



# Common Core/Standards Update

## 4<sup>th</sup> District PTA

### March 18, 2014

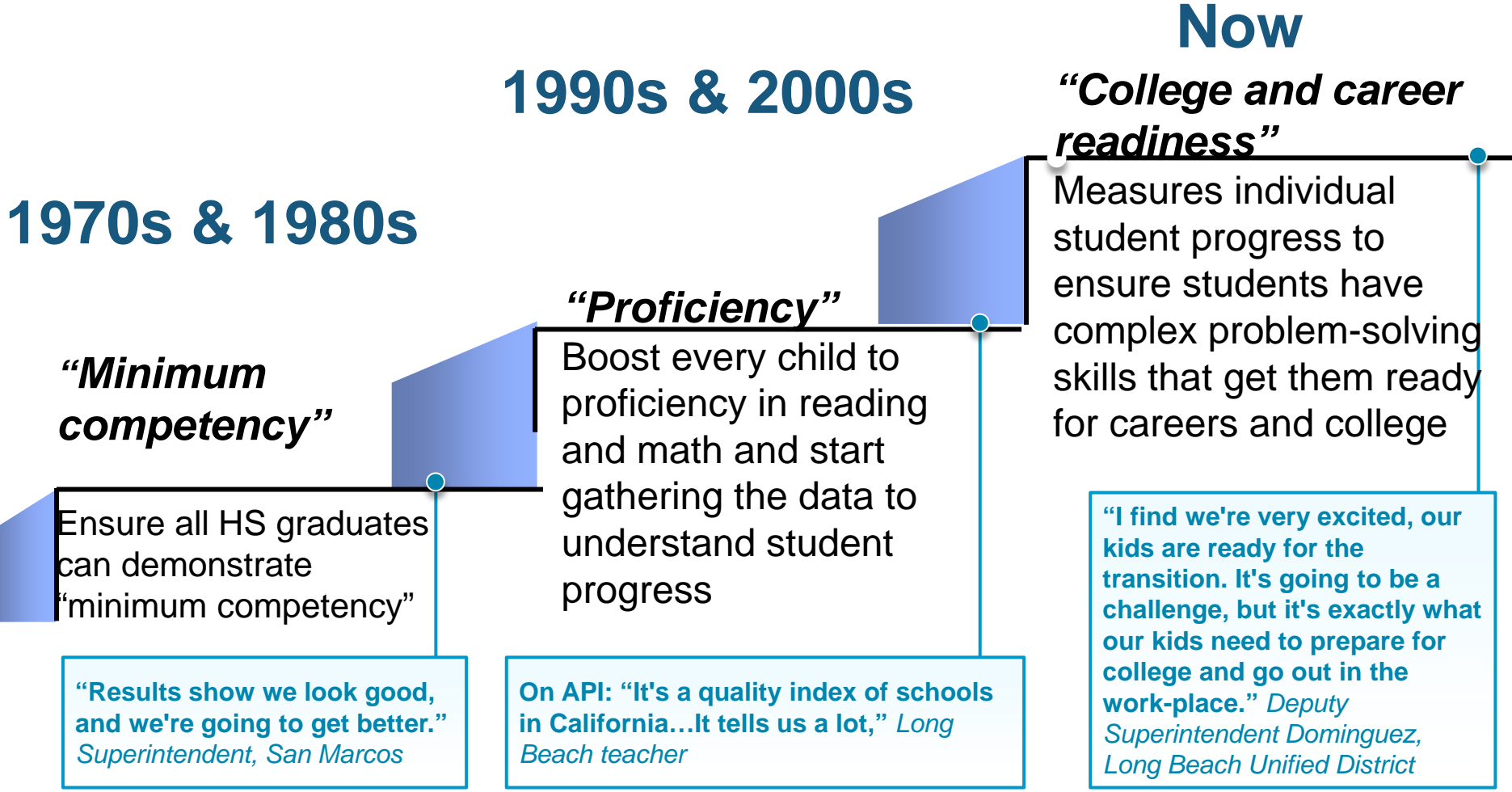
Nancy S. Brownell, Senior Fellow  
California State Board and Department of Education



**CALIFORNIA DEPARTMENT OF EDUCATION**  
Tom Torlakson, State Superintendent of Public Instruction



# Education has never been stagnant; the Common Core and Smarter Balanced are part of the normal, important progression.



At each inflection point people have been nervous, but each time it has been the right thing to move forward.





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# College and Career Readiness

## Core Academics

*Literacy*  
*Mathematics*  
*Science*  
*Social Studies*  
*World Languages*  
*Visual & Performing  
Arts*

## Careers

Cross-  
Disciplinary  
Systems  
Understanding  
Strategic  
Planning  
Technological  
Literacy  
Communications  
Ethics

## Industry Practices

*Leadership*  
*Employability*  
*Teamwork*  
*Safety*  
*Technical  
Skills*

# Common Core Big Ideas



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- **English Language Arts/literacy**

- Build knowledge through more non fiction and **informational texts.**
- Reading and writing grounded in **evidence from texts.**
- Practice with complex text and its **academic vocabulary.**

- **Mathematics**

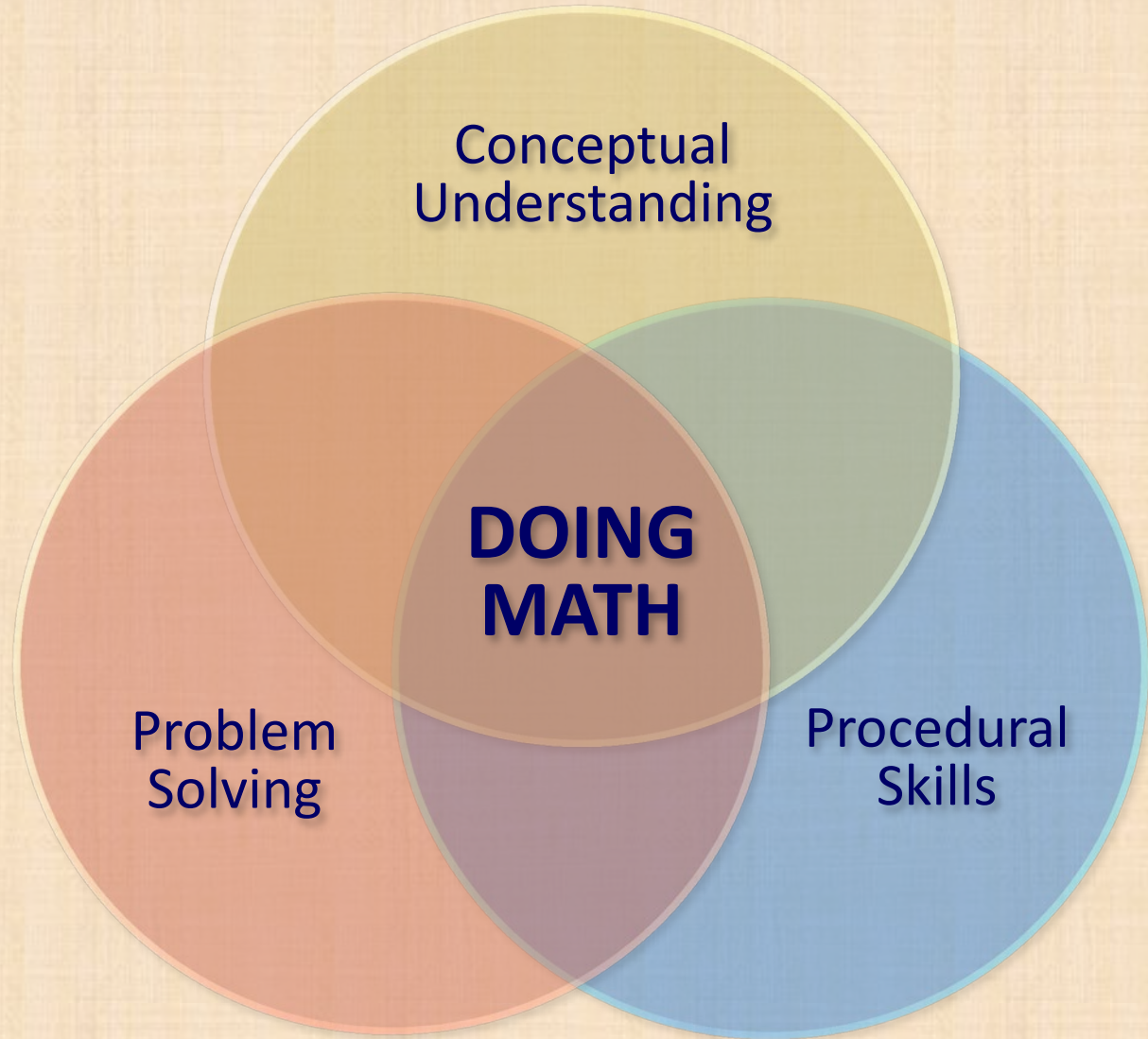
- Focus on **fewer** standards at each grade level with more **depth.**
- Coherence and **linking concepts** within and across grade levels.
- **Rigor:** conceptual understanding, fluency skills, and application to the real world.

# Mathematical Proficiency

as defined by the California Framework (2006)



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# Standards for Mathematical Practice

Describe ways students **engage** with the subject matter throughout the elementary, middle and high school years

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.



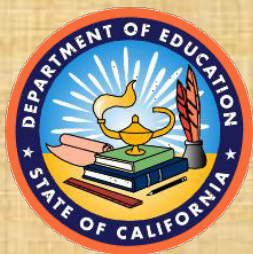
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# What do the Practices Mean?

- **Make sense of problems and persevere in solving them**
  - *picture the problem, look for clue words, pick my tools, begin solving*
  - *when presented with a problem, I can make a plan, carry it out and judge its success*
- **Reason abstractly and quantitatively**
  - *Does my answer and strategy make sense, what worked and didn't, use a different strategy to check my work, what did I learn*
  - *I can use reasoning habits to help me put problems in and out of context*



# Fundamental Differences in Literacy Standards



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- Disciplinary literacy **across-the-curriculum**
- Spotlight on **text complexity**
- New grounding in **informational** texts (*from 50:50% to 75:25%*)
- Writing about texts (**drawing evidence** from texts)
- Particular emphasis on marshaling **arguments**
- Conducting **short, focused research** projects
- Focus on **academic vocabulary**
- **Evidence**, evidence, evidence!



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# Goals for Types of Reading Materials

<b>Grade</b>	<b>Literary</b>	<b>Informational</b>
<b>4</b>	<b>50%</b>	<b>50%</b>
<b>8</b>	<b>45%</b>	<b>55%</b>
<b>12</b>	<b>30%</b>	<b>70%</b>



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# Goals for Writing Types and Purposes

## Writing Framework Foundation

### Purposes for and Recommended Writing Types

<b>Grade</b>	<b>To Persuade</b>	<b>To Explain</b>	<b>To Convey Experience</b>
<b>4</b>	30%	35%	35%
<b>8</b>	35%	35%	30%
<b>12</b>	40%	40%	20%



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# Deeper Levels of Thinking

- **Knowledge/Remembering**  
The recall of specifics and universals, involving little more than bringing to mind the appropriate material”
  - **Comprehension/ Understanding**  
Ability to process knowledge on a low level such that the knowledge can be reproduced or communicated without a verbatim repetition.
  - **Application/applying**  
The use of abstractions in concrete situations
  - **Analysis/ Analyzing**  
The breakdown of a situation into its component parts
  - **Synthesis and Evaluation/  
Evaluating and Creating**  
Putting together elements & parts to form a whole, then making value judgments about the method.
- **Recall** – recall of a fact, information
  - **Skill/Concept** – use of information, conceptual knowledge, procedures, two or more steps, etc.
  - **Strategic Thinking** – developing a plan or sequence of steps, requires reasoning, more complex, more than one possible answer.
  - **Extended Thinking** – investigation (research) and thinking about the process and purpose and multiple conditions of the problem or task.



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# Where We Have Been and Where We Are Headed!

	<b>Mathematics</b>		<b>ELA/Literacy</b>	
	<b>DOK3</b>	<b>DOK4</b>	<b>DOK3</b>	<b>DOK4</b>
<b>Current Assessments (National)</b>	<b>&lt;2%</b>	<b>0%</b>	<b>20%</b>	<b>2%</b>
<b>New Smarter Balanced Assessments</b>	<b>49%</b>	<b>21%</b>	<b>43%</b>	<b>25%</b>



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# Depth of Knowledge

## **Level 1 Recall**

Recall of a fact, information, or procedure.

## **Level 2 Skill/Concept**

Use information or conceptual knowledge, two or more steps, etc.

## **Level 3 Strategic Thinking**

Requires reasoning, developing plan or a sequence of steps, some complexity, more than one possible answer.

## **Level 4 Extended Thinking**

Requires an investigation, time to think and process multiple conditions of the problem.



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# Depth of Knowledge (DOKs)

**DOK is a reference to the complexity of mental processing that must occur to answer a question, perform a task, or generate a product.**



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# CCSS GOALS for LEARNING

**CAREER** Ready

and

**COLLEGE** Ready

and

**LIFE** Ready





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# Role of Technology

Digital learning plays a central and substantive role in ensuring all students graduate college and career ready.

Technology, used effectively, can help all students meet and exceed the rigorous learning goals embedded in the Common Core Standards by providing access to tools and resources that personalize instruction and creating rich, engaging and relevant learning environments.



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# Digital Literacy

- Demonstrate the ability to use technology for research, critical thinking, problem solving, decision making, communication, collaboration, creativity and innovation.



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# Digital Literacy

- To be ready for college, workforce training, and life in a technological society, **students need the ability to gather, comprehend, evaluate, synthesize, and report on information and ideas**, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and non-print texts in media forms old and new.
- The need to conduct research and to produce and consume media is **embedded into every aspect of today's curriculum.**



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# Digital Literacy

- Students need to be **self-directed learners, effectively seeking out and using resources to assist them**, including teachers, peers, and print and digital reference materials.
- Students who are college and career ready **employ technology thoughtfully to enhance their reading, writing, speaking, listening, and language use.**
- They are familiar with the **strengths and limitations of various technological tools and mediums** and can select and use those best suited to their **communication goals.**



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# Digital Literacy

- New technologies have broadened and expanded the **role that speaking and listening play in acquiring and sharing knowledge** and have tightened their link to other forms of communication.
- When making mathematical models, students know that **technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data.**
- Mathematically proficient students at various grade levels are able to identify relevant external **mathematical resources and use them to pose or solve problems.** They are able to use technological tools to explore and deepen their understanding of concepts.

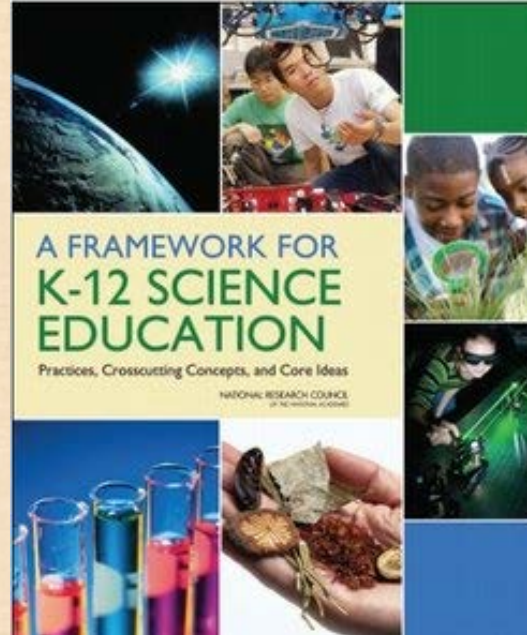


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# Basis for NGSS



- **Next Generation Science Standards (NGSS)** are based on *A Framework for K-12 Science Education: Practices, Cross-Cutting Concepts, and Core Ideas*





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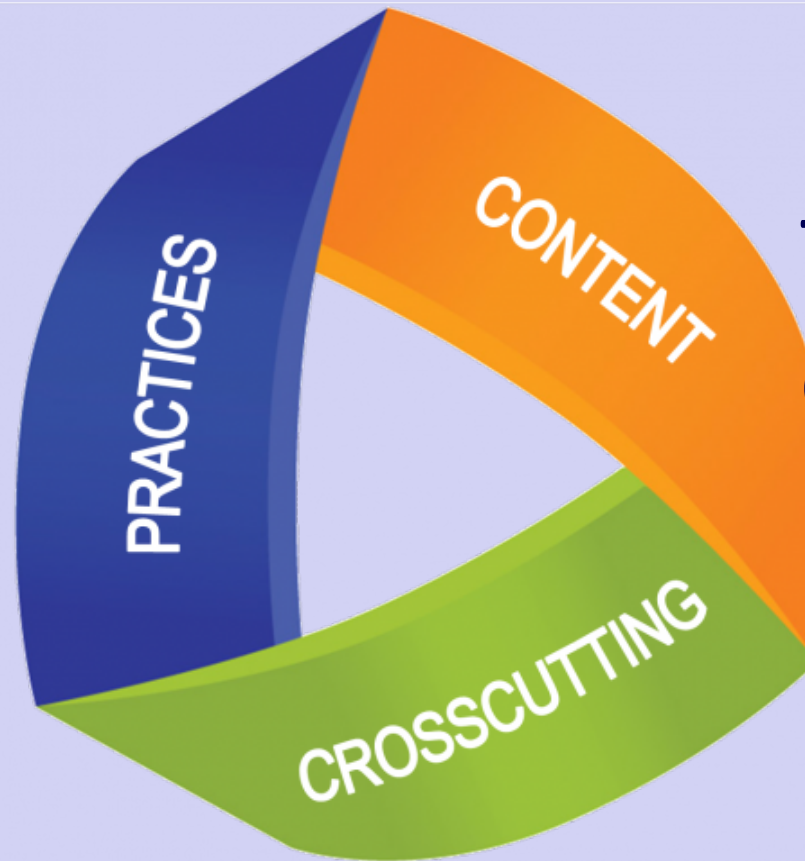
# Principles of the Framework

- Children are born investigators
- Understanding builds over time
- Science and Engineering require both knowledge and practice
- Connecting to students' interests and experiences is essential
- Focusing on core ideas and practices
- Promoting equity



# Next Generation Science Standards

Science and Engineering



Core ideas in the discipline

Concepts across disciplines





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# State Board of Education September 2013 Decision

- In September 2013, the State Board of Education (SBE) unanimously adopted NGSS as California's Science Standards for Grades Kindergarten through Grade Twelve.
- This decision included;
  - Grade specific standards in grades K-5
  - Grade span standards in grades 6-8
  - Grade span standards in grades 9-12.
  - And the NGSS Appendices A-M
- The decision allowed the SBE to meet the timeline for adoption of new standards.



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# Conceptual Shifts in the NGSS

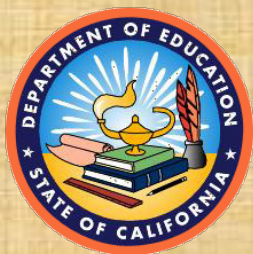
1. K-12 science education should reflect the **interconnected nature of science** as it is practiced and experienced in the real world.
2. The Next Generation Science Standards are student **knowledge and skills expectations** – NOT curriculum.
3. NGSS focuses on **enduring disciplinary ideas**, rather than isolated science facts.
4. The science concepts **build coherently for K-12.**



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# Conceptual Shifts in the NGSS (cont.)

5. The NGSS focus on deeper understanding of content as well as **application of content**.
6. **Science and Engineering are integrated** in the NGSS from K–12.
7. The NGSS are designed to **prepare every student** for college, career, and citizenship.
8. The **NGSS and Common Core Standards** (English language arts and Mathematics) are **aligned**.



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# Preferred Integrated Model

- Contains Standards for Life Earth and Space, and Physical sciences in each grade 6<sup>th</sup> ,7<sup>th</sup> ,and 8<sup>th</sup> .
- Aligns with the cognitive demands of the Common Core Standards.
- Builds within and across the grade levels.
- Provides for the integration of the engineering processes.



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# Articulation Example

## Life Science



- 8<sup>th</sup> Natural Selection
- 7<sup>th</sup> Ecosystems
- 6<sup>th</sup> Cells/Organisms
- 5<sup>th</sup> Food Chains/Webs
- 4<sup>th</sup> Internal and External Structures/Functions

# Framework Development Timeline for NGSS



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- January 2014 – SBE Approved Timeline
- January – February – Focus Group Meetings
- Jan. - April – Recruit Curriculum Framework and Evaluation Criteria Committee (CFCC)
- July – SBE Appoints CFCC members, recommended by Instructional Quality Committee (IQC)
- Sept. 2014-Feb. 2015 – Develop Draft Science Framework
- May 2015 – IQC Approval and public comment period, receive feedback, make changes, then another public review period
- January 31, 2016 – Deadline for SBE to approve new Science Framework



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## How do we tell when a student has moved beyond early knowledge to deeper levels of understanding?

- We **analyze** their performances for understanding.
- We **listen** to what they say.
- We **examine** the assignments they complete.
- We expect they will be able to **explain, give examples,** and successfully **apply** what they have learned in new contexts.



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# Additional Information

- **Common Core CDE Website**

(<http://www.cde.ca.gov/re/cc/> )

Send a "blank" message to [join-commoncore@mlist.cde.ca.gov](mailto:join-commoncore@mlist.cde.ca.gov)

- **Smarter Balanced Field Test**

<http://sbac.portal.airast.org/practice-test/>

send a blank e-mail to [subscribe-caaspp@mlist.cde.ca.gov](mailto:subscribe-caaspp@mlist.cde.ca.gov).

- **Next Generation Science -**

<http://www.cde.ca.gov/pd/ca/sc/ngssintrod.asp>

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