SUSD prepares for Arizona's Common Core State Standards and Instructional Shifts

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September 11, 2012

Common Core State Standards

- Why the CCSS?
- Who created the CCSS?
- What was the process used to design the standards?
- When will the CCSS be taught and assessed?
- How will curriculum, instruction and assessment change as a result of the CCSS?
- How has SUSD responded?

Why the Common Core?

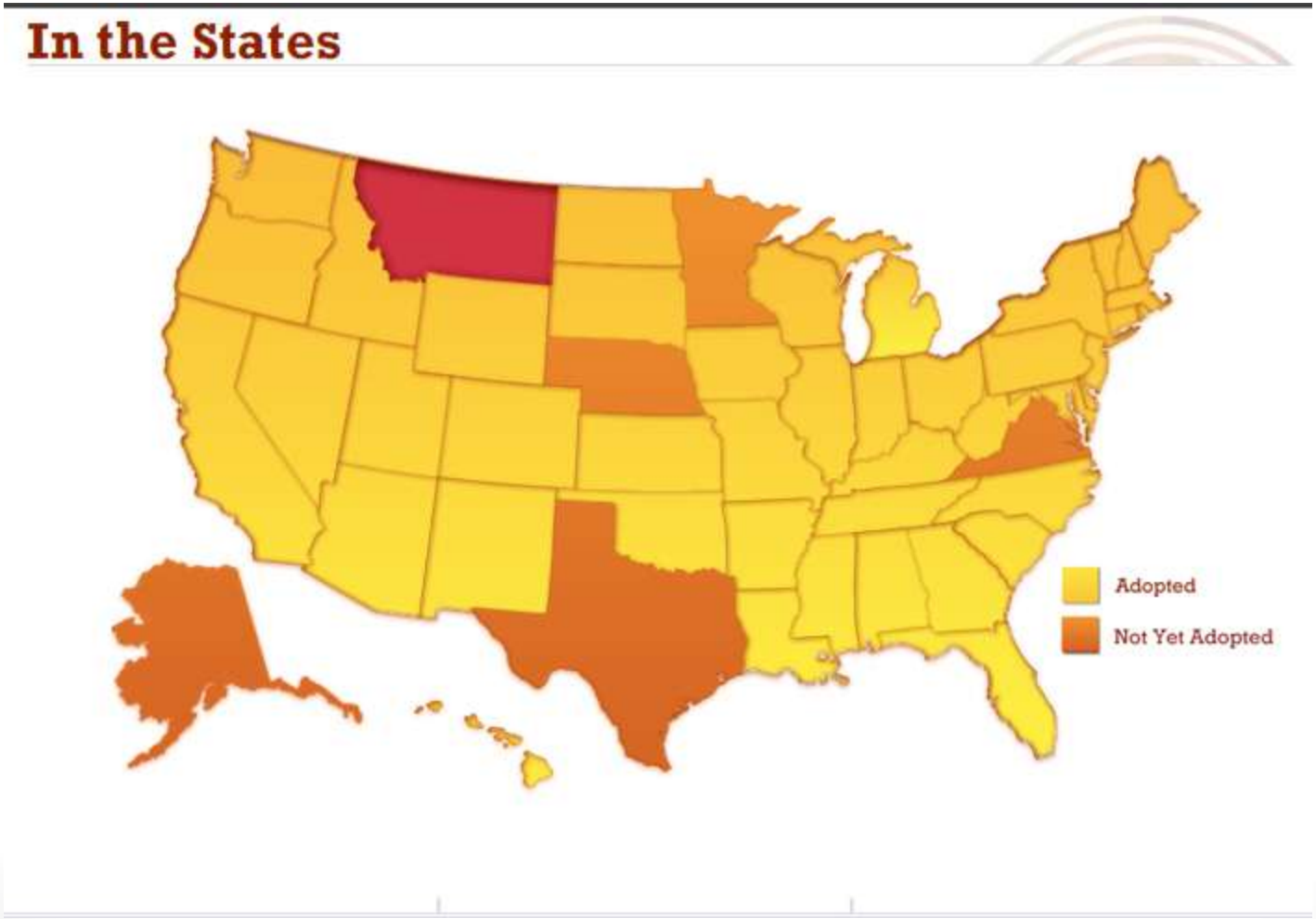
Educational reform to prepare students for college and career.

- Teachers today must prepare students for a world of possibilities that may not currently exist.
- The workforce of tomorrow must be flexible, motivated, and be able to draw from a deep and vast skill set.
- The ability to effectively communicate, collaborate, and adapt to situations will be critical to ensuring competition in a global market.

Who led the initiative?

- National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO)
- Governors and state commissioners of education from 48 states, 2 territories and the District of Columbia were committed to developing a common core of state standards in English language arts and mathematics for grades K-12.
- Teachers, researchers, and content experts used the best state standards and feedback from the general public to create the standards.
- In 2010, Arizona adopted Arizona's Common Core Standards to ensure a more seamless education especially for those students who move around Arizona and move across the 46 states.

Common Core States



ADE Communication Toolkit

ARIZONA'S COMMON CORE STANDARDS

Arizona's Common Core Standards Communications Toolkit

Arizona Public Engagement Task Force
September 5, 2012

http://www.azed.gov/azcommoncore/azcommunications/

What are the Common Core?

College and career readiness standards in grades K-12 which address what students are expected to learn when they have graduated from high school.

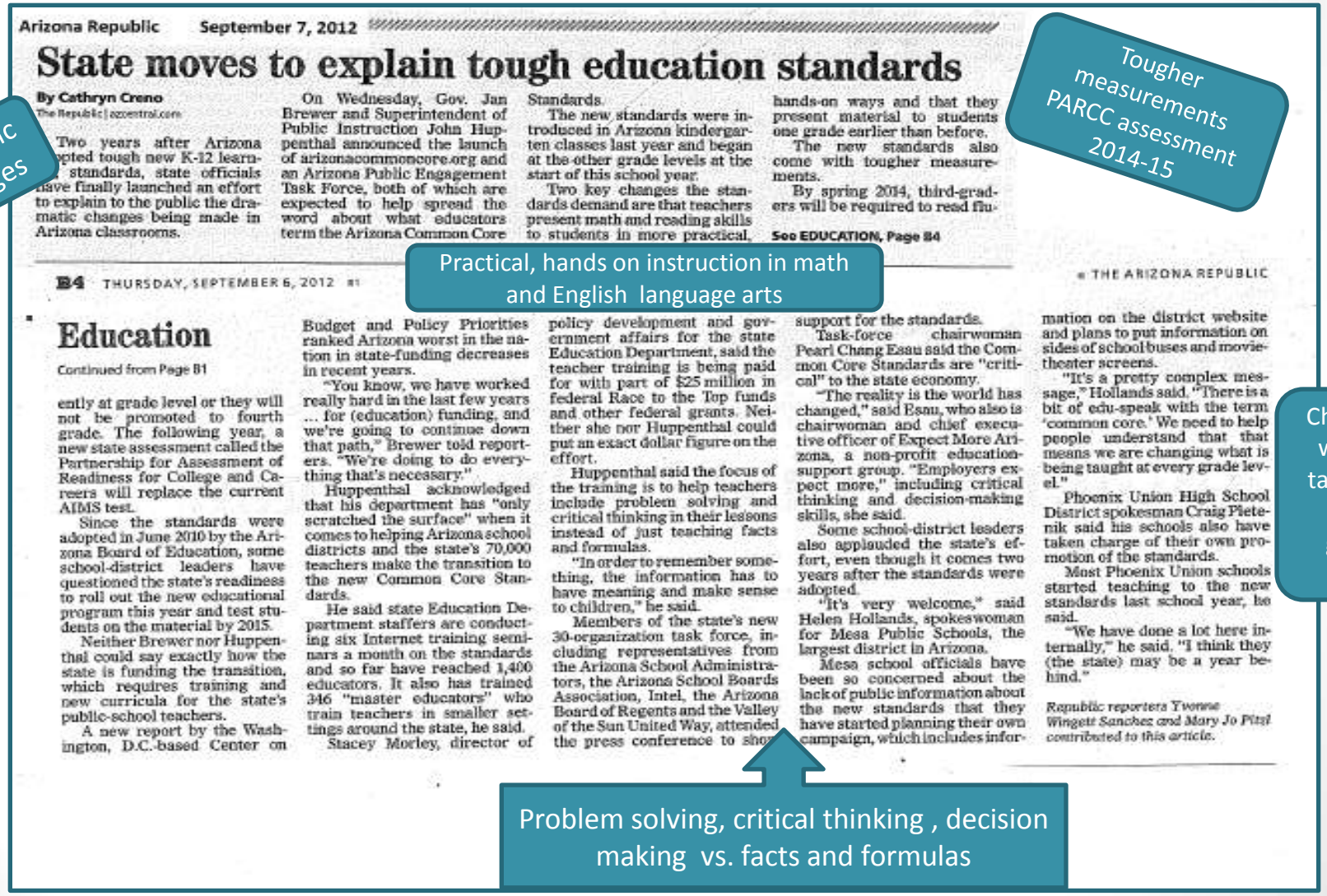
K-12 English Language Arts

- Show a K-12 progression of skills for reading, writing, listening, speaking and the use of language effectively in a variety of content areas.
- The standards ***are not only*** for English language arts but also for literacy in history/social studies, science and technical subjects.

K-12 Mathematics

- Show a K-12 progression of skills and emphasize problem-solving, quantitative reasoning, and modeling with the following key advances:
- K-5: Focus on number and operations
- K-7: Graded ramp up to algebra, through fractions, ratios, and proportional reasoning
- 6-8: Rich hands-on work with ratios, geometry, statistics, and probability
- High School: Rigorous algebra, geometry, modeling, statistics and probability

How the State of Arizona is responding



Arizona Republic September 7, 2012

State moves to explain tough education standards

By Cathryn Creno
The Republic | azcentral.com

Two years after Arizona opted tough new K-12 learning standards, state officials have finally launched an effort to explain to the public the dramatic changes being made in Arizona classrooms.

On Wednesday, Gov. Jan Brewer and Superintendent of Public Instruction John Huppenthal announced the launch of arizonacommoncore.org and an Arizona Public Engagement Task Force, both of which are expected to help spread the word about what educators term the Arizona Common Core Standards.

The new standards were introduced in Arizona kindergarten classes last year and began at the other grade levels at the start of this school year.

Two key changes the standards demand are that teachers present math and reading skills to students in more practical, hands-on ways and that they present material to students one grade earlier than before.

The new standards also come with tougher measurements.

By spring 2014, third-graders will be required to read flu-

See EDUCATION, Page B4

Dramatic changes

Tougher measurements PARCC assessment 2014-15

Practical, hands on instruction in math and English language arts

Education

Continued from Page B1

ently at grade level or they will not be promoted to fourth grade. The following year, a new state assessment called the Partnership for Assessment of Readiness for College and Careers will replace the current AIMS test.

Since the standards were adopted in June 2010 by the Arizona Board of Education, some school-district leaders have questioned the state's readiness to roll out the new educational program this year and test students on the material by 2015.

Neither Brewer nor Huppenthal could say exactly how the state is funding the transition, which requires training and new curricula for the state's public-school teachers.

A new report by the Washington, D.C.-based Center on Budget and Policy Priorities ranked Arizona worst in the nation in state-funding decreases in recent years.

"You know, we have worked really hard in the last few years ... for (education) funding, and we're going to continue down that path," Brewer told reporters. "We're doing to do everything that's necessary."

Huppenthal acknowledged that his department has "only scratched the surface" when it comes to helping Arizona school districts and the state's 70,000 teachers make the transition to the new Common Core Standards.

He said state Education Department staffers are conducting six Internet training seminars a month on the standards and so far have reached 1,400 educators. It also has trained 346 "master educators" who train teachers in smaller settings around the state, he said.

Stacey Morley, director of policy development and government affairs for the state Education Department, said the teacher training is being paid for with part of $25 million in federal Race to the Top funds and other federal grants. Neither she nor Huppenthal could put an exact dollar figure on the effort.

Huppenthal said the focus of the training is to help teachers include problem solving and critical thinking in their lessons instead of just teaching facts and formulas.

"In order to remember something, the information has to have meaning and make sense to children," he said.

Members of the state's new 30-organization task force, including representatives from the Arizona School Administrators, the Arizona School Boards Association, Intel, the Arizona Board of Regents and the Valley of the Sun United Way, attended the press conference to show support for the standards.

Task-force chairwoman Pearl Chang Esau said the Common Core Standards are "critical" to the state economy.

"The reality is the world has changed," said Esau, who also is chairwoman and chief executive officer of Expect More Arizona, a non-profit education-support group. "Employers expect more," including critical thinking and decision-making skills, she said.

Some school-district leaders also applauded the state's effort, even though it comes two years after the standards were adopted.

"It's very welcome," said Helen Hollands, spokeswoman for Mesa Public Schools, the largest district in Arizona.

Mesa school officials have been so concerned about the lack of public information about the new standards that they have started planning their own campaign, which includes information on the district website and plans to put information on sides of school buses and movie-theater screens.

"It's a pretty complex message," Hollands said. "There is a bit of edu-speak with the term 'common core.' We need to help people understand that that means we are changing what is being taught at every grade level."

Phoenix Union High School District spokesman Craig Pletenik said his schools also have taken charge of their own promotion of the standards.

Most Phoenix Union schools started teaching to the new standards last school year, he said.

"We have done a lot here internally," he said. "I think they (the state) may be a year behind."

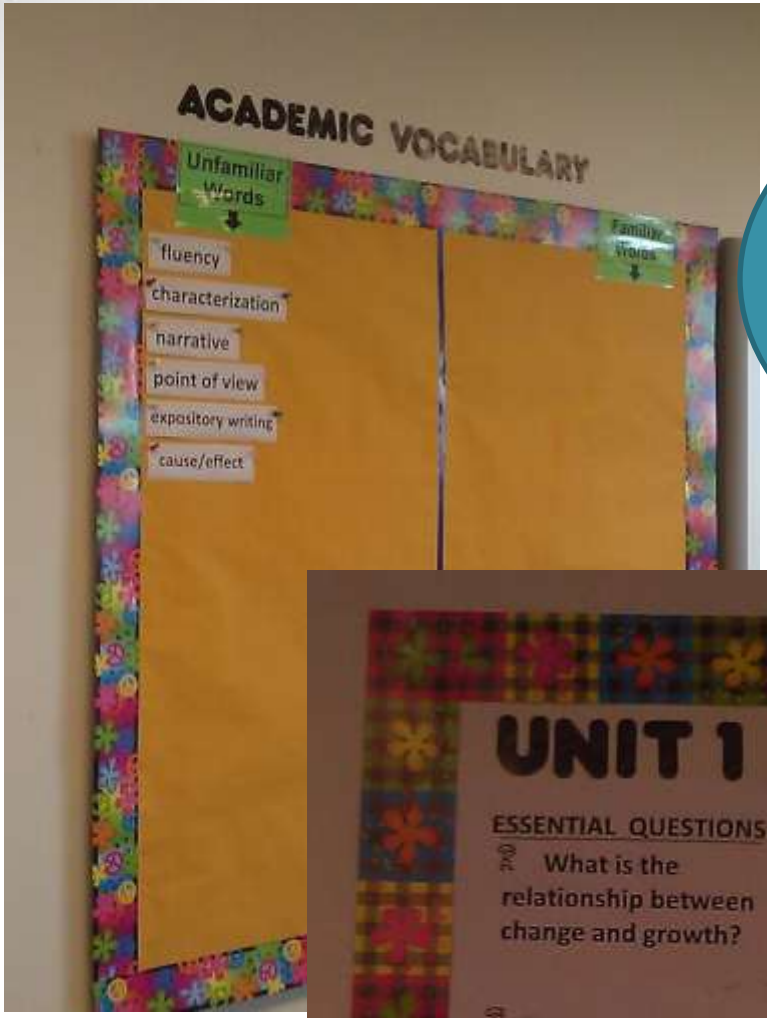
Republic reporters Yvonne Wingett Sanchez and Mary Jo Pitzl contributed to this article.

Changing what is taught at every grade level

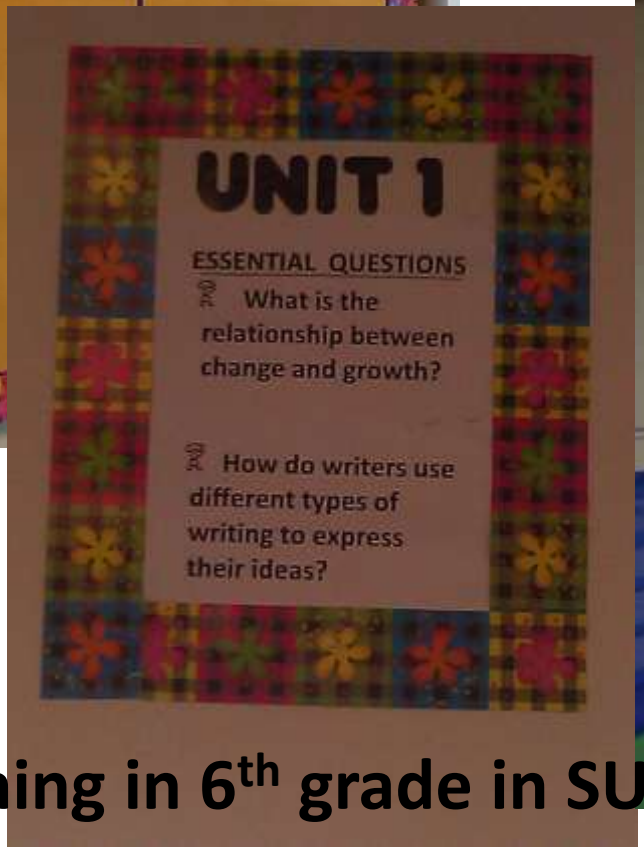
Problem solving, critical thinking , decision making vs. facts and formulas

6 shifts associated with ELA

SHIFT	
Balancing Informational and Literary Text	Emphasis on informational text. Students should read 50/50 informational and literature. Students should build knowledge through the reading of text.
Building Knowledge in the Disciplines	Students need to be reading in ALL content areas, and building a body of knowledge in each subject area from grade level texts.
Staircase of Complexity	Teachers take time for close, careful reading of text focusing on the particular over the general. Students should read more complex text over time.
Text-based Answers	Instruction and conversation centered around a common text. Students develop habits for making arguments based in the text, thinking like scholars.
Writing from Sources	Writing emphasizes the use of evidence to inform or make an argument. Students respond to the ideas, events and facts presented in the texts they read. Compare multiple texts in writing.
Academic Vocabulary	Teachers focus strategically on the comprehension of academic words such as discourse, generation and theory, and spend less time on literary terms such as onomatopoeia. Teachers insist students use academic words in speaking and writing.



Academic vocabulary, language of scholars, writing from sources.



ELA learning in 6th grade in SUSD

3 shifts associated with mathematics

SHIFT	
Focus ***Learn more about less***	Focus deeply on the major work of each grade so that students can gain strong foundations: solid conceptual understanding, a high degree of procedural skill and fluency, and the ability to apply the mathematics they know to solve problems inside and outside the mathematics classroom.
Coherence ***Keep building year after year***	Coherence is connecting ideas across grades, and linking to major topics within grades. Students build new understanding onto foundations built in previous years. Each standard is not a new event, but an extension of previous learning.
Rigor ***Real world***	• Conceptual understanding of key concepts, such as place value and ratios. Teachers support students' ability to access concepts from a number of perspectives so that students are able to see math as more than a set of mnemonics or discrete procedures. • Build speed and accuracy in calculation so they have access to more complex concepts and procedures. • Students use math flexibly for applications. Teachers provide opportunities for students to apply math in context. Teachers in content areas outside of math, particularly science, ensure that students are using math to make meaning of and access content. **UNDERSTAND** why the math works, **MAKE** the math work, **TALK** and **WRITE** about why the math works, **PROVE** they know why and how the math works.

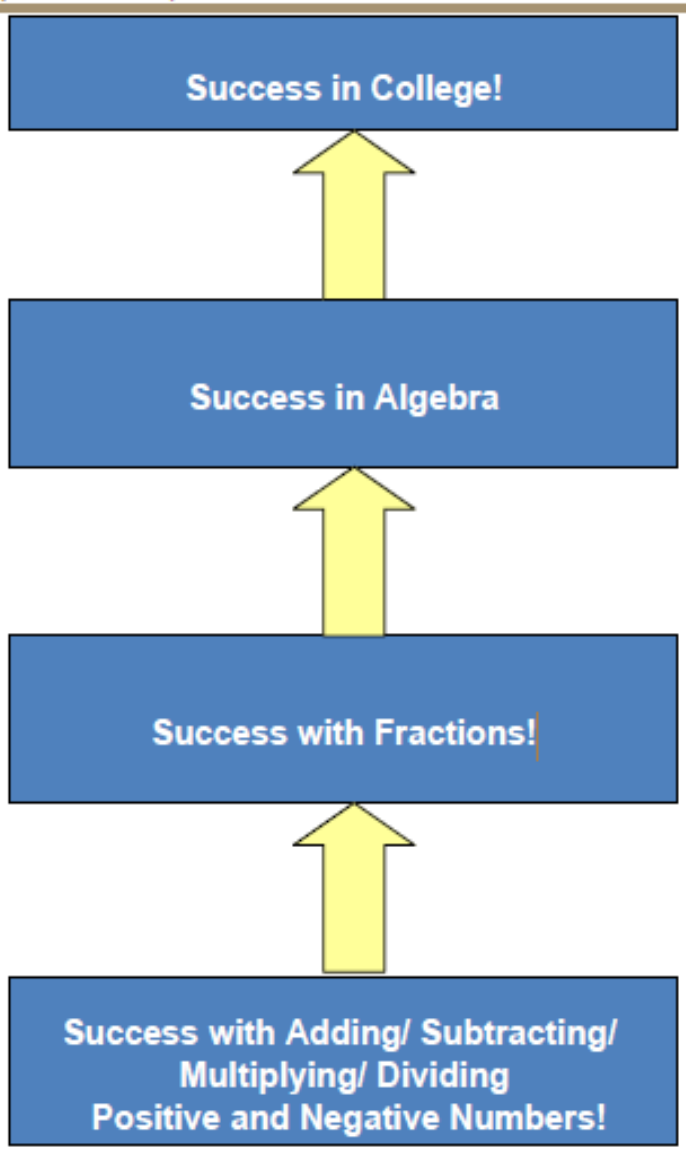
8 Mathematical Practices of the CCSS

Make sense of problems and persevere in solving them
Reason abstractly and quantitatively.
Construct viable arguments and critique the reasoning of others.
Model with mathematics.
Use appropriate tools strategically.
Attend to precision.
Look for and make use of structure.
Look for and express regularity in repeated reasoning.

Math learning in 4th grade in SUSD

Students modeling and discussing their thinking and understanding of algebraic expressions using manipulatives

The National Mathematics Advisory Panel's Final Report (2008)



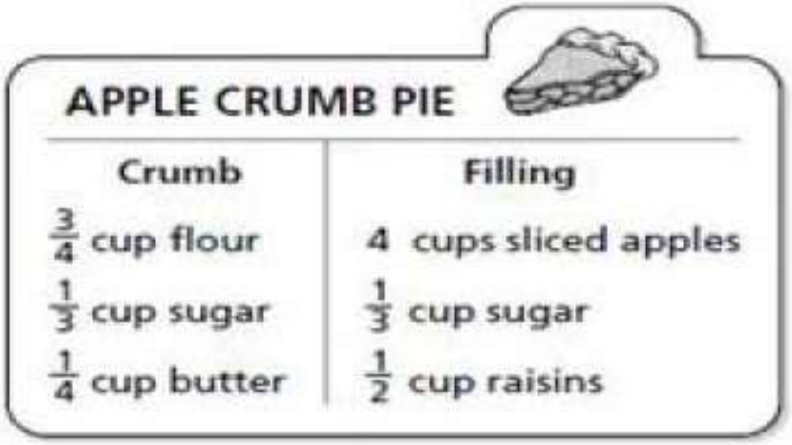
Final Report of the National Mathematics Advisory Panel, 2008

When will the CCSS be assessed in Arizona?

- The PARCC (Partnership for Assessment of Readiness for College and Careers) Summative Assessment System reflecting Arizona's Common Core Standards in English Language Arts and Mathematics will be implemented during the **2014-2015** school year in grades 3-11.
- Implementing Arizona's Common Core Standards – English Language Arts at all grade levels is robust preparation for both the remaining AIMS reading and writing assessments and for Arizona's new assessment system in 2015.
- Implementing Arizona's Common Core Standards - Mathematics will require strategic planning to ensure that students have the required grade level content for the remaining AIMS math assessment while preparing for the PARCC Summative Assessment in 2015.

Change in assessment FROM….(5th grade math)

12 Pierre is making an apple crumb pie using the items below.



APPLE CRUMB PIE

Crumb	Filling
$\frac{3}{4}$ cup flour	4 cups sliced apples
$\frac{1}{3}$ cup sugar	$\frac{1}{3}$ cup sugar
$\frac{1}{4}$ cup butter	$\frac{1}{2}$ cup raisins

How much total sugar must Pierre use to make the pie crumb and filling?

F $\frac{7}{12}$ cup

G $\frac{2}{6}$ cup

H $\frac{3}{4}$ cup

J $\frac{2}{3}$ cup

To…. A performance task

5th grade math

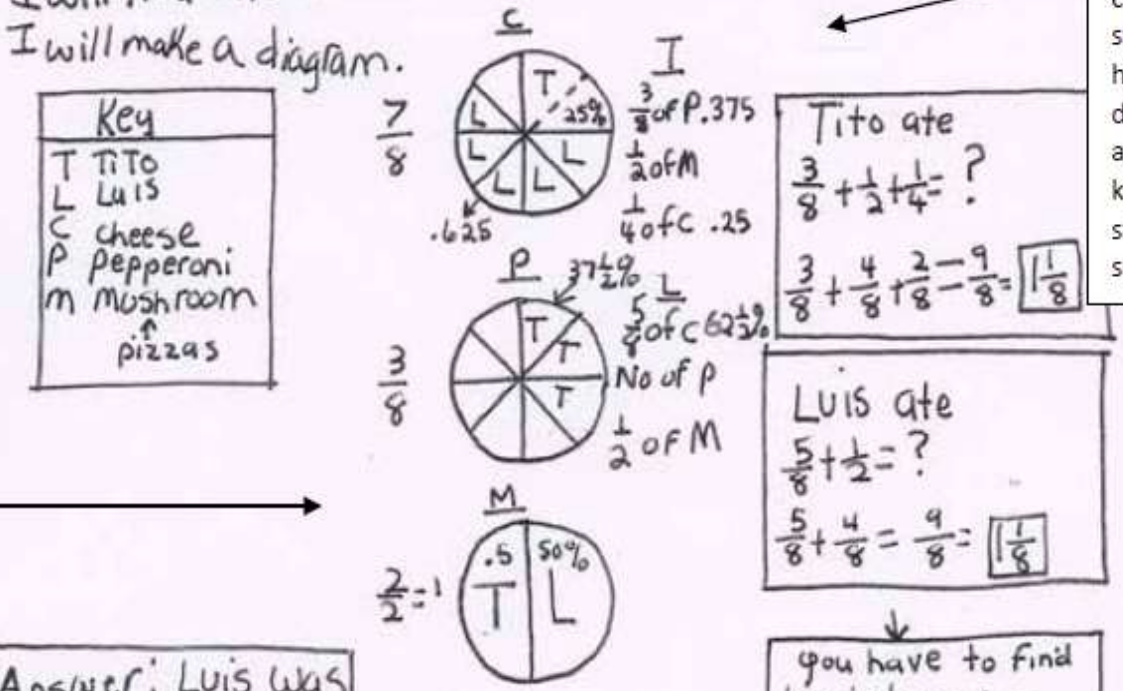
Stuffed with Pizza

Tito and Luis are stuffed with pizza! Tito ate one-fourth of a cheese pizza. Tito ate three-eighths of a pepperoni pizza. Tito ate one-half of a mushroom pizza. Luis ate five-eighths of a cheese pizza. Luis ate the other half of the mushroom pizza. All the pizzas were the same size. Tito says he ate more pizza than Luis because Luis did not eat any pepperoni pizza. Luis says they each ate the same amount of pizza. Who is correct? Show all your mathematical thinking.

Stuffed with Pizza

Tito and Luis are stuffed with pizza! Tito ate one-fourth of a cheese pizza. Tito ate three-eighths of a pepperoni pizza. Tito ate one-half of a mushroom pizza. Luis ate five-eighths of a cheese pizza. Luis ate the other half of the mushroom pizza. All the pizzas were the same size. Tito says he ate more pizza than Luis because Luis did not eat any pepperoni pizza. Luis says they each ate the same amount of pizza. Who is correct? Show all your mathematical thinking.

I will find who is correct, Tito or Luis.
I will make a diagram.



The student is able to make sense and persevere in solving the problem. The student demonstrates correct reasoning of proportional parts of a whole, correctly assigns each boy pizza pieces, and finds the correct equivalent fractions to state a correct answer. The student verifies her/his answer with decimals and percents and brings prior knowledge of statistics to the solution.

The student models with mathematics. The area model/diagram of the pizzas is accurate, labeled, and a key defines Tito, Luis, and the types of pizzas. The student uses the diagram to record some of her/his extended thinking to percents and decimals.

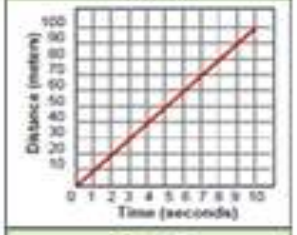
7th grade math

Grade 7 (Speed)

SAMPLE ITEM

Object A

Object B



Object C

Time (seconds)	Distance (meters)
0	0
3	10
6	20
9	30

Object C moves at constant speed.

Object D

Time (seconds)	Distance (meters)
0	0
1.5	10
3	20
4.5	30

Object D moves at constant speed.

If an object has constant speed, then the speed can be computed by the change in distance divided by the change in time.

Information about objects A, B, C and D are shown. Objects C and D both have constant speed.

Based on the information given, drag and drop the object names in order from greatest speed to least speed in the table provided.

Object A	Greatest Speed	
Object B		
Object C	Least Speed	
Object D		

Reset

High school mathematics (part A)

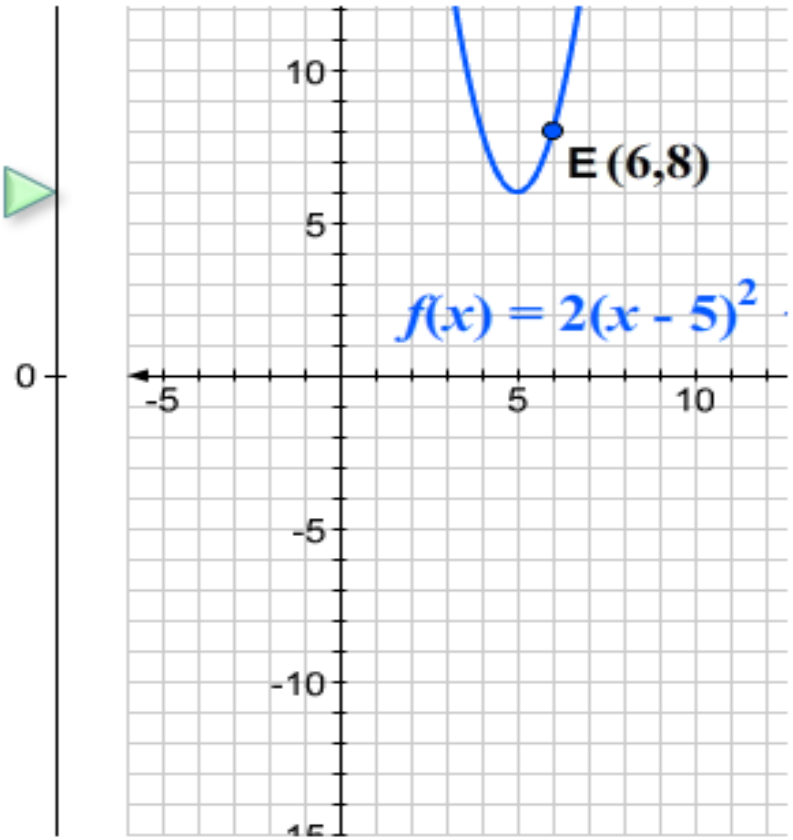
Quadratic transformation (high school)

About the task | CCSSM Alignment | **Part a** | Part b | Scoring

The graph of the quadratic function $f(x) = 2(x - 5)^2 + 6$ is shown.

Drag the three sliders to create the graph of a new function, $p(x)$, such that $p(x) = -f(x)$. Each slider affects a different parameter of the function.

Fill in the blanks to give the coordinates of points D', E', and F' that lie on the new function $p(x)$ and that are the images of points D, E, and F that lie on $f(x)$.



(,), E'(,), F'(,)

High school mathematics (part B)

Quadratic transformation (high school)

About the task | CCSSM Alignment | Part a | **Part b** | Scoring

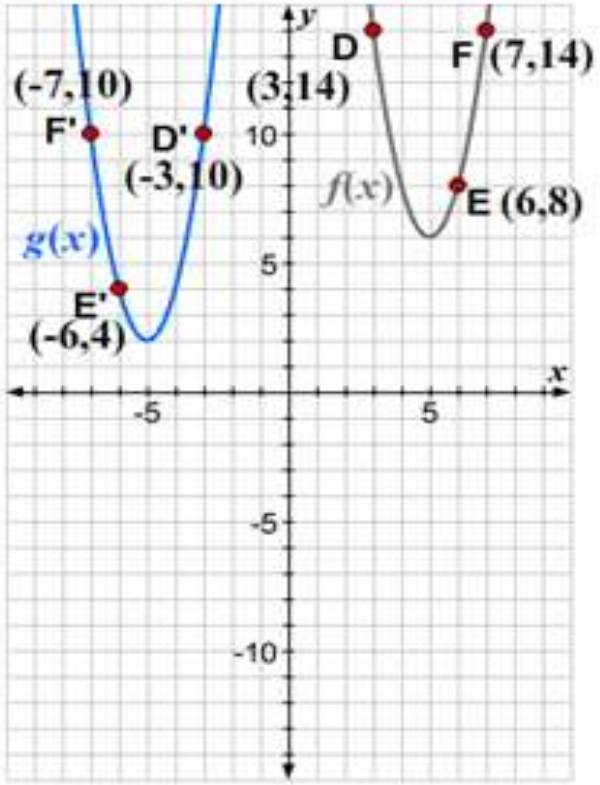
Write your answers to the following problem in your answer booklet.

The graph of the quadratic function $f(x) = 2(x - 5)^2 + 6$ is shown.

A new function, $g(x)$, has been built from $f(x)$, mapping points D, E, and F to points D', E', and F', respectively.

a. Write an equation for the new function $g(x)$.

b. Compare your equation for $g(x)$ to the equation of the original function, $f(x)$. How do the differences in the equations reveal the transformations applied to the function?



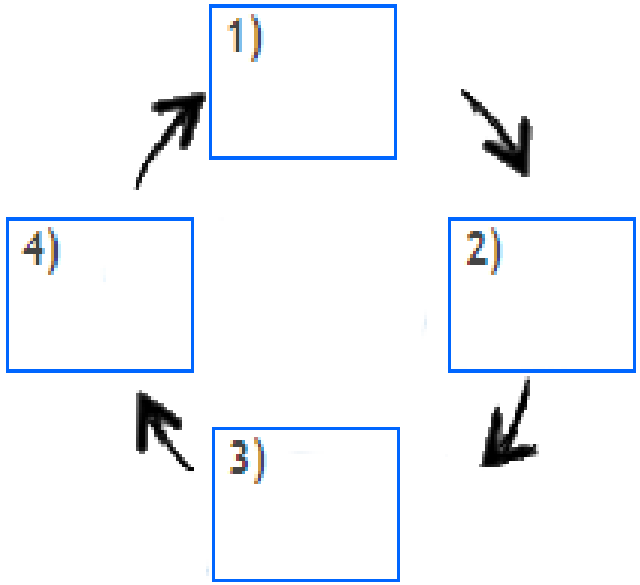
3rd grade ELA

SAMPLE ITEM

Drag the words from the word box into the correct locations on the graphic to show the life cycle of a butterfly as described in "How Animals Live."

Words:

Egg
Adult
Pupa
Larva



7th grade ELA constructed response

Below are three claims that one could make based on the article "Earhart's Final Resting Place Believed Found."

Claims	
	Earhart and Noonan lived as castaways on Nikumaroro Island.
	Earhart and Noonan's plane crashed into the Pacific Ocean.
	People don't really know where Earhart and Noonan died.

Part A

Highlight the claim that is supported by the most relevant and sufficient evidence within "Earhart's Final Resting Place Believed Found."

Part B

Click on two facts within the article that best provide evidence to support the claim selected in Part A.

10th grade ELA constructed response

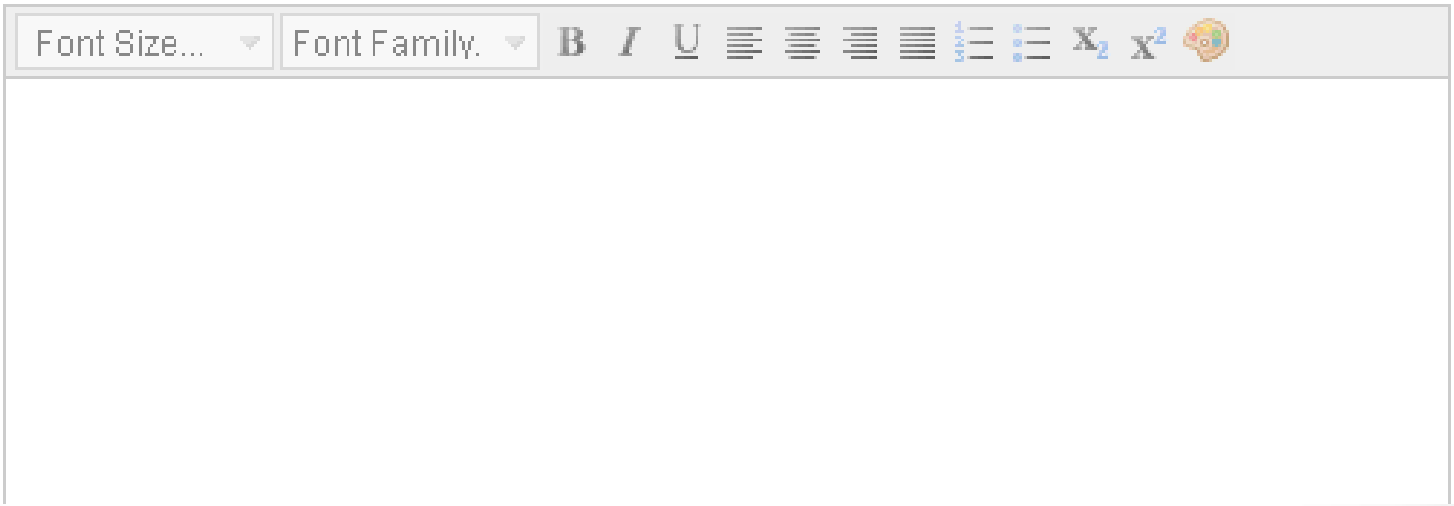
SAMPLE ITEM

Student Directions

Use what you have learned from reading " Daedalus and Icarus " by Ovid and " To a Friend Whose Work Has Come to Triumph " by Anne Sexton to write an essay that analyzes how Icarus's experience of flying is portrayed differently in the two texts.

Develop your essay by providing textual evidence from both texts. Be sure to follow the conventions of standard English.

Answer:



What we are doing in SUSD

- Aligning our instructional materials to the CCSS
- Redesigning our curriculum maps, focus on integration of content and technology
- Redesigning our District assessments to align to the CCSS
- Examining our programs and making changes as needed (i.e. gifted, special education)
- Reallocating our budgets to prioritize needs associated with the CCSS (i.e. library materials, technology refresh)
- Providing professional learning about the standards, instructional shifts and assessment practices associated with the CCSS
- Informing our staff and community through multiple communications (Digital Backpack, video, etc)
- Parent nights scheduled:
  - October 25 Desert Canyon Library and Coronado 7-8 p.m.
  - December 1 Parent University Coronado 8-4 p.m.
  - January 24 Desert Canyon Library and Coronado 7-8 p.m.

In summary, the CCSS provide

- A sound, rigorous preparation for college and career
- Consistent set of standards aligned to international benchmarks that will be assessed in 2014-15
- A reflection of the best of standards work across the 46 participating states
- Solid evidence of skills that are required to be college and career ready
- Depth of knowledge, conceptual understanding, critical thinking, and problem solving

Questions?