

PLS

PERSONALIZED

LEARNING SYSTEMS

AMS & SCIENCE ASSESSMENTS

PRESENTATION LINK: bit.ly/AMSScience23

FEBRUARY 11, 2023

An Academic Monitoring System (AMS) is a platform that:

- Allows for the collaborative creation and delivery of different forms of assessments/checking for understanding
- > Provides instant results and analytics
- Serves as a tool to identify instructional needs and create paths for learning recovery







HOW TO ACCESS THE AMS



To access the AMS, Performance Matters, login to Schoology at <u>Ims.lausd.net</u>. From the landing page:

- 1. Locate the 'App Switcher' on the upper right corner
- 2. From the drop-down menu, select 'Performance Matters'



STUDENT ITEM ANALYSIS (SIA)

When you are ready to view your students' results, locate the Student Item Analysis (SIA) Report.

Performance Matters			
Tests	Reports		
	Data Analysis <u>Student Item Analysis</u>		
News	Com Student Item Analysis	Students	
Filter b	MyReports MyDashboard		

To access the SIA report from the AMS landing page, proceed with the following:

- 1. Click 'Reports'
- 2. Select 'Student Item Analysis'

from the dropdown menu

STUDENT ITEM ANALYSIS (SIA)



- 3. Click 'Select a test'
- Select the assessment you assigned to your students

STUDENT ITEM ANALYSIS (SIA)



of students in different performing bands

Percentage of students who have met the standard assessed in a specific question

SCHOOLOGY INTEGRATION



To assign the assessment to your students in your Schoology

course(s) proceed with the following steps:

Step 1:

- From your Materials Page
- Click 'Add Materials'
- Select 'Add Common Assessment' from the drop-down menu



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SCHOOLOGY INTEGRATION

Step 2:

In the pop-up window, check the box to the left of the assessment you wish to assign to your students.

Select 'Add to Course'.

To preview the assessment before assigning it to their students, click **Preview**.

Choose Assessments			×
TITLE	COURSE TYPE	ID	
Copy of April 29 Copy of ELA LAUSD SGY Test Demo	English	2579481	Preview
Copy of April 29 Copy of ELA LAUSD SGY Test Demo	English	2579488	Preview
ELA LAUSD SGY Test Demo - AH	English	2564294	Preview
S Summer Pilot Assessment JCedeno Added	Math	2583194	Preview
MS Summer School 2022 Jcedeno	Math	2584205	Z Preview
2 Add to Course Cancel			

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Step 3:

On your materials page, locate the assessment on the bottom. Locate and click on the gear icon to the right.

From the drop-down menu, select 'Publish'.



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AMS STUDENT EXPERIENCE





NEED ASSISTANCE?

PLS LAUSD DERSONALIZED LIANING SYSTEMS

For AMS technical assistance, please:

- 1. Visit <u>achieve.lausd.net/ams</u> and scroll down to the Frequently Asked Questions
- 2. Visit the <u>PLS Support</u> webpage:
 - Submit a Support Request Online
 - Chat Live with an Agent
 - Call (213) 241-5200 and Select Option 5 then
 Option 1 for Schoology/AMS support



RESOURCES



Schoology Integration	Job Aid
schoology integration	Video
AMS Student Experience	<u>Video</u>
Support	<u>Website</u>



AMS LEARNING OPPORTUNITIES

achieve.lausd.net/ams



Learning Opportunity	Training Rate	Available
AMS Self-Paced Course	10 hours	March 1, 2023
AMS Webinars	6 hours	Mid-March 2023

AMS Feedback Opportunity

Earn 2Join the PLS Focus Groups: AMS Spring Pilothours ofAccess Code: KMZT-MJQ9-MB6QPTraining

Rate

QUESTIONS???





THANK YOU!



¡GRACIAS! 谢谢 ՇՆՈՐՉԱԿԱԼ ՈԻԹՅՈԻՆ شكر إلكم



Break





Links to resources for today's session



https://bit.ly/3YqeXNR

Amplify.

Benchmark Assessments

Los Angeles Unified School District February 2023 Presented by: Suzy Takeda & Jolene Hori





Ice Breaker!

Who do we have in the room today?

Share your
 experience with
 the Benchmark
 Assessments.



Amplify's Purpose Statement

Dear teachers,

You do a job that is nearly impossible and **utterly essential**.

We are in your corner – extending your reach, saving you time, and enhancing your understanding of each student.

Thank you for working with us to craft rigorous and riveting learning experiences for your classroom.

We share your goal of inspiring all students to think deeply, creatively, and for themselves.

Sincerely, Amplify

Norms: Establishing a culture of learners

- **Take risks:** Ask any questions, provide any answers.
- **Participate:** Share your thinking, participate in discussion and reflection.
- **Be fully present:** Unplug and immerse yourself in the moment.
- **Physical needs:** Stand up, get water, take breaks.



my.amplify.com

Amplify. MY ACCOUNT ADMIN REPORTS

LAUNCH PROGRAMS 💯 TERIN NGO 🔕

(i) mCLASS Educators: To view or make changes to your account go to mclass.amplify.com.

Hi, Terin



Programs & Licenses

Account Settings

Help Center 🗹



CKLA Hub



CKLA Resource Site



mCLASS Assessment

mCLASS Reporting



Deer



Reading 6-8



Reading K-5



Science



Vocabulary











Amplify. 24



• To join Amplify ES Group: W4PK-W466-63F5B



Agenda

- Benchmark Assessments & CAST
- Analyzing Data
- Implications for Instruction



Overarching goals

- Understand the Performance Expectations and NGSS that are addressed in the CAST / Item Specifications
- Describe the structure and purpose of the Benchmark Assessments
- Plan for the strategic use of the Amplify Science tools and curriculum to support students in meeting the NGSS standards

 Let's connect this goal to
 our students

Benchmark Assessment & CAST







Science and Engineering Practices

- inquiry
- language math

1. Asking questions (for science) and defining problems (for engineering)

- 2. Developing and using models
- 3. Planning and carrying out investigations
- 4. Analyzing and interpreting data
- 5. Using mathematics and computational thinking
- 6. Constructing explanations (for science) and designing solutions (for engineering)
- 7. Engaging in argument from evidence
- 8. Obtaining, evaluating, and communicating information



Crosscutting Concepts

Crosscutting Concepts

- 1. Cause and Effect
 - 2. Structure and Function
 - **3. System and System Models**
 - 4. Scale, Proportion and Quantity
 - 5. Stability and Change
 - 6. Energy and Matter
- 7. Patterns

Crosscutting Concepts

1.Patterns

Observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.

2. Cause and Effect

Events have causes, sometimes simple, sometimes multifaceted. Deciphering causel relationships, and the mechanisms by which they are mediated, is a major activity of science and engineering.

3. Scale, Proportion, and Quantity

In considering phenomena, it is critical to recognize what is relevant at different size, time, and energy sales, and to recognize proportional relationships between different quantities as scales change.

4. Systems and System Models

A system is an organized group of related objects or components; models can be used for understanding and predicting the behavior of systems.

Crosscutting Concepts

5. Energy and Matter

Tracking energy and matter flows, into, out of, and within systems helps one understand their system's behavior.

6. Structure and Function

The way an object is shaped or structured determines many of its properties and functions.

7. Stability and Change

For both designed and natural systems, conditions that affect stability and factors that control rates of change are critical elements to consider and understand.



Disciplinary Core Ideas

10

	L	ife Science	Physical Science
		S1: From Molecules to Organisms: Structures and Processes	PS1: Matter and Its Interactions PS2: Motion and Stability: Forces and
		 S2: Ecosystems: Interactions, Energy, and Dynamics S3: Heredity: Inheritance and Variation of Traits 	Interactions PS3: Energy PS4: Waves and Their Applications in Technologies for Information Transfer
	L	S4: Biological Evolution: Unity and Diversity	
	E	arth & Space Science	Engineering & Technology
	E	SS1: Earth's Place in the Universe	ETS1: Engineering Design
Lithosphere	, hyd	lrosphere, biosphere, and atmosphe	s Among Engineering, Technology,
	E	SS3: Earth and Human Activity	Science, and Society

Three dimensions of NGSS (CA) at a glance

Science and Engineering Practices		Disciplinary Core Ideas	Crosscutting Concepts	
SEP-1.	Asking questions and defining problems	Physical Science	CCC-1.	Patterns
SEP-2.	Developing and using models	PS1: Matter and its interactions	CCC-2.	Cause and effect: Mechanism and explanation
SEP-3.	Planning and carrying out investigations	PS2: Motion and stability: Forces and interactions	CCC-3.	Scale, proportion, and quantity
SEP-4.	Analyzing and interpreting data	PS3: Energy	CCC-4.	Systems and system models
SEP-5.	Using mathematics and computational thinking	PS4: Waves and their applications in technologies for	CCC-5.	Energy and matter: Flows, cycles, and conser-
SEP-6.	Constructing explanations (for science) and	information transfer		vation
	designing solutions (for engineering)	Life Science	CCC-6.	Structure and function
SEP-7.	Engaging in argument from evidence	LS1: From molecules to organisms: Structures and	CCC-7.	Stability and Change
SEP-8.	Obtaining, evaluating, and communicating	processes		
	information	LS2: Ecosystems: Interactions energy, and dynamics		
		LS3: Heredity: Inheritance and variation of traits		
		LS4: Biological evolution: Unity and diversity		
		Earth and Space Science		
		ESS1: Earth's place in the universe		
		ESS2: Earth's systems		
		ESS3: Earth and human activity		
		Engineering, Technology, and Applications of Science		
		ETS1: Engineering Design		
		ETS2: Links among engineering, technology, science,		
		and society		



NGSS Standards, Grade 3

What is Assessed a collection of performance expectations describing what students should be able to do to master the standard

3-LS4 Biological Evolution: Unity and Diversity

3-LS4 Biological Evolution: Unity and Diversity

Students who demonstrate understanding can:

- 3-LS4-1. Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago. [Clarification Statement: Examples of data could include type, size, and distributions of fossil organisms. Examples of fossils and environments could include marine fossils found on dry land, tropical plant fossils found in Arctic areas, and fossils of extinct organisms.] [Assessment Boundary: Assessment does not include identification of specific fossils or present plants and animals. Assessment is limited to major fossil types and relative ages.]
- 3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing. [Clarification Statement: Examples of cause and effect relationships could be plants that have larger thorns than other plants may be less likely to be eaten by predators; and animals that have better camouflage coloration than other animals may be more likely to survive and therefore more likely to leave offspring.]
- 3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all. [Clarification Statement: Examples of evidence could include needs and characteristics of the organisms and habitats involved. The organisms and their habitat make up a system in which the parts depend on each other.]
- 3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.* [Clarification Statement: Examples of environmental changes could include changes in land characteristics, water distribution, temperature, food, and other organisms.] [Assessment Boundary: Assessment is limited to a single environmental change. Assessment does not include the greenhouse effect or climate change.]

The performance expectation(s) above were developed using the following elements from the NRC document A Framework for K-12 Science Education:

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts	
 analyzing and Interpreting Data analyzing data in 3-5 builds on K-2 experiences and rogresses to introducing quantitative approaches to ollecting data and conducting multiple trials of qualitative observations. When possible and feasible, digital pols should be used. Analyze and interpret data to make sense of phenomena using logical reasoning. (3-LS4-1) 	 Use of the second second	Cause and Effect Cause and effect relationships are routinely identi- fied and used to explain change. (3-LS4-2), (3-LS4- 3) Scale, Proportion, and Quantity Observable phenomena exist from very short to very long time periods. (3-LS4-1) Systems and System Models A system can be described in terms of its compo- nents and their interactions. (3-LS4-4)	
CAST California Science Test





CAST Practice

https://www.cde.ca.gov/ta/t g/ca/documents/castpracti cetraining.pdf

CAST Practice and Training Tests



The California Science Test (CAST), which is aligned with the California Next Generation Science Standards (CA NGSS), is the state's assessment for measuring what students know and can do in science. The CA NGSS integrate the Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts to help students build a deeper understanding of science.

The CAST covers information across three science domains:



Test questions written to assess Performance Expectations associated with the Engineering, Technology, and Application of Science domain will be incorporated into one of the three science domains above, depending on the context of the stimulus.

The **CAST practice and training tests** are available for each assessed grade (i.e., grade five, grade eight, and high school) and include accessibility resources to match those available on the CAST. Find them at http://www.caaspp.org/practice-and-training/index.html.

The shorter training tests:

- Help students to become familiar with the types of questions on the CAST.
- Provide an opportunity to interact with technology enhanced questions.
- Include a sampling of stand-alone test questions and a single performance task.

For more information, visit the California Department of Education CAST web page at <u>https://www.cde.ca.gov/ta/tg/ca/caasppscience.asp</u>.

The full-length practice tests:

- Help students to become familiar with the format of the CAST.
- Demonstrate the full range of science content assessed on the CAST.
- Include a wide variety of stand-alone questions and three performance tasks—one from each of the science domains (i.e., Earth and Space Sciences, Life Sciences, and Physical Sciences).

caaspp

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California Department of Education • December 2019

CAST Item Specifications



Connect the Disciplinary Core Ideas, Science and **Engineering Practices, and Crosscutting Concepts** elements to the phenomena and prompts used in the development of the CAST items; can serve as an important tool along with the 2016 Science Framework for California Public Schools for educators to use to gain a better understanding of the three-dimensional nature of the CAST.



CAST Item specifications

There are 45 Performance Expectations that may be assessed on the CAST.

Grade	Earth and Space Sciences (ESS)	Life Sciences (LS)	Physical Sciences (PS)	Engineering, Technology, and Application of Science (ETS)
3	3-ESS2-1 (DOCX) 3-ESS2-2 (DOCX) 3-ESS3-1 (DOCX)	3-LS1-1 (DOCX) 3-LS2-1 (DOCX) 3-LS3-2 (DOCX) 3-LS4-3 (DOCX) 3-LS4-4 (DOCX)	3-PS2-1 (DOCX) 3-PS2-2 (DOCX) 3-PS2-3 (DOCX) 3-PS2-4 (DOCX)	<u>3-5-ETS1-1</u> (DOCX) <u>3-5-ETS1-2</u> (DOCX) <u>3-5-ETS1-3</u> (DOCX)
4	4-ESS1-1 (DOCX) 4-ESS2-1 (DOCX) 4-ESS2-2 (DOCX) 4-ESS3-1 (DOCX) 4-ESS3-2 (DOCX)	4-LS1-1 (DOCX) 4-LS1-2 (DOCX)	4-PS3-1 (DOCX) 4-PS3-2 (DOCX) 4-PS3-3 (DOCX) 4-PS3-4 (DOCX) 4-PS4-1 (DOCX) 4-PS4-2 (DOCX) 4-PS4-3 (DOCX)	Not Applicable
5	5-ESS1-1 (DOCX) 5-ESS1-2 (DOCX) 5-ESS2-1 (DOCX) 5-ESS2-2 (DOCX) 5-ESS3-1 (DOCX)	5-LS1-1 (DOCX) 5-LS2-1 (DOCX)	5-PS1-1 (DOCX) 5-PS1-2 (DOCX) 5-PS1-3 (DOCX) 5-PS1-4 (DOCX) 5-PS2-1 (DOCX) 5-PS3-1 (DOCX)	Not Applicable

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How to read Item Specifications

- The format of the item content specifications begins with the PE and includes the clarification statement, applicable assessment boundaries, and the three dimensions (SEPs, DCIs, and CCCs).
- The specifications then break down each of the dimensions into assessment targets, which are integrated into possible tasks. A task is an item, set of items, or an instructional activity for students.
- The item content specifications also provide relevant Environmental Principles and Concepts, examples of phenomena and misconceptions, and additional assessment boundaries and references. Each section of the item content specifications is discussed in detail below.

Your Turn

- Read through the CAST Item Specifications for Physical Science.
- Highlight Performance Expectations.
- Look at the possible tasks and misconceptions





Connections to Amplify Science Units

- Log into Amplify Science
- Go to Unit 1
 - Grade 3 Balancing Forces
 - Grade 4 Energy Conversions
 - Grade 5 Modeling Matters
- On the unit landing page, click on teacher references and open the Standards and Goals & 3D documents
- Discuss the connection to the CAST and Amplify Science Units



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Unit Standards at a Glance & 3D Statements



Chapter Standards & 3D Statements

Chapter Level

Chapter 1: Why did the food coloring separate into different dyes?

Students use physical models and create their own diagram models to investigate and communicate what is happening at the nanoscale during the process of chromatography (scale, proportion, and quantity). Through their investigations and models, students discover similarities and differences in the properties of substances and the properties of molecules (patterns).

Chapter Targeted 3-D Learning Objectives

These objectives are formatively assessed across the chapter [see assessment guidance locations noted]

DCI: PS1.A: Structure and Properties of Matter

- PS1.A-E1: Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means. A model showing that gases are made from matter particles that are too small to see and are moving freely around in space can explain many observations, including the inflation and shape of a balloon and the effects of air on larger particles or objects. [OTFA 2; OTFA 3; OTFA 5; OTFA 6; OTFA 7; OTFA 8; CJ 1]
- PS1.A-E3: Measurements of a variety of properties can be used to identify materials. [OTFA 1; OTFA 4; OTFA 5; OTFA 6; OTFA 7; CJ 1]

Lesson Standards & 3D Statements

22 Lessons Mode Printab	ling Matter	Materials & 3-D Sta Preparation 3-D Sta Standards Key: m Unplugged? Students liquid mix Substance	3-D Statement Key: Practices Disciplinary Core Ideas Crosscutting Concepts Students observe and compare photographs of two mixtures: a c liquid mixed with Substance A (which doesn't dissolve) and Substance B (which dissolves), and they explain why something		
Unit Overview Chapters Printable Resources Planning for the Unit A Unit Map Progress Build	Unit Overview What's in This Unit? Most people's greatest exposure to physical and chemical changes—a food and coking. Like most everything else, foods are comprised mos separate, dissolve, cool, heat, whip, emulaify, and further transform foo foods and thirt transformation has been handening since the dwn of	NGSS Disciplinary Core Ideas • PS1.A: Structure and Properties of Matter:	ch of the two substances. This provid ents' preconceptions about matter at portion, and quantity). ence Standards (NGSS)		
Getting Ready to Teach Materials and Preparation Science Background	scientists have worked to apoly scientific principles in order to bettern Read more >	 Matter of any type can be subdivided into particles that a thread thread thread	IFE ing Explanations and Designing Solu		
Standards at & Blance Teacher References ^ Compilation Standards and Goals 3-D Statements Assessment System Embedde Formative Assessments Books in This Unit Apps in This Unit Opportunities for Unit Extensions Offline Preparation	ChaptersChapter 1: Why did the food coloring separate itImage: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2">Image: Colspan="2"Image: Colspan="2">Image: Colspan="2">Image: Colspan="2"Image: Colspan="2" </td <td> too small to see, but even then the matter still exists and can be detected by other means. A model showing that gases are made from matter particles that are too small see and are moving freely around in space can explain mobservations, including the inflation and shape of a ballo and the effects of air on larger particles or objects. (5-PS PS1.A: Structure and Properties of Matter: Measurements of a variety of properties can be used to identify materials. (5-PS1-3) </td> <td>Evaluating, and Communicating to eas any Properties of Matter: on e can be subdivided into particles the particles that refus the particles that are too sm of freely around in space can explain uding the inflation and shape of a ball air on larger particles or objects. (5- Properties of Matter: fa variety of properties can be used if</td>	 too small to see, but even then the matter still exists and can be detected by other means. A model showing that gases are made from matter particles that are too small see and are moving freely around in space can explain mobservations, including the inflation and shape of a ballo and the effects of air on larger particles or objects. (5-PS PS1.A: Structure and Properties of Matter: Measurements of a variety of properties can be used to identify materials. (5-PS1-3) 	Evaluating, and Communicating to eas any Properties of Matter: on e can be subdivided into particles the particles that refus the particles that are too sm of freely around in space can explain uding the inflation and shape of a ball air on larger particles or objects. (5- Properties of Matter: fa variety of properties can be used if		

Overview

Group Work

- Continue with the rest of the standards in Physical Science for the unit in your grade level.
- Open the goals and standards for the corresponding unit
- Match the standards to the CAST
- Chart your findings





Group Work

- Choose one of the other Benchmark
 Assessments
- Open the goals and standards for the corresponding unit
- Match the standards to the CAST
- Chart your findings



Inheritance and Traits

Benchmark 2



Environments and Survival

Benchmark 3



Weather and Climate

Benchmark 4



Vision and Light Benchmark 2



Earth's Features

Benchmark 3



Waves, Energy, and Information

Benchmark 4





The Earth System

Benchmark 3



Ecosystem Restoration

Benchmark 4

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AMPLIFY Science Progression

PHYSICAL SCIENCE

- 5 Modeling Matter
- 4 Energy Conversions / Waves Energy and Information
- 3 Balancing Forces
- 2 Properties of Materials
- 1 Light and Sound
- K Pushes and Pulls







AMPLIFY Science Progression

EARTH SCIENCE

- 5 The Earth System / Patterns of Earth and Sky
- 4 Earth's Systems
- 3 Weather and Climate
- 2 Changing Landforms
- 1 Spinning Earth
- K Sunlight and Weather



AMPLIFY Science Progression

LIFE SCIENCE

- 5 Ecosystem Restoration
- 4 Vision and Llght
- 3 Inheritance and Traits / Environments and Survival
- 2 Plants and Animal Relationships
- 1 Animal and Plant Defenses
- K Needs of Plants and Animals



Lunch Break







Analyze Data





Scoring Assessments

Group work time

- Using the Form A or B scoring guide, score Form A or B Assessment with a partner
- After scoring, identify the the most commonly missed questions.
- With the scoring guide, cross reference the most commonly missed questions with their aligned standard.



Identify the most commonly missed questions

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LAUSD Personal G Grammarly	MiSiS - Schoology	Help Desk - Googl	Smart IT Univer	sal 🧑 LAUSD I	My Prote Performance Matt	CI Projects - Home	CA Content Stand >>
LEP No-		79.27%					
Migrant Yes 0.17%							
Migrant No-			99.83%				
Test Applieds							
Test Analysis				_			
					100%		AB4
LDS HS Mathematics Algebra and	d Functions 1 Linear 20	x *	Go to Stude	m Analysis	Θ		- AB3
					P		- AB2
Attribute	^ # of Items ≑	% of Students	• • • • •	verage 🌐	Bar Bar		
CA.MA.9-12.A.CED Creating	Equations 2	2413 446 8	6.17%	26.64%	Ince		
CA.MA.9-12.A-CED.1	4	2592 <mark>491</mark>	1.44%	26.59%	60%		
CA.MA.9-12.A-REI.10	2	1819 1228	40.30%	51.56%	erfo		
CA.MA.9-12.A-REI.12	2	2271 776	25.47%	42.78%	. <u>.</u>		
CA.MA.9-12.A-REI.3	2	2120 927	30.42%	49.44%	\$10%		- AB1
CA.MA.9-12.A-REI.3.1	1	1470 1577	51.76%	51.76%	stude		
CA.MA.9-12:A-SSE.2	1	2198 849	27.86%	27.86%	o 20%		
CA.MA.9-12.F-BF.A	1	27243 <mark>23</mark>	10.60%	10.6%	%		
Standard Depth of Knowledge Q	uestion Interactions	Pre	evious 1 2 3	Next			
					0%	DISTRICT	

Refer to the Amplify Scoring Guide

Grade 5 Form B

Item Types: constructed response, multipass, nontraditional selected response, selected response

Test Administration Time: 90 minutes

Test Specifications: Next Generation Science Standards

Segment A

Item Position	Performance Expectation	DCI	SEP	CCC	DOK	KEY	ltem Type	Points
1	5-PS1-1	PS1.A	SEP-2		3	а	SR	1
2	5-PS1-1	PS1.A		CCC-3	2	С	SR	1
3	5-PS1-1	PS1.A	SEP-2		3	d	SR	1
4	5-PS1-3	PS1.A	SEP-3		2	а	SR	1
5	5-PS1-3	PS1.A	SEP-3		3	d	SR	1
6	5-PS1-3	PS1.A		CCC-3	3	а	SR	1
7	5-PS1-4	PS1.B	SEP-4	CCC-2	2	а	SR	1
8	5-PS1-1	PS1.A	SEP-2		3	d	SR	1
9	5-PS1-2	PS1.A	SEP-6		2	d	SR	1
10	5-PS1-2	PS1.A		CCC-3	2	а	SR	1

Implications on Instruction (Now What?)





Student Challenges

There are a variety of tools and strategies in the Amplify Science Curriculum that can support teachers in addressing the standards where students are struggling.



Standards at a Glance & 3D Statements



Progress Build

Read and analyze your unit's Progress Build.



Progress Build

Modeling Matter

Assumed prior knowledge (preconceptions): Students are likely to have encountered the idea that matter is made up of particles that are too small to see individually. They will also likely recognize that there exist different materials that have different characteristics.

Level 3

Level 1

Observable properties result from molecular properties. Mixing is a result of attraction between molecules of different substances.

level 2

Separation is a result of the attraction between molecules of the same substance.

Critical Juncture





Critical Juncture

Modeling Matter 🖶 Printable Teacher Guide 👻

Unit Overview Chapters Printable Resources Planning for the Unit A Unit Map Progress Build ung Ready to Teach

Unit Overview

What's in This Unit?

Most people's greatest exposure to physical and chemical changes-at least those changes that are easily discerniblefood and cooking. Like most everything else, foods are comprised mostly of mixtures, and the kitchen is the locale whe separate, dissolve, cool, heat, whip, emulsify, and further transform foods for some desired outcome. While experiment foods and their transformation has been happening since the dawn of humans, it has only been in the past century or

Read more >

LESSON 1.1

Pre-Unit Assessment

Chapters

Science Background Standards at a Glance Teacher References ^

Materials and Preparation

Lesson Overview Compilation Standards and Goals 3-D Statements Assessment System

Embedded Formative Assessments Books in This Unit Apps in This Unit

Opportunities for Unit Extensions

Offline Preparation



LESSON 1.2

LESSON 1.3 Introducing Food Science



LESSON 1.5 Separating a Food-Coloring Exploring Another Model Mixture of Chromatography



LESSON 1.6 Nanovision Models of Chromatography

Lesson 1.9, Activity 2

Critical Juncture Assessment 1a: Applying Understanding of Molecules to Model Chromatography

Assess understanding: Students' final nanovision models provide an opportunity to assess their understanding of different substances as made of unique molecules and of molecules' properties as determining substances' observable behavior. In their models, students should 1) represent the molecules of the different-colored dyes as different from one another (e.g., the red dye molecules should be shown as different from the yellow dye molecules) and 2) show and describe differences in the molecules' size and/or strength of attraction to the paper as determining how far they travel (e.g., smaller molecules or more weakly attracted molecules travel farther). After class, review students' revised models of chromatography (page 32, Revised Nanovision Model of Chromatography, in the notebook), focusing on whether students included these two elements.

Tailor instruction: Students will have two opportunities to show understanding of these two ideas-different substances are made of different molecules, and molecules have properties that determine the distance traveled in chromatography-in this lesson (their revised nanovision models of chromatography) and again in Lesson 1.10 with their written scientific explanations. If a large portion of the class does not show an understanding of the two ideas in either their drawn models or in their written explanations, refer to the ideas for tailoring instruction in Critical Juncture Assessment 1b: Explaining Chromatography (in Lesson 1.10).

NGSS connection: This formative assessment reveals student knowledge and use of Disciplinary Core Idea PS1.A: Structure and Properties of Matter (PSLA-E1: Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means ...; PS1.A-E3: Measurements of a variety of properties can be used to identify materials.).

Coherence Flowchart



Coherence Flowchart



Elementary Student Apps

Simulation, Digital Tools & Books



Simulations and Digital Tools

trglish Español 0 Drag a molecule into the petri dish







Amplify.



Science Program Hub

Videos and Read Alouds



Explore the Student Apps & the Program Hub



LESSON 1.2

Making an Object Move

LESSON 1.3

Forces All Around

LESSON 1.1

Pre-IInit Assessment



Commonly missed questions

Go over with whole class or in small groups

Vincent wants to move an object using touching forces. Which test will show that touching forces move objects?

- He could drop a feather from several different heights and see how fast it falls.
- He could pull a toy car with a string until it hits another toy car.
- He could rub a balloon on his shirt and hold it over his head to make his hair stand up.
- He could use a magnet to pull a stack of paper clips from one end of the table to another.

Amplify Form Scoring Guide

Grade 5 Form B

Item Types: constructed response, multipass, nontraditional selected response, selected response

Test Administration Time: 90 minutes

Test Specifications: Next Generation Science Standards

Segment A

Item Position	Performance Expectation	DCI	SEP	ccc	DOK	KEY	ltem Type	Points
1	5-PS1-1	PS1.A	SEP-2		3	а	SR	1
2	5-PS1-1	PS1.A		CCC-3	2	С	SR	1
3	5-PS1-1	PS1.A	SEP-2		3	d	SR	1
4	5-PS1-3	PS1.A	SEP-3		2	а	SR	1
5	5-PS1-3	PS1.A	SEP-3		3	d	SR	1
6	5-PS1-3	PS1.A		CCC-3	3	а	SR	1
7	5-PS1-4	PS1.B	SEP-4	CCC-2	2	а	SR	1
8	5-PS1-1	PS1.A	SEP-2		3	d	SR	1
9	5-PS1-2	PS1.A	SEP-6		2	d	SR	1
10	5-PS1-2	PS1.A		CCC-3	2	а	SR	1
10	51512	1 31.A		000-5	2	a	JI	1
Unit Standards at a Glance & 3D Statements



Chapter Standards & 3D Statements

Chapter Level

Chapter 1: Why did the food coloring separate into different dyes?

Students use physical models and create their own diagram models to investigate and communicate what is happening at the nanoscale during the process of chromatography (scale, proportion, and quantity). Through their investigations and models, students discover similarities and differences in the properties of substances and the properties of molecules (patterns).

Chapter Targeted 3-D Learning Objectives

These objectives are formatively assessed across the chapter [see assessment guidance locations noted]

DCI: PS1.A: Structure and Properties of Matter

- PS1.A-E1: Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means. A model showing that gases are made from matter particles that are too small to see and are moving freely around in space can explain many observations, including the inflation and shape of a balloon and the effects of air on larger particles or objects. [OTFA 2; OTFA 3; OTFA 5; OTFA 6; OTFA 7; OTFA 8; CJ 1]
- PS1.A-E3: Measurements of a variety of properties can be used to identify materials. [OTFA 1; OTFA 4; OTFA 5; OTFA 6; OTFA 7; CJ 1]

Lesson Standards & 3D Statements

22 Lussons Modeling Matter Printable Teacher Guide	Differentiation Standards Materials & 3-D Statement Standards Key: Practice Disco Unplugged? Students observe an liquid mixed with Su	nary Core Ideas Grosscutting Concepts Id compare photographs of two mixtures: a clear bstance A (which doesn't dissolve) and
<section-header><section-header>Unit Overview Capters Piratable ResourcesUnit Capters Piratable ResourcesUnit Capter Piratable Resources Capters Bail of the Unit A Pirates Bail of the Unit A Pirates Bail of the Unit A Pirates Bail of the Piratable Resources Capter Resources of Physical and chemical changes – a fod and cooking: Like most everything else, foods are comprised more to and their transformation has been happening since the dawn of cooking the dawn of cooking the dawn of cooking the dawn of cooking the dawn of cooking the dawn of<br <="" th=""/><th> NGSS Disciplinary Core Ideas PS1.A: Structure and Properties of Matter: Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means. A model showing that gases are made from matter particles that are too small to see and are moving freely around in space can explain many observations, including the inflation and shape of a balloon and the effects of air on larger particles or objects. (5-PS1-1) PS1.A: Structure and Properties of Matter: Measurements of a variety of properties can be used to identify materials. (5-PS1-3) </th><th> cassoves), and they explain why something the of the two substances. This provides at entry preconceptions about matter at portion, and quantity). ence Standards (NGSS) ng Explanations and Designing Solutions Evaluating, and Communicating leas Properties of Matter: e can be subdivided into particles that are but even then the matter still exists and by other means. A model showing that rom matter particles that are too small to ng freely around in space can explain mar luding the inflation and shape of a balloor air on larger particles or objects. (5-PSI: Properties of Matter: I a variety of properties can be used to a final can be used to a</th></br></br></br></br></br></br></section-header></section-header>	 NGSS Disciplinary Core Ideas PS1.A: Structure and Properties of Matter: Matter of any type can be subdivided into particles that are too small to see, but even then the matter still exists and can be detected by other means. A model showing that gases are made from matter particles that are too small to see and are moving freely around in space can explain many observations, including the inflation and shape of a balloon and the effects of air on larger particles or objects. (5-PS1-1) PS1.A: Structure and Properties of Matter: Measurements of a variety of properties can be used to identify materials. (5-PS1-3) 	 cassoves), and they explain why something the of the two substances. This provides at entry preconceptions about matter at portion, and quantity). ence Standards (NGSS) ng Explanations and Designing Solutions Evaluating, and Communicating leas Properties of Matter: e can be subdivided into particles that are but even then the matter still exists and by other means. A model showing that rom matter particles that are too small to ng freely around in space can explain mar luding the inflation and shape of a balloor air on larger particles or objects. (5-PSI: Properties of Matter: I a variety of properties can be used to a final can be used to a

Pick a standard your students are having difficulty with

- Go to the platform and decide which Amplify curriculum and/or tools you might use to support your students.
- Chart
- Share out



Overarching goals

- Understand the Performance Expectations and NGSS that are addressed in the CAST / Item Specifications
- Describe the structure and purpose of the Benchmark Assessments
- Plan for the strategic use of the Amplify Science tools and curriculum to support students in meeting the NGSS standards

 Let's connect this goal to
 our students

Additional resources

Welcome, caregivers!

We hope you enjoy learning more about Amplify Science and what students are learning in science this year.

Para acceder a este sitio en español haga clic aquí.

Amplify welcomes you and your learner to the Science program for the new school year. We are very excited to provide you with exceptional learning opportunities through Science. Below are resources and helpful guides for enabling your student to have the most productive experience with our platform throughout the year.









Contact Us

Caregivers

LAUSD Micrositehttps://amplify.com/lausd-science



Welcome to Amplify Science!

This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK–8.

- Access the Amplify Science Program Hub (To help orient you to the new design, watch this video and view this reference guide.)
- Find out more about Amplify Science@Home
- Share the Caregiver Hub (Eng/Span) with your families
- For LAUSD ES Teachers- Amplify Science & Benchmark Advance Crosswalk
- Instructional guidance for a Responsive Relaunch of Amplify Science in 21-22

Click the button below to preview the digital Teacher's Guide, and check back for exciting updates to this site!

Additional resources and ongoing support

Seek information specific to enrollment and rosters, technical support, materials and kits, and teaching support.



help@amplify.com





