From Common Core Standards to Curriculum: Five Big Ideas

BY **JAY McTIGHE AND GRANT WIGGINS**

In this article, we explore five big ideas about the Common Core State Standards and their translation into a curriculum. As with most big ideas, these Standards are in some ways obvious but may also be counter-intuitive and prone to misunderstanding. We highlight potential misconceptions in working with the Standards, and offer recommendations for designing a coherent curriculum and assessment system for realizing their promise.

Big Idea #1: The Common Core Standards have new emphases and require a careful reading.

In our travels around the country since the Common Core Standards were released, we sometimes hear comments such as, "Oh, here we go again;" "Same old wine in a new bottle;" or "We already do all of this." Such reactions are not surprising given the fact that we *have* been here before. A focus on Standards is not new. However, it a misconception to assume that these Standards merely require minor tweaks to our curriculum and instructional practices. In fact, the authors of the Mathematics Standards anticipated this reaction and caution against it: "These Standards are not intended to be new names for old ways of doing business." (p. 5) Merely trying to retrofit the Standards to typical teaching and testing practices will undermine the effort.

A related misconception in working with the Common Core is evident when teachers turn immediately to the grade level Standards listed for their grade or course to plan their teaching. Such an action is reasonable; after all, isn't that what they are supposed to teach? While understandable, we advise against zeroing in on the grade-level Standards *before* a careful examination of the goals and structure of the overall documents.

To invoke a construction analogy: Think of the grade level standards as building materials. As a construction supervisor, we wouldn't simply drop off materials and tools at a worksite and have the workers "go at it." Instead, we would begin with a blueprint – an overall vision of the desired building to guide its construction. Without an overall end in mind, teachers can create wonderful individual rooms that won't necessarily fit together within and across floors or achieve the intended results.

The Common Core Standards have been developed with *long-term* outcomes in mind (e.g., College and Career Anchor Standards in English Language Arts), and their components are intended to work together (e.g., Content *and* Practice Standards in mathematics). This point is highlighted in a recently released publication, *Publishers' Criteria for the Common Core State Standards for Mathematics* (July 2012):

> " 'The Standards' refers to all elements of the design—the wording of domain headings, cluster headings, and individual statements; the text of the grade level introductions and high school category descriptions; the placement of the standards for mathematical practice at each grade level. The pieces are designed to fit together, and the standards document fits them together, presenting a coherent whole where the connections within grades and the flows of ideas across grades..."

It is imperative that educators understand the intent and structure of the Standards in order to work with them most effectively. Accordingly, we recommend that schools set the expectation and schedule the time for staff to read and discuss the Standards, beginning with the "front matter," *not* the grade-level Standards. We also recommend that staff reading and discussion be guided by an essential question: *What are the new distinctions in these Standards and what do they mean for our practice?* Since the Standards are complex texts and demand a "close" reading, we recommend that staff carefully examine the table of contents and the organizational structure; the headers (e.g., Design Considerations; What is Not Covered, etc.), the components (e.g., Anchor Standards and Foundational Skills for ELA; Standards for Mathematical Practice), and the Appendices (ELA).

The Common Core Standards have been developed with *long-term* outcomes in mind (e.g., College and Career Anchor Standards in English Language Arts), and their components are intended to work together (e.g., Content *and* Practice Standards in mathematics).

Following a thorough reading of these introductory sections, discuss the changing instructional emphases called for by the Standards and their implications. For example, the ELA Standards demand a greater balance between reading informational and literary texts, and stress the use of text-based evidence to support argumentation in writing and speaking. The Mathematics Standards accentuate the focus on a smaller set of conceptually larger ideas that spiral across the grades (as opposed to simply "covering" numerous skills) with an emphasis on meaningful application using the Practices.

We cannot overemphasize the value of taking the time to collaboratively examine the Standards in this way. Failure to understand the Standards and adjust practices accordingly will likely result in "same old, same old" teaching with only superficial connections to the grade level Standards. In that case, their promise to enhance student performance will not be realized.

Big Idea #2: Standards are not curriculum.

A Standard is an outcome, not a claim about how to achieve an outcome (i.e. a curriculum). Thus, the Introduction to the Common Core State Standards (CCSS) for Mathematics states that, "These Standards do not dictate curriculum or teaching methods" (p 5). A similar reminder is found in the ELA Standards: "The Standards define what all students are expected to know and be able to do, not how teachers should teach. For instance, the use of play with young children is not specified by the Standards, but it is welcome as a valuable activity in its own right and as a way to help students meet the expectations in this document… The Standards must therefore be complemented by a well-developed, content-rich curriculum consistent with the expectations laid out in this document." (p. 6)

Indeed, these statements highlight the intent of *any* set of Standards; i.e., they focus on outcomes, not curriculum or instruction. The implication is clear – educators must translate the Standards into an engaging and effective curriculum. So, what is the proper

relationship between the Standards and curriculum? Consider another analogy with home building and renovation: The standards are like the building code. Architects and builders must attend to them but they are *not* the purpose of the design. The house to be built or renovated is designed to meet the needs of the client in a functional and pleasing manner – while also meeting the building code along the way.

Similarly, while curriculum and instruction must address established Standards, we always want to keep the long-term educational ends in mind – the development of important capabilities in the learner as a result of engaging and effective work. In other words, a curriculum works with the Standards to frame optimal learning experiences. To shift analogies, the Standards are more like the ingredients in a recipe than the final meal; they are more like the rules of the game rather than a strategy for succeeding at the game.

So then, what *is* a curriculum? In research for our initial book, *Understanding by Design*® (Wiggins and McTighe, 1998), we uncovered 83 different definitions or connotations for the word, curriculum, in the educational literature! Such a variety of meanings confer an unhelpful ambiguity on the challenge of moving from Standards to curriculum. Worse, most definitions focus on inputs, not outputs—what will be "covered" rather than a plan for what learners should be able to accomplish with learned content. This is a core misunderstanding in our field. Marching through a list of topics or skills cannot be a "guaranteed and viable" way to ever yield the sophisticated outcomes that the Standards envision.

The ELA Standards underscore this idea clearly by framing everything around "anchor standards," all of which highlight complex abilities and performances that students should master for college and workplace readiness. The Mathematics Standards' emphasis on the need to weave the Content and Practice Standards together in a curriculum makes the same point.

Big Idea #3: Standards need to be "unpacked."

As suggested above, the first step in translating the Common Core Standards into engaging and outcome-focused curriculum involves a careful reading of the documents in order to insure clarity about the end results and an understanding of how the pieces fit together. This idea is not new. Over the years, we have suggested various ways of unpacking standards in conjunction with our work with the *Understanding by Design* framework®. (See, for example, Wiggins and McTighe 2011, 2012).

When working with the Common Core, we recommend that educators "unpack" them into four broad categories: 1) Long term Transfer Goals, 2) Overarching Understandings, 3) Overarching Essential Questions, and 4) a set of recurring Cornerstone Tasks.

The first category, Transfer Goals, identifies the effective uses of content understanding, knowledge, and skill that we seek in the long run; i.e., what we want students to be able to do when they confront new challenges—both in and outside of school. They reflect the ultimate goals, the reason we teach specific knowledge and skills. Unlike earlier generations of standards where transfer goals were implicit at best, the Common Core Standards have made them more overt. Indeed, the College and Career Anchor Standards in ELA specify long-term transfer goals, while the Mathematics Standards strongly suggest a goal such as, Students will be able to use the mathematics they know to solve "messy," never-seen-before problems using effective mathematical reasoning.

The second and third unpacking categories—overarching Understandings and Essential Questions—are like two sides of a coin. The Understandings state what skilled performers will need in order to effectively transfer their learning to new situations, while explorations of the Essential Questions engage learners in making meaning and deepening their understandings. In the table below are examples for Mathematics and English Language Arts, respectively.

	Overarching Understandings	Overarching Essential Questions
Mathematical Modeling	• Mathematicians create models to interpret and predict the behavior of real world phenomena. • Mathematical models have limits and sometimes they distort or misrepresent.	• How can we best model this (real world phenomena)? • What are the limits of this model? • How reliable are its predictions?
Determining Central Ideas in Text	• Writers don't always say things directly or literally; sometimes they convey their ideas indirectly (e.g., metaphor, satire, irony).	• What is this text really about? (e.g. theme, main idea, moral) • How do you "read between the lines?"

The term overarching conveys the idea that these understandings and questions are not limited to a single grade or topic. On the contrary, it is expected that they be addressed across the grades with application to varied topics, problems, texts and contexts.

The fourth category, Cornerstone Tasks, are curriculum-embedded tasks that are intended to engage students in applying their knowledge and skills in an authentic and relevant context. Like a cornerstone anchors a building, these tasks are meant to anchor the curriculum around the most important performances that we want learners to be able to do (on their own) with acquired content knowledge and skills. Since these tasks are set in realistic contexts, they offer the natural vehicle for integrating the so-called 21st century skills (e.g., creativity, technology use, teamwork) with subject area content knowledge and skills. They honor the intent of the Standards, within and across subject areas, instead of emphasizing only the content measured more narrowly on external accountability tests. These rich tasks can be used as meaningful learning experiences as well as for formative and summative purposes.

Cornerstone tasks are designed to recur across the grades, progressing from simpler to more sophisticated; from those that are heavily scaffolded toward ones requiring autonomous performance. Accordingly, they enable both educators and learners to track performance and document the fact that students are getting progressively better at using content knowledge and skills in worthy performances. Like the game in athletics or the play in theater, teachers teach toward these tasks without apology.

The four categories that we recommend are initially unpacked at the "macro," or program, level to establish the equivalent of a curriculum blueprint. More specific course and grade level curriculum maps are then derived from backward from them, just as rooms in a building are constructed using the architect's blueprint as a guide. Practically speaking, this macro level work is best undertaken at the state, regional or district levels by teams of content experts and experienced teachers. Currently two states, Massachusetts and Pennsylvania, have assembled teams of content experts to unpack their Common Core state standards in this very manner, and the Next Generation Arts Standards, presently in development, are using this same construct to frame the Standards from the start!

While we strongly advocate this type of unpacking and have witnessed its benefits, we have also seen the process become way too narrow and granular when applied at the "micro" level. Thus, we concur with the important cautionary note offered by the Kansas Department of Education about a misapplication of Standards unpacking:

> "'Unpacking' often results in a checklist of discrete skills and a fostering of skill-and-drill instruction that can fragment and isolate student learning in such a way that conceptual understanding, higher order thinking, cohesion, and synergy are made more difficult. Too often, the process of 'unpacking" is engaged in an attempt to isolate the specific foundational or prerequisite skills necessary to be successful with the ideas conveyed by the overall standard and is a common precursor to test preparation and reductive teaching. Although this process may be important work in some instances and can certainly be enlightening, it also poses substantial problems if those completing the work never take the time to examine the synergy that can be created when those foundational or prerequisite skills are reassembled into a cohesive whole. Metaphorically speaking, 'unpacking' often leads educators to concentrate on the trees at the expense of the forest."

Big Idea # 4: A coherent curriculum is mapped backwards from desired performances.

The key to avoiding an overly discrete and fragmented curriculum is to design backward from complex performances that require content. A return to the linguistic roots of "curriculum" reveals the wisdom in this outcome-focused view. The Latin meaning of the term is a "course to be run." This original connotation helpfully suggests that we should think of a curriculum as the pathway toward a destination. As mentioned above, our conception is that curriculum should be framed and developed in terms of worthy *outputs*; i.e., desired performances by the learner, not simply as a listing of content *inputs*.

This is not a new idea. Ralph Tyler made this very point more than 60 years ago (Tyler, 1949). He proposed a curriculum development method involving a matrix of content and process components that would guide teachers in meshing these two elements into effective performance-based learning. As Tyler points out, the "purpose of a statement of objectives is to indicate the kinds of changes in the student to be brought about… Hence it is clear that a statement of objectives in terms of content headings… is not a satisfactory basis for guiding the further development of the curriculum." Indeed, the Mathematics Standards recommend just such an approach:

> "The Standards for Mathematical Practice describe ways in which developing student practitioners of the disci-

> pline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction." (p. 8)

Thus, the first question for curriculum writers is not: *What will we teach and when should we teach it?* Rather the initial question for curriculum development must be goal focused: *Having learned key content, what will students be able to do with it?*

The first question for curriculum writers is not: *What will we teach and when should we teach it?* Rather the initial question for curriculum development must be goal focused: *Having learned key content, what will students be able to do with it?*

Our long-standing contention applies unequivocally to the Common Core Standards as well as to other Standards: The ultimate aim of a curriculum is independent transfer; i.e., for students to be able to employ their learning, autonomously and thoughtfully, to varied complex situations, inside and outside of school. Lacking the capacity to independently apply their learning, a student will be neither college nor workplace ready.

The ELA Standards make this point plainly in their characterization of the capacities of the literate individual:

> "They demonstrate independence. Students can, without significant scaffolding, comprehend and evaluate complex texts across a range of types and disciplines, and they can construct effective arguments and convey intricate or multifaceted information… Students adapt their communication in relation to audience, task, purpose, and discipline. Likewise, students are able independently to discern a speaker's key points, request clarification, and ask relevant questions... Without prompting, they demonstrate command of standard English and acquire and use a wide-ranging vocabulary. More broadly, they become self-directed learners, effectively seeking out and using resources to assist them, including teachers, peers, and print and digital reference materials." (p. 7)

These points underscore a potential misunderstanding resulting from a *superficial* reading of the Standards documents (especially in Mathematics). One could simply parcel out lists of discrete grade-level standards and topics along a calendar while completely ignoring the long-term goal of transfer. A curriculum envisioned and enacted as a set of maps of content and skill coverage will simply not, by itself, develop a student's increasingly autonomous capacity to *use* learned content effectively to address complex tasks and problems. Such traditional scope-and-sequencing of curriculum reinforces a "coverage" mentality and reveals a misconception; i.e., that teaching bits of content in a logical and specified order will somehow add up to the desired achievements called for in the Standards.

A related misconception is evident when teachers assume that the Standards prescribe the instructional sequence and pacing. Not so! To assume that the layout of the documents imply an instructional chronology is as flawed as thinking that since a dictionary is helpfully organized from A to Z, that vocabulary should therefore be taught in alphabetical order. While the grade-level Standards are certainly not arbitrary and reflect natural long-term "learning progressions," a rigid sequence within each grade level was never intended. The authors of the Common Core Mathematics Standards explicitly call attention to this misconception and warn against it:

> "For example, just because topic A appears before topic B in the standards for a given grade, it does not necessarily mean that topic A must be taught before topic B. A teacher might prefer to teach topic B before topic A, or might choose to highlight connections by teaching topic A and topic B at the same time. Or, a teacher might prefer to teach a topic of his or her own choosing that leads, as a byproduct, to students reaching the standards for topics A and B." (p. 5)

The implications of these points are critical not only for curriculum mapping but for the very nature of instructional practice. Consider this advice from a non-academic source – the United States Soccer Coaches Federation. In *Best Practices for Coaching Soccer in The U.S.,* the Federation recommends a change in the soccer "curriculum" of practice:

> "When conducting training sessions, there needs to be a greater reliance on game oriented training that is player centered and enables players to explore and arrive at solutions while they play. This is in contrast to the 'coach

centered' training that has been the mainstay of coaching methodology over the years. 'Game centered training' implies that the primary training environment is the game as opposed to training players in 'drill' type environments. This is not to say that there is not a time for a more 'direct' approach to coaching. At times, players need more guidance and direction as they are developing. However, if the goal is to develop creative players who have the abilities to solve problems, and interpret game situations by themselves, a 'guided discovery' approach needs to be employed." (pp. 62–64)

If we want students to be able to apply their learning via autonomous performance, we need to design our curriculum backward from that goal.

We propose that this recommendation applies equally to teachers of academics as to coaches of soccer. In other words, if we want students to be able to apply their learning via autonomous performance, we need to design our curriculum backward from that goal. Metaphorically speaking, then, educators need to ask, what is the "game" we expect students to be able to play with skill and flexibility? In other words, we need clarity and consensus about the *point* of content learning—*independent* transfer. Then, we can build the curriculum pathway backward with those worthy performances in mind.

To design a school curriculum backward from the goal of autonomous transfer requires a deliberate and transparent plan for helping the student rely less and less on teacher hand-holding and scaffolds. After all, transfer is about *independent* performance in context. You can only be said to have fully understood and applied your learning if you can do it without someone telling you what to do. In the real world, no teacher is there to direct and remind you about which lesson to plug in here or what strategy fits there; transfer is about intelligently and effectively drawing from your repertoire, independently, to handle new situations on your own. Accordingly, we should see an increase, by design, in problem- and project-based learning, small-group inquiries, Socratic Seminars, and independent studies as learners progress through the curriculum across the grades.

Our point here is straightforward: if a curriculum simply marches through lists of content knowledge and skills without attending to the concomitant goal of cultivating independent performance, high-schoolers will remain as dependent on teacher directions and step-by-step guidance as 4th graders currently are. The resulting graduates will be unprepared for the demands of college and the workplace.

Big Idea #5: The Standards come to life through the assessments.

A prevalent misconception about standards in general is that they simply specify learning goals to be achieved. A more complete and accurate conception, in line with the colloquial meaning of the term, recognizes that standards also refer to the desired *qualities* of student work and the degree of *rigor* that must be assessed and achieved.

Think about what we mean when we talk about "high standards" in athletics, music or business: we refer to the quality of outcomes, not the inputs. We ask if work is up to standard, not whether we "covered" such standards as teachers. In this sense, the standards are at their core a set of criteria for building and testing local *assessment*. They tell where we must look and what we must look for to determine if student work is up to standard. Such information is crucial to guide local assessments and insure that these are validly anchored against national standards.

Ironically (and unfortunately), this important point is not made in the main body of the ELA Common Core Standards but in Appendices B and C. These Appendices are arguably the most important sections of the ELA Standards because there the authors describe the degree of text difficulty that students must be able to handle, the features that need to be evident in student writing, and the kinds of performance tasks that will provide the needed evidence. Accompanying samples of scored work illustrate the qualities of performance that must be attained to meet the Standards.

This performance-based conception of Standards lies at the heart of what is needed to translate the Common Core into a robust curriculum and assessment system. The curriculum and related instruction must be *designed backward* from an analysis of standards-based assessments; i.e., worthy performance tasks anchored by rigorous rubrics and annotated work samples. We predict that the alternative—a curriculum mapped in a typical scope and sequence based on grade-level content specifications—will encourage a curriculum of disconnected "coverage" and make it more likely that people will simply retrofit the new language to the old way of doing business.

Thus, our proposal reflects the essence of backward design: Conceptualize and construct the curriculum back from sophisticated "cornerstone" tasks, reflecting the performances that the

Common Core Standards demand of graduates. Indeed, the whole point of Anchor Standards in ELA and the Practices in Mathematics is to establish the genres of performance (e.g., argumentation in writing and speaking, and solving problems set in real-world contexts) that must *recur* across the grades in order to develop the capacities needed for success in higher education and the workplace.

Our recommendation to construct curriculum around assessments may lead to a related misunderstanding; i.e., that we need to assess *each* grade-level Standard in isolation, one by one. We think that this view is due in part to the layout of grade-level Standards and to the look and feel of traditional standardized tests, in which very discrete objectives are the subject of most test items. This confuses means and ends; it conflates the "drill" with the "game." The authors of the Common Core E/LA Standards wisely anticipated this misconception and they caution against it: "While the Standards delineate specific expectations in reading, writing, speaking, listening, and language, each standard need not be a separate focus for instruction and assessment. Often, several standards can be addressed by a single rich task." (p. 5)

In sum, moving from Standards to curriculum requires careful reading and thoughtful interpretation to avoid the predictable misunderstandings noted above, while building the curriculum backward from worthy tasks offers the pathway to the performances envisioned by the Common Core.

References

Kansas State Department of Education. (2011) "A Cautionary Note about Unpacking, Unwrapping, and/or Deconstructing the Kansas Common Core Standards." Available at www.ksde.org/kscommoncore.

National Governors Association Center for Best Practices, Council of Chief State School Officers (2010). *Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects.* Washington D.C.: National Governors Association Center for Best Practices, Council of Chief State School Officers.

National Governors Association Center for Best Practices, Council of Chief State School Officers (2010). *Common Core State Standards for Mathematics.* Washington D.C.: National Governors Association Center for Best Practices, Council of Chief State School Officers.

National Governors Association Center for Best Practices, Council of Chief State School Officers (2012). *K–8 Publishers' Criteria for the Common Core State Standards for Mathematics.* Washington D.C.: National Governors Association Center for Best Practices, Council of Chief State School Officers.

Tyler, R. (1949) *Basic Principles of Curriculum and Instruction.* Chicago, IL: University of Chicago Press.

United States Soccer Federation. *Best Practices for Coaching Soccer in The United States.* Available at www.USSOCCER.com.

Wiggins, G. and McTighe, J. (1998) *Understanding by Design, 1st edition.* Alexandria, VA: ASCD.

Wiggins, G. and McTighe, J. (2011) *Understanding by Design Guide to Advanced Concepts in Creating and Reviewing Units.* Alexandria, VA: ASCD.

Wiggins, G. and McTighe, J. (2012) *Unpacking The Common Core Standards Using The UbD Framework.* (DVD) Alexandria, VA: ASCD.

Jay McTighe is an educational writer and consultant. Grant Wiggins is an educational writer and consultant and President of Authentic Education.