Simplifying the

COMMON CORE STATE STANDARDS

PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

ENROLLMENT ADVISORY COUNCIL

CSUB

CCSS Awareness Workshop

The Changing Classroom

The Changing Classroom

The Changing Classroom

The Changing Classroom

"These days the facts are readily available on the Internet, they can change overnight, and they can be learned quickly. These days it is what you do with the knowledge that counts."

Zwiers and Crawford *Academic Conversations: Classroom Talk That Fosters Critical Thinking and Content Understandings*

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Introduction to the

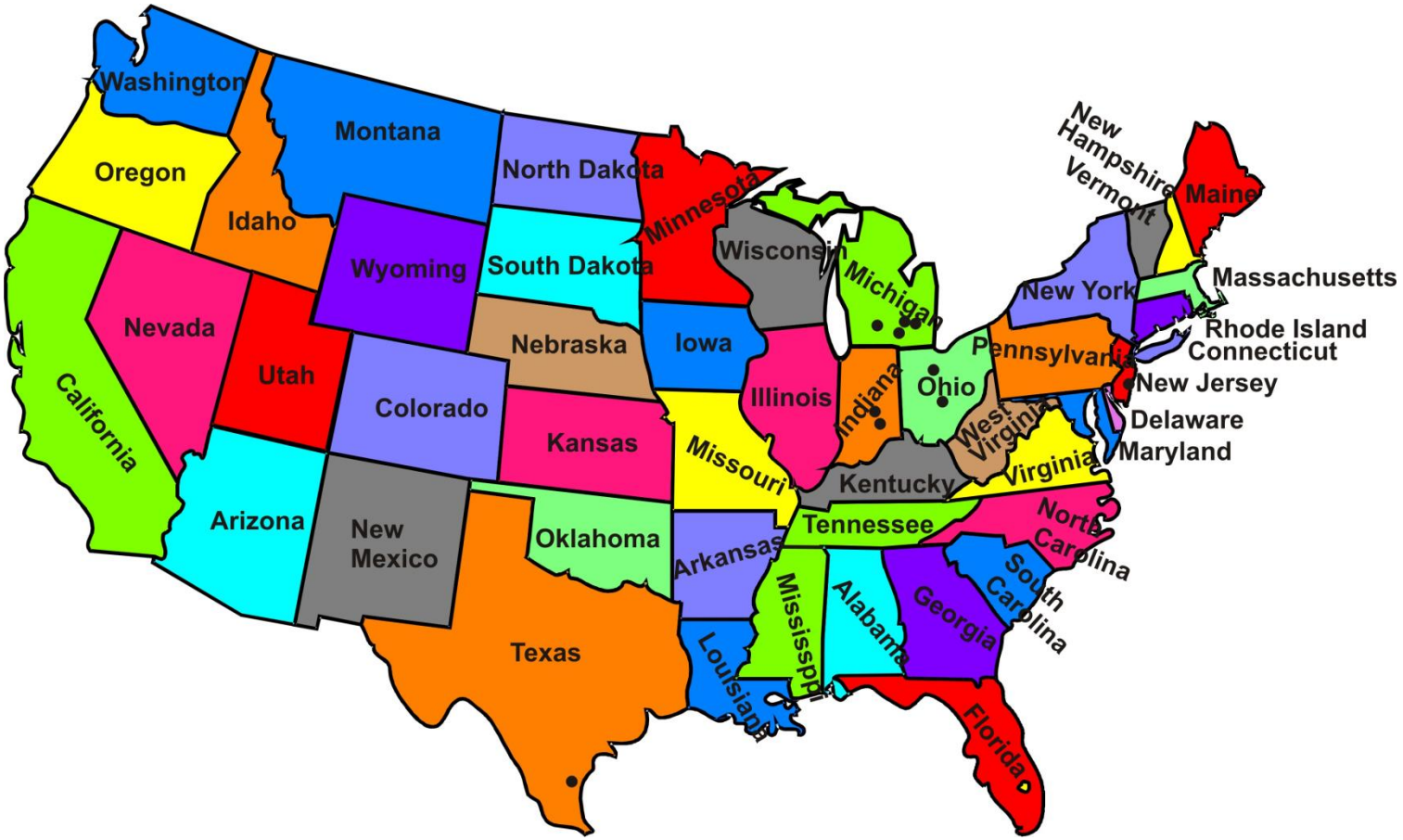
Common Core State Standards

Spring 2012

KHSD INSTRUCTION

2001: NO CHILD LEFT BEHIND

National Standards-Based Assessment and Accountability



50 sets of STANDARDS **50 sets of ASSESSMENTS**

with a wide range of RIGOR

20 Years of Standards: Lessons Learned

- Even though some states had rigorous standards, **multiple choice assessments** moved instructional focus away from higher level cognitive tasks.
- **WYTIWYG**: *What You Test is What You Get*
- **Too many standards:** the number of standards often exceeded the instructional time available.
- With 50 different sets of state standards, textbooks were "***aligned to standards***" but not written directly to the standards.

Achieve

All students should graduate from high school ready for **college, careers** and **citizenship**

ACHIEVE

A bipartisan group of **governors** and **corporate leaders**

Achieve

2004 Report: *Ready or Not:*

Creating a High School Diploma That Counts

ACHIEVE: A bipartisan group of governors and corporate leaders

REPORT CONCLUSIONS:

- Current high-school exit expectations **fall well short of employer and college demands**.
- A high school diploma in the U.S. was and continues to be a "**broken-promise** which is supposed to reflect adequate preparation for the intellectual demands of adult life, but in reality it falls far short of this common sense goal.
- The **solution** to combat this problem is a **COMMON SET of RIGOROUS STANDARDS**.

National Governors Association

CCSSO
Council of Chief State School Officers

2009 Initiative:

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PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

The initiative's stated purpose:

- provide a **consistent, clear understanding** of what **students are expected to learn**.
- Also, the standards are designed to be **rigorous and relevant to the real world**, reflecting the knowledge and skills that our young people need **for success in college and careers**, which will place American students in a position in which they can compete in a global economy.

Published: June 2, 2010

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COMMON CORE STATE STANDARDS FOR

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

COMMON CORE STATE STANDARDS FOR

Mathematics

States that adopted the **Common Core State Standards** agreed to have **85%** of their state standards be from the CCSS.
States could choose to add another 15%.

The Structure

of the Common Core State Standards

Common Core Mathematics

- Content Standards for Mathematics
- The Standards for Mathematical Practice

Common Core English Language Arts & Literacy

- **K-5** ELA & Literacy Standards
- **6-12** Standards for English Language Arts
- **6-12** Standards for Literacy in History/Social Studies, Science, and Technical Subjects

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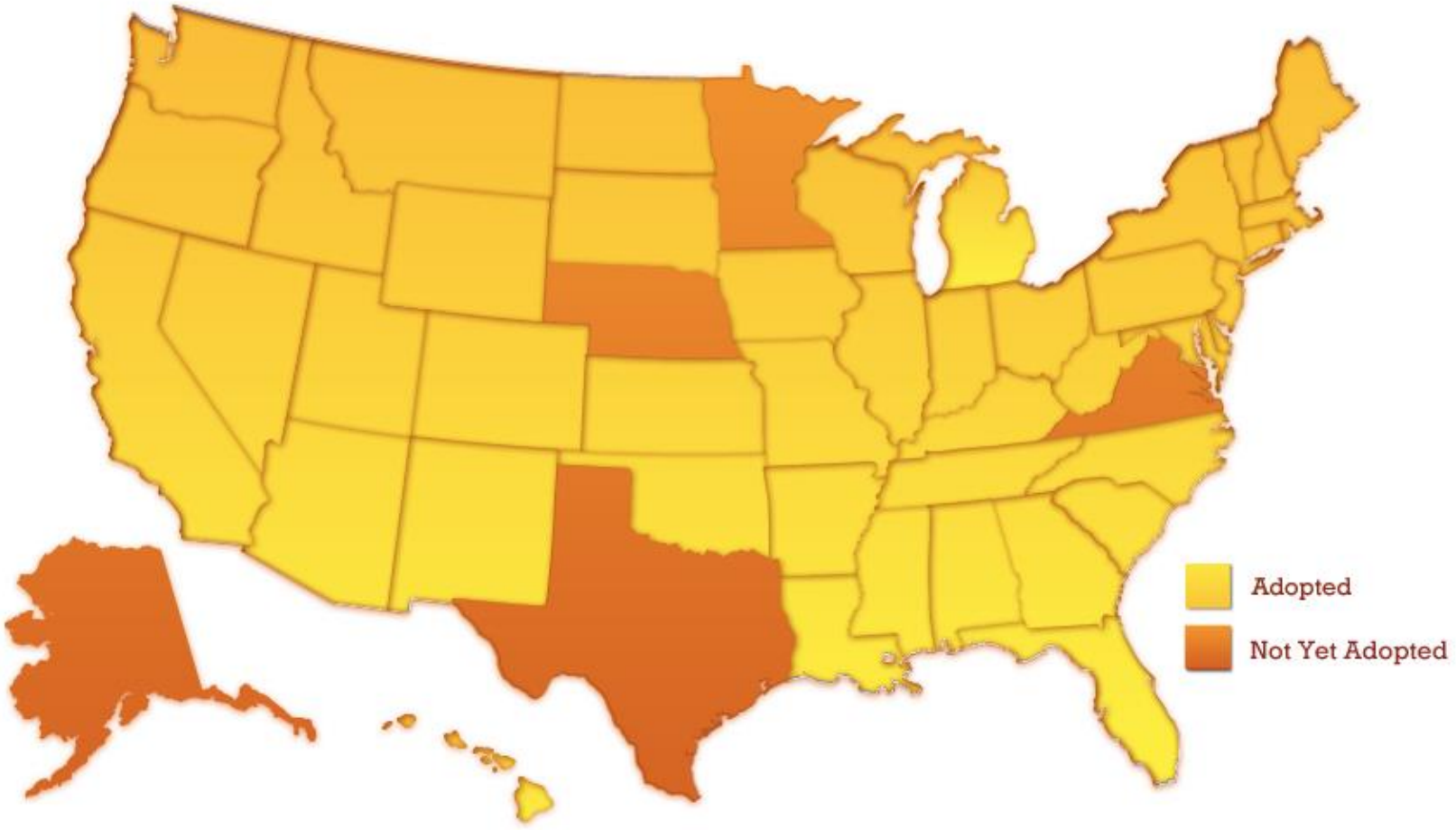

The **Common Core State Standards** currently have been adopted by 45 states.

August 2, 2010: California adopts the **CA-CCSS**

California's Common Core Content Standards for

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

K-12 California's
Common Core Content Standards for

Mathematics

California added **additional standards** to the CCSS, denoted by ***bold and underlined print***.

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COMMON CORE STATE STANDARDS FOR

Mathematics

Two types of Standards in Common Core Mathematics

- **Content Standards**

  The mathematics that all students should study in order to be college and career ready.

- **Standards for Mathematical Practice**

  The varieties of expertise that mathematics educators should seek to develop in their students.

The Standards for Mathematical Practice

Describe the ***HABITS OF MIND*** of a mathematically proficient student.

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Standards for Mathematical Practice

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.**

Standards for Mathematical Practice

The habits of mind for our students.

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PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

Standards for Mathematical Practice

The habits of mind for our students.

1. **Make sense of problems and persevere in solving them.**

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Standards for Mathematical Practice

The habits of mind for our students.

2. Reason abstractly and quantitatively.

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Standards for Mathematical Practice

The habits of mind for our students.

3. Construct viable arguments and critique the reasoning of others.

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Standards for Mathematical Practice

The habits of mind for our students.

4. Model with mathematics.

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Standards for Mathematical Practice

The habits of mind for our students.

5. Use appropriate tools strategically.

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Standards for Mathematical Practice

The habits of mind for our students.

6. Attend to precision.

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California's Common Core Content Standards

English Language Arts

and

Literacy

in History/Social Studies, Science, and Technical Subjects

NEXT GENERATION SCIENCE STANDARDS
For States, By States

News | FAQ | Contact

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1 2 3 4 5 6 7 8 9

CURRENT PHASE

The Next Generation Science Standards are released

Explore the standards

About NGSS

Next Generation Science Standards for Today's Students and Tomorrow's Workforce: Through a collaborative, state-led process managed by Achieve, new K–12 science standards are being developed that will be rich in content and practice, arranged in a coherent manner across disciplines and grades to provide all students an internationally benchmarked science education. The NGSS will be based on the *Framework for K–12 Science Education* developed by the National Research Council.

Latest News

Final Next Generation Science Standards Released
April 09, 2013

Update on the Final Release of the Next Generation Science Standards
March 28, 2013

NSTA Statement on Release of Second Public Draft of the Next Generation Science Standards

Resources

Watch a webinar about the NGSS

NGSS Life Science Standards

- **HS-LS1-1. Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.**
- **HS-LS1-2. Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.**

Common Core Standards **Design**

College and Career Readiness

Anchor Standards

Common Core State Standards

Anchor Standards: Reading and Writing

for English Language Arts, History/Social Studies, Science, and Technical Subjects

College and Career Readiness Anchor Standards for Reading

Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.

Integration of Knowledge and Ideas

7. Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.

College and Career Readiness Anchor Standards for Writing

Text Types and Purposes

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Common Core State Standards

Anchor Standards: Speaking and Listening, Language

for English Language Arts

College and Career Readiness Anchor Standards for Speaking and Listening

Comprehension and Collaboration

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

Presentation of Knowledge and Ideas

4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
6. Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

College and Career Readiness Anchor Standards for Language

Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Knowledge of Language

3. Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Vertically Aligned

Common Core State Standards
Reading Standard 2 for Informational Text

Level	Standard	Notes
Anchor Standard	**Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.**	**Determine, Analyze, Summarize**
12 11	Determine two or more central ideas of a text and analyze their development over the course of the text, including how they **interact and build on one another to provide a complex analysis**; provide an objective summary of the text.	focus on the interaction of ideas and the development of the analysis
10 9	Determine a central idea of a text and analyze its development over the course of the text, including how it **emerges and is shaped and refined by specific details**; provide an objective summary of the text.	focus on subtleties of text – rigor of text implied
8	Determine a central idea of a text and analyze its development over the course of the text, including its **relationship to supporting ideas**; provide an objective summary of the text.	focus on analysis of the use of supporting evidence
7	Determine two or more central ideas in a text and **analyze** their development over the course of the text; provide an objective summary of the text.	focus on analysis
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**.	focus on implied rather than overtly stated central idea; summary must be objective
5	Determine **two or more main ideas** of a text and explain how they are supported by key details; summarize the text.	focus on text having more than one main idea – rigor of text implied
4	Determine the main idea of a text and explain how it is supported by key details; **summarize the text.**	summary
3	Determine the main idea of a text; recount the key details and **explain how they support the main idea.**	focus on how supporting evidence is used
2	Identify the main topic of a **multiparagraph text** as well as the focus of specific paragraphs within the text.	rigor of text increases
1	Identify the main topic and retell key details of a text.	skill must be performed independently
K	**With prompting and support**, identify the main topic and retell key details of a text.	Foundational Skill: Identify


xtranormal

Ramp Up the Rigor: Content and Assessment

Acquisition
of
Knowledge
(the academic content)

RIGOR

CSTs

Demonstration
of
Knowledge
(the student task or assessment)

The California State Standards

Ramp Up the Rigor: Content and Assessment

Acquisition
of
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Smarter Balanced
Assessment Consortium

WYTIWYG

"What you test is what you get"

Recommendations for Transitioning California to a Future Assessment System

Recommendation 3 – Use the Grade Eleven SBAC ELA and Mathematics Assessments as an Indicator of College Readiness

Use the grade eleven SBAC ELA and mathematics assessments to serve as the indicator of college readiness for entry into college credit-bearing courses, a task that is currently fulfilled through the CST/EAP assessments. All grade eleven students would take the grade eleven SBAC and, therefore, all grade eleven students would be provided with an indicator of college readiness.

Literacy Assessment Claims

1	Students can **read closely and critically** to comprehend a range of increasingly complex literary and informational texts.
2	Students can **produce effective and well-grounded writing** and for a range of purposes and audiences.
3	Students can **employ effective speaking and listening skills** for a range of purposes and audiences.
4	Students can **engage in research and inquiry** to investigate topics and to analyze, integrate, and present information.

Science Practices

The *Framework* identifies eight science and engineering practices that mirror the practices of professional scientists and engineers. These are intended to strengthen students' skills in these practices at the same time as they develop their understanding of the nature of science and engineering. Listed below are the science and engineering practices from the *Framework*:

1. Asking questions and defining problems
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics, information and computer technology, and computational thinking
6. Constructing explanations and designing solutions
7. Engaging in Argument from evidence
8. Obtaining, evaluating, and communicating information

Ramp Up the Rigor: Literacy

Smarter Balanced Assessment Consortium

Assessment Claims

1	Students can **read closely and critically** to comprehend a range of increasingly complex literary and informational texts.
2	Students can **produce effective and well-grounded writing** and for a range of purposes and audiences.
3	Students can **employ effective speaking and listening skills** for a range of purposes and audiences.
4	Students can **engage in research and inquiry** to investigate topics and to analyze, integrate, and present information.

COMMON CORE STATE STANDARDS INITIATIVE
PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

Standards for Mathematical Practice

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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.**

The Purpose

Dr. Jill Hamilton-Bunch
"Students must be immersed in language instruction."
"All teachers are language teachers – they teach the language of their content."

Recommendations for Transitioning California to a Future Assessment System

Recommendation 7 – Assess the Full Curriculum Using Assessments that Model High-Quality Teaching and Learning Activities

Over the next several years, consult with stakeholders and subject matter experts to develop a plan for assessing grade levels and curricular areas beyond those required by the ESEA (i.e., ELA, mathematics, and science) in a manner that models high-quality teaching and learning activities. Areas for consideration should include the visual and performing arts, world languages, technology, science, and history–social science. The plan should include the use of various assessment options such as computer-based tests, locally-scored performance tasks, and portfolios. In order to address feasibility and fiscal concerns, the plan should explore the use of a state-determined assessment calendar that would schedule the assessment of non-ESEA required subjects over several years.

page 43-44

Recommendations for Transitioning California to a Future Assessment System

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page 43-44

The Smarter Balanced Assessment

- Selected Response

The Smarter Balanced Assessment

- Selected Response – 11th grade

Read the passage below and then answer the question.

High School and Extracurricular Activities

Some people argue that clubs and activities are a waste of time and distract students from more important academic pursuits but studies show that students involved in extracurricular activities are more likely to graduate and earn better grades than students who don't participate. It is true that academics are a high school's primary role; however, the students who are proud of their school, feel like they belong, and have activities to look forward to are the ones who care most about their grades and stay in school. Extracurricular activities, such as clubs and sports, are an essential component of any high school education. Clubs, activities, and sports teams help students stay focused, build school spirit and unity, and provide a way to make friends in the daunting high school social environment.

Item Prompt:

This is a short argumentative article written by a student. The paragraph needs to be better organized to more clearly establish the claim. Reorder the sentences to the best location within the paragraph.

The Smarter Balanced Assessment

- Selected Response
- Constructed Response

The Smarter Balanced Assessment

- Selected Response
- Constructed Response – 11th grade

Read the following passage and then answer the question.

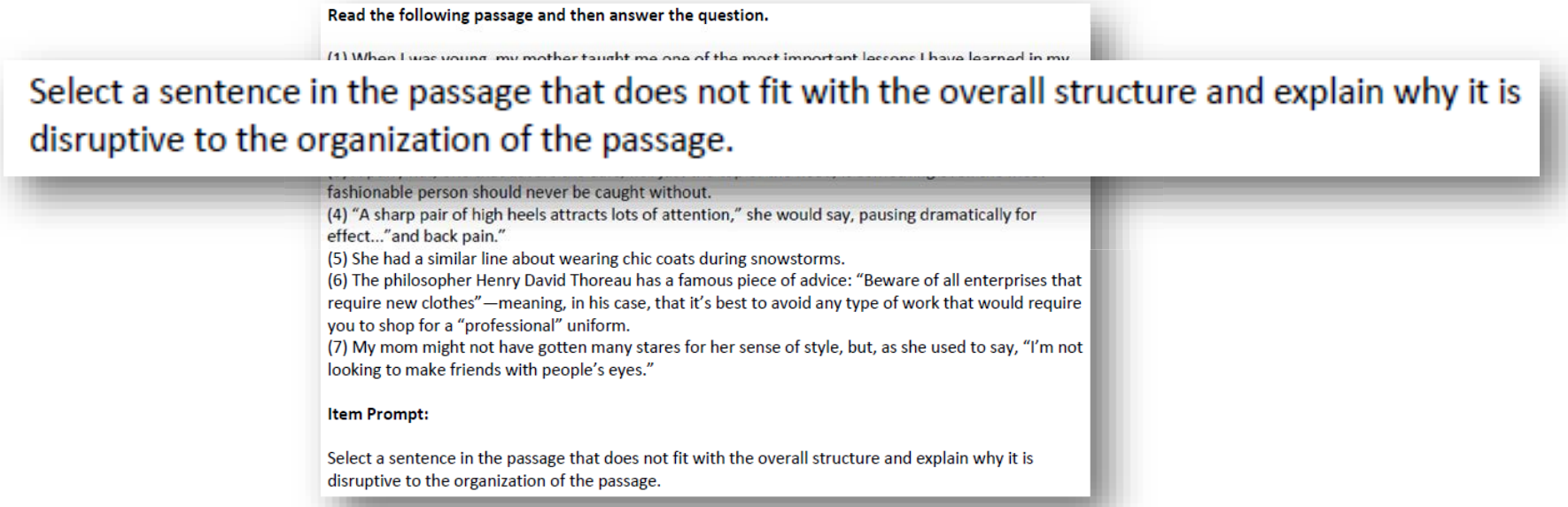
(1) When I was young, my mother taught me one of the most important lessons I have learned in my life: never sacrifice comfort for fashion.
(2) That's not to say my mother didn't know how to dress--but there were two things you could never accuse her of not having, even if the ones she had wouldn't turn any heads on a fashion runway: comfortable shoes and a warm coat.
(3) A puffy hat, one that covers the ears, not just the top of the head, is something even the most fashionable person should never be caught without.
(4) "A sharp pair of high heels attracts lots of attention," she would say, pausing dramatically for effect..."and back pain."
(5) She had a similar line about wearing chic coats during snowstorms.
(6) The philosopher Henry David Thoreau has a famous piece of advice: "Beware of all enterprises that require new clothes"—meaning, in his case, that it's best to avoid any type of work that would require you to shop for a "professional" uniform.
(7) My mom might not have gotten many stares for her sense of style, but, as she used to say, "I'm not looking to make friends with people's eyes."

Item Prompt:

Select a sentence in the passage that does not fit with the overall structure and explain why it is disruptive to the organization of the passage.

The Smarter Balanced Assessment

- Selected Response
- Constructed Response – 11th grade



Read the following passage and then answer the question.

(1) When I was young, my mother taught me one of the most important lessons I have learned in my

Select a sentence in the passage that does not fit with the overall structure and explain why it is disruptive to the organization of the passage.

fashionable person should never be caught without.
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Select a sentence in the passage that does not fit with the overall structure and explain why it is disruptive to the organization of the passage.

The Smarter Balanced Assessment

- Selected Response
- Constructed Response
- Performance Task

The Smarter Balanced Assessment

- Selected Response
- Constructed Response
- Performance Task
  - Access Five Sources

The Smarter Balanced Assessment

- Selected Response
- Constructed Response
- Performance Task
  - Access Five Sources
  - Respond to Constructed Response Prompts

The Smarter Balanced Assessment

1. Analyze the information presented in the "Long Term Unemployment 1967 - 2011" video and the article "Half of Recent College Graduates Lack Full-Time Job, Study Says." Use details from the video and article to support your answer.
2. What do the statistics from the United States Department of Labor suggest about the current trends of employment and income levels? Use details from the chart to support your answer.
3. Explain how the information presented in the "Half of Recent College Graduates Lack Full-time Job, Study Says" report and the video "Graduate Unemployment at a High" differs from the information in the article "California Faces Shortage of College Graduates for Workforce, Study Finds." Support your answers with details from the video and the articles.

The Smarter Balanced Assessment

- Selected Response
- Constructed Response
- Performance Task
  - Access Five Sources
  - Respond to Constructed Response Prompts
  - Respond to Performance Task Prompt

The Smarter Balanced Assessment

You will now have 85 minutes to review your notes and sources, plan, draft, and revise your essay. You may also refer to the answers you wrote to the questions in part 1, but you cannot change those answers. Now read your assignment and the information about how your essay will be scored, then begin your work.

Your Assignment

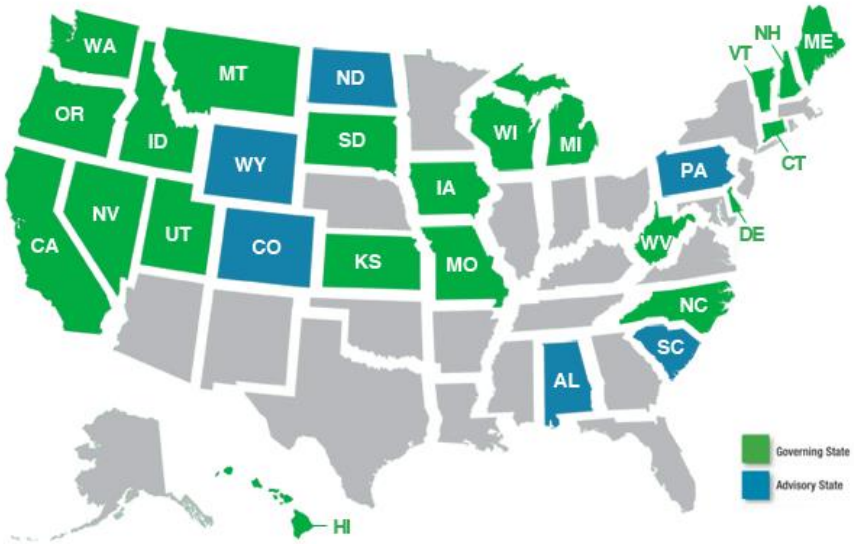
Many high school students are evaluating the benefits of a college education when seeking employment. Write an argumentative essay explaining why you would encourage or discourage high school graduates concerned about their financial future to pursue a college degree. Support your claim with evidence from what you have read and viewed.

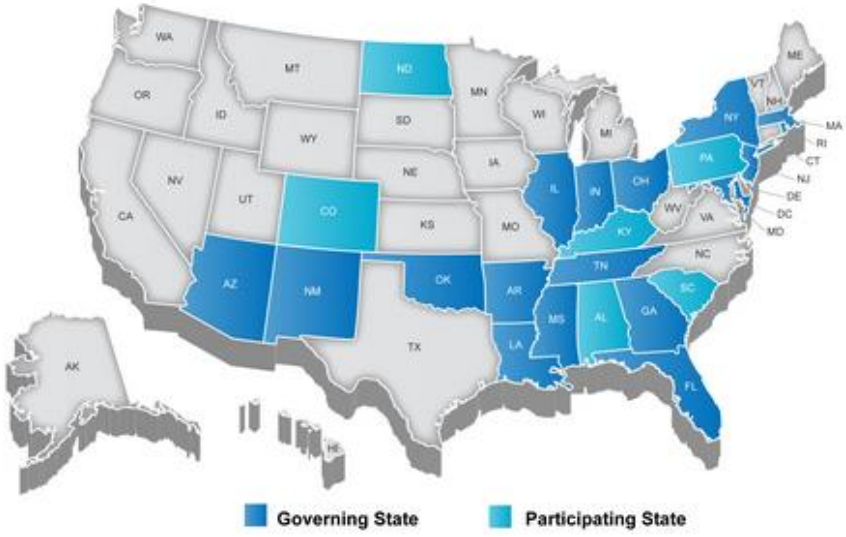
Two CCSS Assessment Consortia

Smarter Balanced Assessment Consortium

PARCC

Partnership for Assessment of Readiness for College and Careers





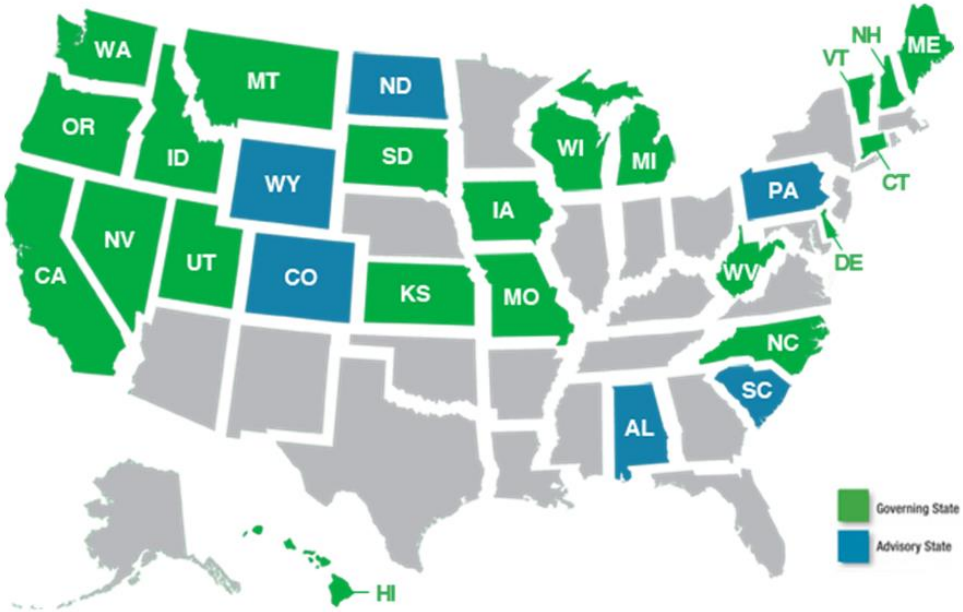
Common Core Assessment Program

California is a governing state in the

Smarter Balanced Assessment Consortium

SBAC

Member States



2012-13: Field Testing
2013-14: Pilot Testing

2014-15:
SBAC Assessments

SBAC Overview

SMARTER

***S**ummative **M**ulti-state **A**ssessment **R**esources*
*for **T**eachers and **E**ducational **R**esearchers*

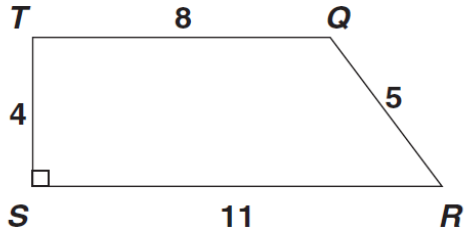
Math Assessment Claims

Concepts and Procedures	"Students can explain and **apply mathematical concepts** and carry out mathematical procedures with precision and fluency."
Problem Solving	"Students can **frame and solve a range of complex problems** in pure and applied mathematics."
Communicating Reasoning	"Students can clearly and precisely **construct viable arguments to support their own reasoning** and to **critique the reasoning of others**."
Data Analysis and Modeling	"Students can **analyze complex, real-world scenarios** and **use mathematical models** to interpret and solve problems."

Assessment Claims

Concepts and Procedures	"Students can explain and **apply mathematical concepts** and carry out mathematical procedures with precision and fluency."

77 What is the area of trapezoid $QRST$ in square units? $\left(A = \frac{1}{2}h(b_1 + b_2)\right)$



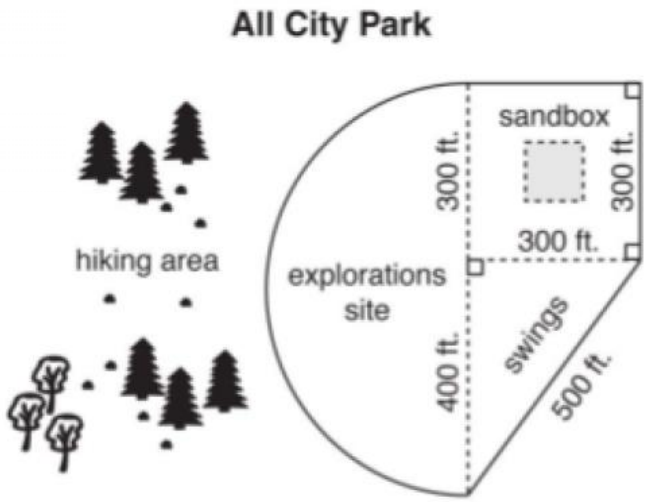
A 22
B 27
C 38
D 48

CST
California Standards Test

Assessment Claims

Problem Solving	"Students can **frame and solve a range of complex problems** in pure and applied mathematics."

Constructed Response

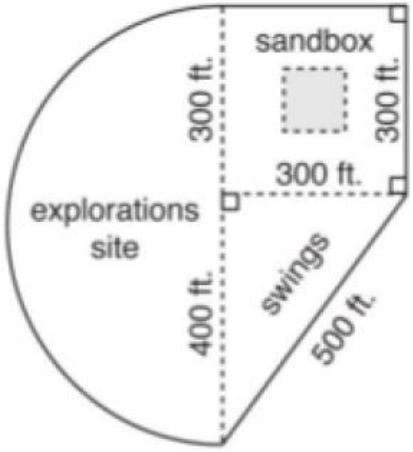


The All City Recreation Committee plans to put a fence around a playground area in All City Park. The solid line in the diagram above outlines the sections in the park that the committee wants to surround with a fence. Information about fencing prices is shown below:

FENCE-ALL COMPANY Fencing: $0.30 per foot	ACME FENCE COMPANY Fencing: $0.32 per foot Orders totaling $500 or more will receive a 10% discount.

Assessment Claims

Communicating Reasoning	"Students can clearly and precisely **construct viable arguments to support their own reasoning** and to **critique the reasoning of others**."



a. How much fencing will the committee need to buy? Show your work.

Enter response here

Submit

b. Based on the information above, determine which fencing company offers the best deal for this project. Explain your reasoning and show all your work.

Enter response here

Submit

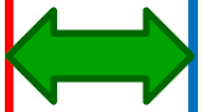
A Balanced Approach

Mathematical Skills and Conceptual Understanding

Connecting the
Standards for Mathematical Practice
to the
Standards for Mathematical Content

THE 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.

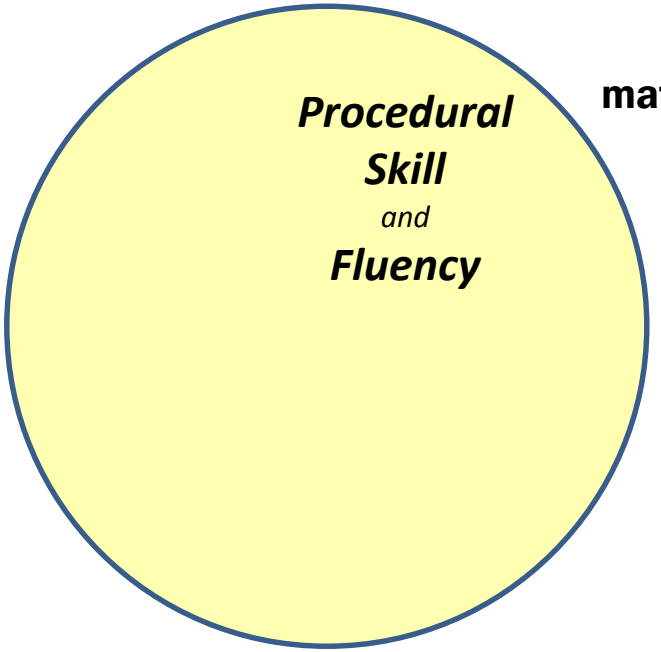


CONTENT STANDARDS

High School
CONCEPTUAL CATEGORIES

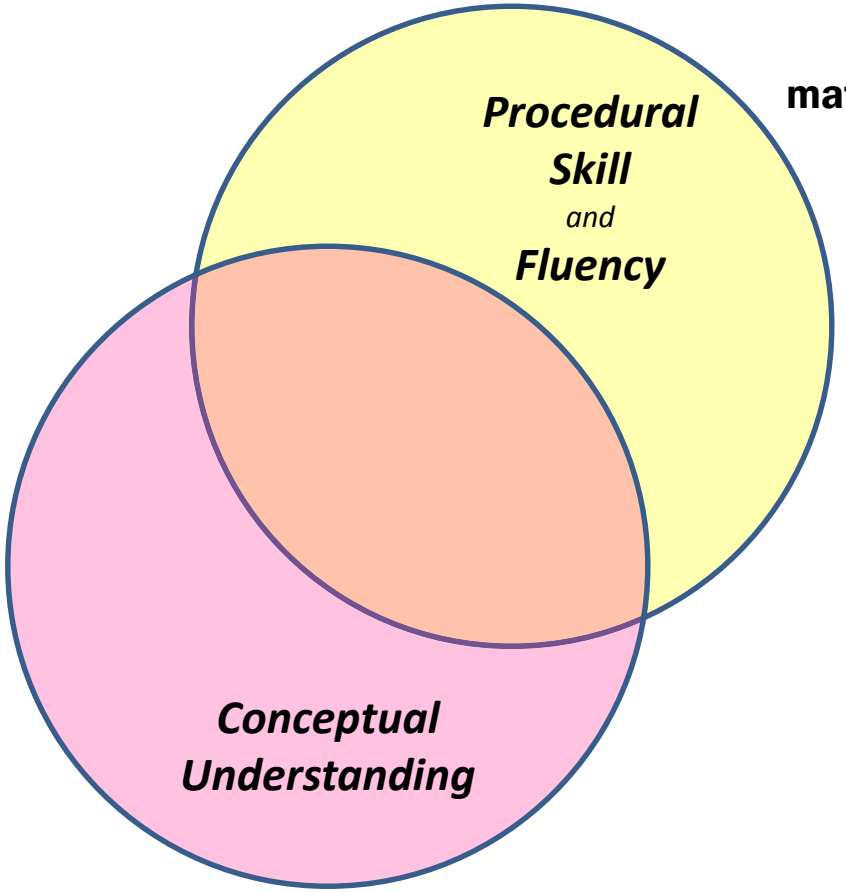
- Number and Quantity
- Algebra
- Functions
- Modeling
- Geometry
- Statistics and Probability

A Balanced Mathematics Class



"HOW" the mathematics works

A Balanced Mathematics Class



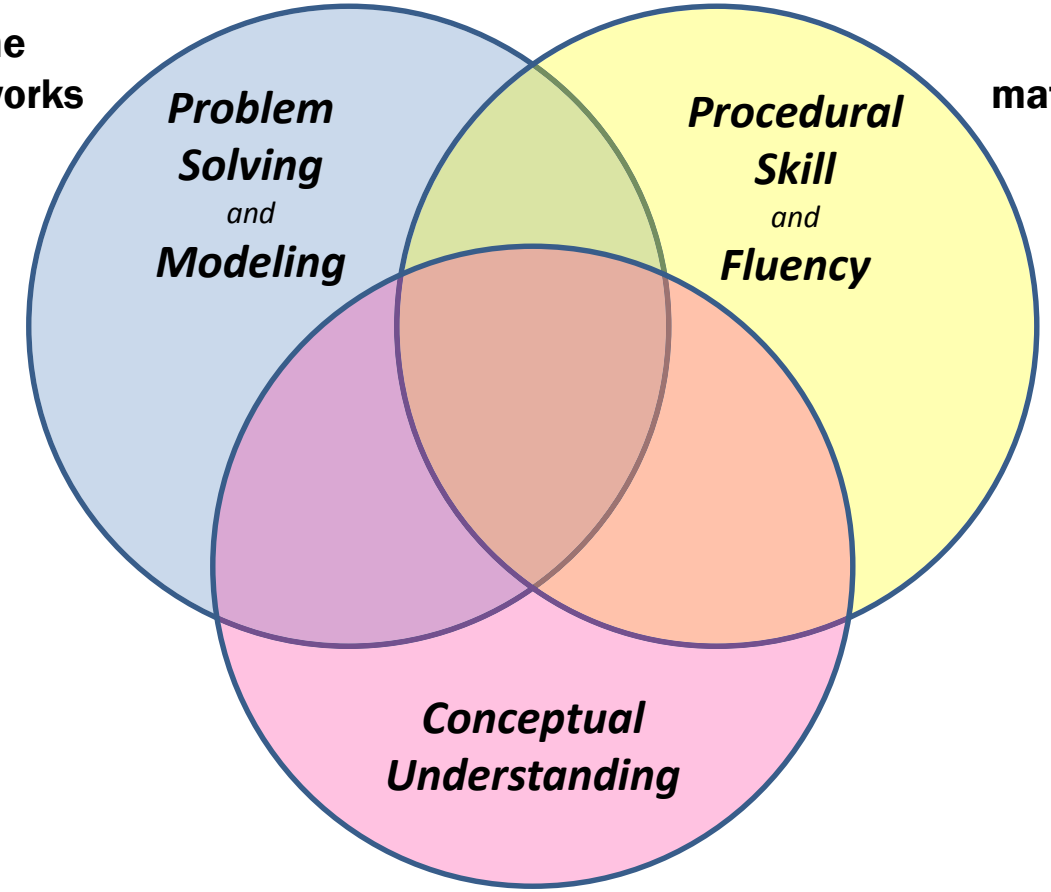
"HOW" the mathematics works

"WHY" the mathematics works

A Balanced Mathematics Class

"WHERE" the mathematics works

"HOW" the mathematics works

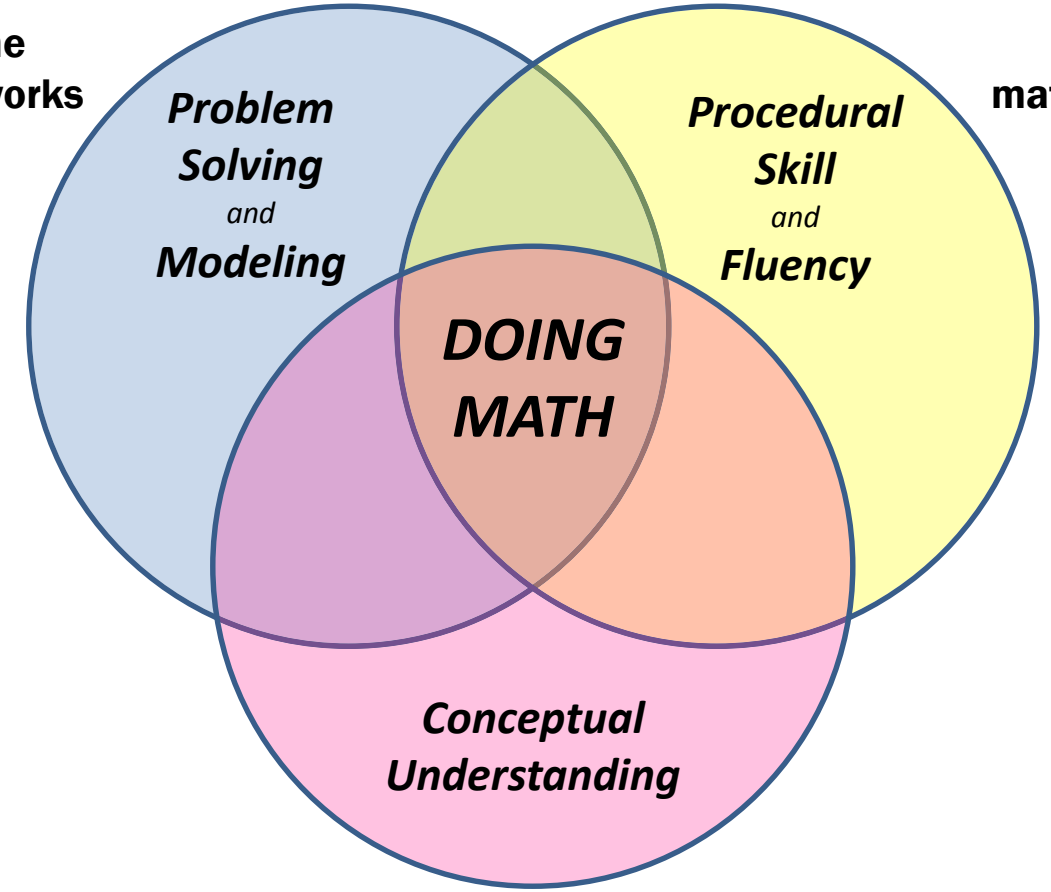


"WHY" the mathematics works

A Balanced Mathematics Class

"WHERE" the mathematics works

"HOW" the mathematics works



"WHY" the mathematics works

A Balanced Mathematics Classroom

DIRECT INSTRUCTION MODEL:

- *Procedural Skill and Fluency*
- *Solid Conceptual Understanding*

I DO Teacher	• Setting the Stage (Anticipatory Set): The teacher uses a "hook" to capture student interest and connect prior knowledge to the new learning of the lesson. • Clear learning targets are established: "What will the ***students*** be able to ***do*** on completion of the lesson?" • The teacher models the process with a variety of examples.
WE DO Students and Teacher	• Guided Practice: Students are presented with similar problems to try on their own, with a partner, or in their group. • The teacher circulates the classroom to check for understanding and provide feedback to the students. • The teacher provides scaffolding as a temporary support for students in need. • The teacher may ask students to share their problem solving process with a neighbor or invite them to present their solutions to the class.
YOU DO Students	• Independent Practice: Students practice the same kinds of problems on their own, perhaps beginning the homework assignment. • Closure (Formative Assessment): The students summarize their learning or solve a problem on an exit card. The teacher uses this as an assessment of the learning.

STUDENTS SOLVE RICH MATHEMATICAL TASKS:

- *Solid Conceptual Understanding*
- *Application of Skills in Problem Solving Situations*

YOU DO Students	• A problem or situation is presented to the students. The students may not see it yet, but the task's context will illustrate big ideas from the instructional unit. • Students, on their own, are encouraged to solve the problem any way they can using their own prior knowledge. • Each student is also asked to use his/her intuition to record a "best guess" of what a reasonable solution might look like.
WE DO Students and Teacher	• Students – in groups or pairs – with pencils down on their desks, discuss the meaning of the problem and share their ideas and first attempts. • Each group then synthesizes their ideas to come up with a draft of the solution. • The teacher serves as a coach, encouraging students to persevere in the process. • The teacher circulates the room and provides feedback and just-in-time instruction, as needed, for new math content or for scaffolding purposes. • Each student prepares a written solution, justifying their mathematical reasoning with precision, for each step of their process. The student will include an evaluation of their initial guess for the solution. • The different approaches of the groups are presented to the class and critiqued in a constructive mathematical discussion.
I DO Teacher	• The teacher uses the context of the task and builds on the various student approaches to nail down the key math standards from the task's learning targets. • The mathematics is formalized in a rigorous manner. • The mathematics illustrated by the task is generalized so that students can solve other, similar problems as required by the standards or learning targets.

DIRECT INSTRUCTION MODEL:

- *Procedural Skill and Fluency*
- *Solid Conceptual Understanding*

I DO Teacher	• Setting the Stage (Anticipatory Set): The teacher uses a "hook" to capture student interest and connect prior knowledge to the new learning of the lesson. • Clear learning targets are established: "What will the ***students*** be able to ***do*** on completion of the lesson?" • The teacher models the process with a variety of examples.
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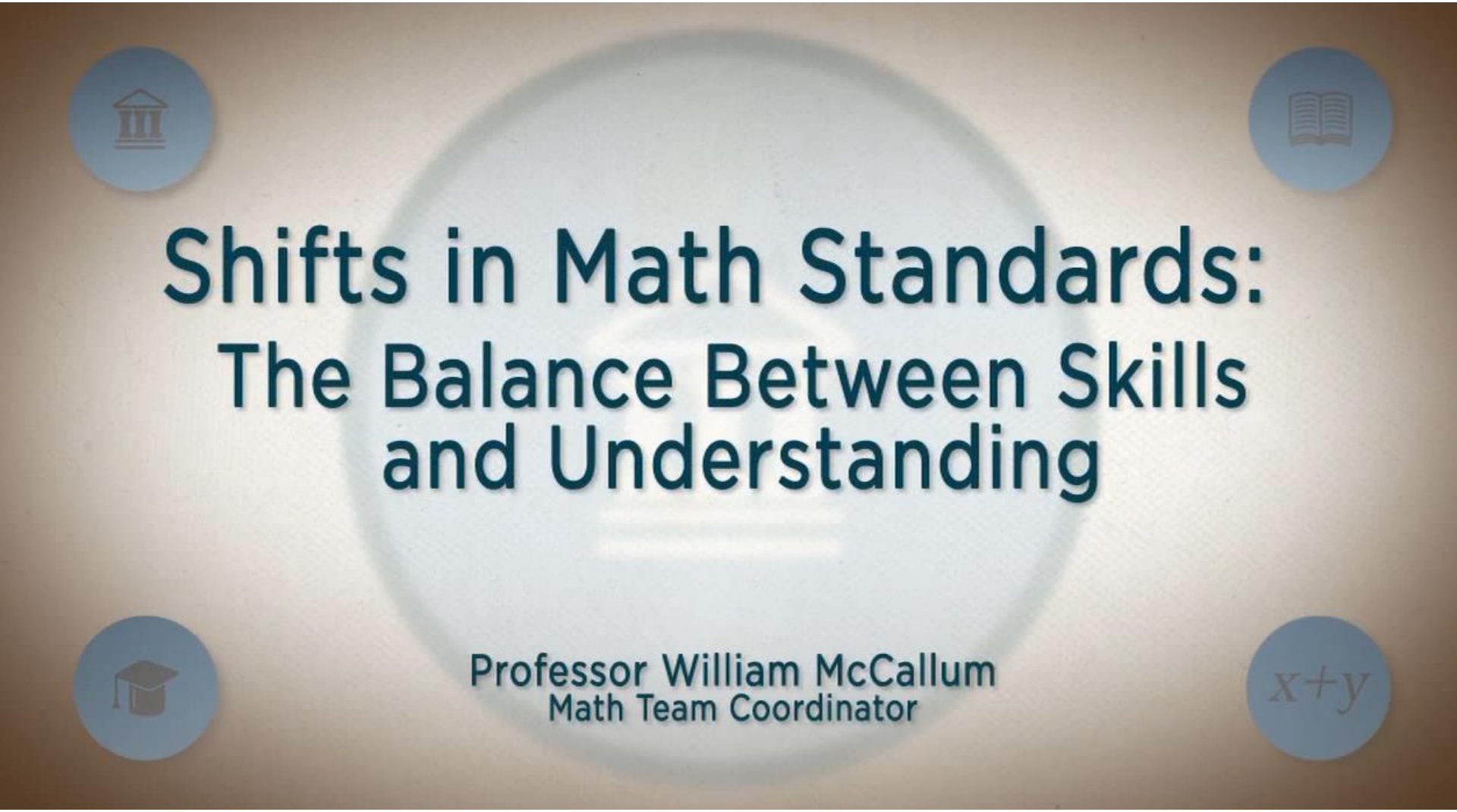

Shifts in Math Standards:
The Balance Between Skills and Understanding
Professor William McCallum
Math Team Coordinator
x+y

1:02

Simplifying the

COMMON CORE STATE STANDARDS

PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

Instructional Practice

Ramp Up the **Rigor**

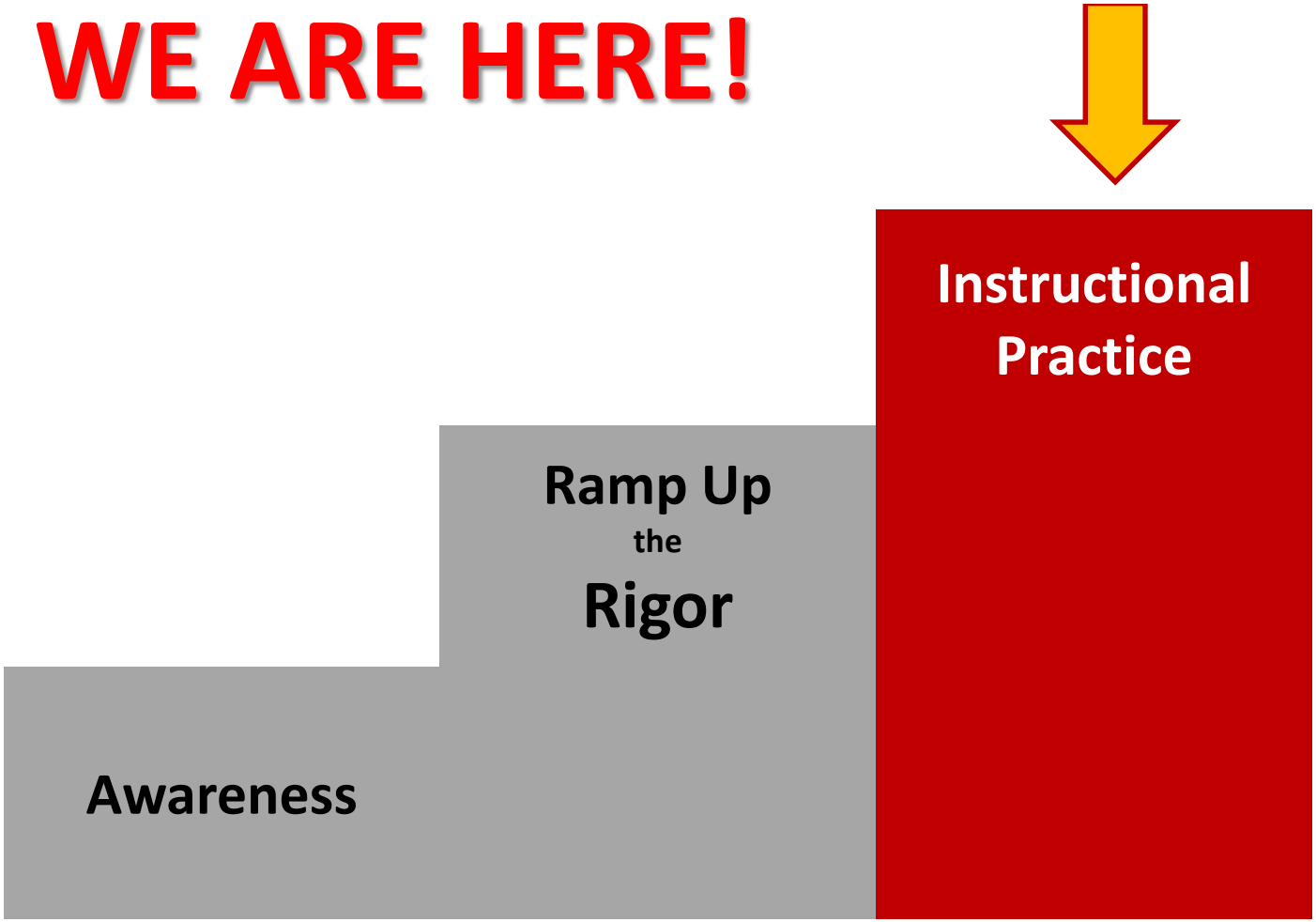
Awareness

Simplifying the

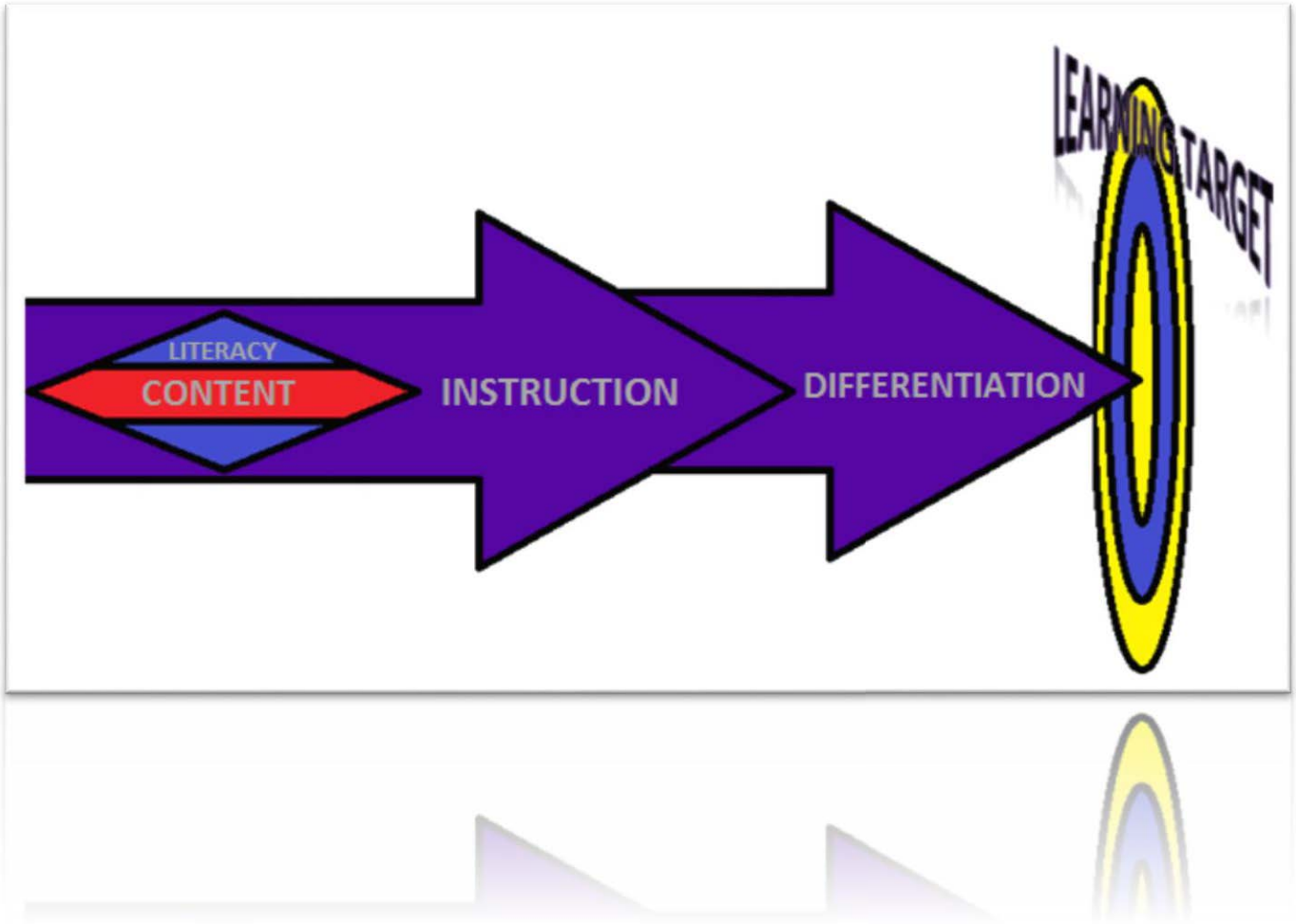
COMMON CORE STATE STANDARDS

PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

WE ARE HERE!



Changing Instruction

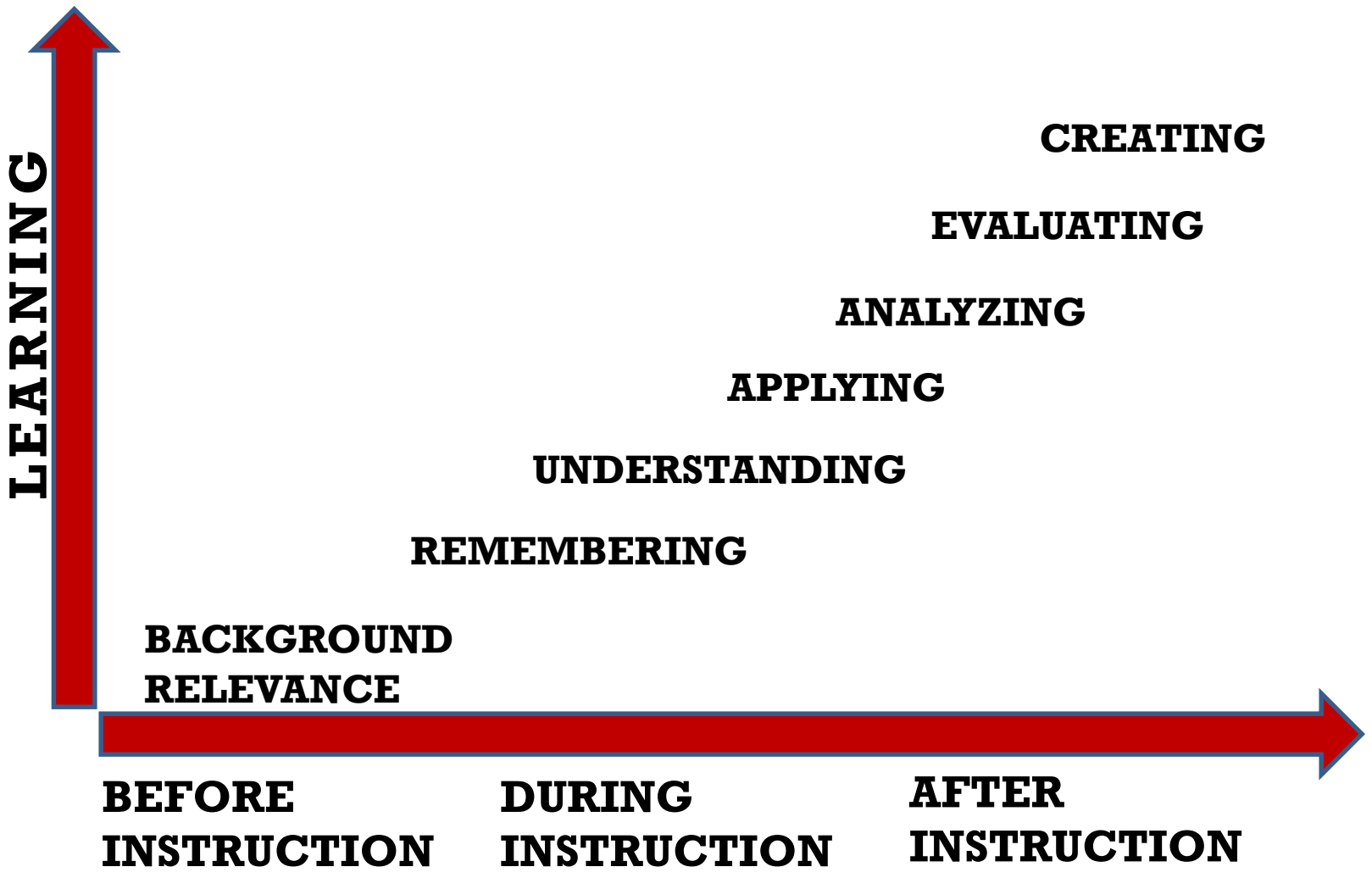


Scaffolding

Scaffolding

"Even many students on course for college and career readiness are likely to need scaffolding as they master higher levels of text complexity. . . . Although such support is educationally necessary and desirable, instruction must move generally toward decreasing scaffolding and increasing independence, with the goal of students reading independently and proficiently within a given grade band by the end of the band's final year."

CCSS Appendix A page 9


LEARNING
CREATING
EVALUATING
ANALYZING
APPLYING
UNDERSTANDING
REMEMBERING
BACKGROUND
RELEVANCE
BEFORE
INSTRUCTION
DURING
INSTRUCTION
AFTER
INSTRUCTION

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PREPARING AMERICA'S STUDENTS FOR COLLEGE & CAREER

Teacher Resources

www.corestandards.org

CCSS English Language Arts Standards
and Literacy in History, Science, and Technical Subjects

CCSS Mathematics Standards

Literacy Standards for History, Science, and Technical Subjects
(Excerpt: pages 59-66 of the CCSS ELA Standards)

Standards for Mathematical Practice
The varieties of expertise that mathematics educators should seek to develop in their students.

CCSS Mathematics: Appendix A
Designing High School Mathematics Courses based on the CCSS

CCSS ELA: Appendix A
Research Supporting Key Elements of the Standards and Glossary of Terms

CCSS ELA: Appendix B
Text Exemplars and Sample Performance Tasks

CCSS ELA: Appendix C
Samples of Student Writing

California Department of Education
Common Core Resources

California CCSS ELA Standards
and Literacy in History, Science, and Technical Subjects

California CCSS Mathematics Standards

California CCSS Implementation Timeline

California CCSS Implementation Plan
(March 2012, Word document, 62 pages)

2013 Revision of the California Mathematics Framework

2014 Revision of the California English Language Arts English Language Development Framework

California CCSS Frequently Asked Questions
California SBAC Assessment Resources
California SBAC Frequently Asked Questions

www.kernhigh.org/instruction/commoncore