MAJOR SHIFTS REQUIRED BY THE COMMON CORE STATE STANDARDS

SANDRA M. ALBERTI, ED.D.
STUDENT ACHIEVEMENT PARTNERS
Student Achievement Partners – Principles

WE HOLD NO INTELLECTUAL PROPERTY

Our goal is to create and disseminate high quality materials as widely as possible. All resources that we create are open source and available at no cost. We encourage states, districts, schools, and teachers to take our resources and make them their own.

WE DO NOT COMPETE FOR STATE, DISTRICT OR FEDERAL CONTRACTS

Ensuring that states and districts have excellent materials for teachers and students is a top priority. We do not compete for these contracts because we work with our partners to develop high quality RFPs that support the Core Standards.

WE DO NOT ACCEPT MONEY FROM PUBLISHERS

We work with states and districts to obtain the best materials for teachers and students. We are able to independently advise our partners because we have no financial interests with any publisher of education materials. Our independence is essential to our work.
Why are we doing this? We have had standards.

Before Common Core State Standards we had standards, but rarely did we have standards-based instruction.

✓ Long lists of broad, vague statements
✓ Mysterious assessments
✓ Coverage mentality
✓ Focused on teacher behaviors – “the inputs”
Results

Previous state standards did not improve student achievement.

✓ Gaps in achievement
✓ Gaps in expectations
✓ NAEP results
✓ ACT 2012 data – College Readiness Benchmark
  - All 4 subject areas: 25%
  - 3 subject areas: 15%
  - 2 subject areas: 17%
  - 1 subject area: 15%
  - None: 28%
✓ College remediation rates
What are our expectations?

Based on the beliefs that

• A quality education is a key factor in providing all children with opportunities for their future

• It is not enough to simply complete school, or receive a credential – students need critical knowledge and skills

• This is not a 12th grade or high school issue. It is an education system issue

Quality implementation of the Common Core State Standards is a necessary condition for providing all students with the opportunities to be successful after high school.
Principles of the CCSS

Fewer - Clearer - Higher

• Aligned to requirements for college and career readiness

• Based on evidence

• Honest about time
What implications do the CCSS have on what I teach?

What implications do the CCSS have on how I teach?
ELA/Literacy: 3 shifts

1. Building knowledge through content-rich nonfiction

2. Reading, writing, and speaking grounded in evidence from text, both literary and informational
### Non-Examples and Examples

<table>
<thead>
<tr>
<th>Not Text-Dependent</th>
<th>Text-Dependent</th>
</tr>
</thead>
<tbody>
<tr>
<td>In “Casey at the Bat,” Casey strikes out. Describe a time when you failed at something.</td>
<td>What makes Casey’s experiences at bat humorous?</td>
</tr>
<tr>
<td>In “Letter from a Birmingham Jail,” Dr. King discusses nonviolent protest. Discuss, in writing, a time when you wanted to fight against something that you felt was unfair.</td>
<td>What can you infer from King’s letter about the letter that he received?</td>
</tr>
<tr>
<td>In “The Gettysburg Address” Lincoln says the nation is dedicated to the proposition that all men are created equal. Why is equality an important value to promote?</td>
<td>“The Gettysburg Address” mentions the year 1776. According to Lincoln’s speech, why is this year significant to the events described in the speech?</td>
</tr>
</tbody>
</table>
James Watson used time away from his laboratory and a set of models similar to preschool toys to help him solve the puzzle of DNA. In an essay discuss how play and relaxation help promote clear thinking and problem solving.
ELA/Literacy: 3 shifts

1. **Building knowledge** through **content-rich nonfiction**

2. Reading, writing, and speaking grounded in **evidence from text**, both literary and informational

3. Regular practice with **complex text** and its **academic language**
Text Complexity

- Appendix A
- Supplement to Appendix A
- Appendix B

CCSS address *what* and *how* students read.
Mathematics: 3 shifts

1. **Focus:** Focus strongly where the standards focus.
Traditional U.S. Approach

<table>
<thead>
<tr>
<th></th>
<th>K</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number and</td>
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<tr>
<td>Operations</td>
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<td>Measurement</td>
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<td>and Geometry</td>
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<td>Algebra and</td>
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<tr>
<td>Functions</td>
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<tr>
<td>Statistics and</td>
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<tr>
<td>Probability</td>
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</table>
Focusing attention within Number and Operations

Operations and Algebraic Thinking → Expressions and Equations → Algebra

Number and Operations—Base Ten → The Number System → Algebra

Number and Operations—Fractions → The Number System → Algebra

K 1 2 3 4 5 6 7 8 High School
## Priorities in Mathematics

<table>
<thead>
<tr>
<th>Grade</th>
<th>Focus Areas in Support of Rich Instruction and Expectations of Fluency and Conceptual Understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>K–2</td>
<td>Addition and subtraction - concepts, skills, and problem solving and place value</td>
</tr>
<tr>
<td>3–5</td>
<td>Multiplication and division of whole numbers and fractions – concepts, skills, and problem solving</td>
</tr>
<tr>
<td>6</td>
<td>Ratios and proportional reasoning; early expressions and equations</td>
</tr>
<tr>
<td>7</td>
<td>Ratios and proportional reasoning; arithmetic of rational numbers</td>
</tr>
<tr>
<td>8</td>
<td>Linear algebra, linear functions</td>
</tr>
</tbody>
</table>
Mathematics: 3 shifts

1. **Focus:** Focus strongly where the standards focus.

2. **Coherence:** Think across grades, and link to major topics
**Coherence: Link** to major topics within grades

**Example: data representation**

Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. **Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs.** **For example, draw a bar graph in which each square in the bar graph might represent 5 pets.**

Standard 3.MD.3
Mathematics: 3 shifts

1. **Focus**: Focus strongly where the standards focus.

2. **Coherence**: Think across grades, and link to major topics

3. **Rigor**: In major topics, pursue **conceptual understanding**, procedural skill and **fluency**, and **application**
Conceptual understanding of place value...?
Conceptual Understanding of Place Value

1 hundred + 4 tens = _______

4 tens + 1 hundred = _______

14 tens = \underline{10} \text{ tens} + \underline{____} \text{ tens}

= ______ hundred + \underline{4} \text{ tens}

90 + 300 + 4 = _______
Conceptual Understanding of Fractions

Write a number that is greater than $\frac{1}{5}$ and less than $\frac{1}{4}$: __________

Hint: find equivalent fractions for $\frac{1}{5}$ and $\frac{1}{4}$ with denominators 40 or 100.
## Required Fluencies in K-6

<table>
<thead>
<tr>
<th>Grade</th>
<th>Standard</th>
<th>Required Fluency</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>K.OA.5</td>
<td>Add/subtract within 5</td>
</tr>
<tr>
<td>1</td>
<td>1.OA.6</td>
<td>Add/subtract within 10</td>
</tr>
</tbody>
</table>
| 2     | 2.OA.2   | Add/subtract within 20 (know single-digit sums from memory)  
   | 2.NBT.5  | Add/subtract within 100 |
| 3     | 3.OA.7   | Multiply/divide within 100 (know single-digit products from memory)  
   | 3.NBT.2  | Add/subtract within 1000 |
| 4     | 4.NBT.4  | Add/subtract within 1,000,000 |
| 5     | 5.NBT.5  | Multi-digit multiplication |
| 6     | 6.NS.2,3 | Multi-digit division  
   |         | Multi-digit decimal operations |
Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.
Power of the Shifts

• **Know** them – both the *what* and the *why*

• **Internalize** them

• **Apply** them to your decisions about
  - ✓ Time
  - ✓ Energy
  - ✓ Resources
  - ✓ Assessments
  - ✓ Conversations with parents, students, colleagues

• **Continue to engage** with them:
  - ✓ [www.achievethecore.org](http://www.achievethecore.org)
  - ✓ Follow us on Twitter: @achievethecore
Key Characteristics of Leading Organizations

✔ Systems Thinking

✔ Learning Organizations

✔ Know – **Really Know** – the expectations
Sandra M. Alberti
Student Achievement Partners
salberti@studentsachieve.net
www.achievethecore.org
Twitter: @achievethecore