done to their natures, but that she must have assistance ; and he invented the kindergarten in 1839, in which he proposed that from twelve to twenty-five children should be gathered for three hours every day, from several families, under the care of a mother's assistant, whom he called a kindergartner, and be played with in the mother's genial, cherishing way till old enough to be sent to school and taught to read at seven years of age, which he thought early enough to teach them the signs of the ideas they

would have acquired by the cultivation of their perceptive and artistic faculties, their observation, attention, and colloquial use as to give them order without constraining them.

The "Mother-Love and Nursery Songs" were translated by the same able hand, and published in Boston by the munificent assistance of Mrs. Quincy Shaw. This book has been used as the Manual for training Kindergartners by Miss Blow of St. Louis, and other eminent teachers. It will be found very valuable in educating mothers into wise cooperation with the kindergartners, as well as in educating kindergartners into sympathy with mothers.

From Froebel, *The Education of Man*

Sections 8 - 12

But education in itself must necessarily be passive, watchfully and protectively following; for the effect of the divine is, when undisturbed, necessarily good: in fact, it cannot be otherwise than good. This necessity must presuppose that the still young human being, even though as yet unconsciously, like a product of Nature, precisely and surely wills that which is best for himself, and, moreover, in a form quite suitable to him, which he feels within himself the disposition, power, and means to represent. So the young duckling hastens to the pond and into the water, while the chicken scratches in the earth, and the young swallow catches his food on the wing, and rarely touches the earth. Now, whatever may be said against the truth of reversed conclusions before expressed, and this truth of cautious following, and also against the application of both to education, and however much these truths may be contested, yet they will vindicate themselves in their clearness and truth to that generation which, wholly confiding in them, applies them.

We give time and space to young plants and young animals, knowing that they then beautifully unfold, and grow well, in conformity with the laws which act in each individual; we let them rest, and strive to avoid powerfully interfering influences upon them, knowing that these influences disturb their pure unfolding and healthy development : but the young human being is to man a piece of wax, a lump of clay, from which he can mold what he will. Men, who wander through your fields, gardens, and groves, why do you not open your minds to receive what Nature in

dumb speech teaches you? Look at the plants which you call weeds, and which, grown up here compressed and constrained, scarcely permit one to guess at their inner symmetry but look at them in free space, in field and flowerbed, and see what a symmetry, what a pure inner life they show, harmonizing in all parts and expressions: a regular sun, a radiating star of the earth, springs up.

So, parents, your children on whom you early impress form and vocation against their nature, and who therefore wander around you in languor and unnaturalness, might also become beautiful, self-unfolding, and all-sided self-developing beings. All active, dictatorial, invariable, and forcibly interfering education and instruction must necessarily have a disturbing, checking, and destructive effect upon the action of the divine, in accordance with and upon the original, unviolated, and healthy state of the man-being. So, continuing to learn from Nature, the plant, the grape vine, must be pruned; but the pruning, as such, brings no more wine from the grape vine. Rather the grape vine may be wholly destroyed by the pruning, however good may be the intention in doing it; at least, its fruitfulness and capacity for bearing fruit are injured if the gardener, in his work, does not passively and thoughtfully follow the nature of the plant. Very frequently take the right steps in our treatment of the objects of Nature, while we go wrong in the management of human beings. And yet there act in both powers which flow from one fountain, and which act according to the same laws. It is therefore very important for man to observe and consider Nature from this point of view.

Nature, indeed, rarely shows us now that unviolated, original condition, especially in regard to man; but so much the more must it be presupposed, especially of the human being, so long as the opposite has not expressed itself with clearness, because otherwise the unviolated original condition, even where it might still be found, could still be easily destroyed. But if the certainty of the infraction of the original proceeds from the totality of the human being who is to be educated if this infraction from the inner and outer whole is certain, if this infraction from the inner and outer whole is certain, in that case, strictly requiring ways of education enter in their full force.

But, further, the interrupted putting forth of the inward is not always proved with certainty, is, indeed, often difficult to prove; at least this applies to the point, the fountain in which the infraction has its foundation

and beginning, and to the direction which it took. The last infallible test lies only in man himself. Therefore, from this point of view, education and all instruction must be much more passive and following than dictatorial and prescriptive; because, through the pure, onward development, the sure, constant progression of the human race that is, the representation of the divine in man and through the life of man freely and by its own will (which, indeed, is the aim and endeavor of all education and all life, as well as the sole — destiny of man) will be lost utterly.

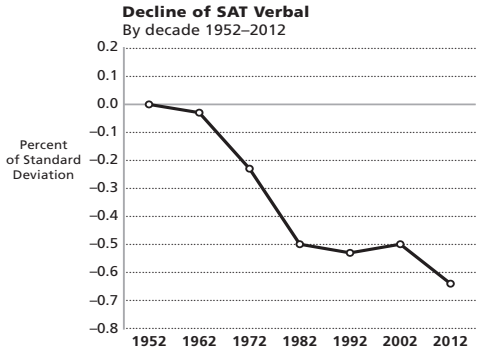
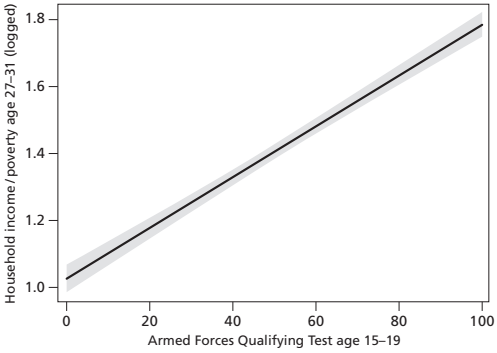
Therefore the purely requiring, defining, and directing way of education begins first with the educating of himself, with the beginning of the connected life of God and man, after the beginning of understanding and the common life between father and son, youth and master, because then the true can be derived from the nature of the whole and the nature of the individual, and can be recognized as such when the exemplar speaks as the organ of the necessity, and therefore only conditionally. The exemplar only comes forward with requirements where it presupposes coming into the others in the principle of the requirement from the spirit, conceiving them, or believing them from the intellect, therefore, either in untroubled childlike relations, or in clear, at least beginning manlike relations. Indeed, in these cases the exemplar makes its requirements either by example or by word, but always only in reference to spirit and life, never in reference to form.

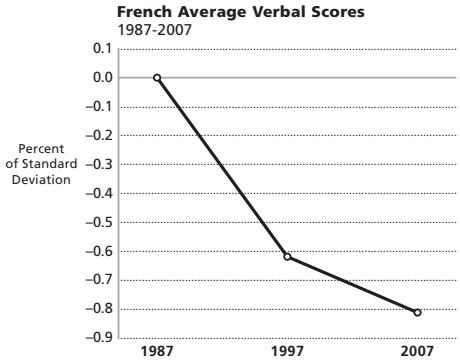
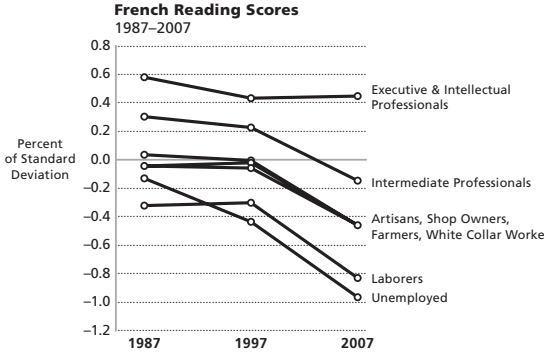
In good education, in genuine instruction, in true teaching, therefore, necessity must call forth freedom; and law, self-determination the pressure from without, the free will within; the hate from — without, the love within. All education every effect of education, — teaching, and instruction is destroyed where hate produces hate, where law produces deceit and crime, where pressure produces slavery and necessity servitude, where oppression destroys and debases, where strength and hardness produce contumacy and falsehood. In order to avoid these evils and to attain the good results, all that is apparently prescribing must follow in its action. This takes place when all education with its necessary determining requirements, stepping forth in all particulars and ramifications, has this undeniable, resistless imprint, that the requiring one himself is strictly and inevitably subjected to a perpetually governing law, to an unavoidable perpetual necessity; thus all arbitrariness is banished.

End of Excerpt from Friedrich Froebel.

Quiz

1	All human language is inherently ambiguous.	**T**	**F**
2	Language is disambiguated by applying unspoken, unwritten background knowledge that is silently shared between sender and receiver.	**T**	**F**
3	There exists a significant general comprehension skill independent of specific relevant knowledge.	**T**	**F**
4	Evolutionary psychology tells us that human tribes thrive through concerted action enabled by educating their young in the language conventions	**T**	**F**
5	There exists a significant general critical thinking skill independent of specific relevant knowledge.	**T**	**F**
6	The modern industrial nation tends to be monolingual. Successful *multilingual* ones (as in Switzerland) are largely monocultural in a common school culture, so that all citizens share a lot of the same background knowledge.	**T**	**F**
7	The common language of a modern society is a standardized print language with standard spelling, grammar, and pronunciation taught in the nation's schools.	**T**	**F**
8	Effective use of the *print language* in the nation depends on its schools imparting the *print-culture* – standardized shared background knowledge -- to its young, thus enabling effective communication.	**T**	**F**
9	A reading test is in effect a shared-knowledge test.	**T**	**F**
10	There exists a significant main-idea-finding skill.	**T**	**F**
11	On average, a young teen's score on a reading test predicts that person's level of income in later life.	**T**	**F**

12	Around 1940, under the banner of "child-centered education," a majority of American elementary schools began teaching **less** of the commonly shared background knowledge of the print culture.	**T** **F**
13	Since 1950 scores on reading tests have declined – even among our most ambitious, college-bound students.	**T** **F**
14	There exists a significant complexity-managing reading skill, independent of relevant knowledge.	**T** **F**
15	There exists a significant difference in the learning styles of different students.	**T** **F**
16	This is a true graph of the scores on the Scholastic Aptitude Test (Verbal). 	**T** **F**
17	This is a true graph relating teen-age reading scores to adult income in later life. 	**T** **F**

18	The French keep unusually detailed school achievement records, so when they adopted child-centered schooling the detailed results are as decisive as a lab experiment with millions of subjects.	**T** **F**
19	This is a true graph of what happened to French education, when it adopted the American, child-centered theory of schooling, abandoning their teaching of common grade-by-grade topics to all students. 	**T** **F**
20	And this is a true graph of what happened to French social justice in the same period. 	**T** **F**
21	A reading test is an ethnicity test in disguise.	**T** **F**

Quiz Answers

1	T
2	T
3	F
4	T
5	F
6	T
7	T
8	T
9	T
10	F
11	T
12	T
13	T
14	F
15	F
16	T
17	T
18	T
19	T
20	T
21	T

Acknowledgements

My wife, Natasha Tobin has been of decisive help to me in writing this book – reading every word and telling me just how the general reader would or would not understand or be persuaded by this or that section. If this book does help change minds and policies, some of those children who in a decade or so will be in college because our schools have reformed themselves should write her a note of appreciation in care of the Core Knowledge Foundation! She is the person who made this book readable and clear.

John Ballen, the brilliant Chairman of the Board of the Core Knowledge Foundation has encouraged me to go ahead and state what the data say, even if some feelings get hurt, and some highly placed people get annoyed. He too, will deserve the thanks of a lot of children and parents, not only for encouraging this book, but also for helping the Core Knowledge Foundation thrive, so that, during the Covid pandemic it has been able to help parents and teachers make download tens of thousands of excellent and free school materials.

John Hirsch, a brilliant editor gave me both detailed and global advice that have made this book more cogent and readable.

Linda Bevilacqua, President of the Foundation, has assembled and guided a marvelous team to create these attractive materials. She has been a rock of our effort over three decades.

My wonderful family has greatly helped as editors, advisors and designers: Margaret Alexander a remarkable artist; Pino Trogu, who introduced me to the key work of Jeffrey Karpicke, and also the far-flung Hirschs: Eric, Lizzy, Ted, and John.

The distinguished cognitive scientist, Daniel Willingham has been a long-term scientific resource, and a dear friend who has saved me from excessive absolutism in my disparagement of the scientific errors of our education schools.

Notes

Preface: **Literacy and a More Perfect Union**

1. Schlesinger, Arthur Meier. *The Disuniting of America: Reflections on a Multicultural Society* (Revised and Enlarged Edition) (p. 20). W. W. Norton & Company. Kindle Edition

2. Social and Non-Social Speech" *Scientific American*, Feb. 1977

3. Words in italics are quoted from my earlier book *Cultural Literacy*. Updated sections of Part II are also based on that earlier work, especially chapters seven and eight.

4. In Daniel T. Willingham, *Why Don't Students Like School?*, 2nd ed., 2021.

5. Elsewhere in this book I use a purely functional, descriptive label for American Ethnicity. I name it "the communicative store." That stresses the essential function of ethnicity without carrying the emotional baggage of the term "ethnicity." "Shared communicative store" comes close to the term Karl Deutsch uses in his *Nationalism and Social Communication*: "communicative complementarity."

6. Ernest Gellner, *Nations and Nationalism* (Ithaca, N.Y.: Cornell University Press, 1983), p.27.

7. Karl Deutsch, *Nationalism and Social Communication*,

8. See: https://thesocietypages.org/socimages/2014/05/13/how-well-do-teen-test-scores-predict-adult-income/

9. "A vibrant, expanding, and inclusive mainstream—as fact and as narrative—constitutes the most realistic antidote available in the near future to the toxic white nationalism." Alba, Richard. *The Great Demographic Illusion* (p. 262). Princeton University Press. Kindle Edition.

10. A note on capitalization of the word "black." The house style of the Core Knowledge Foundation capitalizes "Black" and "White." But this book follows the lead of Henry Louis Gates, Jr. in his *The Black Church*, and also the findings of the sociologist Leigh Wilton and her colleagues. As Gates shows (without comment), it's proper to capitalize organizational names like "The Black Church," but it's desirable not to capitalize skin color.
    One subtle argument in favor of capitalization is to recognize that it stands for a persistent *ethnic*, not racial feature. But *American Ethnicity* argues that the chief aim of the school in a modern nation is to instill a common *national* ethnicity. Moreover, Professor Wilton and her colleagues rightly point out that capitalizing unwittingly essentializes blackness; it implies that skin color is by implication part of a person's essential nature. They point out that, similarly, it is a moral and scientific mistake to regard ethnicity as being an *essential* feature. Wilton and her colleagues argue (rightly in my view) that essentialism is the very essence of racism, and they show that such essentializing has unconsciously encouraged racism. See her multi-author article: Leigh S. Wilton, Evan P. Apfelbaum, and Jessica J. Good, "Valuing Differences and Reinforcing Them: Multiculturalism Increases Race Essentialism," *Social Psychological and Personality Science* 10, no. 5 (July 2019): 681–89, https://doi.org/10.1177/1948550618780728

11. Barton, Paul E.; Coley, Richard J., *The Black-White Achievement Gap: When Progress Stopped. Policy Information Report*, Educational Testing Service, 2010. It states: "This report is about understanding the periods of progress and the periods of stagnation in changes in the achievement gap that have occurred over the past several decades. The authors try to understand what might have contributed to the progress as well as probe the reasons that may account for the progress halting, in the hope of finding some clues and possible directions for moving forward in narrowing the achievement gap. The authors focus on three periods of history, but not in chronological order. The first is the decades of the 1970s and 1980s, when NAEP (National Assessment of Educational Progress) reported large reductions in the gaps in reading and mathematics scores. Second, the report focus on the period from about 1990 until 2008, when the gap wobbled around a generally straight trend line, although scores of 9- and 13-year-olds generally rose overall. And third, the report takes a more expansive view, beginning early in the 20th century, in an attempt to understand the impact of a variety of factors on changes in the gap. These factors include information on educational attainment, employment and earnings, child well-being, the family, neighborhoods and the effects of concentrated poverty and deprivation, lack of social capital, and intergenerational mobility.

12. Anders Ericcsson, *Handbook of Expertise and Expert Performance* (Cambridge Handbooks in Psychology) 2nd Edition, 2020

13. http://www.corestandards.org/

14. K. Anders Ericsson, et al., Handbook of Expertise and Expert Performance (Cambridge Handbooks in Psychology) 2nd Edition, 2020

15. K. Anders Ericsson, et al., p. cit. 0

16. Bruce, Bertram C.; Rubin, Ann D.; & Starr, Kathleen S. (1981). Why readability formulas fail. IEEE Transactions on *Professional Communication*, PC-24, 50-52. Also, as Reading Education Report No. 28 (1981, August). Urbana, IL: University of Illinois, Center for the Study of Reading, and BBN Report No. 4715 (1981). Cambridge, MA: Bolt Beranek and Newman.

17. https://www.time4learning.com/blog/homeschool/types-of-project-based-learning/

18. Cristina Bellés-Obrero and Emma Duchini, "Who Benefits from General Knowledge?" *Economics of Education Review*, Vol. 85, Dec. 2021.

19. The next chapter' devoted to "developmentalism" explains why this dominant view has been a chief cause of our decline in unity and reading ability.

20. An elaborate and popular version of the *Core Knowledge Language Arts* with bells and whistles can be bought from *Amplify*, a for-profit publisher, from whom the Foundation (but no individual) gets a royalty.

21. Al was a firm supporter of the Core Knowledge Foundation and devoted more than one "Where We Stand" piece to its aims, and ideas, which he supported. His loss has meant a greater struggle for progress. I still mourn his premature death.

22. With the kind permission of the American Debate League.

23. This is an astonishing achievement. I looked up the website on the NYC select high school admission. It states: "Please note that not all students who take the SHSAT will get an offer to one of these eight schools. In a typical year, approximately 28,000 eighth-grade students take the SHSAT and approximately 4,000 of these students receive an offer to a Specialized High School."

24. This defect is fully overcome by the experiment described at the beginning of Part II, which I describe as "The Most Decisive Educational experiment in History"

Chapter 2: **Developmentalism**

25. Robert D. Putnam, *The Upswing: How America Came Together a Century Ago and How We Can Do It Again*, Simon and Schuster, 2020. (Kindle)

26. David Sloan Wilson and E. O. Wilson: "Rethinking the Theoretical Foundations of Sociobiology," *Quarterly Review of Biology* 82, no. 4 (December 2007): 327–48, https://doi.org/10.1086/522809.

27. That faith is a product of our nineteenth-century cultural history (which was my Yale Ph.D. topic before I got drawn into elementary education.

28. The popular teacher textbook that I quote in this chapter by Kail and Cavenaugh is copyright 2019.

29. Susan Carey, *The Origin of Concepts*, Oxford, 2009. Stevenson, Harold W., et al. "Contexts of Achievement: A Study of American, Chinese, and Japanese Children." *Monographs of the Society for Research in Child Development*, vol. 55, no. 1/2, [Society for Research in Child Development, Wiley], 1990, pp. i–119, https://doi.org/10.2307/1166090. Nir Kalisman, Gilad Silberberg, Henry Markram and Michael M. Merzenich, "The Neocortical Microcircuit as a tabula rasa", *Proceedings of the National Academy of Sciences of the United States of America*, Vol. 102, No. 3 (Jan. 18, 2005), pp. 880-885 (6 pages) Published by the National Academy of Science.

30. I base my claim that developmental determinism and the primacy of self-esteem are still being taught by analyzing a still-widely used teacher textbook revised in 2019: Kail, Robert V.; Cavanaugh, John C. *Human Development: A Life-Span View*. Cengage Learning. Kindle Edition (2019).

31. Sverdlov, A., & Aram, D. (2016). What are the goals of kindergarten? Teachers' beliefs and their perceptions of the beliefs of parents and of agents of the education system. *Early Education and Development*, 27(3), 352-371. -

32. Kail, Robert V.; Cavanaugh, John C. op. cit. p. 294.

33. These data are instantly determinable by using the Kindle version of the text.

34. Stevenson, Harold W., et al. "Contexts of Achievement: A Study of American,

Chinese, and Japanese Children." *Monographs of the Society for Research in Child Development*, vol. 55, no. 1/2, [Society for Research in Child Development, Wiley], 1990, pp. i–119, https://doi.org/10.2307/1166090.

35. Robert D. Putnam, *The Upswing: How America Came Together a Century Ago and How We Can Do It Again*, Simon and Schuster, 2020. (Kindle)

36. Susan Carey, *The Origin of Concepts*, Oxford, 2009

37. www.dailyherald.com%2Fstoryimage%2FDA%2F20150930%2F

38. https://www.youtube.com/watch?v=opXKmwg8VQM

39. David Sloan Wilson and E. O. Wilson: "Rethinking the Theoretical Foundations of Sociobiology," *Quarterly Review of Biology* 82, no. 4 (December 2007): 327–48, https://doi.org/10.1086/522809.

40. "Thoughts Upon the Mode of Education Proper in a Republic," by Dr. Benjamin Rush, From *A Plan for the Establishment of Public Schools and the Diffusion of Knowledge in Pennsylvania; to Which Are Added, Thoughts upon the Mode of Education Proper in a Republic*. Addressed to the Legislature and Citizens of the State. (Philadelphia: Thomas Dobson, 1786).

41. Paul A. Kirschner, John Sweller, and Richard E. Clark, "Why Minimal Guidance During Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem- Based, Experiential, and Inquiry-Based Teaching," *Educational Psychologist* 41, no. 2 (2006): 76–86, https://doi.org/10.1207/s15326985ep 4102_1

42. Paul A. Kirschner, John Sweller, and Richard E. Clark.p.35.

43. Carey, Susan, *The Origin of Concepts*, Oxford, 2009

44. "The Neocortical Microcircuit as a tabula rasa", Nir Kalisman, Gilad Silberberg, Henry Markram and Michael M. Merzenich, *Proceedings of the National Academy of Sciences of the United States of America*, Vol. 102, No. 3 (Jan. 18, 2005), pp. 880-885 (6 pages) Published by the National Academy of Science.

45. Kail, Robert V.; Cavanaugh, John C. Human Development: A Life-Span View (p. 126). Cengage Learning. Kindle Edition, 2019.

46. Stevenson, Harold W., et al. "Contexts of Achievement: A Study of American,

Chinese, and Japanese Children." *Monographs of the Society for Research in Child Development*, vol. 55, no. 1/2, [Society for Research in Child Development, Wiley], 1990, pp. i–119, https://doi.org/10.2307/1166090.
LeCorre, M., Li, P., Huang, B., Jia, G., & Carey, S. (2016). Numerical morphology supports early number word learning: Evidence from a comparison of young Mandarin and English learners. *Cognitive Psychology*, 88, 162-186.

47. Carey, S. *The Origin of Concepts*. New York: Oxford University Press 2009.

48. https://granite.pressbooks.pub/teachingdiverselearners/chapter/direct-instruction/

49. https://www.nytimes.com/2021/09/03/opinion/kids-reading-spelling.html

50. Stevenson, Harold W., et al. "Contexts of Achievement: A Study of American, Chinese, and Japanese Children." *Monographs of the Society for Research in Child Development*, vol. 55, no. 1/2, [Society for Research in Child Development, Wiley], 1990, pp. i–119, https://doi.org/10.2307/1166090.

51. "The Neocortical Microcircuit as a tabula rasa", Nir Kalisman, Gilad Silberberg, Henry Markram and Michael M. Merzenich, P*roceedings of the National Academy of Sciences of the United States of America*, Vol. 102, No. 3 (Jan. 18, 2005), pp. 880-885 (6 pages) Published by the National Academy of Science.
David Sloan Wilson and E. O. Wilson: "Rethinking the Theoretical Foundations of Sociobiology," *Quarterly Review of Biology* 82, no. 4 (December 2007): 327–48, https://doi.org/10.1086/522809.

52. See Chapter 1.

53. Neuman, Susan B.; Wright, Tanya S. *All About Words: Increasing Vocabulary in the Common Core Classroom, Pre K-2* (Common Core State Standards in Literacy) (p. 20). Teachers College Press. Kindle Edition.

54. Carey, S. *The Origin of Concepts*. New York: Oxford University Press 2009.

Chapter 3: **Developmentalism's Successful Attack On "Rote Learning"**

55. Op. cit. *All About Words passim*.

56. https://factsmaps.com/pisa-2018-worldwide-ranking-average-score-of-mathematics-science-reading/

57. Some Jefferson enthusiasts have argued that Jefferson may have made the change himself. Jefferson *had* originally written in a clause against slavery, which other southerners later caused to be deleted.

58. Of course, the main point of the song is deeply right, and tells against the idea of universal all-purpose skills. If you are going to be a good major general, then you need specific major-general skill and expertise. In current cognitive psychology that's called "the domain-specificity of skills." Expertise does not transfer. Critical thinking about math and science does not transfer to critical thinking about tomorrow's skirmish against the pirates of Penzance. (The real major general – supposedly Sir Garnet Wolesley – was a successful general, loved the song and used to sing it.)

59. Or as the German romantic poet Wilhelm Mueller put it, in his poem included by Franz Schubert in his "Winterreise" song cycle: "Sind wir selber Götter!" We ourselves are gods!

Chapter 4: **Two Experienced Educators Describe What Works and What Doesn't**

60. The "Knowledge-Centered schools" are Core Knowledge schools. I give them a generic description to make clear that this is not some sort of plug (No one at the CK Foundation makes any extra money from adoption of CK.) Moreover, any similar explicit, coherent, knowledge-based curriculum would work as well.

Chapter 5: **Summary of Part I: The End of School-based Inequality**

61. Robert D. Putnam, *The Upswing: How America Came Together a Century Ago and How We Can Do It Again*, Simon and Schuster, 2020. (Kindle)

62. One could argue that Dewey was an exception. Yes, was more probing. But he conceded that there was always an "Hegelian deposit" his mind. Hegel is the arch developmental romantic. To follow the "child's instincts and powers" as Dewey described his method, implies that there is a God-given intellectual embryo to unfold. Why else follow the child's instincts and powers?

63. "Each dialect is a system of rules that should be viewed within its social context. A dialect is adequate to meet the demands of the **speech community** in which it is found. Thus, it's appropriate for its users. Like languages, dialects evolve over time to meet the needs of the communities in which they are used. Despite the validity of all dialects, society places relative values on each one. The standard, mainstream, or a majority dialect becomes the "official"

criterion. Mainstream speakers of the language determine what is acceptable, often assuming that their own dialect is the most appropriate. In a stratified society, such as that of the United States, some dialects are accorded higher status than others." (My bolding.) Owens, Robert E. *Language Development*, Pearson Education, 2021
It is not only possible but also highly desirable to master that print dialect which is the mainstream dialect of the literate speech community being used by Professor Owens in this book, and in this observation. In a complex modern society, we all become to some degree multi-dialectal, and the most democratic dialect is the print dialect that Owens is here using to play down the hegemony of the print culture.

64. For stressing this key point in her studies of multiculturalism I hope sociology Professor Leigh Wilton and her colleagues get proper credit among her colleagues nationwide, especially in: Leigh S. Wilton, Evan P. Apfelbaum, and Jessica J. Good, "Valuing Differences and Reinforcing Them: Multiculturalism Increases Race Essentialism," *Social Psychological and Personality Science* 10, no. 5 (July 2019): 681–89, https://doi.org/10.1177/1948550618780728.

65. From *Poems in Two Volumes* (1807):

The Soul that rises with us, our life's Star,
Hath had elsewhere its setting,
And cometh from afar:
Not in entire forgetfulness,
And not in utter nakedness,
But trailing clouds of glory do we come
From God, who is our home:

66. That is a theme in the fine book: *Why Don't Children Like School?* By the Cognitive Scientist Daniel T. Willingham. It's because they lack the taken-for-granted knowledge in schoolbooks and school discourse. Highly recommended!

Chapter 6: **The Most Decisive Educational Experiment in History**

67. They are misconceived and not efficacious, but the researcher ignored a study which proved that point, even after having quoted from that definitive study observations that were useful to his thesis.

68. Norimitsu Onishi, *New York Times*, February 9 2021: "Will American Ideas Tear France Apart? Some of Its Leaders Think So. Politicians and prominent

intellectuals say social theories from the United States on race, gender and post-colonialism are a threat to French identity and the French republic."

69. E. D. Hirsch, *Why Knowledge Matters*, Harvard, 2016. Chapter 7, "The Educational Fall of France"

Chapter 7: **Ethnicity and Literacy: Six Decades of Research**

70. Recht, Donna R.; Leslie, Lauren, "Effect of Prior Knowledge on Good and Poor Readers' Memory of Text, *Journal of Educational Psychology*, v80 n1 Mar 1988. p16-20 . I introduce this study in the context of other recent study. *The bulk of this chapter and the next is a revision of material published elsewhere over many years, especially in Cultural Literacy*. Here are some still more recent and relevant studies:

    Dochy, F. (1994). Prior knowledge in learning. In T. Husen & T.N. Postlethewaite (Eds.), International Encyclopedia of Education (Second edition, pp. 4698-4702). Oxford/New York: Pergamon Press.

    Dochy, F. Segers, M., & Buehl, M.M. (1999). The relationship between assessment practices and outcomes of studies: The case of research on prior knowledge. *Review of Educational Research*, 69 (2), 145-186.

    Guthrie, J.T., Schafer, W. D. & Hutchinson, S. R. (1991). Relation document literacy and prose literacy to occupational and societal characteristics of young black and white adults. *Reading Research Quarterly*, 26, 30–48

    Ozuru, Y., Dempsey, K., & Mcnamara, D. S. (2009). Prior knowledge , reading skill , and text cohesion in the comprehension of science texts. *Learning and Instruction*, 19 (3), 228–242.

    Stanovich, K. E., & Cunningham, A. E. (1992). Studying the consequences of literacy within a literate society: The cognitive correlates of print exposure. *Memory & Cognition*, 20, 51–68.

    Stanovich, K. E., & Cunningham, A. E. (1993). Where does knowledge come from? Specific associations between print exposure and information acquisition. *Journal of Educational Psychology*, 85, 211–229.

    Stanovich, K. E., & West, R. F. (1989). Exposure to print and orthographic processing. *Reading Research Quarterly,* 24, 402

71. R. Glaser, "Foreword," in R. C. Anderson, E. H. Hiebert, J. A. Scott, and I. A. G. Wilkinson, *Becoming a Nation of Readers* (Washington, D.C.: U.S. Department of Education, 1985), viii.

72. G. A. Miller, "The Magical Number Seven, Plus or Minus Two," *Psychological Review* 63 (1956): 81-97.

73. 3. T. G. Bever, "Perception and Thought in Language, in J. Carroll and R. D. Freedle, eds., *Language Comprehension and the Growth of Knowledge* (Washington, D.C., 1972), 104.

74. J. S. Sachs, "Recognition Memory for Syntactic and Semantic Aspects of Connected Discourse," *Perception and Psychophysics* 2 (1967): 437-42. Recall," *Journal of Verbal Learning and Verbal Behavior II* (1972): 717-26.

75. S. Fillenbaum, "Memory for Gist: Some Relevant Variables," *Language and Speech* 9 (1966): 217-27.

76. M. A. Just and P. A. Carpenter, "The Relation Between Comprehending and Remembering Some Complex Sentences," Memory and Cognition 4 (1976): 318-22.

77. W. F. Brewer, "Memory for Ideas: Synonym Substitution," *Memory and Cognition* 3 (1975): 458-64.

78. E. Wanner, *On Remembering, Forgetting, and Understanding Sentences* (The Hague: Mouton, 1974).

79. W. J. M. Levelt and G. Kempen, "Semantic and Syntactic Aspects of Remembering Sentences: A Review of Some Recent Continental Research," in *Studies in Long Term Memory*, ed. A. Kennedy and A. Wilkes (London, 1975), 201-218.

80. R. J. Spiro, "Constructive Processes in Prose Comprehension and Recall," in *Theoretical Issues in Reading Comprehension*, ed. R. J. Spiro, B. C. Bruce, and W. F. Brewer (Hillsdale, N.J.: Erlbaum, 1980), 248.

81. J. D. Bransford and M. K. Johnson, "Contextual Prerequisites for Understanding: Some Investigations of Comprehension and

82. R. C. Omanson, W. H. Warren, and T. Trabasso, "Goals, Inferential Comprehension, and Recall of Stories by Children," *Discourse Processing* I (1978): 337-54.

83. P. D. Pearson, J. Hanson, C. Gordon, "The Effect of Background Knowledge on Young Children's Comprehension of Explicit and Implicit Information," *Journal of Reading Behavior* II (1979): 201-209. See also T. Nicholson and R. Imlach, "Where Do Their Answers Come From? A Study of the Inferences Which Children Make When Answering Questions about Narrative Stories," *Journal of Reading Behavior* 13 1981): 111-29.

84. E. Rosch, C. B. Mervis, W. Gray, D. Johnson, and P. Boyes-Braem, "Basic Objects in Natural Categories," *Cognitive Psychology* 8 (1976): 382-439.

85. E. Rosch, "Human Categorization," in N. Warren, ed., *Advances in Cross-Cultural Psychology*, vol. I (London: Academic Press, 1977).

86. E. Rosch, "Cognitive Representation of Semantic Categories," *Journal of Experimental Psychology* 104 (1975): 192-233.

87. E. Rosch, "On the Internal Structure of Perceptual and Semantic Categories," in T E. Moore, ed., *Cognitive Development and the Acquisition of Language* (New York: Academic Press, 1973), 111-44. See also L. J. Rips, E. J. Shoben, and E. E. Smith, "Semantic Distance and the Verification of Semantic Relations," *Jour nal of Verbal Learning and Verbal Behavior* 14 (1975): 1-20.

88. Hilary Putnam, "The Measuring of Meaning," in *Philosophical Papers*, vol. II (Cambridge, Cambridge University Press, 1975), 215-71.

89. Jean Piaget's notion of assimilation and its contrast with accommodation, are still useful concepts, despite the disconfirmation of his general view of "development." We assimilate present experiences to past structures, but we also accommodate past structures to present experiences, and thereby add new structures. See Jean Piaget, *The Child's Construction of Reality*, trans. Margaret Cook (New York: Basic Books, 1954), and the report on the important debate between Piaget and Chomsky, set forth in M. Piattelli-Palmarini, ed., *Language and Learning: The Debate Between Jean Piaget and Noam Chomsky* (Cambridge: Harvard University Press, 1980).

90. See the excellent book-length discussion of this subject by P. N. Johnson-Laird, *Mental Models: Towards a Cognitive Science of Language, Inference, and Consciousness* (Cambridge: Harvard University Press, 1983).

91. For the word cup see W. Labov, "The Boundaries of Words and Their Meanings," in C. J. Baily and R. Shuy, eds., *New Ways of Analyzing Variation in English* (Washington, D.C.: Georgetown University Press, 1973). For the

word, eat, see R. C. Anderson and A. Ortony, "On Putting Apples into Bottles – A Problem of Polysemy," *Cognitive Psychology* I (1975): 167-180. For the word *red*, see H. Halff, A. Ortony, and R. C. Anderson, "A Context-sensitive Representation of Word Meanings," *Memory and Cognition* 4 (1976): 378-83. For the word *held*, see R. C. Anderson, J. W. Pichert, E. T. Goetz, and D. L. Shallert, "Instantiation of General Terms," *Journal of Verbal Learning and Verbal Behavior* 15 (1976): 667-79.

92. R. C. Anderson, Z. Shifrin, "The Meaning of Words in Context," in Spiro, Bruce, and Brewer, *Theoretical Issues in Reading Comprehension* (Hillsdale, J.J.: Erlbaum, 1980), 331-47.

93. Much recent work in psycholinguistics has shown that typical or literal meanings are not always the ones that are first activated. The initial posit strongly depends upon context. R. W. Gibbs, "Contextual Effects in Understanding Indirect Requests," *Discourse Processes* 2 (1979): 1-10; G. B. Simpson, "Meaning, Dominance, and Semantic Context in the Processing of Lexical Ambiguity," *Journal of Verbal Learning and Verbal Behavior* 20 (1981): 120-36; P. Gildea and S. Glucksberg, "On Understanding Metaphor: The Role of Context" *Journal of Verbal Learning and Verbal Behavior* 22 (1983): 577-90.

94. A good review article on this subject is M. J. Adams, "Failures to Comprehend and Levels of Processing in Reading," in Spiro, Bruce, and Brewer, *Theoretical Issues in Reading Comprehension*, 11-32.

95. A. M. Collins and M. R. Quillian, "Retrieval Time from Semantic Memory," *Journal of Verbal Learning and Verbal Behavior* 8 (1969): 240-47.

96. Herbert Simon and his colleagues made this remark in J. Larkin, J. McDermott, D. P. Simon, and H. A. Simon, "Expert and Novice Performance in Solving Physics Problems, Science 208 (1980) 1335-42. Moliere's satire of medical pretension in *Le Malade Imaginaire*. "Pourquoi l'opium fait-il dormir? Parcequ'il a une vertu dormative. "

97. A. de Groot, *Het Denken van den Schaker*, 1946. English: *Thought and Choice in Chess* (The Hague: Mouton, 1965)

98. W. G. Chase and H. A. Simon, "Perception in Chess," *Cognitive Psychology* 4 (1973): 55-81.

99. J. H. Larkin, *Skilled Problem Solving in Experts* (Technical Report, Group in Science and Mathematics Education, University of California, Berkeley,

1977). Norman et al. "Clinical Experience and the Structure of Memory."

100. Larkin, et al., "Expert and Novice Performance in Solving Physics Problems," 1335-42.

101. H. A. Simon and M. Barenfield, "Information-Processing Analysis of Perceptual Processes in Problem Solving," *Psychological Review* 76 (1969): 473-83.

102. The great Danish linguist Otto Jespersen notes that speech is cumbersome even in its grammatical forms when the unspoken conventions of a culture are just being developed. When the community shares more secure implicit conventions (more securely shared schemata) languages begin to drop their cumbersome redundancies, as the Middle Ages began to drop such explicit expressions of concord as *multorum virorum antiquorum*. But classical Latin was simple in this respect compared to nineteenth-century forms of Bantu. See O. Jespersen, Language: Its Nature, *Development and Origin*, 1922 (London: Allen and Unwin, 1969).

103. R. M. Krauss and S. Glucksberg, "Social and Nonsocial Speech," *Scientific American* 236 (February 1977): 100-105.

104. The contrast between the performances of adults and children parallels the contrasts Basil Bernstein has discovered between literate and nonliterate responses to verbal tasks. Bernstein has associated these contrasts with social and economic class, but the operative principle is national socialization versus local socialization. See B. Bernstein, "Social Class, Language and Socialization," in *Language and Social Context*, ed. P. P. Giglioli (Harmondsworth: Penguin, 1972), 157-78.

105. Krauss and Glucksberg, "Social and Nonsocial Speech," 103.

106. This conjecture has been confirmed by Trabasso and his colleagues. See R. C. Omanson, W. H. Warren, and T. Trabasso, "Goals, Inferential Comprehension, and Recall of Stories by Children," *Discourse Processing* I (1978): 337-54.

107. Krauss and Glucksberg, "Social and Nonsocial Speech," 104.

108. Bernstein, "Social Class, Language and Socialization," 166. See also E. D. Hirsch, Jr., *The Philosophy of Composition* (Chicago: University of Chicago Press, 1977), 25-26. The state of current work on literacy in sociolinguistics

is reviewed by D. Bloom and J. Green, "Directions in the Sociolinguistic Study of Reading," in Pearson, *Handbook of Reading Research*, 395-422.

109. Here is a selection of recent studies of these issues, emphatically confirming the earlier science. Of special interest is a recent review article:

Reid Smith, Pamela Snow, Tanya Serry & Lorraine Hammond (2021) The Role of Background Knowledge in Reading Comprehension: A Critical Review, Reading Psychology, 42:3, 214-240.

Adams, B. C., Bell, L. C., & Perfetti, C. A. (1995). A trading relationship between reading skill and domain knowledge in children's text comprehension. *Discourse Processes*, 20(3), 307–323.

Barnes, M. A., Dennis, M., & Haefele-Kalvaitis, J. (1996). The effects of know- ledge availability and knowledge accessibility on coherence and elaborative inferencing in children from six to fifteen years of age. *Journal of Experimental Child Psychology*, 61(3), 216–241.

Cain, K., Oakhill, J. V., Barnes, M. A., & Bryant, P. E. (2001). Comprehension skill, inference-making ability, and their relation to knowledge. *Memory & Cognition*, 29(6), 850–859. doi:10.3758/bf03196414

Callahan, D., & Drum, P. A. (1984). Reading ability and prior knowledge as pre- dictors of eleven and twelve year olds' text comprehension. *Reading Psychology*, 5(1–2), 145–154. doi:10.1080/0270271840050117

Cervetti, G. N., & Wright, T. S. (2020). The role of knowledge in understanding and learning from text. *Handbook of Reading Research*, 5, 237–260.

Kendeou, P., Rapp, D. N., & van den Broek, P. (2003). The influence of reader's prior knowledge on text comprehension and learning from text. *Progress in Education*, 13, 189–209

Kendeou, P., & Van Den Broek, P. (2007). The effects of prior knowledge and text structure on comprehension processes during reading of scientific texts. *Memory & Cognition*, 35(7), 1567–1577.

Kostons, D., & van der Werf, G. (2015). The effects of activating prior topic and metacognitive knowledge on text comprehension scores. *British Journal of Educational Psychology*, 85(3), 264–275.

110. This chapter brings together in brief compass some materials that are not usually correlated in histories of national languages and are rarely considered in histories of the English language. Scholars may therefore wish to consult the relevant background sources to the chapter, showing that the basis of modern ethnicity is language standardization.

Specialists have disagreed about the importance of early language standardizers in England. But their decisive importance in Italy, France, Spain, Germany, and much later, in Czechoslovakia, and in the twentieth century in Norway, is well attested to and agreed upon. See Karl W. Deutsch, "The Trend of European Nationalism: The Language Aspect," *American Political Science Review* 36 (1942): 533-41; K. W. Deutsch, *Nationalism and Social Communication: An Inquiry into the Foundations of Nationality* (Cambridge: MIT Press, 1953); P. S. Ray, "Language Standardization," in F. A. Rice, ed. *Study of the Role of Second Languages in Asia, Africa, and Latin America* (Washington, D.C.: Center for Applied Linguistics of the Modern Language Association, 1962); the E. Haugen, "Linguistics and Language Planning," in *Sociolinguistics*, ed. W. Bright (The Hague: Mouton, 1966). The lack of a consensus among historians of the English language regarding the importance of early schoolmasters, grammarians, and dictionary makers is an anomaly that calls for an explanation.

The first scholar to set forth the decisive importance of the early prescriptive writers for modern standard English, both spoken and written, was Henry Bradley, a brilliant philologist and sometime chief editor of the *Oxford English Dictionary*. He understood that universal education and the spread of literacy had caused the grammar of the English language, as codified by eighteenth-century prescriptivists, to be permanently fixed. He thought that universal education would cause any tendency to deviate from the eighteenth-century norm to be sternly repressed by schoolmasters and schoolmistresses. In 1904 he had the courage to make the following prophecy in *The Making of English*, rev. ed., ed. S. Potter (London: Macmillan, 1968): "On the whole, it is probable that the history of English grammar will for a very long time have few changes to record later than the nineteenth century" (52-53).

Bradley then made the same prophecy about the permanence of then

current spelling and pronunciation of English, and for the same reason, the spread of literacy, in *On the Relations Between Spoken and Written Language, With Special Reference to English* (Oxford: Oxford University Press, 1919). The probability that Bradley's prophecies will continue to hold true becomes ever greater as time passes and literacy spreads. The only exceptions to them that opponents have been able to cite are rare and trivial – well within the compass of his predictions.

Why have the dominant historians of the English language failed to develop, or even discuss, Bradley's ideas? I believe the reasons are two. (1) Historians of English have been trained principally in the earlier periods of the language, before the rise of universal literacy, and have therefore underestimated the decisive linguistic importance of that special event. (2) Their predisposition was reinforced by the revolution in linguistics, led by Edward Sapir (*Language* [New York: Harcourt-Brace, 1921]) and Leonard Bloomfield (*Language* [New York: Holt, Rinehart and Winston, 1933]), away from an emphasis on written language in favor of the view that the true form of language is oral, that writing is unimportant and secondary, and that the universal law of language is constant change. This American Revolution in linguistics informed the thinking of American language historians, including the most influential historian of English, Albert C. Baugh, who mentions Bloomfield with enthusiasm in his *History of the English Language* (New York: Appleton Century, 1935), 17. In discussing the seventeenth-and eighteenth-century movements to standardize English, Baugh observed scornfully:

> It is curious that a number of men notable in various intellectual spheres in the late seventeenth and early eighteenth centuries should have been blind to the testimony of history and believed that by taking thought it would be possible to suspend the processes of growth and decay that characterize a living language (322).

Later linguists have returned to Bradley's view. For instance, Dwight Bollinger speaks with a wryness equal to Baugh's of traditional philologists who view "linguistic change as if it were as inexorable as the drift of time, which no amount of tampering could prevent" in his Aspects of Language (New York: Harcourt, Brace and World, 1968), 284. Another important recent discussion of the subject, in opposition to the doctrines of Sapir and Bloomfield, may be found in Fred Householder's essay "The Primacy of Writing" in his *Linguistic Speculations* (Cambridge: Cambridge University

Press, 1971).

For a fuller account of the relations between early language standardizing, literacy, and the stability of grammar, spelling, and pronunciation in modern national languages, I refer the reader to two chapters, "Distinctive Features of Written Speech" and "The Normative Character of Written Speech" in my book on theoretical aspects of writing, which contains further bibliographical references to the literature on language standardization. See E. D. Hirsch, Jr., *The Philosophy of Composition* (Chicago: University of Chicago Press, 1977). The later work of F. Furet and J. Ozouf, *Reading and Writing: Literacy in France from Calvin to Jules Ferry* (Cambridge: Cambridge University Press, 1982) may also be consulted with profit M. S. Zengel, "Literacy as a Factor in Language Change," *American Anthropologist* 64 (1962): 132-39, is another valuable source.

111. A good brief discussion of isoglosses and dialectal variation in medieval and modern times may be found in M. A. K. Halliday, A. McIntosh, and Peter Strevens, *The Linguistic Sciences and Language Teaching* (London: Longman, 1964), 81-90. See also A. McIntosh, "The Analysis of Written Middle English," *Transactions of the Philological Society* 34 (1956): 26-56.

112. 100 Henry Sweet, "The Principles of Spelling Reform" (1877) Reprinted in Henry Sweet, *The Indispensable Foundation*, ed. E. J. A. Henderson (London, 1971), 220.

113. Alexander Pope, "Essay on Criticism" (1711), 482-83.

114. Ernest Gellner, *Nations and Nationalism* (Ithaca, N.Y.: Cornell University Press, 1983).

115. See Deutsch, "The Trend of European Nationalism" and *Nationalism and Social Communication*.

116. Gellner, *Nations and Nationalism*, 27.

117. Ibid., 35.

118. Ibid., 36

119. Even earlier than this, in the sixteenth and seventeenth centuries, the diffusion of printed books in the national languages had started the process of language standardization. The agitation in England for language standardization is well documented in W. F. Bolton, ed., *The English*

Language: Essays by English and American Men of Letters, 1490-1839 (Cambridge: Cambridge University Press, 1966).

120. See R. Emerson, "Nation Building in Africa," in K. W. Deutsch and W. J. Foltz, eds., *Nation Building* (Englewood Cliffs, N.J.: Prentice-Hall, 1963), 110-14.

121. See Halliday, McIntosh, and Strevens, *The Linguistic Sciences*, 81-90

122. On the history of European academies, see the excellent article "Academies" by Francis Storr in the eleventh edition of the *Encyclopedia Britannica*. See also Bollinger, *Aspects of Language*, 285.

123. Since Johnson's dictionary a small number of spelling reforms have become established both in Britain and America, often thanks to Noah Webster. See his "An Essay on the Necessity, Advantages and Practicability of Reforming the Mode of Spelling, and of Rendering for Orthography of Words Consistent to the Pronunciation," 1789, reprinted in Bolton, *The English Language*, 157-73. A good account of Webster's career and influence can be found in Baugh, *A History of the English Language*, 246-50. By far the best discussion of spelling and spelling reform is to be found in Bradley, *On the Relations Between Spoken and Written Language*.

124. See Johnson's justifications in his Preface, and those of early orthoptists and orthographers in Bolton, *The English Language*, and Dobson, *English Pronunciation*.

125. See Haugen, "Planning for a Standard Language in Modern Norway.

126. Otto Jespersen, *Language: Its Nature, Development, and Origin* (London: Allen and Unwin, 1922), 319-67. See also his *Efficiency in Language Change* (Copenhagen: Munksgaard, 1941).

127. See Bradley, *The Making of English*, 53.

128. Present-tense be in all persons is an oral dialectal form that goes back to medieval times. See A. McIntosh, "The Analysis of Written Middle English," *Transactions of the Philological Society* 34 1956): 26-56.

129. Other examples of "learned spellings" that never had a connection with pronunciation are *debt* and *rhyme*. See Bradley, On the *Relations Between Spoken and Written Language 15, and Dobson, English Pronunciation*, vol. I, 90, vol. 2, 1007-1010.

130. See Bradley, *On the Relations Between Spoken and Written Language*, 30-35. Some modern spellings such as *thru* and *slo* are perhaps found more on road signs then in printed English. For reasons which Bradley gives, they will probably be exceedingly few in number. Further reasons are offered by Householder, *Linguistic Speculations*, 244-64.

131. Haugen, "Linguistics and Language Planning," and Otto Jespersen, *Mankind, Nation and Individual from a Linguistic Point of View* (Bloomington: Indiana University Press, 1964).

132. M. M. Guxman, "Some General Regularities in the Formation and Development of National Languages," in *Readings in the Sociology of Language*, ed. J. A. Fishman (The Hague: Mouton, 1968), 773-76.

Chapter 9: **Answer to the Learned Despisers of Specificity**

133. I hear from a Professor Grissmer that he intends to place the long final report online even while it is going through going through the long peer review process.

134. I credit Professor Abt for this desexualized version of "Latino".

135. I invented the term to stand for the knowledge, stored in memory, that people share within an ethnicity, and that enables the disambiguation and fast communication of meaning.

136. Leigh S. Wilton, Evan P. Apfelbaum, and Jessica J. Good, "Valuing Differences and Reinforcing Them: Multiculturalism Increases Race Essentialism," *Social Psychological and Personality Science* 10, no. 5 (July 2019): 681–89, https://doi.org/10.1177/1948550618780728

137. Anders Ericsson and Robert Poole, Peak: *Secrets from the New Science of Expertise* (Boston: Eamon Dolan, 2016) p.60.

138. Ibid

139. I've found it useful to employ the term "tribe" to mean a large community of any specific type. Another similar term is "society," but that has modern overtones, and I mean to imply something absolutely general about human groups.

140. Reid Smith, Pamela Snow, Tanya Serry & Lorraine Hammond (2021) The Role of Background Knowledge in Reading Comprehension: A Critical Review, *Reading Psychology*, 42:3, 214-2408

141. Jay S. Kaufman, Whad'Ya Know? Another View on Cultural Literacy, *Epidemiology*. Vol. 13, No. 5 (Sep., 2002), pp. 500-503

142. A reasonable estimate by our number crunchers. CK language Arts is bought by some 8000 schools. Each year schools download over 10,000 free copies of the CK *Sequence*. Last year the free downloads numbered 11,158. Remember, as Cathy and Michele point out in Chapter 4, our schools often lack any specifically defined schoolwide curriculum. An individual teacher can follow the CK curriculum. This is a scandal that few of us grasp. It's possible only on the incorrect theory that pupils are gaining general comprehensions skills and general critical thinking skills. The key people who must first be disabused of that theory are our state legislators.

143. Mary C. Waters and Richard Alba, The Next Generation: *The Children of Immigrants in Europe and North America* (New York University Press, 2010).

144. Leigh S. Wilton, Evan P. Apfelbaum, and Jessica J. Good, "Valuing Differences and Reinforcing Them: Multiculturalism Increases Race Essentialism," *Social Psychological and Personality Science* 10, no. 5 (July 2019): 681–89, https://doi.org/10.1177/1948550618780728. See also Robert D. Putnam, *E Pluribus Unum*, Diversity and Unity in the Twenty-first Century, Scandinavian Political Political Studies, Vol. 30 – No. 2, 2007

145. https://familyinequality.wordpress.com/2014/04/19/teen-test-scores/

Miss Peabody Introduces Developmentalism in 1890

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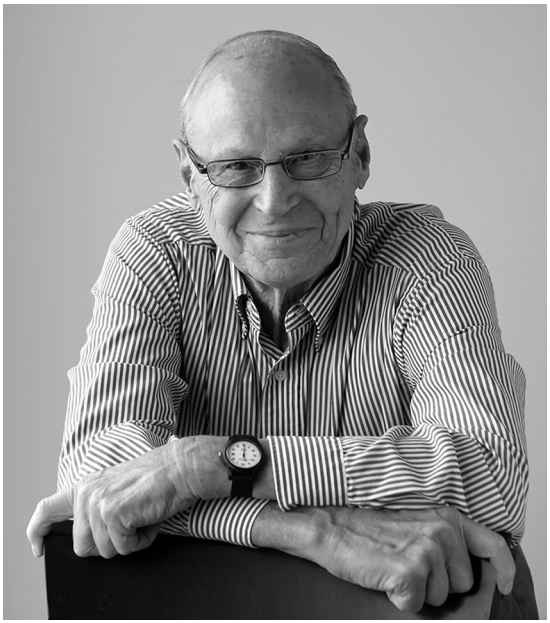
About the Author



E. D. Hirsch, Jr., is a member of the American Academy of Arts and Sciences and founder of the nonprofit Core Knowledge Foundation, an organization with over ten thousand Core Knowledge schools in all fifty states and abroad. He is author of numerous books, including the bestsellers *Cultural Literacy and The Dictionary of Cultural Literacy. Other books by Hirsch on education are A First Dictionary of Cultural Literacy; the Core Knowledge Sequence, What Your [First Through Sixth] Grader Needs to Know.; The Schools We Need and Why We Don't Have Them, The Making of Americans, and How to Educate a Citizen*. These works have influenced educational thought and practice in the United States and other countries. He received the QuEST award of the American Federation of Teachers, and the Conant Award for "Outstanding Contributions to American Education," awarded by the Education Commission of the States.

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