

Amplify.

Program Essentials and Kit Materials Prep

Date: 2022

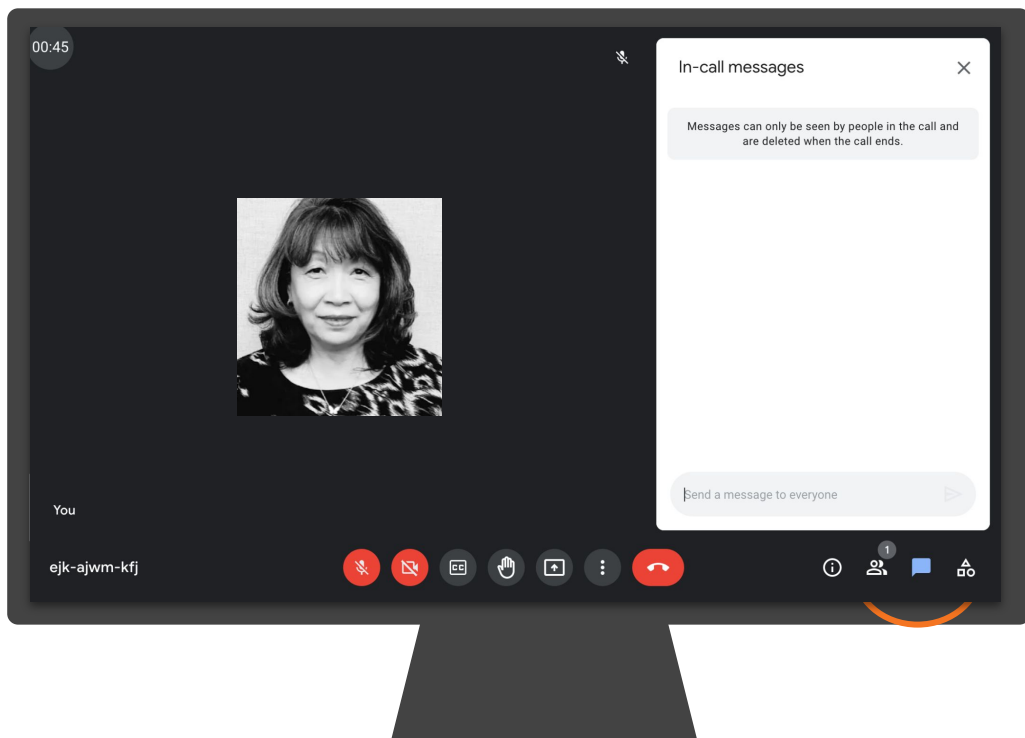
Presenter: Suzy Takeda



Ice Breaker!

Who do we have in the room today?

- **Question:** What support are your teachers needing with Amplify Science?



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

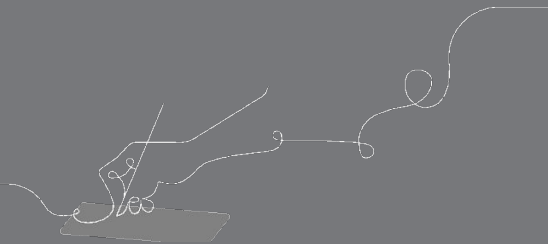
- **Take risks:** Ask any questions, provide any answers.
- **Participate:** Share your thinking, participate in discussion and reflection.
- **Be fully present:** Unplug and immerse yourself in the moment.
- **Physical needs:** Stand up, get water, take breaks.

Overarching goals

By the end of this workshop, you will be able to:

- ❑ Navigate the Amplify Science curriculum.
- ❑ Unpack and organize kit materials in order to prepare to teach.

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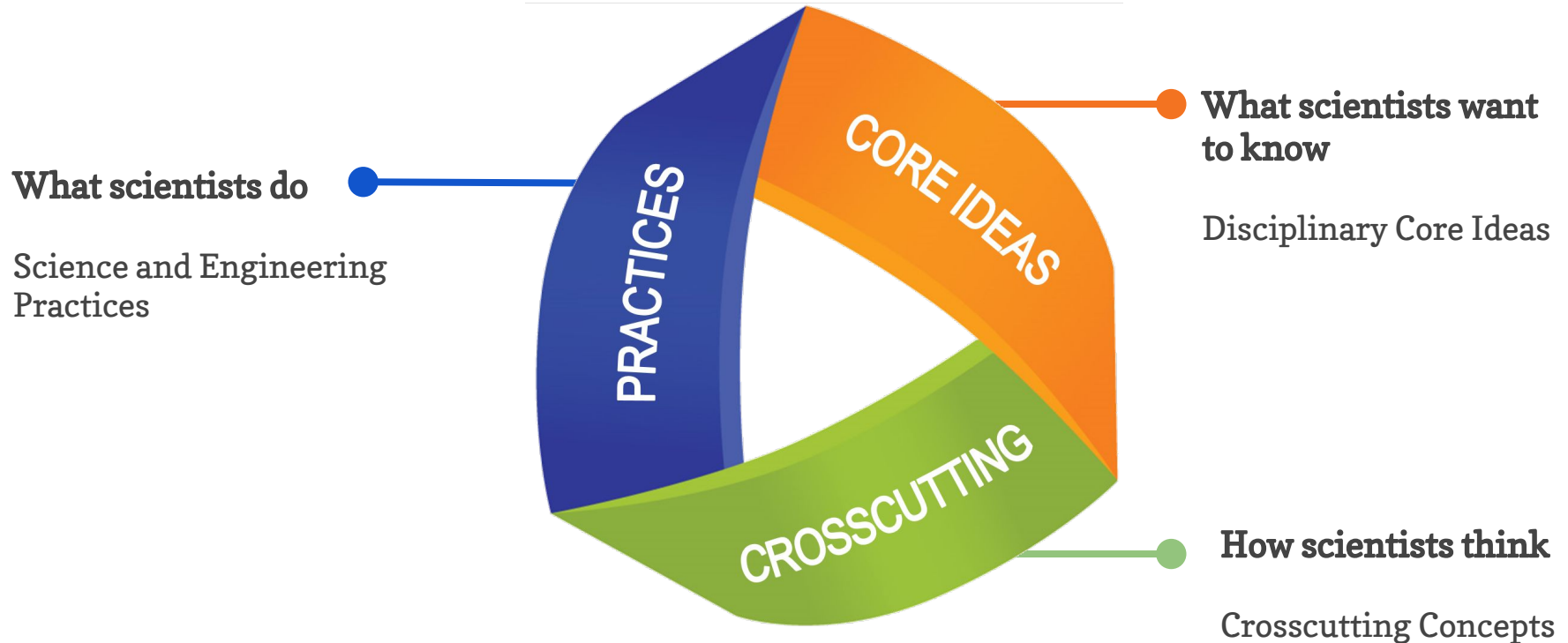




Program Essentials

Next Generation Science Standards

Designed to help students build a cohesive understanding of science



Next Generation Science Standards

How might learning be different?

A shift in science instruction

from learning about
(like a student)

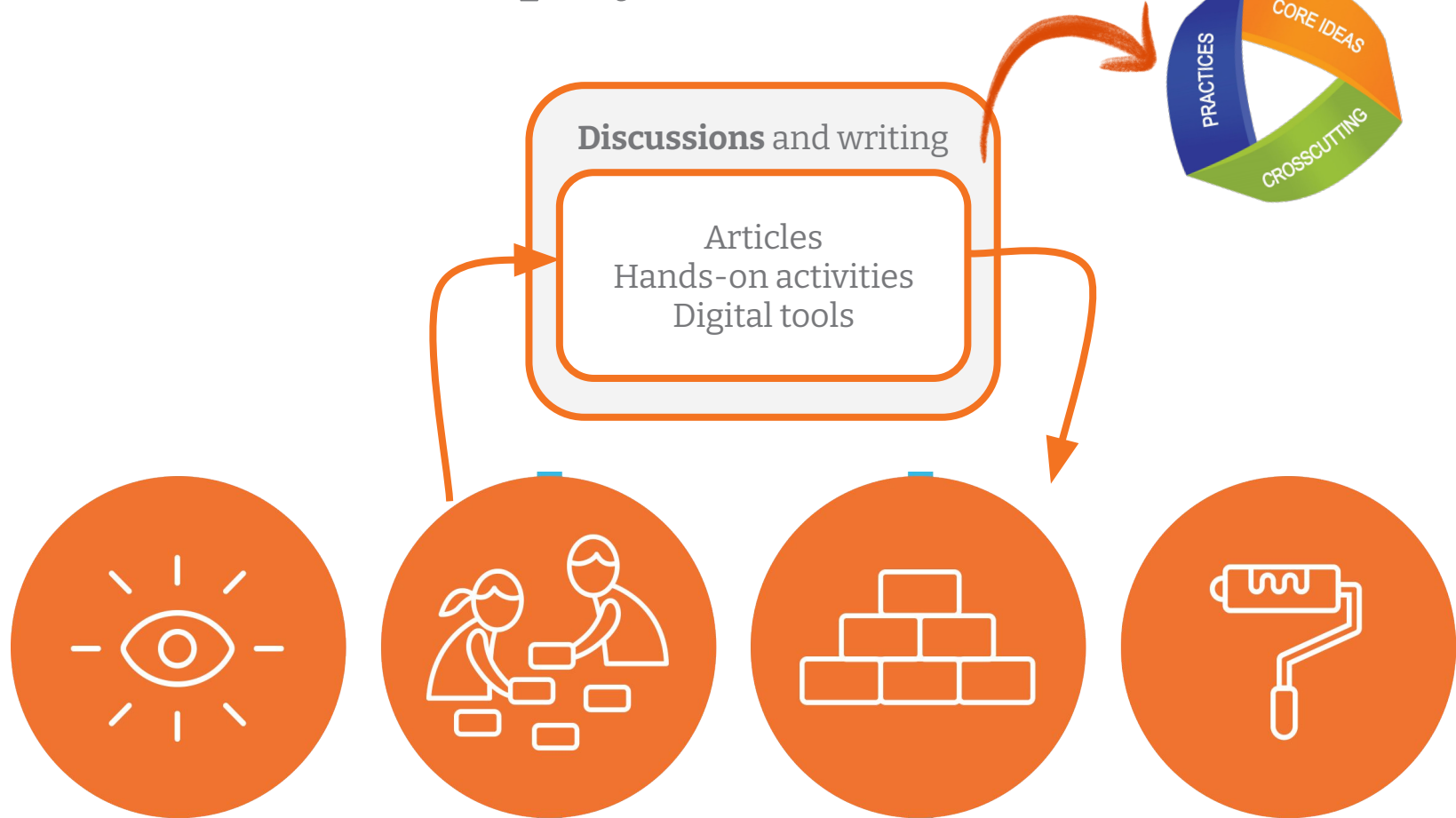


to figuring out
(like a scientist)

Amplify Science Approach



Discourse within Amplify Science



Course curriculum structure

Grade K

- Needs of Plants and Animals
- Pushes and Pulls
- Sunlight and Weather

Grade 1

- Animal and Plant Defenses
- Light and Sound
- Spinning Earth

Grade 2

- Plant and Animal Relationships
- Properties of Materials
- Changing Landforms

Grade 3

- Balancing Forces
- Inheritance and Traits
- Environments and Survival
- Weather and Climate

Grade 4

- Energy Conversions
- Vision and Light
- Earth's Features
- Waves, Energy, and Information

Grade 5

- Patterns of Earth and Sky
- Modeling Matter
- The Earth System
- Ecosystem Restoration

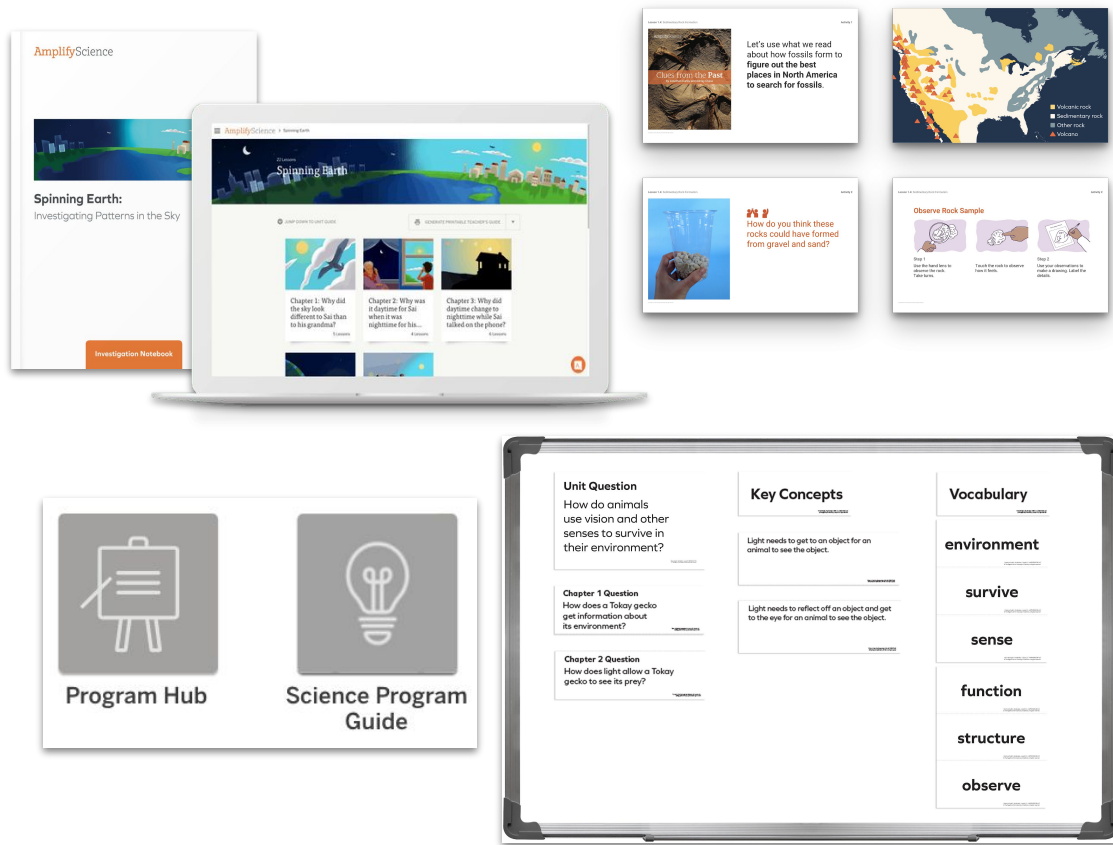
Key takeaways:

- There are 22 lessons per unit
- Lessons at grades 2-5 are 60 minutes long

K-5 Program components

Teacher materials

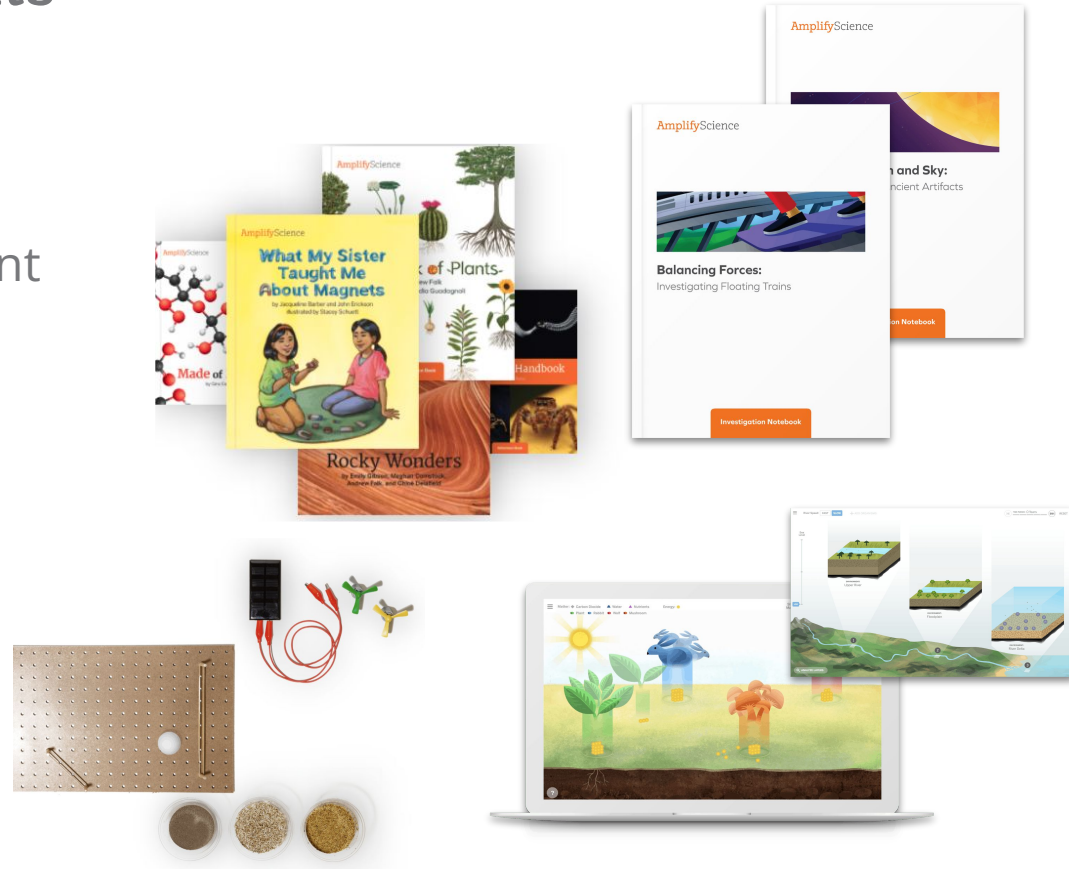
- Teacher's Guide (print and digital)
- Classroom Slides
- Classroom wall materials
- Embedded assessments
- Program Guide
- Program Hub
- Amplify Help Site



K-5 Program components

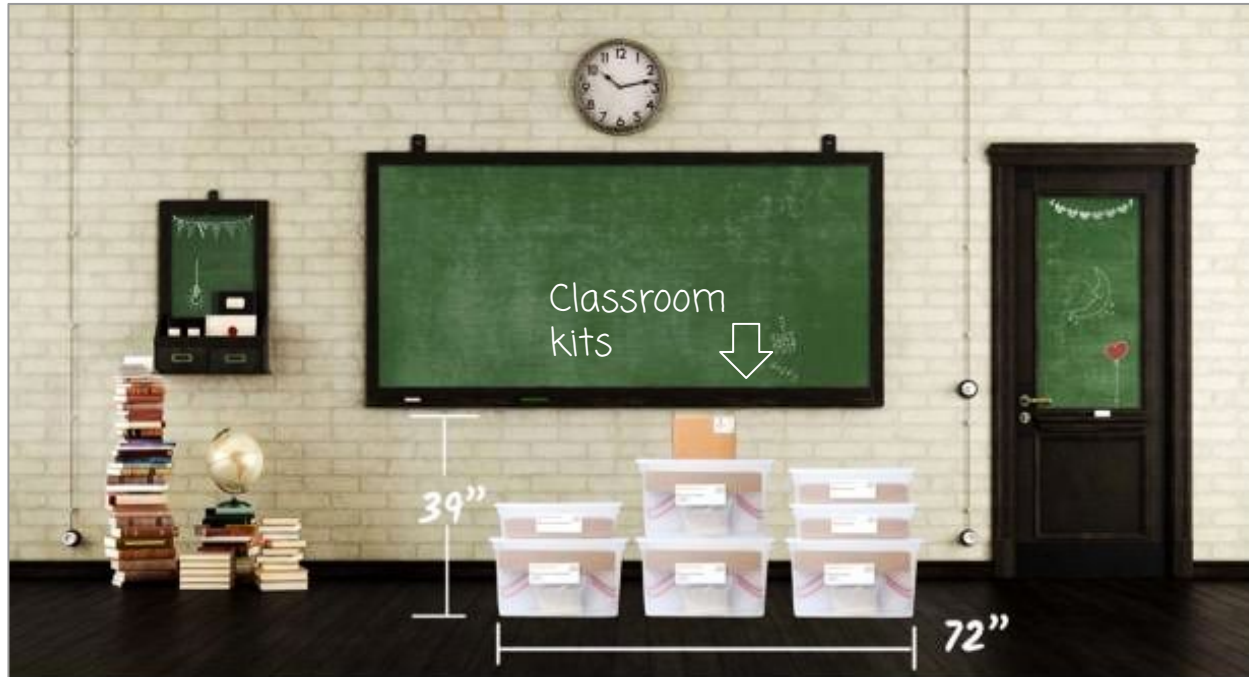
Student materials

- Hands-on materials
- Investigation Notebooks (print and digital)
- Student books
- Digital Applications



K-5 Program components

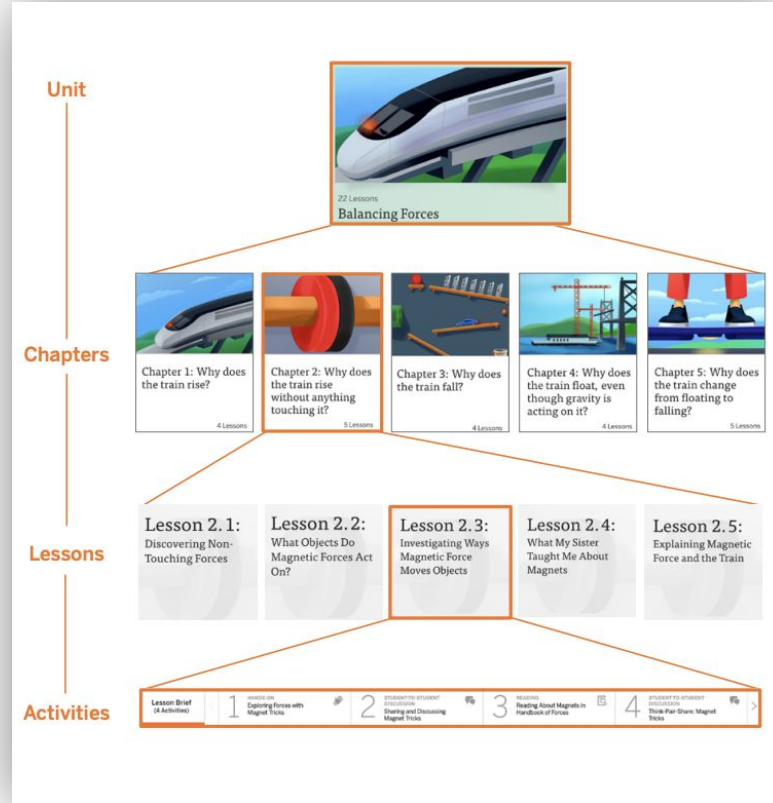
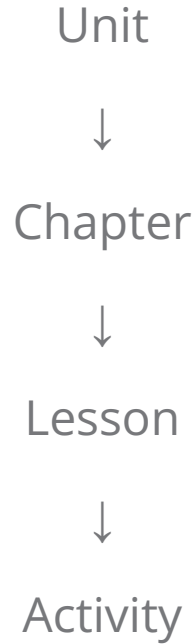
Classroom kits



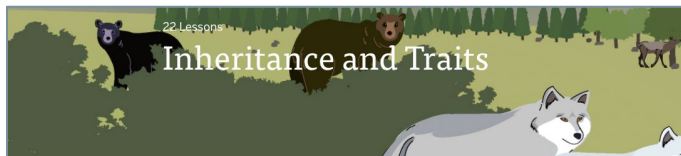
Classroom kits

Built for a class of 36 students, with consumables for two years

Unit structure



Let's Go Live!



Inheritance and Traits

✓ JUMP DOWN TO UNIT GUIDE

GENERATE
GUIDE



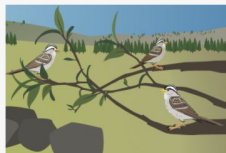
Chapter 1: Why are wolves different even though they are all the same species?

7 Lessons



Chapter 2: Why is Wolf 44's color similar to one pack but different from...

6 Lessons



Chapter 4: How can scientists investigate questions about



Lesson Brief
(3 Activities)

1

TEACHER-LED DISCUSSION
Introducing Asking
Questions



2

READING
Partner Reading



3

TEACHER-LED DISCUSSION
Reflecting on Relatedness



RESET LESSON

GENERATE PRINTABLE LESSON GUIDE

Overview
Materials &
Preparation
Differentiation
Standards
Vocabulary
Unplugged?

Overview

Through reading an informational text, students continue to explore how organisms can be similar and different. Students read the book *Blue Whales and Buttercups*, which provides many examples of the great diversity of organisms on Earth and the many ways in which they can be similar and different. Students are introduced to the sense-making strategy of asking questions and use this strategy to help them understand and engage with the book. The purpose of this lesson is to introduce students to the concept that even though organisms can be quite different, they are all related.

Digital Resources

- Classroom Slides 1.2 | PowerPoint
- Classroom Slides 1.2 | Google Slides
- Asking Questions T-chart
- Inheritance and Traits Investigation Notebook, pages 4-7

Español

Bison Valley Pack in
hunting style and...

6 Lessons

Lesson 1.1:
Pre-Unit Assessment

Lesson 1.2:
Blue Whales and
Buttercups

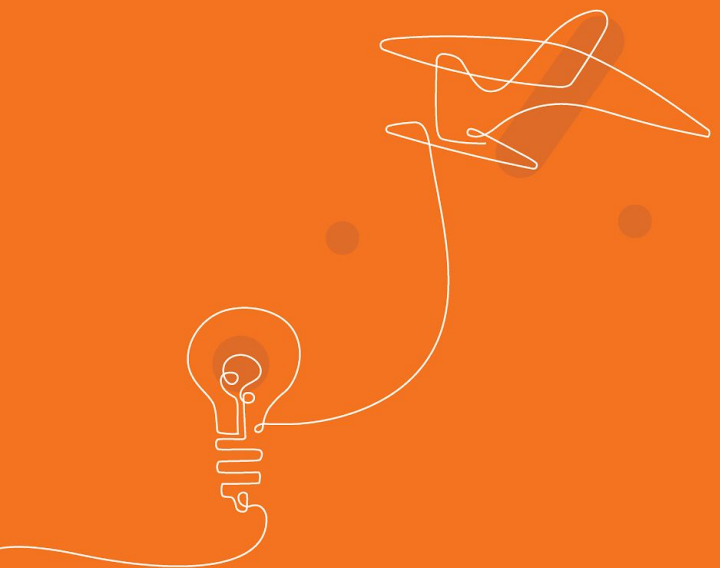
Lesson 1.3:
Observing
Similarities and
Differences

Lesson 1.4:
Introducing Species

Lesson 1.5:
Variation in a
Species

Lesson 1.6:
Making Sense of
Variation

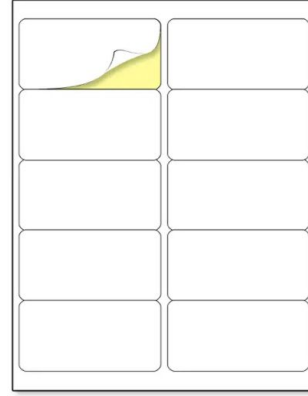
Lesson 1.7:
Explaining Variation



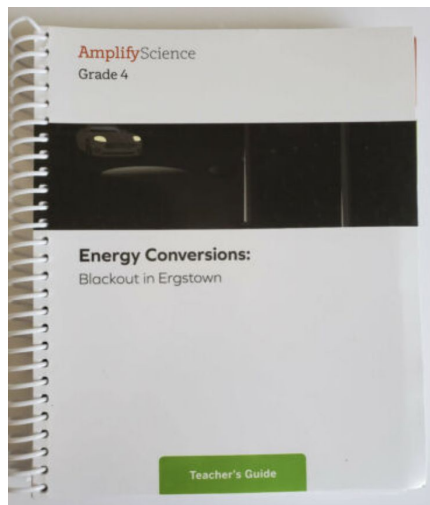
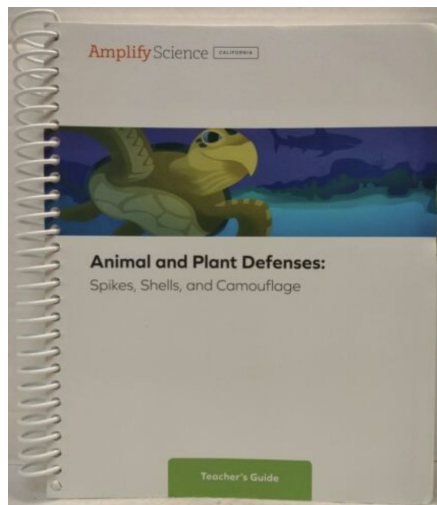
General Tips on Unpacking

Kit and Wall Materials

Things to collect before opening the kit



Print Teacher's Guide and Materials List



The print Teacher's Guide will help as you determine which lessons need hands on preparation

Animal and Plant Defenses Planning for the Unit		
Materials and Preparation		
Materials at a Glance		
<p>Note: Check and follow your district's safety regulations pertaining to the use of proper equipment and procedures for students participating in hands-on science activities. Please refer to the Science Safety Handbook for California Public Schools, California Department of Education (CDE).</p> <p>Items Provided in the Animal and Plant Defenses Kit</p> <p>This is a complete list of all the kit provided materials needed to present the entire Animal and Plant Defenses unit twice for a class of 36 students. For reordering information, call Amplify at 1 (800) 823-1969.</p> <p>Note: Your Amplify Science kit may contain additional quantities of some items.</p>		
Quantity needed	Manipulatives	Used in lesson
100	erasers, pencil-top erasers	2.1, 2.5, 2.8
30 oz.	clay	2.3, 2.4, 2.5, 4.2, 4.3, 4.4
37	cups, plastic, 30-oz.	1.1, 1.4
75	cups, paper, 9- or 7-oz.	2.3, 2.4, 2.5, 2.8, 4.2
150	cups, plastic, 2-oz.*	1.2, 2.1, 4.3
28	combs, plastic	2.3, 2.4, 2.5, 4.2, 4.3, 4.4
70	twists, plastic	2.3, 2.4, 2.5, 2.6, 2.7, 4.4
36	rips, metal	1.4, 2.3, 2.5, 2.8, 3.1
40	heavy paper, various colors, sheets*	2.3, 2.4, 2.5, 2.8, 4.2
800	toothpicks	2.3, 2.5, 2.8, 4.2
*consumable items		
Quantity in kit	Print materials	Used in lesson
1	Animal and Plant Defenses Investigation Notebook	throughout

1

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Animal and Plant Defenses Planning for the Unit		
Materials and Preparation		
9 sets	Survival Game Role Cards (4 cards)	1.1, 1.4
9 sets	Survival Game Need Cards (2 cards)	1.1, 1.4
1 set	Structure-Function Language Frame Cards, Set 1 (10 cards)	1.3
36 sets	Working Cards (9 cards)	1.4, 2.3, 2.5, 2.8, 3.1
1 set	Structure-Function Language Frame Cards, Set 2 (6 cards)	2.2
1 set	Background Scene Cards (9 cards)	2.6
18 sets	Parent and Offspring Cards Set (5 cards)	3.1, 3.2, 3.3
1 set	Explanation Language Frames Cards (4 cards)	3.3
Quantity in kit	Print materials for the classroom wall	Used in lesson
1	Unit Question	1.1
4	Chapter Questions	1.1, 2.1, 3.1, 4.1
2	Section Headers: Key Concepts, Vocabulary	1.1
9	Vocabulary cards	throughout
Quantity in kit	Student books	Used in lesson
18 + 1 big book	Frog Models	4.1, 4.3
18 + 1 big book	Parents and Offspring	3.2, 3.4, 3.5, 4.3
18 + 1 big book	Spines, Scales, and Shells: A Handbook of Defenses	1.3, 2.3, 2.4, 2.5, 2.6, 2.7, 4.2, 4.3, 4.4
18 + 1 big book	Tortoise Parts	1.2, 1.3, 2.4, 4.3
18 + 1 big book	Whose Lunch Is This?	2.1, 2.2, 4.3

2

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This can be found in the kit.

It can also be found in the print TE and on the digital platform under Materials and Preparation

Kit

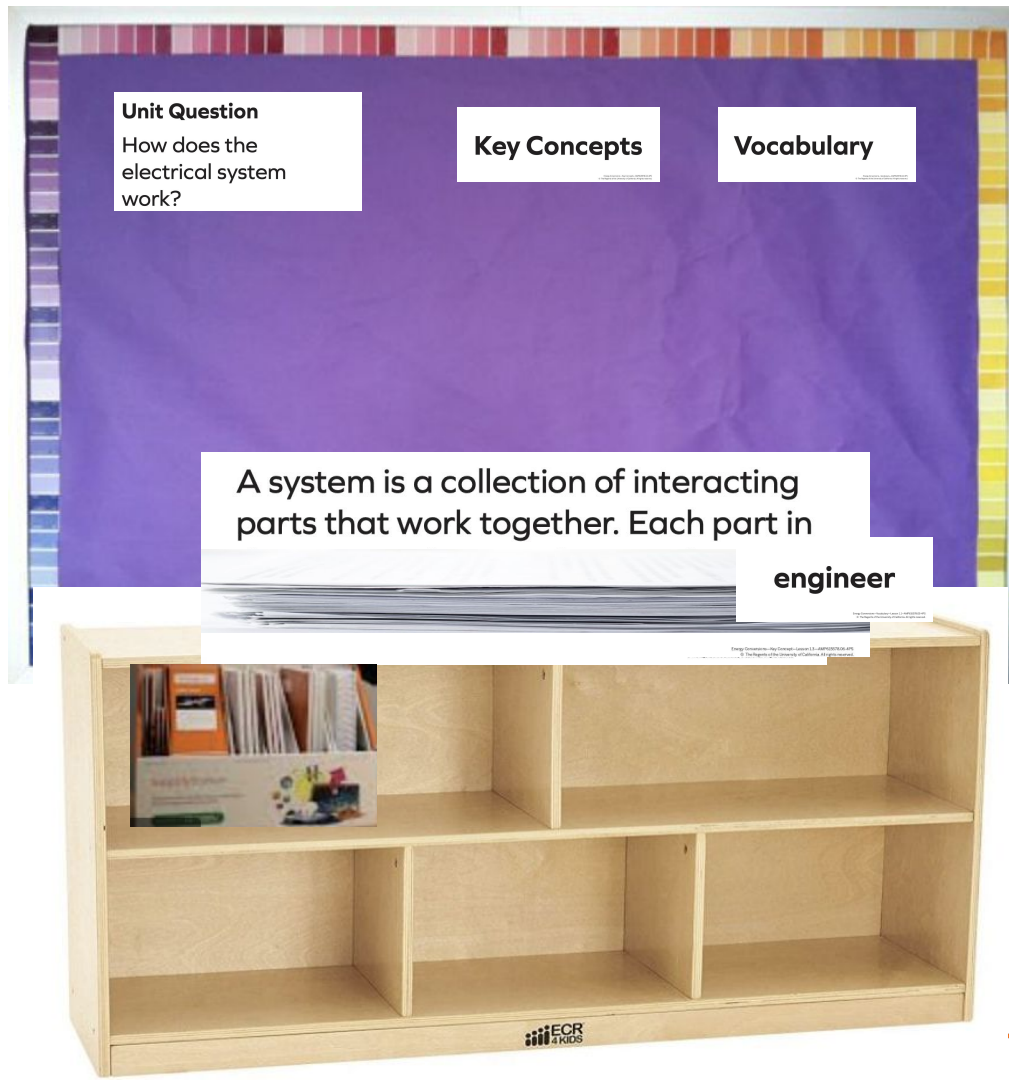
Pull out kits for the unit you are going to unpack.

They can range from 1-3 bins or boxes. (Dirt for example will just be in a brown box.)



Unpacking the Kit

- Pull out the unit question, key concepts and vocabulary materials.
- Place them on the top of the table or bookcase below your science board
- Take books out of kit and place in the bookcase or on the table. (Always collect books after each lesson use. Return to bookcase so they are easily accessible.)



Grades K and 1

Key Concepts are not printed on card stock
Lawrence Hall of Science felt the key understandings should be developed with students.

Two Suggestions:

1. Have blank sentence strips ready to use when developing the key concepts to add to the classroom wall
2. Write out key concepts on sentence strips. Label with the lesson and put them with the chapter questions. (*Note: they can be found in the lesson overview compilation*)

Lesson Overview Compilation

 OPEN PRINTABLE LESSON OVERVIEW COMPILATION

How do animals and plants survive?

Chapter 1: How does Spruce the Sea Turtle do what she needs to

To survive, animals and plants need to get water, air and food.

Lesson 1.1

Investigation Questions

- What do animals and plants need to do to survive? (1.1)
- How do animals and plants do what they need to do to survive? (1.2, 1.3, 1.4, 1.5)

Key Concepts

- To survive, animals and plants need to get water, air, and food. (1.1)
- Animals and plants have structures that help them do what they need to do to survive. (1.3)
- To survive, animals and plants need to get water, air, and food, and to not be eaten. (1.4)

Cards for games, sorting or matching activities

The cards in the kit are separated by a blue sheet of paper.

Organization tip:

- Separate and place in envelopes or bags or clip together
- Label the envelopes or bags with the name and lesson activity



Word Relationship Cards

(Grade 1 only)

observe

Animal and Plant Defenses—Word Ring Cards—Lesson 1.4—AMP636602.09-1LS
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structure

Animal and Plant Defenses—Word Ring Cards—Lesson 1.4—AMP636602.09-1LS
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defense

Animal and Plant Defenses—Word Ring Cards—Lesson 2.5—AMP636602.09-1LS
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survive

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scientist

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model

Animal and Plant Defenses—Word Ring Cards—Lesson 2.5—AMP636602.09-1LS
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pr

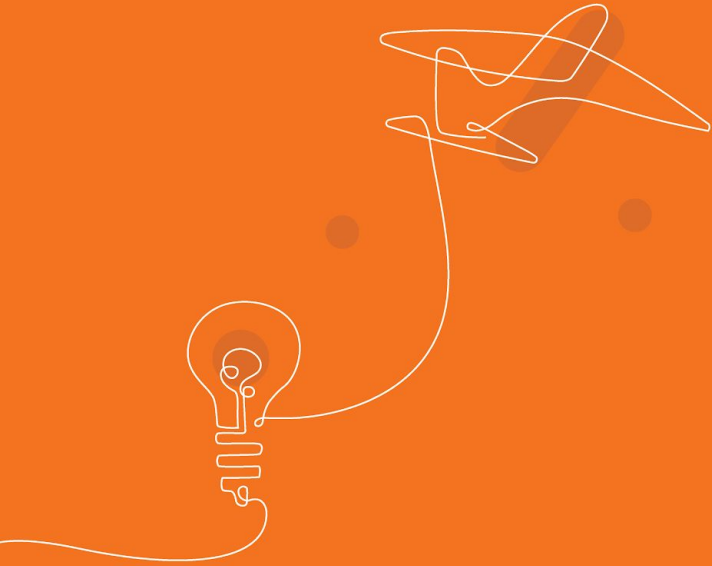
- Hole punch the cards.
 - Place the cards and a ring in a plastic bag.
- Each student will use these and vocabulary cards are added as they are introduced.*

ing

—Lesson 3.1—AMP636602.09-1LS
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Hands On Organization



Giver participants 2 or 3 minutes to locate site, bookmark it and Go live to [LAUSD / AMPLIFY SCIENCE MICROSITE](#)

Microsite: Unit 1, K-2 Lesson Prep Videos

Classroom kits

Program Introduction

Learn more about Amplify Science

LAUSD Training Sessions- Reference Materials

New! Lesson Prep Videos

Remote Learning Resources

Onboarding: What to expect

Onboarding videos

Unpacking your first hands-on materials kit

Looking for help?

New! Lesson Prep Videos

Unit 1

Grade K- Needs of Plants and Animals

Grade 1- Animals and Plant Defenses

Grade 2- Plant and Animal Relationships

Grade 3- Balancing Forces

Grade 4- Energy Conversions

Grade 5- Patterns of Earth and Sky

Classroom Kits

Built for a class of 36 students, with consumables for two years

LAUSD Schoology: Unit 1, 3-5 Lesson Prep Videos

The screenshot shows the LAUSD Schoology interface. The top navigation bar is dark blue with the LAUSD logo on the left and icons for search, grid, calendar, and email on the right. The main navigation menu on the left includes 'Home', 'COURSES', 'GROUPS', 'RESOURCES' (circled in orange), and 'TOOLS'. Under 'RESOURCES', there are two sections: 'Group Resources' and 'School Resources'. The 'Group Resources' section is expanded, showing 'Amplify Science- Elementary' (circled in orange) and 'LAUSD Middle School Science - Di...'. The 'School Resources' section shows 'LOS ANGELES USD - 9999' and 'Los Angeles Unified School District'. The 'Group' icon in the left sidebar is also circled in orange. The main content area displays the 'Amplify Science- Elementary' resource page. It has a 'Title' header and a list of resources. The first resource is 'NGSS Resources' (purple folder icon), added by MARIA ARTEAGA on Jun 1, 2021. The second resource is 'Google Drive link for K-6 Phenomenal Notebooking Resources' (pink folder icon), added by INYOUNG LEE on Feb 1, 2021. It includes a URL and a note about digital phenomenal notebooks. The third resource is 'Amplify_Science_Shared_Logins.pdf' (PDF icon), added by Señor Fernando REYES on Aug 9, 2021. The fourth resource is 'Lesson Prep Videos' (green folder icon), added by Terin Ngo on Oct 11, 2021, and is circled in orange.

LOS ANGELES
Home

COURSES GROUPS **RESOURCES** TOOLS

Search

Personal

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Group Resources

Amplify Science- Elementary

LAUSD Middle School Science - Di...

School Resources

LOS ANGELES USD - 9999

Los Angeles Unified School District

Amplify Science- Elementary

Title

NGSS Resources

Added by MARIA ARTEAGA · Jun 1, 2021

Google Drive link for K-6 Phenomenal Notebooking Resources

<https://drive.google.com/drive/folders/168S5PDaAsmg6mOg7LUOlhwO8J7GnYn2G?usp=sharing>

Here are digital resources to support the teaching and learning of the anchor phenomena for Amplify Science and FOSS.

Subfolders for Unit 1 and Unit 2.

Note: In the Unit 1 folder for grades 3-6, please find digital phenomenal notebooks which can be assigned to students in Schoology. For K-2, please find a suite of Seesaw activities. Teachers may add the Seesaw activities into their Seesaw accounts and assign them to students.

Added by INYOUNG LEE · Feb 1, 2021

Amplify_Science_Shared_Logins.pdf

Added by Señor Fernando REYES · Aug 9, 2021

Lesson Prep Videos

Added by Terin Ngo · Oct 11, 2021

Directions				
1. Open the Digital Lesson Guides Only page 7 from the Unit Landing page or go the Print TE to page 31. (Chapter 1 Activities)				
2. Look for the lessons with Hands On.				
<small>HANDS-ON</small>				
3. Note in the table below.				
4. Review the materials and preparation to determine if it can be prepared prior to the lesson or on the day of the lesson.				
5. Use this same procedure for each Chapter. (Go to the Chapter Activities Contents)				
Chapter/Lesson	Activity	Prep Prior	Prep Day of	What to do
1.1	1	X		Prep plastic bags with labels A, B, C, D and M. Place 1 tsp of the following cinnamon, salt, flour, cornstarch in A,B,C, D. In bag M mix 1 tsp salt and 1 tsp cinnamon.

This is an example from Properties of Materials Grade 2

- Open Your **Lesson Guides Only**
- Start with **Chapter 1** and look for the **hands icon**
- Go into the lesson **materials and prep**



22 Lessons

Animal and Plant Defenses

▼ JUMP DOWN TO UNIT GUIDE

GENERATE PRINTABLE TEACHER'S GUIDE

Full Teacher's Guide
(Includes Unit Guide & all 22 Lesson Guides)

Generate Printable Teacher's Guide

Overview
Materials & Preparation
Differentiation
Standards
Vocabulary

Overview

Students learn about how animals use the structures on their bodies to help meet their survival needs. The teacher introduces the visualizing strategy and leads a Shared Reading of *Tortoise Parts* to provide students with examples of how an animal uses its structures to do what it needs to do to survive. Partners observe each other eating carrots to gather evidence of how another animal, a human, uses its structures to get and eat food. Students share these observations with the class and make connections to how the tortoise uses its structures in *Tortoise Parts*. The teacher introduces the What Scientists Do chart as a place to record how students work as scientists throughout the unit. The purpose of this lesson is to lay the foundation for students to understand that living things have body parts that help them meet their survival needs.

Unit Anchor Phenomenon: Spruce the Sea Turtle and her offspring survive in the ocean.

Animal and Plant Defenses

Lesson Guides

Chapter 1 Activities

Lesson 1.1: Pre-Unit Assessment

- 1 Introducing Spruce the Sea Turtle
- 2 Leading a Pre-Unit-Assessment Conversation
- 3 Playing the Survival Game

TEACHER-LED DISCUSSION
TEACHER-LED DISCUSSION
HANDS-ON

Lesson 1.2: Tortoise Parts

- 1 Reading: Tortoise Parts
- 2 Observing Structures Used to Eat
- 3 Discussing Observations and Structures

READING
HANDS-ON
TEACHER-LED DISCUSSION

Lesson 1.3: Animal and Plant Structures

- 1 Describing Tortoise Structures
- 1 Observing Animal and Plant Structures
- 2 Describing Animal and Plant Structures
- 3 Structures in Spikes, Spines, and Shells

TEACHER-LED DISCUSSION
TEACHER
STUDENT-TO-STUDENT DISCUSSION
READING

Lesson 1.4: Surviving by Not Being Eaten

- 1 Revisiting the Survival Game
- 2 Explaining Not Being Eaten
- 3 Writing About Survival

HANDS-ON
TEACHER-LED DISCUSSION
WRITING

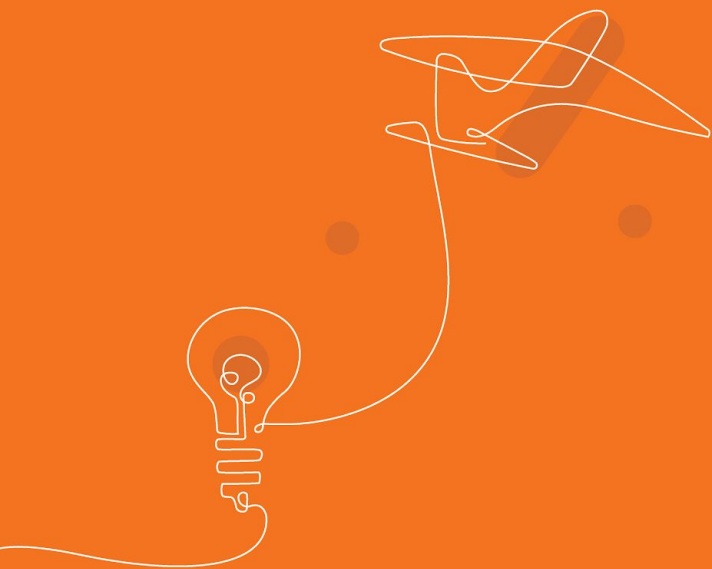
Lesson 1.5: Explaining Sea Turtle Survival

- 1 Gathering Evidence About Sea Turtle Structures
- 1 Explaining Use of Structures for Survival
- 2 Writing About Spruce's Survival
- 3 Reflecting on Being a Scientist

TEACHER
STUDENT-TO-STUDENT DISCUSSION
WRITING
TEACHER-LED DISCUSSION

Grade 1 Animal and Plant Defenses Materials prep document

Chapter/Lesson	Activity	Prep Prior	Prep Day of	What to do
1.1	3	x		Prep Prior: Locate cups and survival game card sets.
1.2	2	x	x	Prep Prior: Purchase carrots or pretzels Prep Day of: Put food into individual cups (provided in the kit
1.4	1	x		Use cards from lesson 1.1 (survival game cards) Prep Prior: prep word rings with scientist, structure, observe, survive
2.1	3	x		Same prep as lesson 1.2 Prep Prior: Purchase carrots or pretzels Prep Day of: Put food into individual cups (provided in the kit
2.2	1			No prep: students will act out with their bodies
2.3	2	x	x	Prep Prior: Update Word rings with defend, predator Prep Day of For each group of 4: 2 plastic combs 2 medium paper cups, 8 plastic tokens, 20 toothpicks, 15 pencil top erasers, 7-8 pieces of tissue paper (Optional: additional items to use; paper clips, cardboard pieces, popsicle sticks, yarn, rubber bands, etc.) For each pair of students: 1 ball of clay
2.4	2	x		Materials from lesson 2.3
2.5	2	x		You will need only the materials for 1 group of 4
2.6	2	x		Prep Prior: 4x6 index card provided by teacher, cut 8 1/2' x 11' paper into 2 1/2' x 2 1/2' squares. Cut enough for each student to have 1 and several extra squares. Locate background scene cards. Students will need colored markers, crayons or colored pencils.
2.8	3	x	x	Prep Prior: Find word rings. Prep Day of: For each group of 4: 2 medium paper cups, plastic tokens, toothpicks, pencil top erasers, colored tissue, Teacher Provided Materials: 3-4 8 1/2' x 11' white paper, student scissors, masking tape, small plastic interlocking cubes (math manipulative), colored pencils, crayons or markers
3.4	2			
3.5	2			
4.2	2			
4.3	2			



Additional Prep

Optional

Investigation Questions

- Look at the **lesson overview compilation** in your print TE or on the digital platform
- Find the investigation questions and write them on sentence strips . (In the bottom right corner, write the lesson you will be introducing this question)
- *(Note: These questions can also be found on the **coherence flowcharts**)*
- They will be added to the Science Classroom Wall. (After creating all the questions, I place them with the chapter questions, etc.)

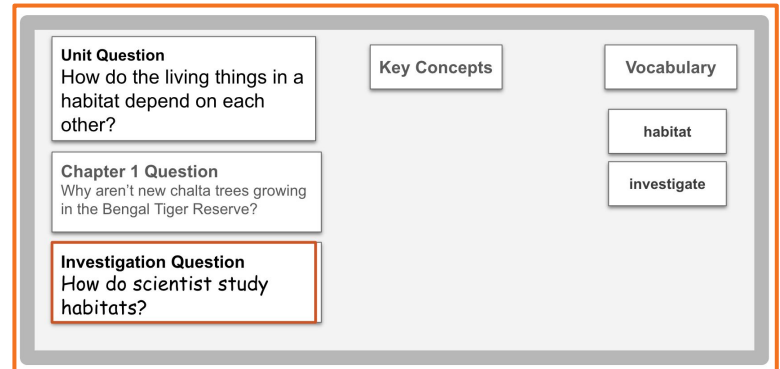
Chapter 1: How does Spruce the Sea Turtle do what she needs to do to survive?

Chapter Question

How does Spruce the Sea Turtle do what she needs to do to survive?

Investigation Questions

- What do animals and plants need to do to survive? (1.1)
- How do animals and plants do what they need to do to survive? (1.2, 1.3, 1.4, 1.5)



Additional Charts

- Under **Materials and Preparation**, you will find the **Preparation at a glance**
- This will show you charts, etc that need to be prepped. These can be done prior to the lesson, or on the day of the lesson.
- For example: Partner Reading Guidelines, Safety guidelines, Charts to show learning, etc.

What is a Design Argument

It answers a question with a claim about which solution best meets the criteria.

Lesson 2.4

It connects evidence to each of the criteria: information from testing, ideas from texts and experiences

Lesson 2.4

It describes any limitations.

Lesson 3.6

It is written for an audience.

Lesson 3.6

It uses scientific language.

Lesson 4.5

What happens if vocabulary cards or questions get lost or damaged?

No worries!

- Go to the unit landing page.
- Scroll down to printable resources
- Click on Print Materials (8.5"x11")
- Click on Print Materials (11"x17")
- All these materials are available in pdf form to print.



Vocabulary

Amplify and Print Definitions—Vocabulary—AMP064002 13.1.15
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Key Concepts

Amplify and Print Definitions—Key Concepts—AMP064002 13.1.15
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Print Materials (11" x 17")

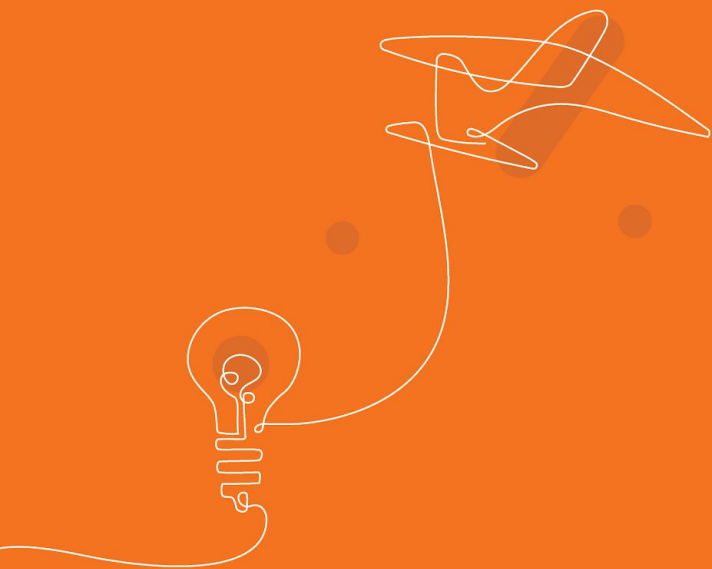
Live Kit Demonstration

Grade 1 - Animal and Plant Defenses

Grade 4- Energy Conversions

(Completed kit)





Why do all this prep?

Optional

Kit Materials in Action



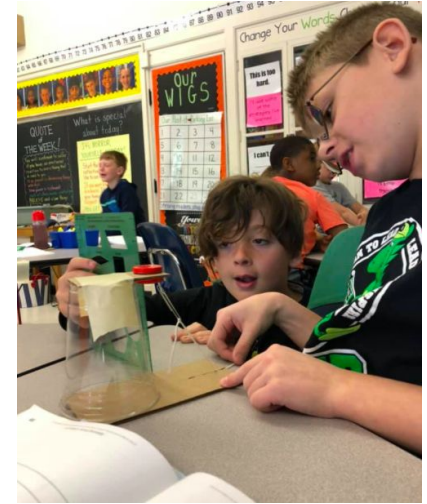
Student Collaboration

Student working on sorting activity.



Student Discovery

Students playing a game to learn about survival



Hands On

Students working together on a hands on experiment from Balancing Forces, Grade 3



Hands On- Grade 1

Animal and Plant Defenses

Questions



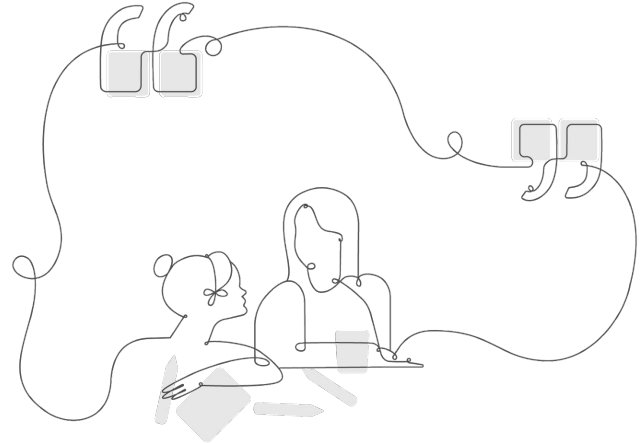
Upcoming LAUSD Office Hours

Last working Monday of the month

Next Office Hour:

January 31, 2022

- Monday, (4-5pm)



<https://meet.google.com/uwc-uuaz-qdc?authuser=0>

Amplify.

Thank you!

