The Common Core State Standards: Implications for Teaching & Learning

Today's Goals

- Review the evolution of the CCSS
- Examine what's new in the standards & state assessment

The Common Core Standards

Evolution & Adoption

http://www.corestandards.org

Evolution of the CCSS

- Spring 2009, governors (National Governor's Association) and state commissioners of education (Council of Chief State School Officers) from 48 states, 2 territories & D.C. committed to developing a common core of state standards (CCSS) for K-12 English language arts (ELA) and mathematics

Evolution of the CCSS

- Participating org's:
  - Achieve, Inc., ACT, College Board, Ntnl. Assc. of State BOE's, Alliance for Excellent Education, Hunt Institute, Ntnl. PTA, State Higher Ed. Executive Officers, Am. Assc. of School Administrators, Business Roundtable, NEA, AFT, Ntnl. Councils of Teachers of English & Mathematics

- 44 states have adopted CCSS
  - TX, WS, VA, NE , MT & AK have not

COMMON CORE
STATE STANDARDS INITIATIVE
PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

What the authors of the CCSS say:

- These standards are not intended to be new names for old ways of doing business.
- It is time to recognize that standards are not just promises to our children, but promises we intend to keep.

CT's CCSS Adoption Process

- July 7, 2010: CCSS adopted by the CT State BOE
- CT content experts in English Language Arts and Mathematics conducted a "gap analysis"
  - CCSS were compared to CT standards
    - standard by standard at the same grade level
    - pre-k-grade 12

ELA & CCSS Match Results

- 80% of the CC ELA standards were matched to CT's ELA standards
- 20% were not matched
- This translates to about 200 of the 1,019 CC ELA standards that will be "new" for CT

Math & CCSS Match Results

- 92% of the CC Math standards were matched to CT's Math standards
- 8% were not matched
- This translates to 40 CC Math standards that will be "new" for CT.

CT SDE Documents

- English Language Arts & Math Crosswalk Documents
  - CCSS directly compared to CT State Standards
- CT Curriculum Design Unit Planning Organizers and sample units

The Standards: Key Assumptions

- CCSS assume 100% mastery of the preceding year's standards
  - i. e., staircase *not* spiral
- Standards are high points, not finish lines
- Standards are not curriculum
- In order for change to be effective, it must be at the unit or chapter level

Moving towards understanding and implementation

CT Standards (CCSS) for English Language Arts & Literacy

(CT Standards)

ELA CCSS Overview

- Video

The ELA Standards

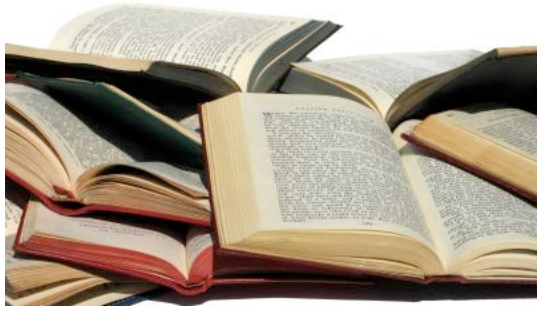
- Address both content and skills
  - ELA content includes: classical myths, stories from around the world, America's Founding Documents, foundational Am. Lit. & Shakespeare
    - No required reading lists, just sample suggested texts
  - ELA skills address: Reading & Writing; Speaking & Listening; Language; and Media & Technology
- Priority Standards
  - Overarching standards for college and career readiness
- Supporting Standards
  - More specific

What's New: 6 Shifts in ELA

- 1. Literacy as part of science & social studies/history AND informational text as part of ELA
  - Not teaching novels in science or history
  - Teaching students how to read and interpret scientific & historical texts
- 2. Balance of literature & literary nonfiction 50/50 recommended ratio

What's New: 6 Shifts in ELA

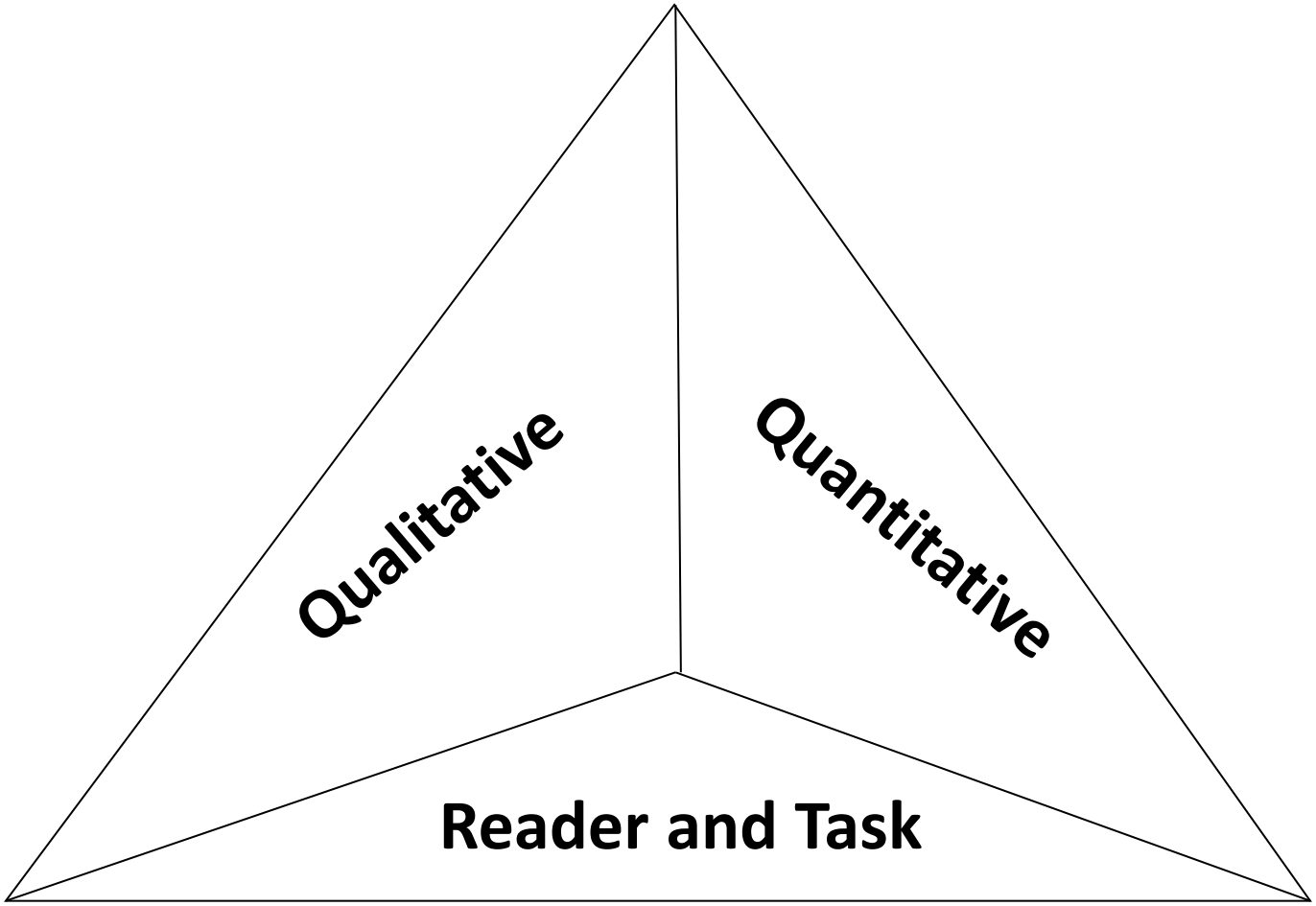
- 3. Appropriately complex text
  - Meant to increase rigor & address the gap between HS & college level text
  - Emphasis on teaching academic vocabulary
  - Recommendation from CCSS:
    - Push more students to grapple with texts at their frustration level, and provide scaffolds to aid comprehension



The Importance of Text Complexity

- College, Careers, and Citizenship: Steady or Increasing Complexity of Texts and Tasks
- K–12 Schooling: Declining Complexity of Texts and a Lack of Reading of Complex Texts Independently
- The Consequences: Too Many Students Reading at Too Low a Level

Three-Part Model for Measuring Text Complexity



Three-Part Model for Measuring Text Complexity

- **Qualitative dimensions of text complexity**
  - Levels of meaning or purpose; structure; language conventionality and clarity; and knowledge demands
- **Quantitative dimensions of text complexity**
  - Word length or frequency, sentence length, and text cohesion
- **Reader and task considerations**
  - Variables specific to particular readers and to particular tasks

Implementing Text Complexity

Text Complexity Grade Band in the Standards	Old Lexile Ranges	Lexile Ranges Aligned to CCR Expectations
K-1	N/A	N/A
2-3	450-725	450-790
4-5	645-845	770-980
6-8	860-1010	955-1155
9-10	960-1115	1080-1305
11-CCR	1070-1220	1215-1355

What's New: 6 Shifts in ELA

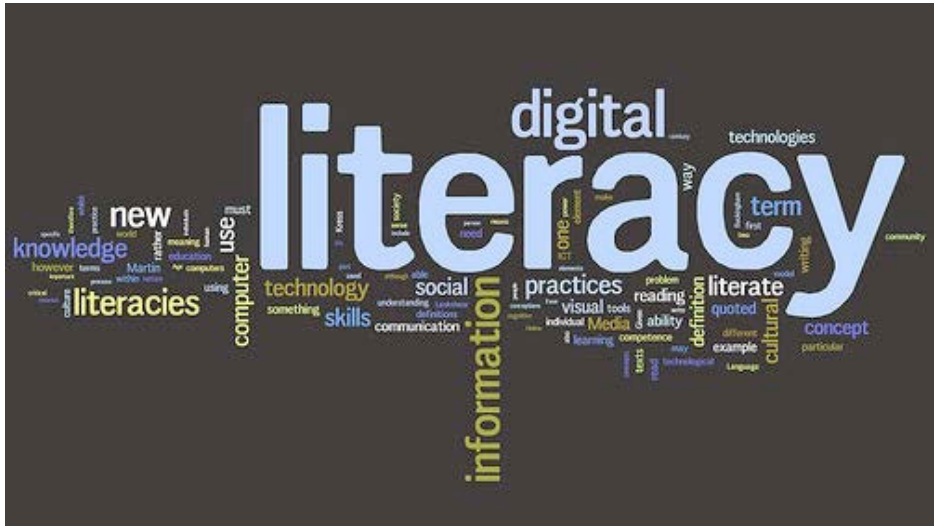
- 4. Questions regarding text must be TEXT-DEPENDENT
  - 80% of questions should be text-dependent
  - "Responses based on students' background knowledge and the experiences they bring to school are not sufficient."
- Video
- Example and discussion

What's New: 6 Shifts in ELA

- 5. Writing to INFORM or ARGUE using evidence
  - "The ability to write logical arguments based on substantive claims, sound reasoning, and relevant evidence is a cornerstone of the writing standards…extending down into the earliest grades."
  - Personal narrative should be MINIMIZED
- Writing: Student Research
  - "Short, focused research projects and longer term in depth research… is emphasized"

What's New: 7 Shifts in ELA

- 6. Media & Technology
  - 21st century skills related to media use, both critical analysis and production of media, are integrated throughout



CT Standards for Mathematics (CCSS)

Standards
Appendix A

Math CCSS Overview

- Video

Process Standards

- Problem Solving
- Reasoning and Proof
- Communication
- Connections
- Representation

NCTM | NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS

Standards for Mathematical Practice

- The standards for mathematical practice illustrate the connection between 21st century skills and mathematical content and instruction.

- The standards for mathematical practices are located in the front of the mathematics standards and within the "nature of mathematics" section at each grade level.

- The standards for mathematical practices should be considered when creating curricula, assessments, and professional development for teachers, and administrators.

Grouping the practice standards

1. Make sense of problems and persevere in solving them
6. Attend to precision

2. Reason abstractly and quantitatively

3. Construct viable arguments and critique the reasoning of others

Reasoning and explaining

4. Model with mathematics

5. Use appropriate tools strategically

Modeling and using tools

7. Look for and make use of structure.

8. Look for and express regularity in repeated reasoning.

Seeing structure and generalizing

The CCSS for Mathematics

- Are comprised of content that is organized by
  - Domains in Grades K-8
  - Conceptual Categories in Grades 9-12

Key Points about the Content Standards

- The K-5 standards provide students with a *solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions and decimals--which help young students build the foundation to successfully apply more demanding math concepts and procedures, and move into applications.*

- The standards stress not only procedural skill but also conceptual understanding, to make sure students are learning and absorbing the critical information they need to succeed at higher levels rather than the current practices by which many students learn enough to get by on the next test, but forget it shortly thereafter, only to review again the following year.

www.corestandards.org

K-8 Content Standards by Domain

DOMAINS	Counting & Cardinality	Operations & Algebraic Thinking	Number & Operations in Base Ten	Measurement & Data	Geometry	Number & Operations: Fractions	Ratios & Proportional Relationships	The Number System	Expressions & Equations	Statistics & Probability	Functions
K	X	X	X	X	X						
1		X	X	X	X						
2		X	X	X	X						
3		X	X	X	X	X					
4		X	X	X	X	X					
5		X	X	X	X	X					
6					X		X	X	X	X	
7					X		X	X	X	X	
8					X			X	X	X	X

CCSS for Mathematics
High School Conceptual Categories

- Number and Quantity
- Algebra
- Functions
- Modeling
- Geometry
- Statistics and Probability

Key Points about the Content Standards

- The high school standards:
  - set a *rigorous definition of college and career readiness, by helping students develop a depth of understanding and ability to apply mathematics to novel situations*
  - *emphasize mathematical modeling, the use of mathematics and statistics to analyze empirical situations, and*
  - call on students to *practice applying mathematical ways of thinking to real world issues and challenges*

www.corestandards.org

Common Core State Standards – Mathematics Learning Progressions

Kindergarten	1	2	3	4	5	6	7	8	HS
Counting and Cardinality									Number and Quantity
Number and Operations in Base Ten						The Number System			
			Number and Operations: Fractions			Ratios and Proportional Relationships (6 and 7)			
Operations and Algebraic Thinking						Expressions and Equations			Algebra
							Functions		Functions
Geometry						Geometry			Geometry
Measurement and Data						Statistics and Probability			Statistics And Probability

http://education.ohio.gov/GD/Templates/Pages/ODE/ODEDetail.aspx?page=3&TopicRelationID=1704&ContentID=83475&Content=102764

Priorities in Mathematics

Grade	Priorities in Support of Rich Instruction and Expectations of Fluency and Conceptual Understanding
K–2	Addition and subtraction, measurement using whole number quantities
3–5	Multiplication and division of whole numbers and fractions
6	Ratios and proportional reasoning; early expressions and equations
7	Ratios and proportional reasoning; arithmetic of rational numbers
8	Linear algebra

http://commoncoretools.wordpress.com/

Shifting Standards

- **Probability**: Not mentioned until 7th grade, previously began in K. It appears briefly in grade 6, but the focus on actual probability is not until grade 7 because it is important to understand fractions and percents prior to teaching probability.

- **Money**: Not mentioned until 2nd grade, previously began in K. The focus is instead on building number concepts and skills (such as skip counting) in K and 1st grade as a foundation for money in 2nd.

Shifting Standards

- **Fractions**: Concentrated in a three grades: 3rd – 5th. Relies on a solid foundation in whole numbers rather than teaching the two in tandem as we have done in the past.
- **Patterns**: De-emphasized in favor of a stronger foundation in place value & number.
- Concepts are focused and do not recur unless in a new context. The goal is to commit more time to mastering a concept and less time to re-teaching.

Key Fluencies

Grade	Required Fluency
K	Add/subtract within 5
1	Add/subtract within 10
2	Add/subtract within 20 Add/subtract within 100 (pencil and paper)
3	Multiply/divide within 100 Add/subtract within 1000
4	Add/subtract within 1,000,000
5	Multi-digit multiplication
6	Multi-digit division Multi-digit decimal operations
7	Solve $px + q = r$, $p(x + q) = r$
8	Solve simple 2×2 systems by inspection

http://commoncoretools.wordpress.com/

The New Assessment

- State assessments will remain unchanged until 2014
- CT is participating in the SMARTER Balanced Assessment Consortium
  - (www.smarterbalance.org)
  - charged with developing new assessments based on CCSS by 2015

SMARTER
Balanced Assessment Consortium

The New Assessment

- Format:
  - Moving away from "fixed-point" to a growth model
  - Summative, Interim, and Formative for grades 3-8, and 11
  - Computer Adaptive Test (CAT)
    - Not necessary to test all students at the same time

Reflection

- How can I begin incorporating the CCSS into my work on balancedcurriculum.com?
- As a future building leader, how will I go about the process of preparing my school for implementation by 2014?