



INTRODUCTION TO THE COMMON CORE STATE STANDARDS (CCSS)

FOR PARENTS OF STUDENTS IN GRADE 9

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WHY ARE NEW STANDARDS NECESSARY?

The type of instruction that you and I had when we were in school is no longer adequate for our own children because the work force has changed and will continue to change. The majority of the jobs that our youngest children will have in the future don't even exist yet.



WHAT DOES IT MEAN TO BE COLLEGE-READY?

- Knowledge and skills a student needs to enroll and succeed in credit-bearing first-year courses at a postsecondary institution without the need for remediation
- Possessing reading, writing, mathematics, social, and cognitive skills to qualify for and succeed in the academic program of their choice

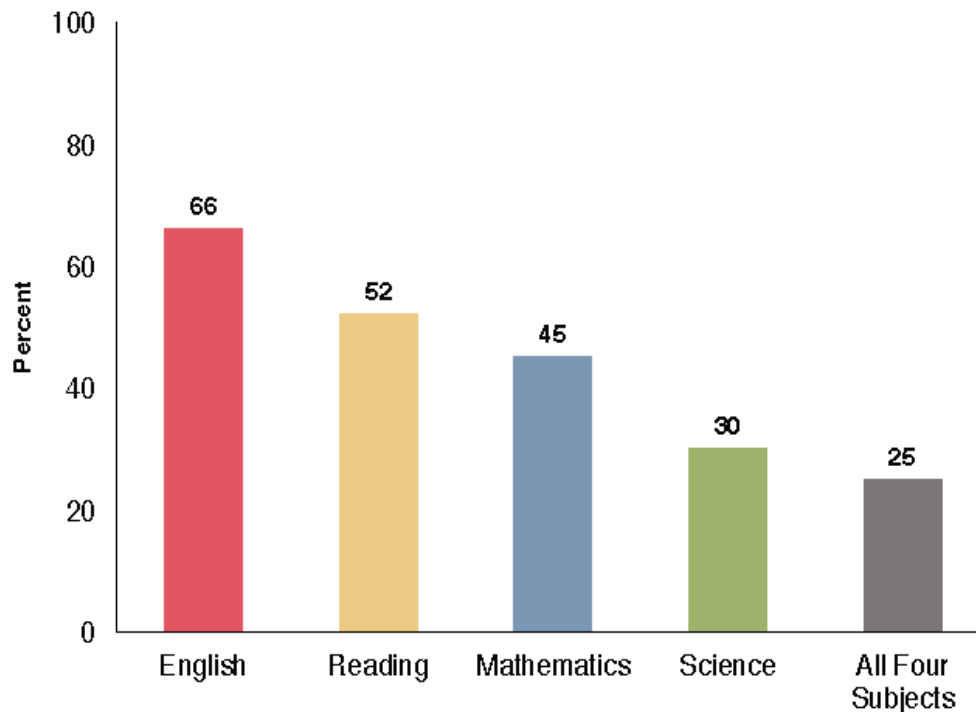
COLLEGE READINESS IN USA

- Almost half of the three million people in the United States who start their first year of college will drop out before they earn their degree, and 30% will drop out after their first year.¹
- At the community college level, out of six million students, one million will take remedial courses.¹
- Inadequate preparation is repeatedly cited as a central factor in the disappointing college success rates.¹

1 The College Completion Agenda: 2010 Progress Report, Lee & Rawls, 2010

PERCENT OF HIGH SCHOOL GRADUATES MEETING COLLEGE-READINESS BENCHMARKS

Percent of ACT-Tested High School Graduates Meeting
College Readiness Benchmarks by Subject, 2011



- 66 % of all ACT-tested high school graduates met the English College-Readiness Benchmark in 2011
- Just one in four (25%) met all four College-Readiness Benchmarks

WHAT DOES IT MEAN TO BE CAREER-READY?

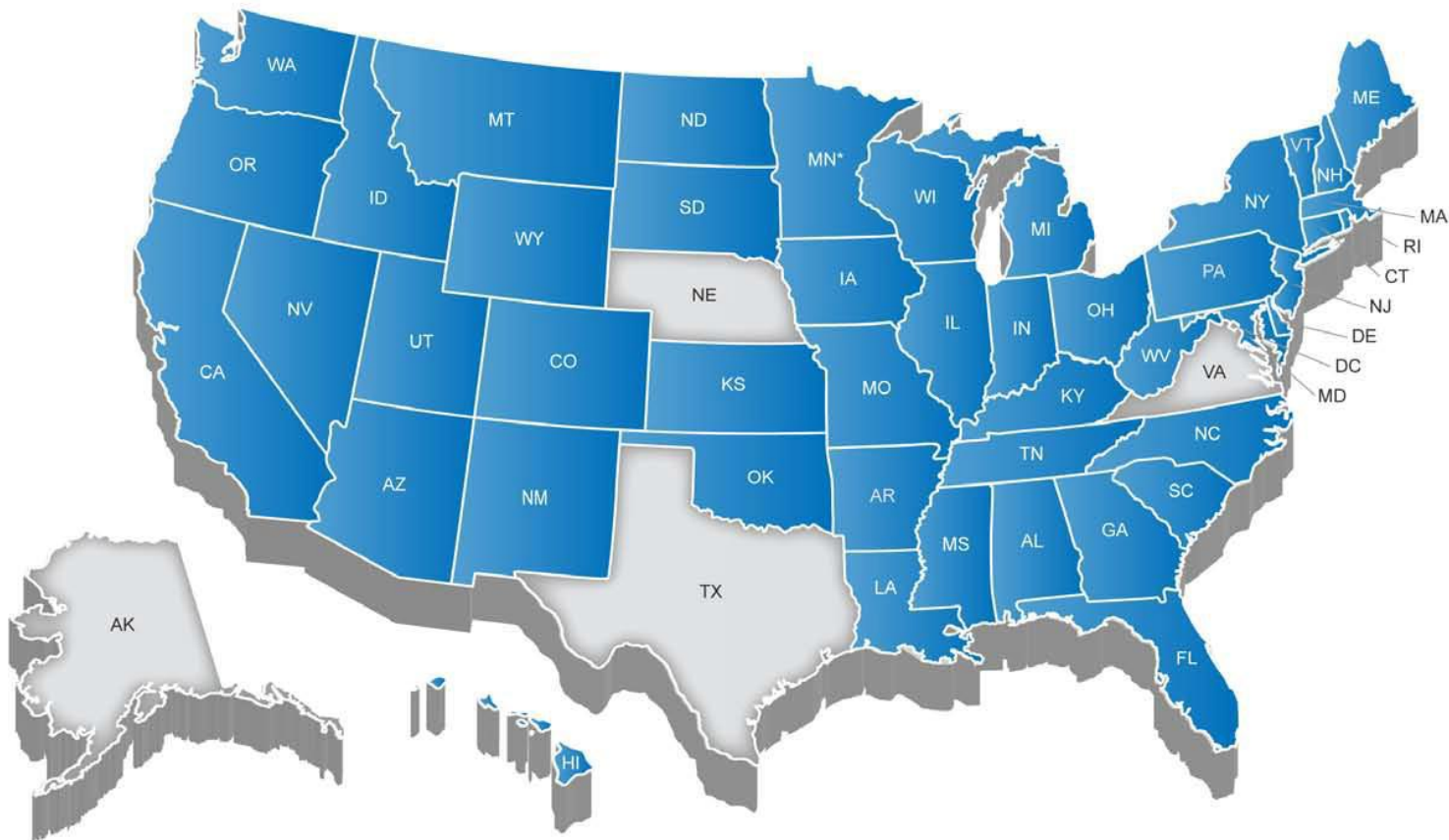
- Possess both the necessary knowledge and technical skills needed for employment in their desired career field.
- Academic Skills
 - Apply academic knowledge to authentic situations that they may face in their careers
- Employability Skills
 - Critical thinking
 - Problem solving
 - Creativity
 - Responsibility
 - Ethics
 - Adaptability
 - Oral and Written Communication
 - Collaboration and teamwork
 - Professionalism
 - Technology Use
- Technical Skills
 - Job specific skills related to a specific career pathway

IS COLLEGE AND CAREER READINESS A CONCERN IN CONNECTICUT?

- 64% of Connecticut students enrolled in a four-year college graduate within 6 years, while only 13% of students enrolled in a two-year college graduate within 3 years.¹
- By 2018, the nation will need to increase the number of postsecondary degrees conferred by about 10 percent annually in order to meet workforce demands.²

1. Analysis of data from NCES Integrated Postsecondary Education Data System, 2010.

2. A. Carnevale, N. Smith, and J. Strohl, *Help Wanted: Projections of Jobs and Economic Requirements Through 2018* (Washington, DC: Georgetown Center on Education and the Workforce, 2010).



WHAT ARE THE COMMON CORE STANDARDS AND WHO WROTE THEM?

- The Common Core State Standards (CCSS) are a set of expectations that outline what students should know in English/Language Arts and Mathematics at each grade level.
- There is also a set of literacy standards in History/Social Studies, Science, and Technical Subjects.
- The CCSS were not developed by the federal government, but by a group of educators and experts coordinated by the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO).

SHIFTS IN MATHEMATICS

Shift 1	Focus	Teachers significantly narrow and deepen the scope of how time and energy is spent in the math classroom. They do so in order to focus deeply on only the concepts that are prioritized in the standards.
Shift 2	Coherence	Principals and teachers carefully connect the learning within and across grades so that students can build new understanding onto foundations built in previous years.
Shift 3	Fluency	Students are expected to have speed and accuracy with simple calculations; teachers structure class time and/or homework time for students to memorize, through repetition, core functions.
Shift 4	Deep Understanding	Students deeply understand and can operate easily within a math concept before moving on. They learn more than the trick to get the answer right. They learn the math.
Shift 5	Application	Students are expected to use math and choose the appropriate concept for application even when they are not prompted to do so.
Shift 6	Dual Intensity	Students are practicing and understanding. There is more than a balance between these two things in the classroom – both are occurring with intensity.

DOMAINS WITHIN THE MATH COMMON CORE STANDARDS

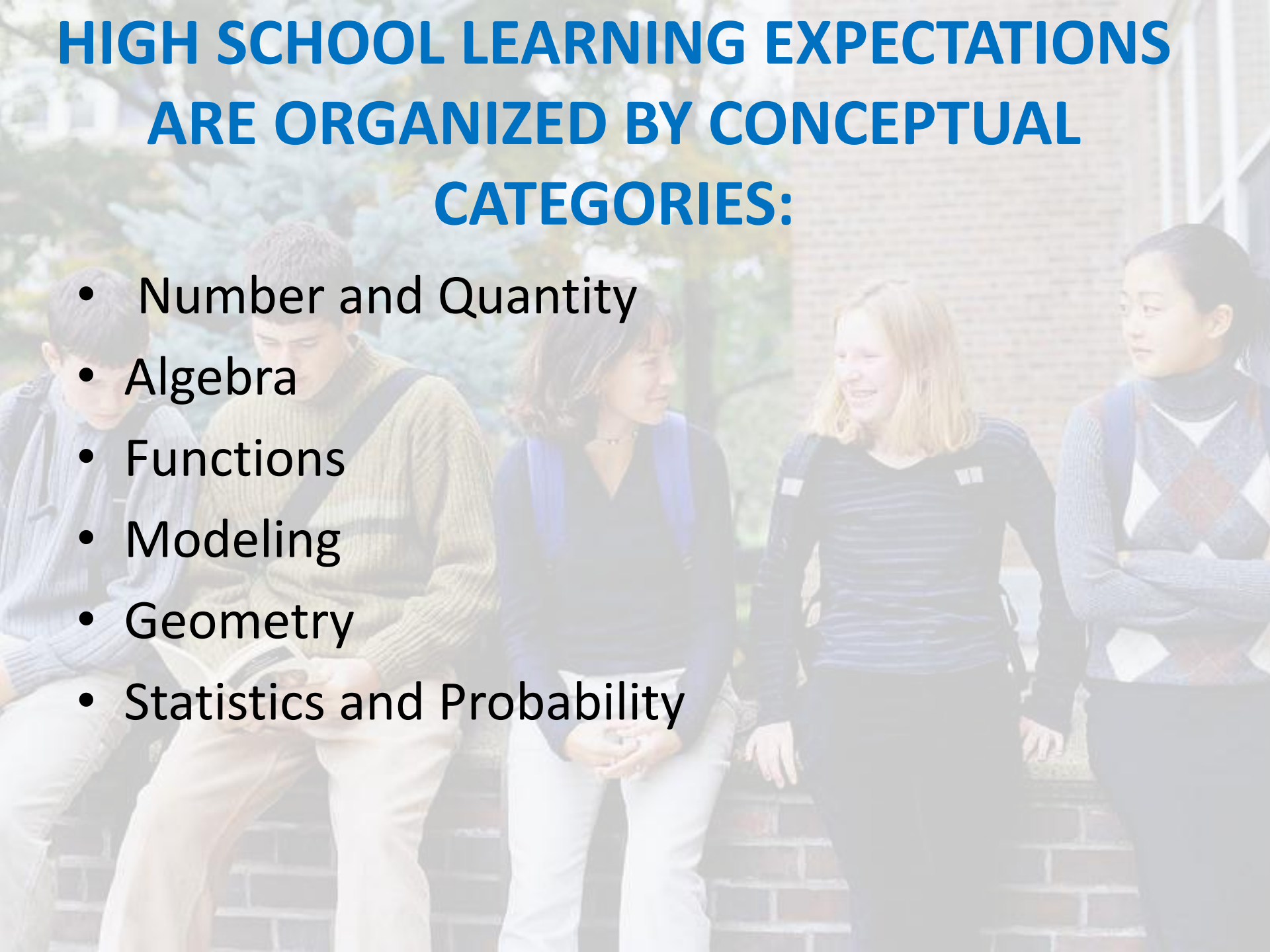
Domains and Conceptual Categories

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

Findwell, Bradford & Foughty, Zachary. "Preparing to Implement the Common Core State Standards for Mathematics." Indiana Department of Education and Ohio Department of Education. March 30, 2011

HIGH SCHOOL LEARNING EXPECTATIONS ARE ORGANIZED BY CONCEPTUAL CATEGORIES:

- Number and Quantity
- Algebra
- Functions
- Modeling
- Geometry
- Statistics and Probability



HOW WILL THE COMMON CORE CHANGE THE WAYS THAT STUDENTS LEARN MATHEMATICS?

- **Greater Focus**
 - Focus on fewer topics
 - Address them in greater depth
 - Develop real understanding
 - Able to move on to more advanced topics
- **Coherence**
 - Build on students' understanding
 - Introduce new topics from grade to grade
 - Students learn content and skills and move to more advanced topics
 - Simultaneously build coherence within grades

HOW WILL THE COMMON CORE CHANGE THE WAYS THAT STUDENTS LEARN MATHEMATICS?

- Skills, Understanding and **Application**
 - All aspects of mathematics knowledge is equally central
 - Students will need to know procedures fluently, develop a deep conceptual understanding and apply their knowledge to solve problems
- Emphasis on **Practices**
 - Standards have eight criteria for mathematical practices
 - Practices are intended to be integrated with the standards for mathematical content

EIGHT MATHEMATICAL PRACTICES

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

ORGANIZATION OF THE ELA/LITERACY STANDARDS



CCSS for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects

Standards for Reading

Literature and Informational Text

1. Key Ideas and Details
2. Craft and Structure
3. Integration of Knowledge and Ideas
4. Range of Reading and Level of Text Complexity

Foundational Skills (K-5)

1. Print Concepts
2. Phonological Awareness
3. Phonics and Word Recognition
4. Fluency

Standards for Writing

Arguments, Informative/Explanatory, Narrative

1. Text Types and Purposes
2. Production and Distribution of Writing
3. Research to Build and Present Knowledge
4. Range of Writing

Literacy in History/Social Studies, Science, and Technical Subjects (Grades 6-12)

Standards for Listening and Speaking

Speaking and Listening

1. Comprehension and Collaboration
2. Presentation of Knowledge and Ideas

Standards for Language

Language

1. Conventions of Standard English
2. Knowledge of Language
3. Vocabulary Acquisition and Use

SHIFTS IN ELA/ LITERACY

Shift 1	Balancing Informational & Literary Text	Students read a true balance of informational and literary texts.
Shift 2	Knowledge in the Disciplines	Students build knowledge about the world (domains/ content areas) through TEXT rather than the teacher or activities
Shift 3	Staircase of Complexity	Students read the central, grade appropriate text around which instruction is centered. Teachers are patient, create more time and space and support in the curriculum for close reading.
Shift 4	Text-based Answers	Students engage in rich and rigorous evidence based conversations about text.
Shift 5	Writing from Sources	Writing emphasizes use of evidence from sources to inform or make an argument.
Shift 6	Academic Vocabulary	Students constantly build the transferable vocabulary they need to access grade level complex texts. This can be done effectively by spiraling like content in increasingly complex texts.

BALANCE OF WRITING TYPES

Grade Level	To Persuade (Argumentative)	To Explain (Informative)	To Convey Experience (Narrative)
4	30%	35%	35%
8	35%	35%	30%
12	40%	40%	20%

- Argumentative is a form of persuasion but brings in evidence from both sides of the issue.
- Narrative strategies are important component to developing both argumentative and explanatory writing

WRITING USING EVIDENCE

- Expect students to compose arguments and opinions, informative/explanatory pieces, and narrative texts
- Focus on the use of **reason and evidence** to substantiate an argument or claim
- Emphasize ability to **conduct research** – short projects and sustained inquiry
- Require students to **incorporate technology** as they create, refine, and collaborate on writing

TEXT COMPLEXITY

Grade Band in the Standards	Old Lexile Levels	Common Core Lexile Levels
K-1	NA	NA
2-3	450-725	450-790
4-5	645-845	770-980
6-8	860-1010	995-1115
9-10	960-1115	1080-1305
11-CCRR	1070-1220	1215-1355

(Credits: Common Core Appendix A)

READING STANDARDS FOR LITERACY IN HISTORY/SOCIAL STUDIES

Grades 6-8	Grades 9-10	Grades 11-12
2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text.	2. Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas.

READING STANDARDS FOR LITERACY IN SCIENCE AND TECHNICAL SUBJECTS

Grades 6-8	Grades 9-10	Grades 11-12
2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.	2. Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	2. Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.

LITERACY IN HISTORY/SOCIAL STUDIES, SCIENCE, AND TECHNICAL SUBJECTS: WRITING

- Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes. (9-10.WHST.2)
- Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (11-12.WHST.5)

HOW WILL THE COMMON CORE CHANGE THE WAYS THAT STUDENTS LEARN ENGLISH AND LITERACY?

- **More Nonfiction**
 - Greater emphasis on nonfiction
 - To a goal of 75% in high school
 - Include informational texts in content areas as well as literary nonfiction
- **Focus on Evidence**
 - Students will be expected to use evidence to demonstrate comprehension and to read closely in order to make evidence-based claims
- **Staircase of Text Complexity**
 - Students will be expected to read and comprehend increasingly complex texts in order to reach the level of complexity required for success in college courses and the workplace

HOW WILL THE COMMON CORE CHANGE THE WAYS THAT STUDENTS LEARN ENGLISH AND LITERACY?

- Speaking and Listening
 - Students will demonstrate that they can speak and listen effectively
- Literacy in the Content Areas
 - Standards include criteria for literacy in history/social science, science, and technical subjects
 - Understanding texts in subject areas requires a unique set of skills and that instruction in understanding these subjects is an integral part of teaching the subject

ASSESSMENTS

- There are two consortia that are developing the assessments which will be given in grades 3-8 and 11.
- Connecticut is part of the [Smarter Balanced Assessment Consortium \(SBAC\)](#) - The SBAC was awarded a four-year \$176 million Race to the Top assessment grant by the US Department of Education (USED) to develop a student assessment system aligned to the Common Core Standards.
- Assessments will begin the spring of 2015 and replace the CMT and CT Academic Performance Test (CAPT).

COMPONENTS OF THE SUMMATIVE ASSESSMENT

Performance Tasks

- Measure the ability to integrate knowledge and skills as required in the CCSS
- Each task administered in up to an hour long sitting
- Computer delivered during last 12 weeks of school
- Results within 2 weeks

Computer Adaptive Test

- A computer based assessment given during final 12 weeks of school
- Multiple item types , scored by a computer
- Students will have a chance to take the summative assessment twice.

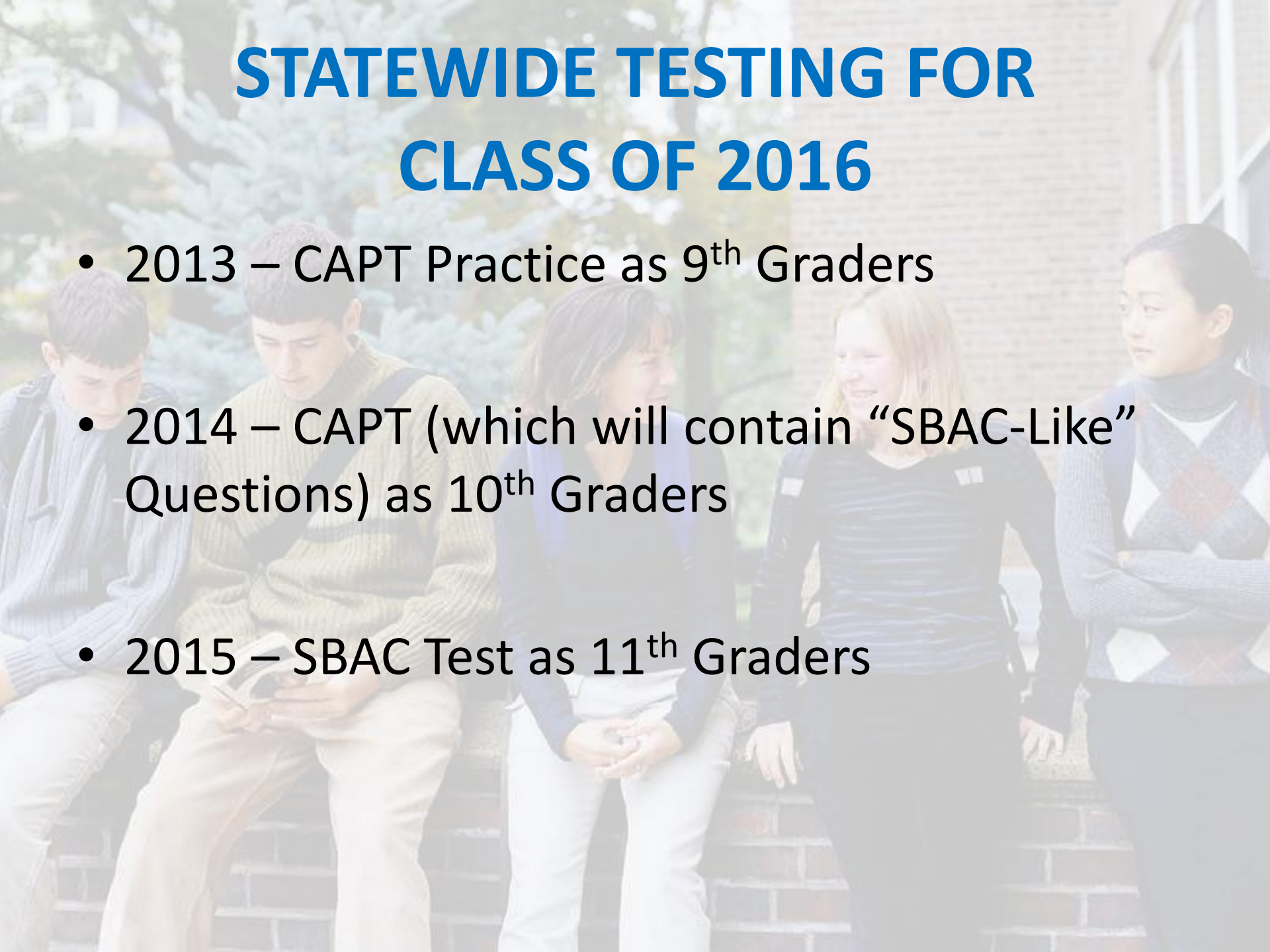
Scores from the Performance Tasks and the Computer Adaptive Test will be combined for an annual accountability score - starting spring 2015

COMPUTER ADAPTIVE TESTING

Based on student responses, the computer program **adjusts the difficulty of questions** throughout the assessment. For example, a student who answers a question correctly will receive a more challenging item, while an incorrect answer generates an easier question. By adapting to the student as the assessment is taking place, these assessments present an **individually tailored set of questions** to each student and can quickly identify which skills students have mastered.

STATEWIDE TESTING FOR CLASS OF 2016

- 2013 – CAPT Practice as 9th Graders
- 2014 – CAPT (which will contain “SBAC-Like” Questions) as 10th Graders
- 2015 – SBAC Test as 11th Graders



Sample high school math question

42906



- A. Drag into the box exactly three unique expressions whose sum is less than 10.
- B. Drag into the box exactly three unique expressions whose sum is between 10 and 20.
- C. Drag into the box exactly three unique expressions whose sum is greater than 20.

$$5\sqrt{7}$$

$$\sqrt{13}$$

$$\frac{3^8}{3^6}$$

$$20 - \sqrt{20}$$

$$(4^{-2})^{-\frac{1}{2}}$$

$$8^{\frac{1}{3}}$$



Delete



A. Three unique expressions whose sum is less than 10

B. Three unique expressions whose sum is between 10 and 20

C. Three unique expressions whose sum is greater than 20

Sample high school math question

42968

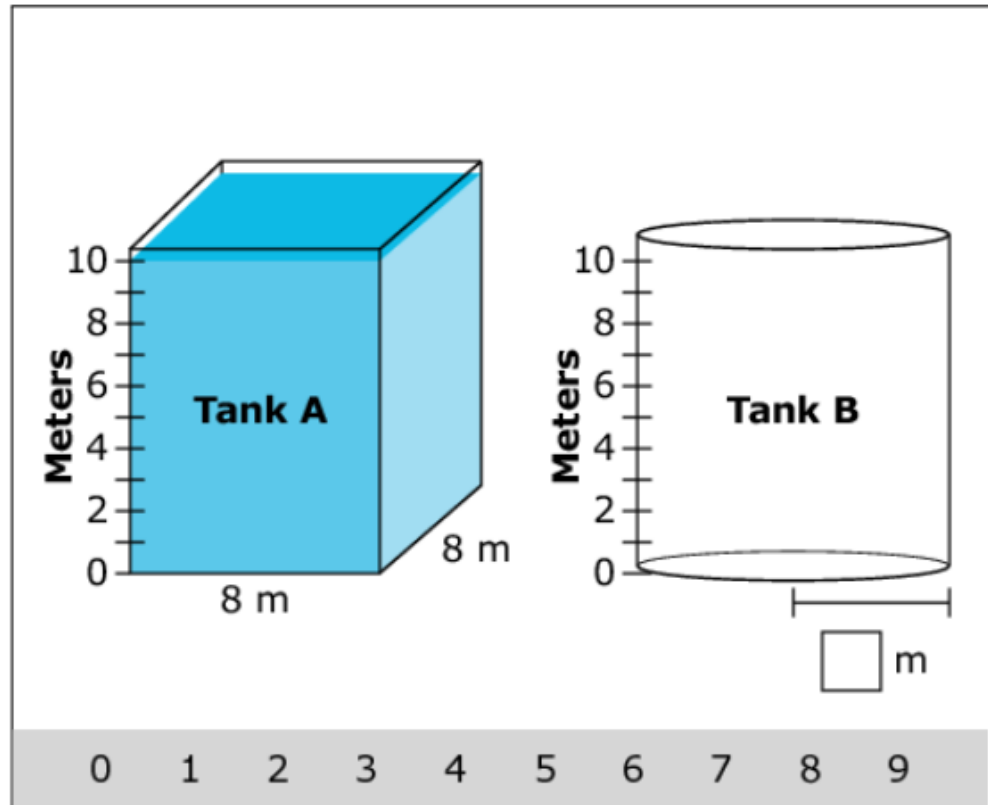


Two water tanks are shown. Tank A is a rectangular prism and Tank B is a cylinder. The tanks are not drawn to scale.

Tank A is filled with water to the 10-meter mark.

Click Tank A to change the water level. The volume of water that leaves Tank A is transferred to Tank B, and the height of the water in Tank B is shown.

Drag one number into the box to show the approximate radius of the base of Tank B.

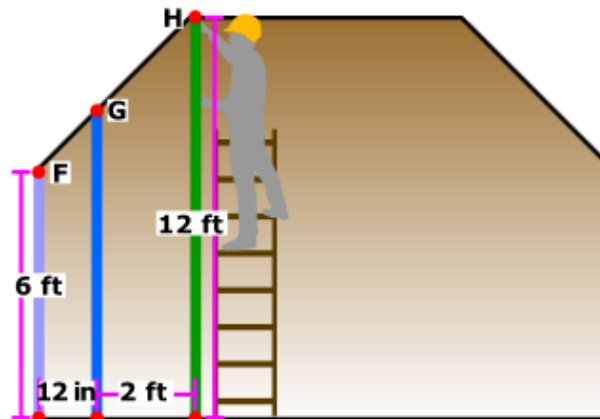


Sample high school math question

43057



A construction worker is using wooden beams to reinforce the back wall of a room.



Determine the height, in feet, of the beam that ends at point G. Explain how you found your answer.

Sample high school ELA/literacy question

Text Passage

Diamonds in the Sky

Stars are not the only objects that glitter in the dark night sky. Scientists have discovered that diamonds are plentiful in outer space. Some of these space diamonds are called “nanodiamonds” because they are incredibly small. A nanodiamond is millions of times smaller than a grain of sugar—more or less the size of a strand of DNA. Nanodiamonds are stardust, created when ancient stars exploded long ago, disgorging their remaining elements into space. Other space diamonds are huge—the size of whole planets—while some may exist in liquid or frozen form. Scientists even suggest that planets in our own solar system may have oceans filled with chunks of frozen diamond “ice.”

Assessment Questions

43006



Read the sentence from the text. Then answer the question.

“Nanodiamonds are stardust, created when ancient stars exploded long ago, disgorging their remaining elements into space.”

Based on the context of the sentence, what is the most precise meaning of disgorging?

- (A) scattering randomly
- (B) throwing out quickly
- (C) spreading out widely
- (D) casting forth violently

Sample high school ELA question

43599



The following excerpt is from a writer's first draft of a narrative essay. Read the excerpt. Then rewrite it, revising it to correct errors.

I had no idea what to expect when I walked into the arena. There were people everywhere, most of them clad in brightly colored jersey's with different players' names on the back of them. There were some names I couldnt even pronounce. Me and my friend made our way to the corridor that led to the ice rink. The minute I stepped through the doorway, I could feel a rush of cold air hit my face. I could actually smell the ice! I never thought ice had a smell, but it really does. The next thing I noticed was the size, of the ice rink. There were lines and circles painted all over it, and I knew immediately I wouldn't understand the rules. We found our seats, and it wasn't long before the game started. We sat so close to the action that I felt as if I was right in the middle of it, the action was so intense it was hard to follow the puck, keep an eye on the players, and to figure out which team was ahead. When the home team scored a goal. The entire arena erupted with cheering that was so loud, I bet it was heard across town. by the end of the game, I felt so many emotions: delight, disappointment, fear, and excitement. Mostly, though, I felt in awe of the athletes who played this game. They are much more tougher than I ever expected. I suspect others new to hockey will be as impressed as me by this fast, interesting game.

Now rewrite the excerpt, revising it to correct errors.

Type your answer in the space provided.

Sample high school ELA/literacy question

43016



The following paragraph is an excerpt from a student's report about plant life in the southern United States. After reading the paragraph, you will identify details that are unnecessary and explain why they should be removed.

The Invasion of Kudzu

In 1876, Philadelphia, Pennsylvania, hosted the Centennial Exposition in honor of the country's 100th birthday. The Japanese constructed one of the most popular exhibits, primarily due to an amazing vine called *kudzu*. For centuries, the Japanese used the pea vine for many purposes, including medicine, but what attracted the Americans the most were the sweet-smelling purple flowers that covered the vine. The warm, moist climate of the southern states—from Georgia to Florida and north to the Carolinas—was the most hospitable part of the US for the vine. Temperatures in Georgia can reach into the 90s, and the humidity is often above 90%. Residents all over the southeast began planting kudzu. The vine's success caught the attention of many, including Channing Cope who promoted its use for erosion control and animal feed, especially during the Great Depression. Because of the depression, many homes were left abandoned, so there was not anyone to care for them and keep the plants properly groomed. No one predicted, however, that the vine would end up taking over. The vines slowly engulfed pine forests, telephone poles, and even houses, leading to the destruction of native plant life. Pines are not the only trees in the South, however. There are about 250 species of trees in Georgia alone. As kudzu out-competed the local plants, it deprived them of nutrients and, especially, sunlight. Kudzu now covers over 7 million acres of land, and it continues to expand at the rate of 150,000 acres annually. That is almost one foot per day! Attempts to kill it have proven difficult, as it is immune to most herbicides; thus, kudzu continues to smother the southern states. Researchers continue to search for a solution to "the vine that ate the South," but the answer is nowhere in sight.

In the space below, identify the sentences from the paragraph that are unnecessary, and briefly explain why each one should be removed.

COMMON CORE IMPLEMENTATION

PLAN YEAR 1 - 2011-2012

- Began study of the Common Core State Standards
- Prioritized needs and developed four- year Implementation Plan
- Board of Education presentation
- District and building administrators attended workshops
- Provided professional development for teaching staff on Common Core State Standards and cross-walking current curriculum
- Evaluated existing curriculum documents for alignment with CCSS
- Teachers from all grade levels and buildings met to unwrap the CC Standards using Ainsworth's Model
- K-4 Mathematics Curriculum was revised during the spring and summer of 2012
- Region 13 Staff worked at ACES during the summer of 2012 to write mathematics units to support our new curriculum – four Region 13 staff members attended a 2 week workshop
- Began evaluating our computer readiness for SBAC test administration

COMMON CORE IMPLEMENTATION

PLAN YEAR 2 – 2012-2013

- Implementation of K-2 Pearson mathematics materials, fall, 2012
- Revision of grade 5-8 Mathematics Curriculum
- Unit writing for grade K-4 mathematics curriculum
- Revision of High School mathematics curriculum
- Summer curriculum work - revision of English Language Arts Curriculum K-11 and development of units
- Review of additional instructional materials that will align with the Common Core State Standards
- Begin using SBAC released test questions and develop performance tasks
- Investigate computer-based instruction in grades K-4
- Apply to participate in SBAC Field Test
- Continue ACES summer work with 18 other districts throughout school year and summer – 10 Region 13 staff members to attend two week workshop.
- Computer-Readiness Pilot
- Ongoing professional development for staff

COMMON CORE IMPLEMENTATION PLAN YEAR 3 - 2013-2014

- Vertical and horizontal alignment with SBAC assessments
- Assessment of Informative Text collections
- Implement new English Language Arts Curriculum & Units
- Implementation of new math materials for grades 3-11
- Develop SBAC assessments for instructional units
- Ongoing professional development for staff
- Implement computer-based instruction in grades k-4
- Pilot performance tasks and computer based items
- Participate in the SBAC Field Test

COMMON CORE IMPLEMENTATION PLAN YEAR 4 – 2014-2015

- Administer SBAC practice assessments
- Implement SBAC assessments in grades 3-8 and 11 - Spring 2015
- Review and revise curricula as necessary to align with SBAC assessments
- Review and revise instructional units
- Review and revise computer based test items and performance tasks
- Ongoing professional development for staff