



**Software & Information  
Industry Association**  
BUILDING THE DIGITAL ECONOMY

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## Common Core State Standards: Curriculum Alignment & Review Criteria

April 13, 2012



# Announcements

- This webcast is being recorded. The audio-visual file and presentation slides will be available on the SIIA Education Division home page.  
<http://bit.ly/SIIAWebinarsEdTech>
- Participation requires Web and Phone access. Dial 866-740-1260, 7894444#
- Submit questions at any time via Chat feature.
- SIIA Resources & Events:
  - SIIA Ed Tech Industry Summit, May 6-8, SF – [www.sii.net/etis](http://www.sii.net/etis)
  - Software Publishers Guide to E-rate: Report <https://www.sii.net/estore/> and April 26 Webinar <https://www.sii.net/events/>
  - SIIA Vision K20 EDUCATOR Survey <http://www.sii.net/visionk20/survey/>
  - SIIA Market Surveys [www.sii.net/education/marketsurvey](http://www.sii.net/education/marketsurvey)
  - SIIA Primer on K-20 Education Interoperability Standards  
<http://bit.ly/A7E7HI>
  - SIIA Webcast Archive: CCSSO/Gates/Carnegie Shared Learning Infrastructure: Summary & Implications (September 21, 2011)  
<http://bit.ly/yhCXak>
  - SIIA CCSS October 2011 Webinar Archive: Common Core State Standards Publisher Guidance w/David Coleman <http://bit.ly/IQXhAi>



# Speakers

- Nick Wilkinson, Technical Director, Student Achievement Partners
- Moderator: Mark Schneiderman, SIIA

# **Common Core State Standards Curriculum Alignment and Review Criteria**

Nick Wilkinson  
Student Achievement Partners  
April 13, 2012

# Principles of the standards

- Aligned to requirements for **Career and College Readiness**
- Based on **Evidence**
- **Honest** about time

**Fewer – Clearer – Higher**

# ELA/Literacy

## Key shifts

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

# ELA/Literacy

## **Range and quality of texts**

- In K-5, a 50/50 balance between literary and informational text.
- Coherent succession of texts to build coherent knowledge.
- In 6-12, a substantial quantity of literary nonfiction, across content areas including science and history/social studies.

# ELA/Literacy

## **Range and quality of texts**

- Texts should be worthy of reading and re-reading.
- Anchor texts for careful examination help students when reading about a topic broadly.



# ELA/Literacy

## **Text-dependent questions**

- Students should draw evidence from the text in front of them.
- Create high-quality questions and tasks asking for inferences based on the text, rather than asking for directly obvious facts.
- Questions must be worth answering.

# ELA/Literacy

## **Text complexity and vocabulary**

- College and Career Readiness means being able to independently read sufficiently complex text, comprehend the text and apply the understandings gained from it.
- The standards focus on academic vocabulary, rather than domain-specific vocabulary.

# Mathematics

## Key shifts

1. **Focus** strongly where the standards focus
1. **Coherence: Think** across grades, and **link** to major topics within grades
1. **Rigor:** In major topics pursue **conceptual understanding**, procedural skill and **fluency**, and **application** with equal intensity

# Mathematics

## Traditional U.S. approach



# Mathematics – Focusing attention within Number and Operations

Operations and Algebraic Thinking

Expressions and Equations

Number and Operations – Base Ten

Number and Operations – Fractions

The Number System

Algebra

K

1

2

3

4

5

6

7

8

High School

# Mathematics

## Priorities in K-8

Grade	Priorities in Support of Rich Instruction and Expectations of Fluency and Conceptual Understanding
K-2	Addition and subtraction – concepts, skills and problem solving
3-5	Multiplication and division of whole numbers and fractions – concepts, skills and problem solving
6	Ratios and proportional relationships; early expressions and equations
7	Ratios and proportional relationships; arithmetic of rational numbers
8	Linear algebra

# Mathematics

## Required fluencies in K-6

Grade	Standard	Required Fluency
K	K.OA.5	Add/subtract within 5
1	1.OA.6	Add/subtract within 10
2	2.OA.2 2.NBT.5	Add/subtract within 20 Add/subtract within 100
3	3.OA.7 S.NBT.2	Multiply/divide within 100 Add/subtract within 1,000
4	4.NBT.4	Add/subtract within 1,000,000
5	5.NBT.5	Multi-digit multiplication
6	6.NS.2 6.NS.3	Multi-digit division Multi-digit decimal operations

# Mathematics

## Content emphasis by cluster

- Not all of the content in a given grade is emphasized equally in the standards.
- Find content emphases in "Math Shifts, Key Fluencies, and Major Work of the Grade" at [achievethecore.org](http://achievethecore.org).

**Content Emphases by Cluster--Kindergarten\***

Not all of the content in a given grade is emphasized equally in the standards. Some clusters require greater emphasis than the others based on the depth of the ideas, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. In addition, an intense focus on the most critical material at each grade allows depth in learning, which is carried out through the Standards for Mathematical Practice.

To say that some things have greater emphasis is not to say that anything in the standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. The following table identifies the Major Clusters, Additional Clusters, and Supporting Clusters for this grade.

Key: ■ Major Clusters; ■ Supporting Clusters; ● Additional Clusters

Counting and Cardinality
■ Know number names and the count sequence.
■ Count to tell the number of objects.
■ Compare numbers.
Operations and Algebraic Thinking
■ Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
Number and Operations in Base Ten
■ Work with numbers 11-19 to gain foundations for place value.
Measurement and Data
● Describe and compare measurable attributes.
■ Classify objects and count the number of objects in categories.
Geometry
● Identify and describe shapes.
● Analyze, compare, create, and compose shapes.

\* Emphases are given at the cluster level. Refer to the Common Core State Standards for Mathematics for the specific standards that fall within each cluster.



# Attributes of CCSS-aligned materials

- Resources support, rather than conflict, with focus, coherence and rigor in mathematics.
- Reading and mathematical practice are unavoidable aspects of the assignment.
- Technology encourages concentration on, rather than distraction from, the task at hand.

# Attributes of CCSS-aligned materials

- Questions are of a high quality, generally text dependent and text specific. They encourage students to dig deeper in the text.
- Materials make math make sense and don't use tricks or mnemonics.
- Follow the range requirements of the ELA/Literacy standards.

# **CCSS Alignment and coordination**

- Start with the standards, don't just look for connections.
- Coordinate efforts. PARCC Model Content Frameworks and Publishers' Criteria, as examples.

# Hewlett Foundation**ASAP:** **Automated Essay Scoring**

- In addition to commercial vendors, \$100k for cash prizes in open contest.
- Currently 200 players and 1703 entries.
- <http://www.kaggle.com/c/ASAP-AES>

# CCSS

## **Identifiers and XML representation**

- Draft identifiers on [corestandards.org](http://corestandards.org) with feedback form.
- Three sets of identifiers reflect the purposeful architecture to the standards.
- XML and metadata reflect intent and language of the adopted standards and go no further.

# **Common Core State Standards**

Resources: [achievethecore.org](http://achievethecore.org)