



Lincoln Public Schools

Mary L. Sterling, Ph.D.
Assistant Superintendent of Schools

To: School Committee
From: Mary Sterling
Re: Report on Alignment to National Common Core Standards through New State Standards
Date: May 1, 2012

In 2010 the Massachusetts Department of Elementary and Secondary Education (DESE) decided to adopt the national Common Core standards in English language arts (ELA) and mathematics. Our state is one of 46 states committed to integrating the national standards into their own state standards. Massachusetts revised the state "curriculum frameworks" in ELA and mathematics to incorporate the national standards and distributed the new frameworks to districts in August, 2011.

This report provides information on the following questions:

- In what ways do the new standards differ from the previous state standards?
- How will the changes in standards impact the state assessments (MCAS)?
- How will the changes in state standards impact our Lincoln Learning Expectations, instruction and assessment?
- How will these changes affect our standards-based report cards?
- What steps have been taken since August to adjust to new standards?
- What steps are ahead and how is the district planning for full implementation of the new state curriculum frameworks in ELA and mathematics?

The New Massachusetts 2011 Curriculum Frameworks

The new state frameworks provide a high quality, comprehensive progression of learning expectations in English language arts and mathematics designed to prepare students for college and career success. The standards define the knowledge and skills students should have in their PreK-12 education and yet leave room for teachers to determine how the learning goals should be achieved. Overall, the adoption of the national Common Core standards in Massachusetts does not represent a very large change because the previous state curriculum frameworks were of high caliber and were referenced in the development of the national standards. In a July 2010 report¹, the DESE compared the national Common Core standards with the standards in the working drafts for the new Massachusetts curriculum frameworks. The report stated that there was a 90% overlap between the national standards and drafts of the new state documents in both subjects. The two sets of standards differed, however, in their overall grade coverage and in their level of detail. The working committees who developed the

¹ <http://www.doe.mass.edu/commoncore/?section=comparison>

2011 Massachusetts curriculum frameworks ensured that the national standards were fully integrated into the new state documents, and that the new frameworks built upon previous state standards in a coherent manner.

English Language Arts

The former Massachusetts standards in ELA have often been cited as some of the most rigorous in the nation. Lincoln has been fully aligned with those standards for some time; our student results in the middle school years on state testing in reading and writing give evidence of considerable strength. The curriculum components of reading, writing and language are well articulated and clearly taught in all of our grade levels. Therefore, the revisions we must make are not extensive.

However, there are three areas in the 2011 state ELA framework that deserve attention and new emphasis. First, the new standards in writing are more specific about three types of writing: narrative, informational and opinion. We will need to adjust the balance of these types so that students in every grade gain expertise in all three. Second, use of digital resources is embedded in the ELA standards in all grades as part of student learning in reading and writing. We will need to make non-print media available to students with greater consistency and require that students use digital media in presenting their knowledge. Third, the new standards require more focus on informational reading and writing, especially related to social studies, science and engineering. We have already begun to purchase more non-fiction print and digital resources to connect to our science and social studies units and we have offered summer work sessions, K-8, for teachers to learn more about the interdisciplinary connections. Our ELA Lincoln Learning Expectations will need to be rewritten to align with standards in the new framework. In addition, the standards-based report card descriptors must be revised to reflect any changes in emphasis. Overall, the level of change is not extensive but requires some adjustment.

Mathematics

The earlier mathematics framework in Massachusetts articulated high standards and detailed expectations at each grade level. As with ELA, they are considered some of the most rigorous standards in the country and Massachusetts students consistently do well on the National Assessment of Educational Progress (NAEP). Our mathematics programs PreK-5 and 6-8 are fully aligned with the former mathematics standards and our teachers use these programs with fidelity.

The new 2011 mathematics standards are characterized by fewer standards per grade level with more depth. They are organized to provide better clarity, focus, coherence, and rigor in an interconnected network of concepts and skills. Although the new organization has merit, it presents some challenges in connecting with our current curriculum at each grade level. Our *Everyday Mathematics* program in grades PreK-5 and the *Impact Mathematics* program in grades 6-8 will both need some adjustment to ensure full alignment with the new state mathematics framework. From the publishers of these programs, we have received some documents for alignment to national standards but they do not provide adequate guidance for the adjustments that must be made for full implementation of the new Massachusetts framework. Each math program is tightly and coherently organized. Therefore, shifts in emphasis and changes at different grade levels require careful study and planning. For example, we have already completed a preliminary document to show which skills and math topics have been added to each grade level, which ones have been taken out, and which one have moved to another grade level. At every grade, PreK-12, the new state framework highlights eight “Standards of Mathematical Practice,” which emphasize habits of mind that foster mathematical thinking and learning. Math

specialists have become well-acquainted with these standards of practice and are preparing to assist teachers in guiding students to use them in their math learning. Once we have developed an approach to re-calibrating the key math concepts and skills for each grade, the Lincoln Learning Expectations in mathematics will need to be rewritten. Also, our standards-based report card descriptors in mathematics must be revised to reflect the changes that will be necessary at every grade level.

State Assessment Plans and Timeline

As standards change, so assessment must be adjusted. The process of planning adjustments to state testing has been underway for several years and the DESE has communicated a partial timeline for the changes ahead. In the left column of the chart below, the development of new standards and curriculum is outlined; plans for state assessment are summarized in the right column. The ELA and mathematics MCAS test items for spring, 2012, are all based on the state frameworks developed prior to 2011. In April, 2013, the state anticipates that all ELA test items will be based on the new 2011 framework. The mathematics test items for spring, 2013 will be based on topics that are common to both the “old” and 2011 frameworks; a list of assessable items has been provided. By 2014, the state expects that all districts will have fully implemented the new frameworks; state testing will be based exclusively on the 2011 frameworks.

The change in state testing involves more than adjustments in test items. Massachusetts has joined a network of 23 other states to access the curriculum design and assessment services of The Partnership for Assessment of Readiness for College and Career Readiness (PARCC). PARCC has begun developing and field-testing several types of high quality formative and summative assessments based on the national common core standards. The end-of-year assessments which Massachusetts may select to replace current state tests will be comprised of computer-based test items. PARCC’s commitment to the use of technology is intended to provide students with greater access and engagement, and to offer states and districts timely scoring and return of results. Districts will need to ensure that all devices that students use for the assessments are configured with appropriate specifications for hardware, operating system, and networking – and are able to be “locked down.” PARCC is working with participating states to prepare for use of their assessments through access to documents, webinars, an online warehouse, and professional development modules. The timeline for availability of PARCC assessments has not yet been firmly established.

Massachusetts Transition to National Common Core Standards in ELA and Mathematics

	Standards	MCAS
2010 - 2011	<u>August</u> : MA Board of Education adopts the Common Core State Standards.	
	<u>January</u> : "Crosswalk" documents made available showing connections between current ELA and math curriculum frameworks and newly adopted core standards.	
	<u>March</u> : New Massachusetts Curriculum Framework published for ELA and math, incorporating the Common Core State Standards.	
2011 - 2012	<u>August</u> : Copies of new ELA and math Curriculum Frameworks shipped to all districts for all teachers.	<p>Spring 2012: The ELA MCAS Composition tests will be based on current frameworks and will assess narrative writing at grade 4; expository writing at grade 7. The Math MCAS tests will focus on standards common to former and new Frameworks.</p> <p><i>See DESE list of standards that are assessable.</i></p>
	<p><u>September</u>: Districts begin transition to the new Massachusetts Curriculum Frameworks – “partial implementation.”</p> <p>Science and Engineering revision to frameworks begins</p>	
2012 - 2013	<p>All districts are expected to be using the new ELA and Mathematics Massachusetts Frameworks at “near full implementation.”</p> <p>Science and Engineering revision to frameworks continues</p>	<p>Spring 2013: ELA will be based on the new 2011 Massachusetts frameworks. Long composition at grade 4 and 7 will include all modes in 2011 Frameworks with emphasis on writing in response to text.</p> <p>Math Standards from the 2011 Mathematics Curriculum Framework will be assessed. Focus on standards common to former and new Frameworks.</p> <p><i>See DESE list of standards that are assessable.</i></p>
2013 - 2014	<p>All districts expected to be “fully aligned” to the new ELA and mathematics frameworks.</p> <p>Science and Engineering frameworks may be complete</p>	<p>Spring 2014: for grades 3-8, ELA and mathematics assessment will be based exclusively on new 2011 frameworks.</p>

2011-2012 in Lincoln: Steps toward Alignment to New State Standards

With the arrival of the new state curriculum framework documents last August, Lincoln faculty and administration began the process of becoming acquainted with the frameworks and planning for full implementation by 2013-2014. During the fall, administrators, math specialists and literacy specialists were introduced to the frameworks by our curriculum leaders, Ellen Metzger in mathematics and Judy Merra in English language arts. Specialists engaged in professional development and worked collaboratively to plan an introduction and distribution of documents to the whole faculty in January. In both introductory sessions, faculty members were asked for questions and feedback about the kind of work and professional development that would be needed to align our own curriculum and practices with the new state expectations.

Administrators and faculty quickly understood that aligning to 2011 curriculum frameworks had implications for our new report cards, which were developed to align with earlier versions of state frameworks. After some consideration and input from grade level team leaders, we decided on a three phase approach:

1. Develop report cards for grades 6, 7 & 8 to align with new standards in ELA and mathematics, ready to be used in 2012-13. This development is almost complete and will be finalized in early May.
2. Revise K-5 ELA report card descriptors to align with new ELA frameworks, ready to be used in 2012-13. This revision is in process and will be finalized by June 1st.
3. Delay revision of K-5 Math report card descriptors to allow for a more comprehensive process of professional development and adjustments to math curriculum during the 2012-13 school year. In the spring of 2013, the revision of K-5 math descriptors will be completed, ready to be used in 2013-14.

Professional development has been and will be organized to provide teachers with time and guidance to make changes in curriculum, instruction, and assessment in the two subject areas. This year, we have set aside some Wednesday afternoon release days to introduce and follow up on the shift to the new Massachusetts frameworks. Summer work projects have been planned so that the district resources are focused on professional development for teachers in key areas.

2012-13 in Lincoln: The Steps Ahead

Just after school lets out in June, groups of teachers will be involved in professional development to focus on the adjustment to new standards and again in August, summer work sessions will be held for this purpose. In the following key projects, we are fortunate to have our own literacy and math leaders available to facilitate the sessions:

- Middle school mathematics: teachers and math specialists in grades 6, 7, and 8 will spend two days reviewing the current mathematics curriculum in Lincoln, and making adjustments to align to the new standards, facilitated by math content specialist, Ellen Metzger. The adjustments will focus on the first few months of the year in both instruction and assessment; the group will continue to work on alignment throughout the year during their department meetings.

- Middle school science and social studies: in a joint project with the Wayland Middle School, some of our teachers of science, social studies, and special education will work with Judy Merra and the social studies leader in Wayland to focus on informational reading in the content areas at grades 6, 7, and 8. This focus responds to the new ELA framework, which calls for the integration of informational reading and writing in science and social studies.
- ELA Lincoln Learning Expectations revisions: a K-8 team of teachers will meet with Judy Merra and me to begin the process of rewriting our Lincoln Expectations to align with the new state framework. The draft produced the summer team will be shared with teachers at each grade level.
- Grades K-2 ELA informational reading and writing: a group of K-2 teachers will meet with literacy specialist, Gwen Blumberg, to work on developing informational reading and writing instructional approaches connected to current science and social studies curriculum.
- Grades 3-5 ELA informational reading and writing: a group of teachers who teach grade 3-5 will meet with ELA content specialist Judy Merra to work on developing informational reading and writing instructional approaches connected to current science and social studies curriculum.
- Grades K-5 Math "Standards of Mathematical Practice" and *Everyday Math*: K-5 teachers will work with facilitators Ellen Metzger and Elaine Herzog, to learn more about the Standards of Mathematical Practice in the new math state framework and identify opportunities in the *Everyday Math* program for students to demonstrate these standards. They will also work in grade level groups on the transitional content adjustments needed for full alignment with the new framework.

During the school year, department and team meetings at grades 6-8 will build on the work of the summer to implement features of the new frameworks in instruction, assessment and reporting. At grades K-5, the main focus for grade level and district meetings will be on mathematics with some emphasis on key areas in ELA, especially media literacy and interdisciplinary connections to informational reading and writing. We expect that students will be prepared to respond to new ELA items on the MCAS tests in March and April, 2013. Furthermore, we will work to ensure that teachers are clear about instruction in the areas of mathematics designated for testing in May, 2013. At the pre-school level, there are some new standards to consider related to our current ELA and mathematics program. The preschool coordinator has reviewed potential revisions and will be working with the preschool teachers on adjustments during the coming school year.

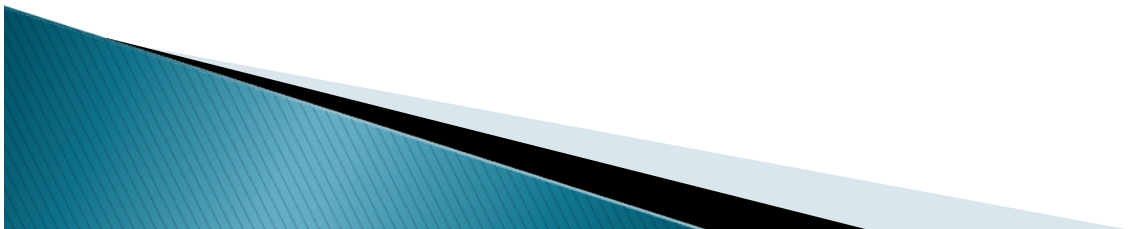
Budget Implications

Implementing new curriculum frameworks in both ELA and mathematics has some implications for budget decision-making that we have already anticipated. Recently, the School Committee agreed to increase the amount of time for the math content specialist in 2012-13 to .4 FTE in recognition of the need for planning and leadership to align with the new standards. Furthermore, improvement initiatives were proposed and accepted to support the summer 2012 professional development in math and ELA. During this school year, our literacy specialists and ELA content specialist have prioritized ordering of informational texts in anticipation of the increased focus on informational reading and writing in K-8 science and social studies.

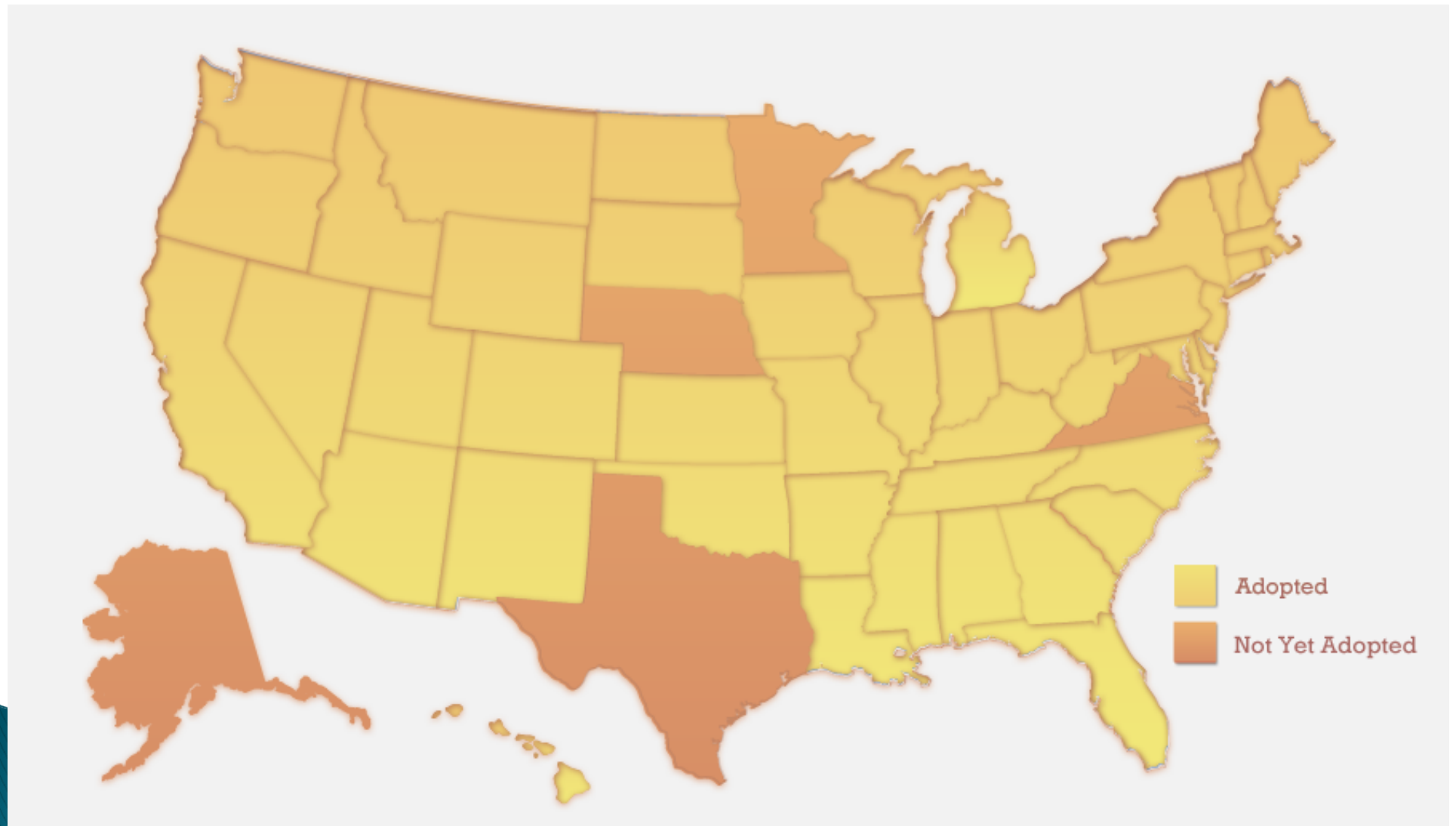
Looking ahead, the district will need more resources for learners who struggle in both math and ELA: we have designated specific funds for specialized materials. For student success in ELA and mathematics, we must continue to monitor and upgrade student access to technology in order to use digital resources across the curriculum. As we plan for the full implementation of the new math framework, we may need to supplement our current math programs with a purchase of additional materials on topics for which the new standards require more depth. Finally, we may need to consider an increase in amount of time for science leadership in 2013-14 to lead the examination of the anticipated new state science framework and recommend possible adjustments to our PreK-8 science program.

National Common Core Standards:

Alignment through the
2011 Massachusetts
Curriculum Frameworks

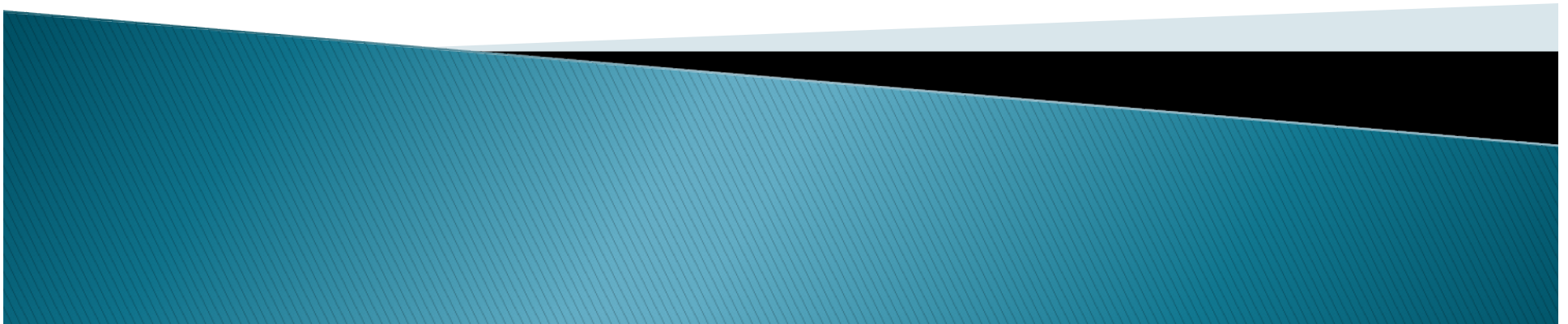


National Standards Adoption



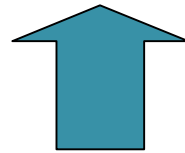
English Language Arts Standards:

Massachusetts 2011

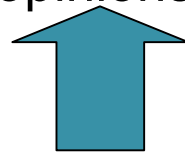


CCR Anchor Standards: ELA

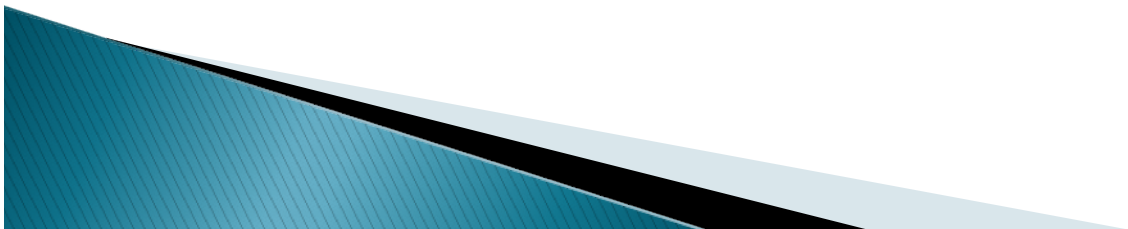
- ▶ **CCR Anchor Standard 2:** Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.



- ▶ **Grade 6:** Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.



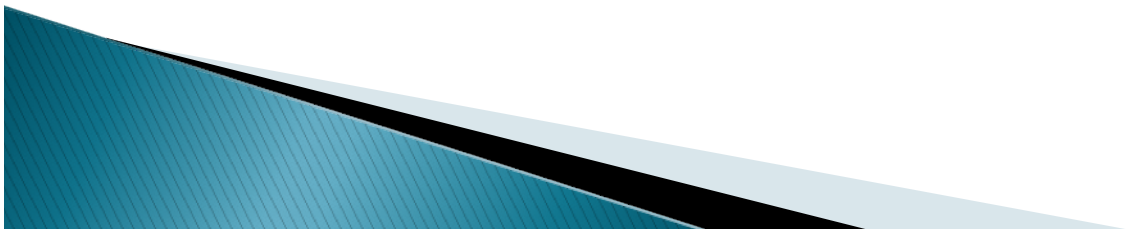
- ▶ **Kindergarten:** With prompting and support, identify the main topic and retell key details of a text.



Writing Standards

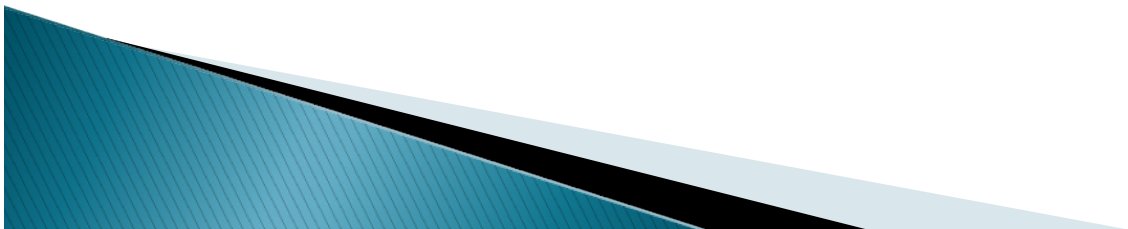
Take a look at page 27:

- **Standard 1:** Writing opinion pieces
- **Standard 2:** Writing informative/explanatory texts
- **Standard 3:** Writing narratives



A Shift in Emphasis...

- ▶ **Digital resources and media literacy**
 - ▶ Standard 8 (page 28)
- ▶ **Literacy in History/Social Studies, Science, and Technical Subjects**
 - ▶ Reading
 - ▶ Writing



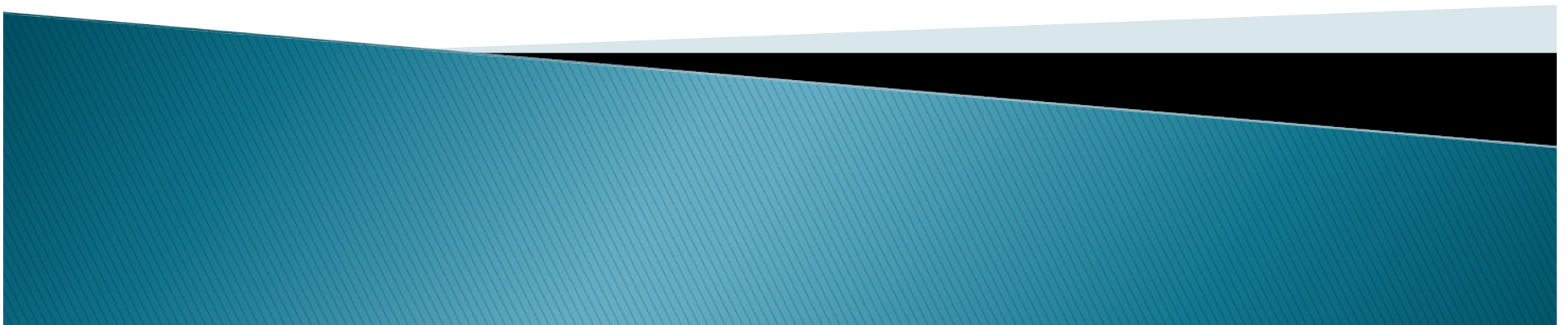
Looking Ahead to 2012-2013

- ▶ Develop our practice with the ELA 2011 framework
- ▶ Adjust current curricula to reflect new areas of emphasis
- ▶ Revise Lincoln Learning Expectations to align with the new standards



Mathematics Standards:

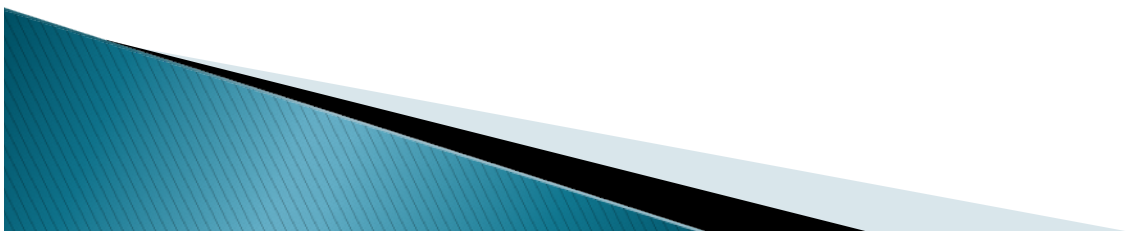
Massachusetts 2011



Math Content Standards: K-8

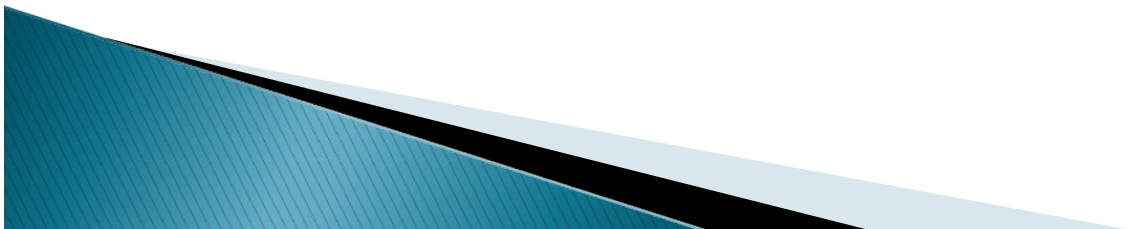
K	1	2	3	4	5	6	7	8
Geometry								
Measurement and Data					Statistics and Probability			
Number and Operations in Base Ten					The Number System			
Operations and Algebraic Thinking					Expressions and Equations			
Counting and Cardinality				Number and Operations— Fractions		Ratios and Proportional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

Illustrative Mathematics Project



Critical Areas for Each Grade Level

- ▶ There are two to four **critical areas** at each grade level.
- ▶ The critical areas are explained in the introduction of each grade level.
- ▶ Instructional time should focus on these critical areas.

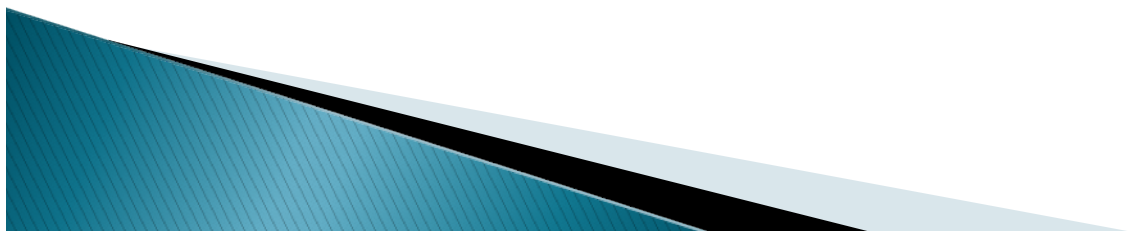


Pre-K-12

Standards for Mathematical Practice

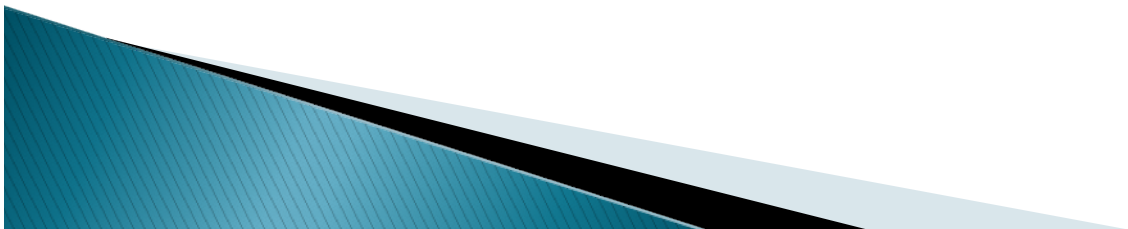
“Expertise” for **students** at all grade levels:

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

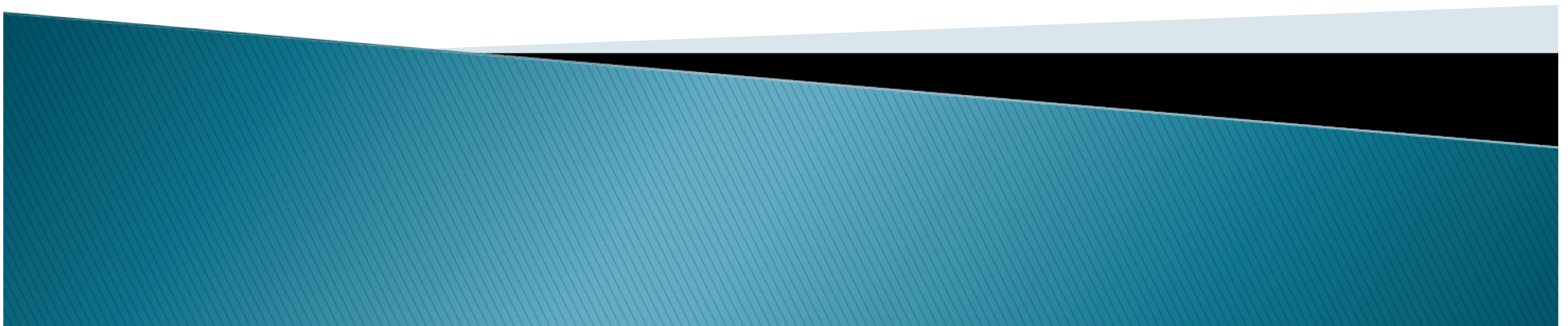


Looking Ahead to 2012-2013

- ▶ Opportunities to develop our practice with the Math 2011 framework
- ▶ Modify the curricula we currently have to support student learning in the new standards
- ▶ Revise report card descriptors to align with the new standards–Spring 2013
- ▶ Rewrite Lincoln Learning Expectations–Summer 2013



District Timeline: Implementation and Assessment



ELA Timeline

Now!

2011-2012

Partial
Implementation

2012-2013

Near Full
Implementation

2013-2014

Full Implementation

MCAS

ELA Reading tests
based on current
frameworks.
Composition tests
based on current
frameworks; assess
narrative at grade 4,
expository at grade 7

MCAS

ELA Reading tests
based on new
frameworks.
Composition tests will
include all modes of
writing.

MCAS

ELA Reading tests
based on new
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Composition tests will
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Mathematics Timeline

Now!

2011-2012

Planning For
Implementation

2012-2013

Partial
Implementation

2013-2014

Full Implementation

MCAS

Focus on standards
common to former
and new Frameworks
Will also assess
selected standards from
the former Frameworks
not in new standards

MCAS

Focus on standards
common to former
and new Frameworks

Will also assess selected
standards from new
Frameworks not included
in former Frameworks

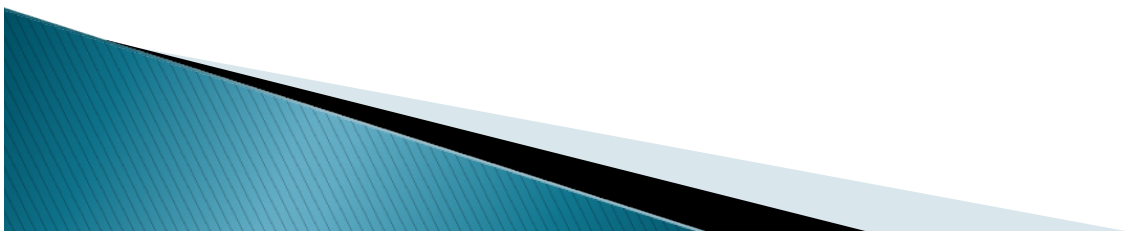
MCAS

Standards from the MA
2011 Mathematics
Curriculum Framework
will be assessed.

P A R C C

Partnership for Assessment of Readiness for Career and College

Formative Assessments
Summative Assessments
Technology Platform



2011 - 2012


Fall 2011

- ▶ Overview: administrators, literacy & math specialists
- ▶ Specialists: study new frameworks, begin planning

Winter 2012

- ▶ Introduction to Math, ELA Common Core: all faculty
- ▶ Revision of report card: ELA K-8; Math 6-8

Spring 2012

- ▶ Finalize report card changes for 2012-13
 - ▶ Planning for math implementation
- 

Summer 2012

Mathematics

6-8 - Alignment with *Impact Mathematics*

K-5 - Standards of Mathematical Practice

English Language Arts

6-8 - Informational Reading in Content Areas

3-5 - Informational Reading and Writing

K-2 - Informational Reading and Writing

K-8 - Revise Lincoln Learning Expectations

