Common Core and Essential Standards

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Objectives

1. To become familiar with changes in the State Standards
2. To understand the process of development for Standards
3. To become familiar with the changes in the Extended Content Standards
4. To become familiar with the Instructional Support Tools
### All Standards Have Changed

- Math
- English/Language Arts
- Science
- Social Studies
- Information and Technology Skills
- World Languages
- Arts Education
- Healthful Living
- Occupational Course of Study
- Extended Content Standards

### Common Core Standards

- Math
- English/Language Arts
- Extended Content Standards

### Essential Standards

- Science
- Social Studies
- Information and Technology Skills
- World Languages
- Arts Education
- Healthful Living
- Occupational Course of Study
- Extended Content Standards
### Standards Development Process

- ELA and Math college and career readiness standards developed summer 2009
- Common Core based on the college and career readiness standards, K-12 learning progressions developed
- Essential Standards Based on National Research and Revised Blooms Taxonomy
- Multiple rounds of feedback from states, teachers, researchers, higher education, and the general public
- Final Common Core and Essential Standards released throughout 2009-2010

### Why is the common core important?

- Previously, every state had its own set of academic standards, meaning public education students in each state were learning to different levels

- All students must be prepared to compete with not only their American peers in the next state, but with students from around the world
Why are the Essential Standards important?

NC had a directive to improve standards, assessments, and accountability and represents an opportunity for the Department of Public Instruction (DPI) to lead, with the help of engaged stakeholders.

- Another words, gave teachers better direction as to what learner outcomes should be and focused more on concept vs. skill.

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Essential Standard
What students must know, understand and be able to do to be prepared to compete in the world.

21st century Assessments
The tools or processes used to determine what students know, understand and are able to do at any given point.

Accountability
A system to ensure SBE, DPI, District Leaders, School Leaders and teachers are preparing students to compete in the 21st century.
Design and Organization

College and Career Readiness (CCR) anchor standards
- Broad expectations consistent across grades and content areas
- Based on evidence about college and workforce training expectations

Intentional Design Limitations

What the Standards do NOT define:
- How teachers should teach
- All that can or should be taught
- The nature of advanced work beyond the core
- The interventions needed for students well below grade level
- The full range of support for English language learners and students with special needs
- Everything needed to be college and career ready
Conclusion

Standards: Important but insufficient

- To be effective in improving education and getting all students ready for college, workforce training, and life, the Standards must be partnered with a content-rich curriculum and robust assessments, both aligned to the Standards.

More Information

www.corestandards.org
Design and Organization

K–12 standards
- Grade-specific end-of-year expectations
- Developmentally appropriate, cumulative progression of skills and understandings
- One-to-one correspondence with CCR standards
Design and Organization

Three main sections
- K–5 (cross-disciplinary)
- 6–12 English Language Arts
- 6–12 Literacy in History/Social Studies, Science, and Technical Subjects

Shared responsibility for students’ literacy development

Three appendices
- A: Research and evidence; glossary of key terms
- B: Reading text exemplars; sample performance tasks
- C: Annotated student writing samples

Design and Organization

Four strands
- Reading
  - Literature
  - Informational Text
  - Foundational Skills (K-5)
- Writing
- Speaking and Listening
- Language

An integrated model of literacy

Media requirements blended throughout
Activity One

Each table has a copy of the Common Core Standards.

Together lets identify the
Strand
Domain
Cluster
Standard

Choose a cluster and discuss how it changes by grade span.
One person from each table share with the group.
Design and Organization

- **Domains** are larger groups that progress across grades
- **Content standards** define what students should understand and be able to do
- **Clusters** are groups of related standards

![Diagram showing domains, clusters, and standards](image)

Design and Organization

Grade Level Overviews

<table>
<thead>
<tr>
<th>Grade K Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Counting and Cardinality</strong></td>
</tr>
<tr>
<td>• Know number names and the count sequence.</td>
</tr>
<tr>
<td>• Count to tell the number of objects.</td>
</tr>
<tr>
<td>• Compare numbers.</td>
</tr>
<tr>
<td><strong>Operations and Algebraic Thinking</strong></td>
</tr>
<tr>
<td>• Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.</td>
</tr>
<tr>
<td><strong>Number and Operations in Base Ten</strong></td>
</tr>
<tr>
<td>• Work with numbers 11-19 to gain foundations for place value.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mathematical Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Make sense of problems and persevere in solving them.</td>
</tr>
<tr>
<td>2. Reason abstractly and quantitatively.</td>
</tr>
<tr>
<td>3. Construct viable arguments and critique the reasoning of others.</td>
</tr>
<tr>
<td>4. Model with mathematics.</td>
</tr>
<tr>
<td>5. Use appropriate tools strategically.</td>
</tr>
<tr>
<td>6. Attend to precision.</td>
</tr>
<tr>
<td>7. Look for and make use of structure.</td>
</tr>
<tr>
<td>8. Look for and express regularity in repeated reasoning.</td>
</tr>
</tbody>
</table>
Design and Organization

Focal points at each grade level

Mathematics | Grade 6
In Grade 6, instructional time should focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.

(1) Students use reasoning about multiplication and division to solve ratio and rate problems about quantities. By viewing equivalent ratios and rates as deriving from, and extending, pairs of rows (or columns) in the multiplication table, and by analyzing simple drawings that indicate the relative size of quantities, students connect their understanding of

Domains Change Across Grade Levels

Unlike ELA where domains stay consistent K-12, Math Domains change across grade levels.

- Example:
  - The “Functions” Domain does not start until 8th grade
  - “Know number names and the count sequence” is only in Kindergarten
STANDARDS FOR SCIENCE

Design and Organization

Standards for Scientific Practice
- Carry across all grade levels
- Include Inquiry and Investigation & Content Knowledge

Standards for Science Content
- K-8 standards presented by grade level
- Organized into domains that progress over grades
- High school standards presented by Course Name (Biology, Chemistry, etc)
Design and Organization

- **Domains** are larger groups that progress across grades
- **Essential standards** define the big idea
- **Clarifying Objectives** define what students should understand and be able to do

![Image of Forces and Motion table]

**Domain Areas**

- **Forces and Motion**
- **Matter Properties and Change**
- **Energy, Conservation and Transfer**
- **Earth in the Universe**
- **Earth System’s, Structures and Processes**
- **Structures and Functions of Living Organisms**
- **Ecosystems**
- **Earth History**
- **Molecular Biology**
- **Evolution and Genetics**
- **Interactions of Matter and Energy**

Not all domains are represented in every grade level.
EXTENDED CONTENT STANDARDS

Purpose

IDEA and No Child Left Behind require:

- Standards be based on grade-level achievement standards
  - must address the same content and hold students to the same expectations
- may cover a narrower range of content
- reflect a different set of expectations in the areas of reading/language arts, mathematics, and science
Extended Standards Development Process

- Development focused on research of developmental concepts, learning progressions, content, and teacher knowledge.

- Feedback from teachers, parents, researchers, higher education, and the general public.

- Final Extended Content Standards released in March 2011

What are the Extended Content Standards?

- Linked to the Common Core and the Essential Standards

- More focused and coherent

- Include rigorous content and application of knowledge through high-order thinking

- Build upon strengths and lessons of current state standards

- Include a focus on academic and real life application
Focused and Coherent

**Crosswalk Between Extended Standards 2006 & 2011**

4th Grade

<table>
<thead>
<tr>
<th>Extended Competency Goal 1</th>
<th>Reading Standards Foundational Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>The learner will develop and apply enabling strategies and skills to read and write</td>
<td><strong>Phonics and Word Recognition</strong></td>
</tr>
<tr>
<td>Use word-identification strategies</td>
<td>1. Apply letter-sound and word analysis skills in reading words.</td>
</tr>
<tr>
<td>Increase sight-symbol vocabulary</td>
<td>a. In context apply letter-sound knowledge to use context plus first letter to identify words.</td>
</tr>
<tr>
<td>Choose text for exploration</td>
<td>b. Decode single syllable words with common spelling patterns (e.g., consonant-vowel-consonant/e or high frequency words).</td>
</tr>
<tr>
<td></td>
<td>c. Recognize 40 or more written words.</td>
</tr>
<tr>
<td></td>
<td><strong>Fluency</strong></td>
</tr>
<tr>
<td></td>
<td>2. Read text comprised of familiar words with accuracy and understanding to support comprehension.</td>
</tr>
</tbody>
</table>

**Every Content Area Has Domains in 2011**

**Reading Domains for Literature**

- Key Ideas and Details
- Craft and Structure
- Integration of Knowledge and Ideas
- Range of Reading and Level of Text Complexity
Activity 2

- As a table choose a content area, domain and cluster
- As a table discuss the link between the common core or essential standard to the extended standard
- One person from each group share with the group.

Where Are They On The Web

http://www.ncpublicschools.org/acre/standards/extended/
General Knowledge

- Open books to ELA
  - As a Table choose 1 domain in
    - Reading Standards for Literature
    - or Reading Standards for Informational Text
    - or Foundational Skills
  - follow it across grade a grade span
  - On chart paper write down the tables observations about changes across the grades
- Share observations with group
A Closer Look

- ELA- Speaking and Listening Standards

- Day-to-day, purposeful academic talk in one-on-one, small-group, and large-group settings

A Closer Look

- As a Table discuss the standards
  - Note the progression of skill and cognitive complexity across grade levels.
    - ½ the tables work on Comprehension and Collaboration
    - the other ½ work on Presentation of Knowledge and Ideas

- As a Table create real life applications in grades K, 6 and 10
See It In Action

http://vimeo.com/12090038

Big Picture

• Embed other standards in the Reading Standards
  • Speaking and Listening Standards
  • Language Standards
  • Writing Standards

• Instruction should include
  • Repetition with Variety
  • Highly Contextualized Information
What is Repetition with Variety

- As a table choose one student to focus on.
- Describe the child’s abilities.
  - Cognitive
  - Physical
  - Communication
  - Literacy or Math

- Speaking and Listening Standards
  - Choose a grade level goal
  - Describe the skill or concept the student needs to learn related to the goal

Repetition with Variety

- Describe how that skill/concept can be taught in other grade level standards.

- Share with the group
EXTENDED STANDARDS FOR MATHEMATICS

General Knowledge

Open books to Math
• As a Table choose 1 domain in
  • Measurement and Data
  • or Number and Operations in Base 10
  • or Operations and Algebraic Thinking
• follow it across grade levels K-12

• On chart paper write down the tables observations about changes across grade levels

• Share observations with group
Lesson Planning

- At the table pick any single Math domain and three consecutive grade levels.
  - Discuss how instruction might be differentiated within the same lesson to address the domain across grade levels
  - Use chart paper to capture the ideas

Press Release from Education Week

- Key concepts for beginning 1st graders to learn include:
  - understanding numbers
  - the quantities those numbers represent
  - and low-level arithmetic

- Study by University of Missouri psychologist David Geary.
  - “Students who learn about those topics will have better success in learning math...”

July 2011
More Depth

• Numbers 0-50 are used through 4th grade so that we can achieve
  o understanding numbers
  o the quantities those numbers represent
  o and low-level arithmetic

• Also Douglas Clements wrote an article “Concrete Manipulatives, Concrete Ideas”

EXTENDED STANDARDS FOR SCIENCE
Open books to Science

- As a Table choose 1 domain in
  - Forces and Motion
  - or Earth Systems Structures and processes
  - or Eco System
- follow it across grade levels K-12

- On chart paper write down the tables observations

- Share observations with group

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Domain Areas

- Forces and Motion
- Matter Properties and Change
- Earth System’s, Structures and Processes
- Structures and Functions of Living Organisms
- Ecosystems
New Science Framework Paves Way for Standards

- Top priorities include promoting a greater emphasis on **depth over breadth** in understanding science and getting young people to **continually engage** in the practices of both scientific inquiry and engineering design as part of the learning process. Another goal is to promote what the panel calls greater **“coherence” in the teaching of science** as students progress through school, with the core scientific concepts revisited at multiple grade levels to **build on prior learning and help facilitate a deeper understanding**.

Article in Education Week on July 19, 2011 By Erik W. Robelen

DPI Instructional Support Tools

- **Crosswalks between 2006 and 2011 Extended Standards**

- **Unpacking the Standards Documents**
Unpacking the Standards

Lessons must stay focused on the essence, or it risks addressing something other than the key learning target and drifting away from standards and instruction

*Unpacking Standards helps us stay focused*

Modified from Brian Gong – Learning Progressions - 1/15/08
Unpacking Activity

- At your table you will find copies of Unpacking the Standards
- We are going to explore K together
- As a table choose K, 6, or 9-10 and unpack the standard and write out on chart paper.

Lesson Planning

- As a table use one of the unpacked standards to create a unit.
- Consider the following:
  - Goals
  - Evaluation
  - Repetition with variety
  - Communication
    - Conventional gestures
    - Formal communication system
  - Visual supports