

Common Core State Standards Math & ELA

Mill Valley School District
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Compiled and Presented by
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Common Core State Standards CCSS

Characteristics

- ◆ Aligned with college and career expectations
- ◆ Fewer and more rigorous
- ◆ Internationally benchmarked
- ◆ Rigorous content *and* application of higher-order skills
- ◆ Builds on strengths and lessons of current state standards
- ◆ Research and evidence based
- ◆ Coordinated by NGA and CCSSO

Common Core State Standards CCSS

Intent of the Common Core

- 💧 The same goals for all students
- 💧 Coherence
- 💧 Focus
- 💧 Clarity and Specificity

Common Core State Standards CCSS

Focus

- ◆ Key ideas, understandings, and skills are identified
- ◆ Deep learning of concepts is emphasized
- ◆ That is, time is spent on a topic and on learning it well. This counters the “mile wide, inch deep” criticism leveled at most current U.S. standards.

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New Comprehensive Assessment System

- Two assessment consortia
 - Partnership for the Assessment of Readiness for College and Careers (PARCC)
 - SMARTER Balanced Assessment Consortium
 - Designed to replace individual state tests in ELA and mathematics
 - Usher in a new and different approach to assessment design

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Four Basic Principles

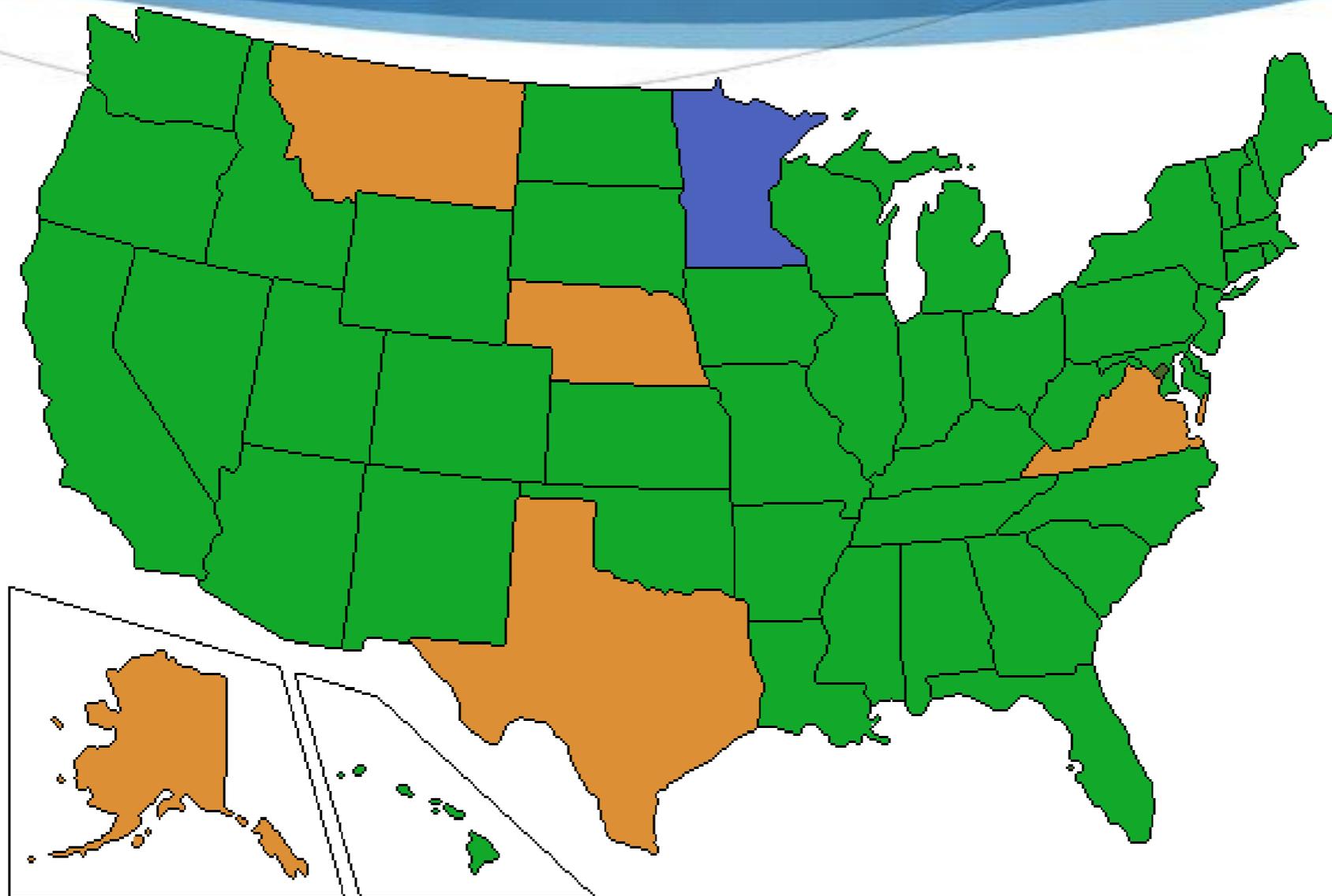
- ◆ Assessments are common across states and aligned to the CCSS
- ◆ Students take “performance-based” assessments for accountability
- ◆ The assessment systems are “computer-based” for more sophisticated design and quick, reliable scoring
- ◆ Transparent reporting systems drive effective decision making

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SBAC

- Biggest difference between PARCC and SMARTER is their approach to assessment for accountability
- PARCC is using a “distributed” approach and SMARTER is using an end-of-year approach
- California is in Smarter Balance Consortium (SBAC)

CCSS Adoption States



Green – Adopted **Orange** – Not adopted **Blue** - Partial (ELA)

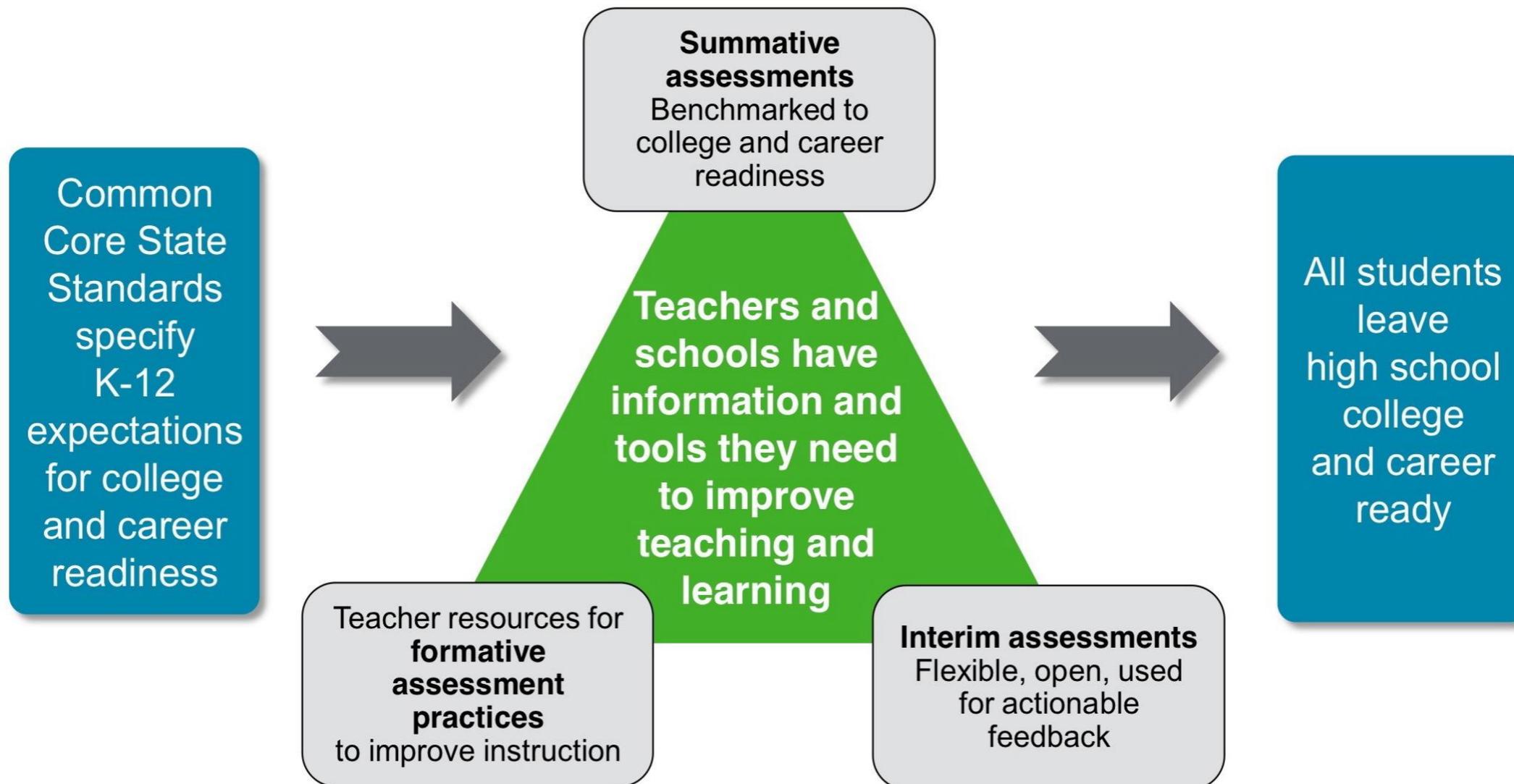
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Proposed Assessments

- ◆ Grades 3 – 8 and 11, Optional testing in grades 9 and 10
- ◆ Both ELA and mathematics
- ◆ Administered in the last 12 weeks of school
- ◆ Computer Adaptive Tests (CAT)
- ◆ Performance tasks
- ◆ Accountability starts in the 2014-2015 year
- ◆ Optional Interim assessments during school year (no stakes)



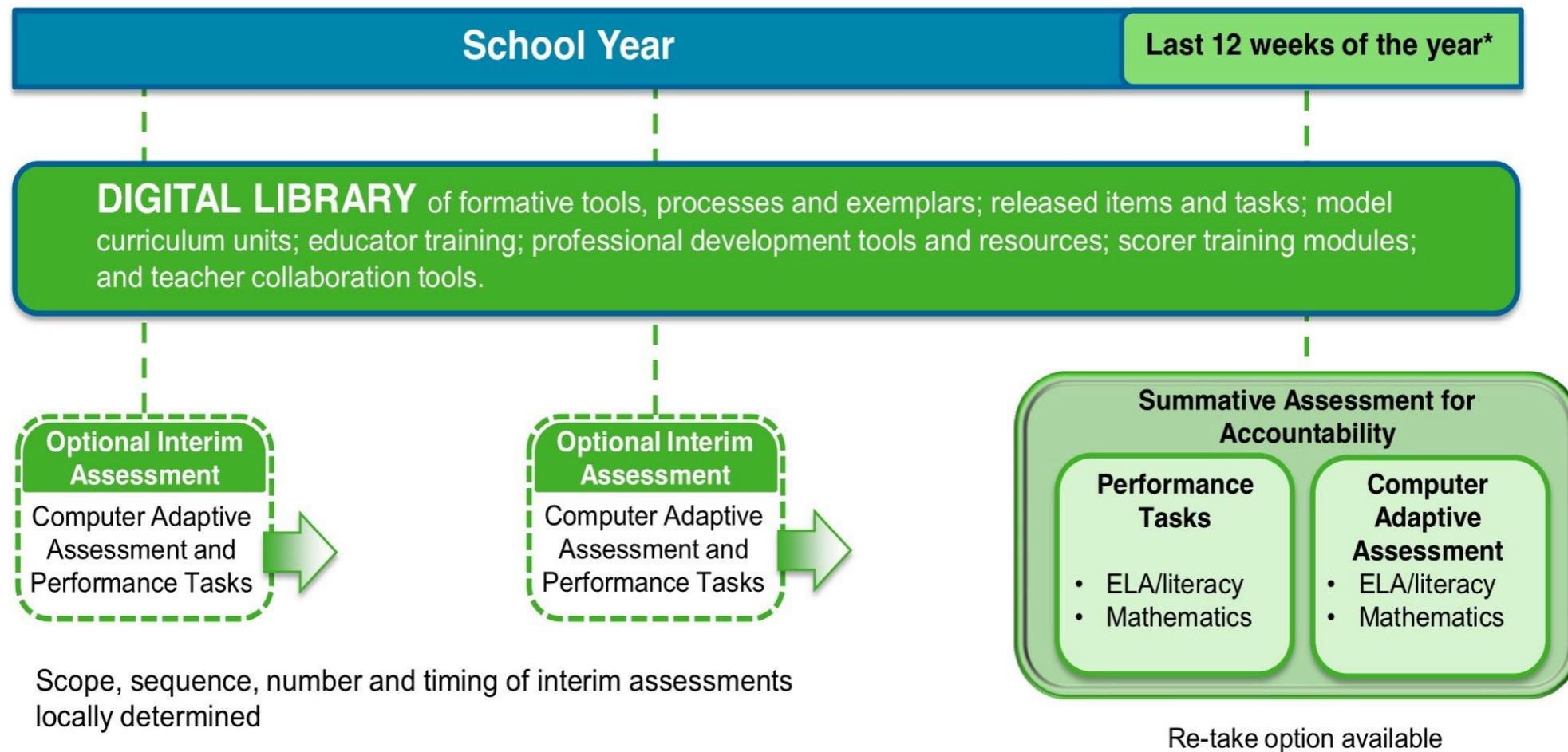
Assessment





Assessment

ELA/Literacy and Mathematics, Grades 3-8 and High School



CCSSM

Common Core State Standards
for Mathematics

CCSSM Organization

- ◆ Domains: are large groups of related standards.
- ◆ Clusters: are groups of related standards. Clusters appear inside Domains.
- ◆ Standards: define what students should be able to understand and be able to do – part of a cluster.
- ◆ K-8: Grade → Domain → Cluster → Standards
- ◆ 9-12: Conceptual Category → Domain → Cluster → Standards

CCSSM 8 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.

Mathematics Tasks

- ◆ Novice

- ◆ Short items focused on skills and routines

- ◆ Apprentice

- ◆ Medium performance tasks with scaffolding

- ◆ Expert

- ◆ Long tasks with high cognitive load and/or complexity

SBAC Math Claims

Claim #1 40%	Concepts & Procedures —Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency
Claim #2 20%	Problem Solving —Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.
Claim #3 20%	Communicating Reasoning —Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.
Claim #4 20%	Modeling and Data Analysis —Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.

Math Claim #1 (40%)

Evidence – Brief Items

- ◆ Selected response items, including computer-enhanced items, can probe conceptual understanding, particularly when the distractors are chosen to embody common misconceptions.
- ◆ Short Constructed response items can assess mathematical thinking directly; most likely to be able to be machine scored. Can have a range of scaffolded items.
- ◆ Extended Response items requiring a more solid demonstration of conceptual understanding and procedural skills that students may be expected to have learned and practiced

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Math Claim #2 (20%)

Evidence – Short Response

- ◆ Short constructed response items, or even computer-enhanced or selected response items. Discrete and our single-step problems.
- ◆ Extensive constructed response items can effectively assess multi-stage problem solving
 - ◆ non-routine problems where a substantial part of the challenge is in deciding what to do, and which mathematical tools to use;
 - ◆ Involve chains of autonomous reasoning, in which some tasks may take a successful student 5 to 10 minutes, depending on the age of student and complexity of the task.

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Math Claim #3 (20%)

Evidence – Constructed Response

- ◆ Variety of item/task types, including selected response and short constructed response items, and with extended constructed response tasks.
- ◆ Constructed response with attention to precision and reasoning:
 - ◆ explanation of the assumptions made;
 - ◆ recognizing the construction of conjectures that appear plausible
 - ◆ construct examples in order to evaluate the proposition or conjecture;
 - ◆ describe or identify flaws or gaps in an argument;
 - ◆ precision with which the student constructs a logical sequence of steps

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Math Claim #4 (20%)

Evidence – Constructed Response

- ◆ A key feature of items and tasks in Claim #4 is the student is confronted with a contextualized, or “real world” situation and must decide which information is relevant and how to represent it.
- ◆ Effectively formulate models of the situations presented and make appropriate inferences
- ◆ Items and tasks of this sort require students to apply mathematical concepts at a significantly deeper level of understanding of mathematical content than is expected by Claim #1

CCSS For ELA

Common Core State Standards
for English Language Arts, &
Literacy in History/Social
Studies, Science, & Technical
Subjects

ELA & Literacy 5 Claims

Claim #1	Students can read closely and critically to comprehend a range of increasingly complex literary and informational texts.
Claim #2	Students can produce effective writing for a range of purposes and audiences.
Claim #3	Students can employ effective speaking and listening skills for a range of purposes and audiences.
Claim #4	Students can engage appropriately in collaborative and independent inquiry to investigate/research topics, pose questions, and gather and present information.
Claim #5	Students can skillfully use and interpret written language across a range of literacy tasks.

ELA & Literacy Claim #1

Students can read closely and critically to comprehend a range of increasingly complex literary and informational texts

- ◆ At grades 3-5, equal assessment emphasis will be placed on reading both literary and informational texts.
- ◆ At grades 6-8, assessment emphasis will shift
 - ◆ informational texts (55%)
 - ◆ literary texts (45%).
- ◆ By high school, greater emphasis (70%) will be placed on reading a range of informational texts, including literary nonfiction.

ELA & Literacy Claim #2

Students can produce effective writing for a range of purposes and audiences

- ◆ At grades 3-5, assessment emphasis will be distributed as follows:
 - ◆ narrative writing (35%)
 - ◆ informational writing (35%)
 - ◆ persuasive writing to support opinions based on evaluation of evidence (30%).
- ◆ At grades 6-8, emphasis will shift slightly to:
 - ◆ narrative writing (30%)
 - ◆ informational writing (35%)
 - ◆ persuasive writing (arguments) to support claims about topics or texts (35%).

ELA & Literacy Claim #3

Students can employ effective speaking and listening skills for a range of purposes and audiences

Listening:

- Most of the listening items/tasks will be administered as part of the on-line computer-adaptive assessment (CAT). Some prompts for performance tasks outside of the CAT assessment may also assess listening skills.

Speaking:

- Shorter summative speaking task (approximately 2-5 minutes), externally scored audio- or video-recorded presentations
- “common” summative speaking performance tasks (oral presentations) for local use during the school year at selected grade levels

ELA & Literacy Claim #4

Students can engage appropriately in collaborative and independent inquiry to investigate/research topics, pose questions, and gather and present information

- ◆ Multi-step performance tasks, students demonstrate their ability to apply literacy skills across content areas - history/social studies, science, and technical subjects, as well as the language arts

ELA & Literacy Claim #5

Students can skillfully use and interpret written language across a range of literacy tasks.

- ◆ Similar standards addressing language use and vocabulary acquisition appear in different sections of the Common Core at all grade levels.
- ◆ The evidence for this claim comes collectively from specific reading, writing, and research items and tasks.

Timeline of Testing...

Year	SBAC	State
2011-2012	Developing formative assessment practices and instructional resources	Recruitment of CFCC
2012-2013 Fall	Write field test items and tasks. Check for bias	CFCC meets 6 times
2012-2013 Spring	Pilot testing in sample schools	Draft of Framework to start review STAR Test "Lite"
2013-2014	Field tests	Implementation of Frameworks STAR Test "Lite"
2014-2015	Assessment and digital library available to states	SBAC Testing
2015-2016	Instructional materials adoption	

What do we do now?

- ◆ Incorporate Mathematical Practices
- ◆ Some districts are moving 100% to CCSS in Fall 2012
- ◆ The high school district needs the middle schools to move to CCSS first
- ◆ The middle schools need the elementary to move to CCSS
- ◆ After this year, testing will be aligned to CCSS

What do we do now?

- ◆ Seek out professional development
- ◆ Align standards with current resources
- ◆ Have depository of links to CCSS resources
 - ◆ There are a lot out there
 - ◆ Pearson foundation and Gates foundations are committed to making units available 2012-2013
- ◆ Vertical articulation

Common Core State Standards CCSS

Credits/resources

- ◆ Academic Benchmarks <http://www.academicbenchmarks.com/ccss-state-status/140-sbac-states>
- ◆ California Mathematics Council www.cmc-math.org
- ◆ Common Core Standards Initiative www.corestandards.org
- ◆ <http://commoncoretools.me/>
- ◆ Content Specifications with Content Mapping for the Summative assessment of the CCSS for ELA & Literacy in History/Social Studies, Science, and Technical Subjects (September 19, 2011), SBAC
- ◆ Content Specifications for Summative assessment of the CCSSM (March 20, 2012), SBAC
- ◆ <https://mathreasoninginventory.com/>
- ◆ NCTM: CCSSM Overview 120210.v2.ppt www.nctm.org
- ◆ <http://www.noycefdn.org/resources.php>
- ◆ SBAC <http://www.smarterbalanced.org/>