

# Start with Standards

## Chapter One

### I. The Rationale for Standards-Based Education

### II. How to Read the Standards

#### Introduction

The guide who leads climbers to the apex of their journey has an advantage over the classroom teacher. It is abundantly clear what the guide wants his climbers to conquer: the mountain.

In the classroom, students work toward a goal – but what is that goal? If you teach world geography, is the goal for your students to become geography experts? If so, what does it mean to be a geography expert? If not, is it enough for students to leave the year with a certain body of facts and skills? Which facts and skills? If students can recite the geography textbook back to you, have they proven their understanding of geography? If not, how do you know when someone is proficient in geography? How do you get someone to reach that proficiency level? What if the student has a learning disability? What if the student doesn't speak English?

When starting out, beginning teachers often first want to know how to engage their students, how to make lessons fun and interesting, and how to ensure that their students learn. We will get to that. But as you can see, the big questions of Instructional Planning & Delivery reach far beyond the “how.” They begin with the “what.”

As improbable as it may sound, some teachers find themselves “instructing” for months before realizing that they have no idea what they want their students to learn. While some corps members walk into schools and receive a scripted curriculum that details exactly what they will teach every day, others are given little more than a piece of chalk and a smile. Some of these teachers may say, “I want my students to become better writers,” but may have no idea what their students should be doing differently in June from what they're doing in September. Instead of a clear path to a chosen destination, with every day serving as another leg on the climb up the mountain, the school year becomes an aimless journey that entertains the whims of these teachers, who often worry how they're going to fill time during the day. While students might receive A's for completing what their teachers assigned, they are not necessarily better off than they were at the beginning of the year.

Obviously, with many of our students far behind where they are supposed to be academically, this approach is not going to narrow the achievement gap. In fact, for the teachers who take the time to figure out exactly what their students need, “filling time” is no longer an issue. There is so much that needs to be done. There is great urgency driving their planning and instruction every day.

This course will prepare you to understand your job as the instructional leader of your classroom. As you read the following chapters, keep these three questions in mind:

- 1. What should your students know, understand, or be able to do?**
- 2. How will your students demonstrate their mastery?**
- 3. How will you instruct your students so they can reach that level of mastery?**

To be an effective teacher for your students, you must know the answers to these questions. This chapter addresses question number one.

## Start with Standards

### I. The Rationale for Standards-Based Education

It wasn't that long ago when teachers made most of the decisions for what their students would learn in their classes. They wrote all of the lessons. They wrote the tests. In order to graduate, students needed to meet the minimum requirements established by the individual teachers at their school. Yet when examining the results from national standardized exams, researchers and policymakers discovered that separate expectations yielded unequal results. The National Assessment of Educational Progress found that students in high poverty schools who had mostly A's in English and math scored the same on the national assessment tests as students who made mostly C's in higher-income schools. One school's diploma represented something completely different than a diploma from another school. Students in low-income communities were receiving a watered-down curriculum and being inadequately prepared for the professional world, thus helping to perpetuate the cycle of poverty.

*Standards are the most important tool in planning. Without standards, I would just be planning based on what I think the students should know about a subject. Standards give me a clear picture of what students will be expected to do in order to graduate and let me build my curriculum to bring them to that goal.*

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Software Engineer, Google, Inc.**

In the early 1990s, President George H. W. Bush convened a group of governors to set broad educational goals for all of our nation's students to meet by the year 2000. Under the Clinton administration, Congress passed the Goals 2000: Educate America Act, which codified these goals into laws and launched the creation of standards, the general guidelines for what students are expected to know, understand and be able to do by the end of a given course.<sup>1</sup> From an instructional standpoint, standards make it much clearer to teachers that all students – regardless of school, neighborhood or background – should receive a rigorous education based on a common series of learning goals.

Despite its promise, the standards movement has proven controversial because of its accountability system. As a result of the recent No Child Left Behind Act, a school's students must demonstrate increasing levels of success on annual assessments or face district or state sanctions. While some states use these exams to decide whether children will advance to the next grade level, some educators decry linking a student's fate to a single test.<sup>2</sup> Others contend the push for results ignores unequal resources among schools and districts, and the tests frame knowledge in a particular, provincial way. Some teachers resent their perceived lack of instructional freedom through the implementation of standards. They feel compelled to "teach to the test," devoting school funds and class time to provide strategies and tricks for discerning correct multiple-choice answers, at the cost of promoting deep understanding of the material or encouraging independent thinking.

Yet the standards – and the high-stakes testing – are now legally mandated. And the fact that many of our students are *not* performing well on these tests is a disturbing manifestation of the "achievement gap" that we are working to close. Holding schools accountable for equal results allows communities to measure the quality of their local education system, creating expectations where they may have been lacking. Parents of students in higher-income communities would certainly express alarm if their children did not perform well on these tests, and parents of students in low-income communities are no different. In addition, "quality instruction" and "test preparedness" are not mutually exclusive concepts. Effective teachers in the era of accountability do not set their sights on passing a test, but rather on

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<sup>1</sup> Department of Education website, Archived Information section. H.R. 1804, GOALS 2000: Educate America Act. <http://www.ed.gov/legislation/GOALS2000/TheAct/index.html>, accessed 7/1/2010.

<sup>2</sup> Department of Education website, No Child Left Behind page. <http://www.ed.gov/nclb/landing.jhtml?src=pb>, accessed 7/1/2010.

nurturing a clear grasp of concepts, ideas and skills. They use the standards to ensure that their students remain on track with their national peers. If students learn the content of the standards, then passing standardized tests is simply a formality that provides evidence that they've done so. The institute curriculum is designed to help you work within the mandates of state education agencies to develop effective standards-based lessons.

## II. How to Read the Standards

Every state in the country has developed standards that categorize expectations for student learning by grade and subject. To find the standards developed by the states where we place corps members, search the web sites listed in the **Instructional Planning & Delivery Toolkit** (pp. 1-2: "Internet Links to Regional and National Standards") found online at the Resource Exchange on TFANet. ✂

### What These Standards Look Like

Don't be confused by the terminology in various state and district standards. As mentioned above, all states give some guidance about the skills and concepts students should master. Some states and districts call those guidelines *standards*, while others refer to them as *benchmarks*, *essential knowledge*, *essential skills*, *performance standards*, and so on. Most states break those broad guidelines down further, but again the terminology differs from region to region.

The bottom line is that the terminology does not matter. And, it would be almost impossible to identify all the variations in district terminology for different levels of specificity of standards. The chart above uses three of the most common terms. From the most general guidelines to the most specific, those terms are "standards," "learning goals," and "objectives." An objective is the building block of an individual lesson. Generally speaking, in one lesson, your students should be able to demonstrate the learning target embedded in at least one objective.

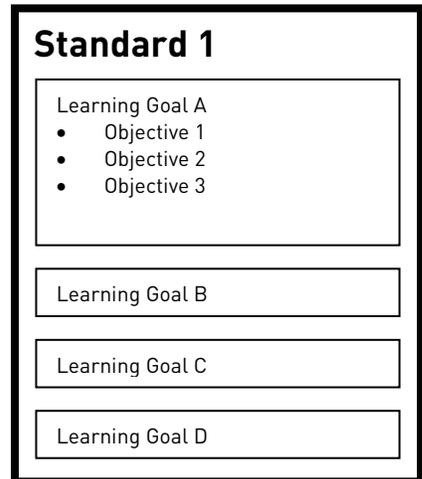
What Students Need to Know		
Instructional Guidance		Examples
"Standards" (a.k.a. essential knowledge and skills, competency goals, learning standards, competencies)	Most general → → → → →	<b>A.</b> Students learn and effectively apply a variety of reading strategies for comprehending, interpreting and evaluating a wide range of texts including fiction, nonfiction, classic and contemporary works.
		<b>B.</b> Students will investigate structure and function in living systems.
		<b>C.</b> Students demonstrate an understanding of the notion of differentiability.
		<b>A.</b> Students will be able to use reading strategies such as making inferences and predictions, summarizing, paraphrasing, differentiating fact from opinion, drawing conclusions, and determining the author's purpose and perspective to comprehend written selections.
		<b>B.</b> Students will identify, compare, and contrast levels of organization including cells, tissues, organs, organ systems, and organisms.
"Learning Goals" (a.k.a., benchmarks, essential elements, essential skills, performance standards)	Most specific	<b>C.</b> Students demonstrate an understanding of the derivative of a function as the slope of the tangent line to the graph of the function.
		<b>A.</b> Students will be able to distinguish fact from opinion.
		<b>B.</b> Students will be able to compare and contrast the structure and function of the human circulatory and respiratory systems.
"Objectives"		<b>C.</b> Students will be able to calculate the derivative of a second order function.

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### Understanding the Standards

The guidelines presented by many states and districts are more general and broad than you would want to use to design a lesson plan. A common refrain from new teachers is, “My standards are so vague! They don’t help me figure out what my lessons should be at all! How do I figure out what to teach?” This statement highlights a common misconception about the structure and purpose of standards. The purpose of standards is not to articulate specific skills that can be taught in one lesson but to outline an overarching concept that encompasses multiple skills. As we will discuss in later chapters, some states may provide more detail around their standards, dividing them into learning goals. However, if your state does not provide this extra guidance, it will be your job to break down the standards into these more specific bundles of knowledge and skills. Further, no matter the level of detail in your standards, it will always be your responsibility to organize your learning goals into units and create lesson objectives that incrementally lead to the achievement of the larger goal.

To help illustrate how different states’ standards vary, here’s a peek at one subsection of an eighth grade Social Studies standard from Texas<sup>3</sup>:



**Standard 1: History – Students are able to describe the political, economic, and social events and issues related to the colonial and revolutionary eras, the creation and ratification of the U.S. Constitution, challenges of the early Republic, westward expansion, sectionalism, Civil War, and Reconstruction.**

*Section six: The student understands westward expansion and its effects on the political, economic, and social development of the nation. The student is expected to:*

- Explain how the Northwest Ordinance established principles and procedures for orderly expansion of the United States.
- Explain the political, economic, and social roots of Manifest Destiny.
- Analyze the relationship between the concept of Manifest Destiny and the westward growth of the nation.
- Explain the major issues and events of the Mexican War and their impact on the United States.
- Identify areas that were acquired to form the United States.

These guidelines spell out your end goals pretty explicitly. Of course, next you will need to figure out what *were* the major issues and events of the Mexican War, and what *was* their impact on the United States. That information will not appear in the standards. The standards only serve to orient you and help you understand the state education agency’s general expectations for your students.

Sometimes the standards appear to be considerably vaguer because they describe skills or themes that you will reinforce throughout the year. Consider, for example, the following subsection of the fourth-fifth grade Language Arts Reading Standard from Arizona<sup>4</sup>:

<sup>3</sup> TEKS for Social Studies, Middle School. <http://www.tea.state.tx.us/rules/tac/chapter113/ch113b.html>, accessed 7/1/2010. Links to all Texas state standards available at <http://www.tea.state.tx.us/index2.aspx?id=6148>.

<sup>4</sup> “Language Arts Standards Rationale.” <http://www.ade.state.az.us/standards/Essentials/LANGARTSESS.pdf>, accessed 7/1/2010.

**Standard 1: Reading – Students learn and effectively apply a variety of reading strategies for comprehending, interpreting and evaluating a wide range of texts including fiction, nonfiction, classic and contemporary works.**

*Learning goal: Use reading strategies such as making inferences and predictions, summarizing, paraphrasing, differentiating fact from opinion, drawing conclusions, and determining the author's purpose and perspective to comprehend written selections. The student will be able to:*

- Identify the main ideas, critical and supporting details, and the author's purpose, feelings, and point of view from the text.
- Distinguish fact from opinion.
- Summarize the text in own words.
- Compare and contrast the text (e.g., characters, genre, cultural differences, fact, fiction).
- Determine cause and effect relationships.
- Identify the text in chronological, sequential, or logical order.

While the standard and sub-standards are admittedly general, they still give considerable guidance to a teacher wondering what to teach. They also serve to give direction to the fourth and fifth grade teacher who asks, "Where should I be headed with my students?" Instead of teaching "reading," the standards make it clear what concepts and skills are associated with that subject; instead of simply reading a fable with students, a teacher would instruct them to discern the cause and effect relationship of a particular character's actions.

Still, you will need more information about the level of detail or sophistication to which your students need to know, understand, and be able to demonstrate these standards, especially since standards may seem identical across grade levels. Eighth graders, for instance, are also supposed to "determine cause and effect". It can be difficult to discern what fourth grade and eighth grade students need to do differently when the language of the standard remains the same.

Here's where to clear up the confusion:

- **Your district curriculum guide.** School districts often re-publish the state standards with greater specificity (aligning them with the district's resources, for instance), so be sure to ask your colleagues, grade-level chairperson, department head, principal, or district director of instruction if such a curriculum guide exists. If you ask how the standards in your district are "vertically aligned," you may secure a document that details how different grade levels should address similar learning goals.
- **Outside organizations.** Professional organizations (e.g., National Council of Teachers of Mathematics (NCTM) or the National Science Foundation (NSF)), and for-profit organizations (e.g., CORE Knowledge Foundation) have also developed comprehensive standards and guides for teachers, and they can serve as additional sources of insight as you try to determine what it means for students to meet certain academic goals. For instance, the NCTM's guide provides advice for the types of math problems that students should be able to solve at different grade levels. No list of state standards is that nuanced and helpful.

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- Mid-continent Research for Education & Learning (McREL) maintains a website ([www.mcrel.org](http://www.mcrel.org)) that helps explain some of the grade-level distinctions of broad standards. Here's how McREL segments a vague standard into four tiers of complexity<sup>5</sup>:

### I. Students will understand and apply basic and advanced concepts of probability.

#### Level I (Grade K-2):

- Understands that some events are more likely to happen than others
- Understands that some events can be predicted fairly well, but others cannot because we do not always know everything that may affect an event

#### Level II (Grade 3-5):

- Understands that the word "chance" refers to the likelihood of an event
- Recognizes events that are "certain," "uncertain," "likely," "unlikely"
- Understands that statistical predictions are better for describing what proportion of a group will experience something rather than which individuals will experience something
- Uses basic sample space (i.e., the set of all possible outcomes) to describe and predict events

#### Level III (Grade 6-8):

- Determines probability using mathematical/theoretical models (e.g., table or tree diagram, area model, list, counting procedures, sample space)
- Determines probability using simulations or experiments
- Understands how predictions are based on data and probability
- Understands the relationship between the numerical expression of a probability (e.g., fraction, percentage, odds) and the events that produce these numbers

#### Level IV (Grades 9-12):

- Understands the concept of a random variable
- Understands the concepts of independent and dependent events and how they are related to compound events and conditional probability
- Uses a variety of experimental, simulation and theoretical models (e.g., counting procedures, trees, formulas for permutations and combinations, Monte Carlo simulations)
- Understands the properties of the normal curve (i.e., used to approximate data distribution for many real-world phenomena) and how the normal curve can be used

- **Other districts or states.** Because of the increased focus on standards, many districts have devoted significant resources to developing extensive, standards-based curricula, and post their guides online. If your state's standards baffle you, try comparison-shopping with another state. For example, California's science guidelines are particularly strong and specific, outlining that eighth graders should know, among other facts and concepts, that "the greater the mass of an object, the more force is needed to achieve the same rate of change in motion." This clearly provides more guidance than "students will be able to understand force."
- **Standardized tests.** An additional way of figuring out what your students should be able to accomplish is by working backward. By looking at the standards-based district, state or national exams in your grade level or subject area, you can get a sense of the types of questions that students are expected to answer – and in what formats. For a list of standardized tests in your region, please refer to page 3 of the **Instructional Planning & Delivery Toolkit**, which can be found online at the Resource Exchange on TFANet. ✖

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<sup>5</sup> Mid-continent Research for Education and Learning website, "Mathematics Standards and Benchmarks" page. <http://www.mcrel.org> accessed 7/1/2010.

- **Conversations with colleagues, excellent school visits and exemplary student work.** Since we seek to provide the highest possible educational opportunity for our students, it is worth taking the time to visit a school widely regarded as excellent and to examine the work that children there complete. Seeing what high-achieving students accomplish may present the clearest, most vivid sense of what you should aim for in your own classroom, and your colleagues at these schools may be willing to share advice or special tools that helped them reach these heights.
- **Textbooks.** You may think, “What’s the big deal about knowing what to teach? Isn’t that what the textbook is for?” Yes and no. It is true that an excellent textbook aligns with state standards and not only contains the facts and concepts that your students will need to know but also features activities and problems that push students beyond the basics and into higher-order learning. Yet excellent textbooks are expensive, thus rare in low-income communities, and are often aligned to the state standards of big purchasers like California and Texas, not necessarily yours. Plus, textbooks rarely distinguish between important and less pressing material, nor do they address the multiple levels of student needs in your classroom. They also do not focus on certain experiential standards; language arts textbooks are too busy outlining the parts of speech to explain how pitch, volume and tone affect a speaker’s delivery. If you receive a class set of textbooks, use it as a touchstone to know what to teach – but consider it merely one of the many resources you should access.

#### **Special Education and the Standards Movement**

There would appear to be a contradiction between the standards movement, which sets academic expectations for all students at a given grade level and holds schools accountable for performance outcomes, and special education laws, which stress individualized goals and hold schools accountable for following procedures properly. In 1997, the Office of Special Education and Rehabilitation Services of the U.S. Department of Education sponsored a project to explore the implications of the drive toward standards for special education students. After studying the issue, the Office came to the conclusion that “**all students should have access to challenging standards** and that policy makers and educators should be held publicly accountable for every student’s performance. However, we also conclude that **adaptations will be required** for some students with disabilities, particularly those with significant cognitive disabilities.”

Through research and inquiry, you will be able to understand exactly what your students will be expected to learn by year’s end. By taking the time to pore through your standards, consult additional resources, and digest what it is you should teach you will begin to see connections and intersections between different learning goals, helping you to develop a rich and cohesive curriculum for your students. If you dive into your year without that foundation, you will likely find yourself resorting to filling time with your students, while failing to address the knowledge and skills so critical to their future success.

As you will see, it is essential that you understand your standards in order to effectively plan many parts of your instruction, including your big goal, long-term plan, and unit plans. In the next three chapters we will continue to explain how to interpret your standards in varying levels of detail for the purposes of different planning actions.

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### Conclusion and Key Concepts

This chapter has familiarized you with standards, which serve as the foundation for the rest of this course. Concepts and skills derived from standards are the centerpiece of student learning. You should also finish this chapter understanding that:

- Before planning activities one must first consider what students need to learn.
- Standards articulate what a student should know, understand and be able to do by the end of the year, and they set equitable benchmarks across classrooms, schools, districts, and states. They are also the basis for standardized testing across the country.
- Since standards are broad guidelines for student achievement, it will be your job to interpret them, using curriculum guides, other district or state websites, professional organizations, standardized tests, the advice of colleagues, excellent school visits, exemplary student work and textbooks.
- Distilling standards is a significant, upfront investment of time that has huge payoffs in clarity around what your students need to learn.

Chapters Three, Four, and Five will detail the process of breaking down standards into learning goals, grouping those learning goals into units to develop a long-term plan, devising objectives to meet unit goals, and planning individual lessons. First, however, you must develop a way to know if you have reached your goals, so that you can ensure that your lessons enable students to meet the performance expectations you set. You must also determine where your students currently stand, so you will have a good sense of how far your students need to travel in order to reach these goals. These are the topics of Chapter Two, Student Assessment.