Legislative Research Commission's Study Committee on the Common Core State Standards

DECEMBER 17, 2013

- General Assembly Statutes – State Standards
- Focus of Common Core Standards
- History
- Myths

- NCGS 115C-105.40 – Standard Course of Study Aligned with National Standards
- NCGS 115C-81(b) – Standards-based Core Curriculum and Set of Competencies for Each Grade Level

- 115C-105.40 – Student Academic Performance Standards
- Rigorous student academic performance standards – K-12
- Alignment with National Assessment of Education Progress (NAEP)

The Common Core State Standards

- What students should know and be able to do in
  - ❑ Mathematics
  - ❑ English Language Arts

- They focus on
  - ❑ Student Success
  - ❑ Options upon graduation

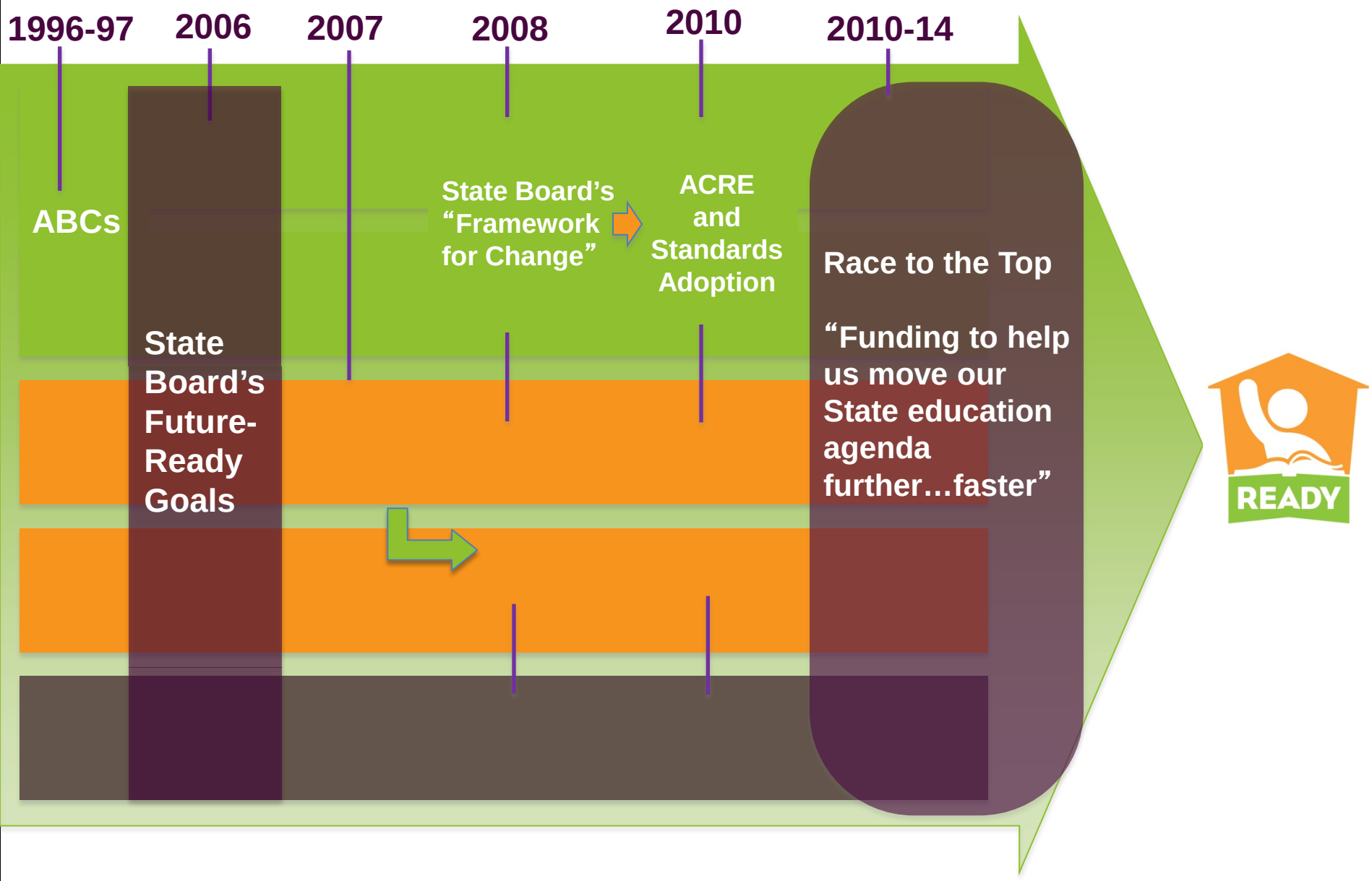
- Mathematics
  1. Addition
  2. Subtraction
  3. Multiplication
  4. Fractions
  5. Percentages
  6. Decimals
  7. Algebra
  8. Geometry
  9. Statistics

- How and When

- English Language Arts
  - ❑ Reading
  - ❑ Writing
  - ❑ Speaking
  - ❑ Listening

- Classics and Informational Text

How Did We Get Here?



NCGS 115C-81 — Standards to Ensure Student Success

English Language Arts
Mathematics

Common Core

Science
Social Studies
World Languages
Arts Education
Information and Technology
Healthful Living
Guidance
Occupational Course of Study
English Language Development
Career and Technical Education

Essential Standards

Standard Course of Study Adopted in 2010

Alignment for Career and College Ready

Common Core Analysis

"…our analysis shows that US students often struggle with tasks that are cognitively demanding and which require complex mathematical thinking. These are the kinds of skills valued most by the Common Core State Standards for Mathematics (CCSSM), a most valued and valuable tool already adopted by most states."

– Angel Gurria, OECD Secretary-General

Endorsements

- Community College Board
- University Board of Governors
- NC Chamber
- NC Business Committee for Education
- Governor McCrory
- Educators

Development Process

- College and career readiness standards developed in summer 2009
- Multiple rounds of feedback from states, teachers, and feedback group and validation committee
- English language learners and students with disabilities students with disabilities
- Public comment period on K-12 standards

Standards Feedback

All Standards

- Thousands of North Carolina educators and stakeholders involved

Common Core

- Feedback on the English Language Arts and Mathematics Essential Standards informed the feedback given to Common Core writers

SBE Approval

June 3, 2010 – SBE Adoption of the Common Core Standards

www.corestandards.org

Myths

- Federal mandate
- Data collection
- Costs
- Rigor

School and Teacher Support 2009-2013

Professional Development

- 60-80 hours
- Summer Institutes
- Online resources
- Webinars
- Regional meetings

Online Resources

40 Ways to Read Like a Detective: Supporting Text-Centered Instruction

English Language Arts Section

North Carolina Department of Public Instruction

Online Resources

North Carolina High School Mathematics
Math I Unpacking Document

The Real Number System	**N-RN**
Common Core Cluster	
Extend the properties of exponents to rational exponents.	
Common Core Standard	**Unpacking** What does this standard mean that a student will know and be able to do?
N-RN.1 Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. *For example, we define* $5^{\frac{1}{3}}$ *to be the cube root of 5 because we want* $\left(5^{\frac{1}{3}}\right)^3 = 5^{\frac{1}{3}\cdot 3}$ *to hold, so* $\left(5^{\frac{1}{3}}\right)^3$ *must equal 5.*	**N-RN.1** In order to understand the meaning of rational exponents, students can initially investigate them by considering a pattern such as: $2^4 = 16$ $2^2 = 4$ $2^1 = 2$ $2^{\frac{1}{2}} = ?$ What is the pattern for the exponents? They are reduced by a factor of $\frac{1}{2}$ each time. What is the pattern of the simplified values? Each successive value is the square root of the previous value. If we continue this pattern, then $2^{\frac{1}{2}} = \sqrt{2}$. Once the meaning of a rational exponent (with a numerator of 1) is established, students can verify that the properties of integer exponents hold for rational exponents as well. For example, $3^{\frac{1}{2}} \cdot 3^{\frac{1}{2}} = 3^{\frac{1}{2}+\frac{1}{2}} = 3^1 = 3$ since $3^{\frac{1}{2}} \cdot 3^{\frac{1}{2}} = \sqrt{3} \cdot \sqrt{3} = \sqrt{9} = 3$ $\left(5^{\frac{1}{3}}\right)^3 = 5^{\frac{1}{3}\cdot 3} = 5^1 = 5$ since $\left(5^{\frac{1}{3}}\right)^3 = \left(\sqrt[3]{5}\right)^3 = 5$ $\frac{x^{\frac{1}{5}}}{x^{\frac{1}{5}}} = x^{\frac{1}{5}-\frac{1}{5}} = x^0 = 1$ Ex. Use an example to show why $\frac{x^m}{x^n} = x^{m-n}$ holds true for expressions involving rational exponents like $\frac{1}{2}$ or $\frac{1}{5}$.

Differences in Standards

English Language Arts

1. Building knowledge through content-rich nonfiction and informational texts
2. Reading and writing grounded in evidence from text
3. Regular practice with complex text and its academic vocabulary

Differences in Standards

Math

1. Focus strongly where the Standards focus
2. Coherence: think across grades and link to major topics within grades
3. Rigor: require conceptual understanding, procedural skill and fluency, and application with intensity

Alignment with Higher Education

- Decrease remediation rate for high school graduates who attend community colleges
- Core to College Grant

Third Grade Math

Cali had 60 pounds of sand. The sand was measured equally into bags. How many bags of sand did Cali have?

Eighth Grade Math

Bill is going to order new jerseys for his baseball team. The jerseys will have the team logo printed on the front. Bill asks 2 local companies to give him a price.

1. 'Print It' will charge $21.50 each for the jerseys.

Using n for the number of jerseys ordered and c for the total cost in dollars, write an equation to show the total cost of jerseys from 'Print It.'

Eighth Grade Math

2. ‘Top Print’ has a set-up cost of $70 and then charges $18 for each jersey.

Using n for the number of jerseys ordered and c for the total cost in dollars, write an equation to show the total cost of jerseys from ‘Top Print.’

Eighth Grade Math

3. Use the two equations from questions 1 and 2 to figure out how many jerseys Bill would need to order for the price from ‘Top Print’ to be less than from ‘Print It.’

Fourth Grade ELA

The following is the beginning of a story that a student is writing for a class assignment. The story needs more details and an ending. Read the beginning of the story and then complete the task that follows.

Oliver's Big Splash

Oliver was a dog that lived in a small town near a lake. He loved to play outside. Oliver liked to play fetch, but his favorite thing to do was to chase leaves. He loved chasing leaves so much that his favorite time of year was fall when the leaves fell off the trees.

Fourth Grade ELA

One beautiful fall day, Oliver and his owner, Jeff, went for a walk around the lake. They were enjoying the sunshine and the lake when suddenly a dragonfly flew past. For a moment, Oliver forgot where he and Jeff were and what they were doing. All of a sudden there was a big splash.

Write an ending for the story by adding details to tell what happens next.

Sixth Grade ELA

Read the text and complete the task that follows it.

Cell Phones in School—Yes or No?

Cell phones are convenient and fun to have. However, there are arguments about whether or not they belong in schools. Parents, students, and teachers all have different points of view. Some say that to forbid them completely is to ignore some of the educational advantages of having cell phones in the classroom. On the other hand, cell phones can interrupt classroom activities and some uses are definitely unacceptable. Parents, students, and teachers need to think carefully about the effects of having cell phones in school.

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Sixth Grade ELA

Some of the reasons to support cell phones in school are as follows:

- Students can take pictures of class projects to e-mail or show to parents.
- Students can text-message missed assignments to friends that are absent.
- Many cell phones have calculators or Internet access that could be used for assignments.
- If students are slow to copy notes from the board, they can take pictures of the missed notes and view them later.
- During study halls, students can listen to music through cell phones.
- Parents can get in touch with their children and know where they are at all times.
- Students can contact parents in case of emergencies.

Sixth Grade ELA

Some of the reasons to forbid cell phones in school are as follows:

•Students might send test answers to friends or use the Internet to cheat during an exam.

•Students might record teachers or other students without their knowledge. No one wants to be recorded without giving consent.

•Cell phones can interrupt classroom activities.

•Cell phones can be used to text during class as a way of passing notes and wasting time.

Sixth Grade ELA

Based on what you read in the text, do you think cell phones should be allowed in schools? Using the lists provided in the text, write a paragraph arguing why your position is more reasonable than the opposing position.

High School ELA

Gettysburg Address Example

Example on Handout (Packet)

High School Math

Price Reductions Example

Example on Handout (One Page)

Questions?