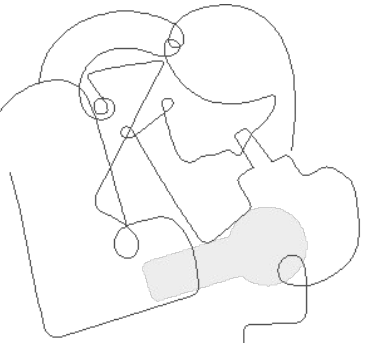
Amplify Science

Unit Internalization / Guided Planning

Grade 2, Unit 1: Plant and Animal Relationships

Part 1



School/District Name: LAUSD
Date: September, 2022
Presented by: Jolene Hori

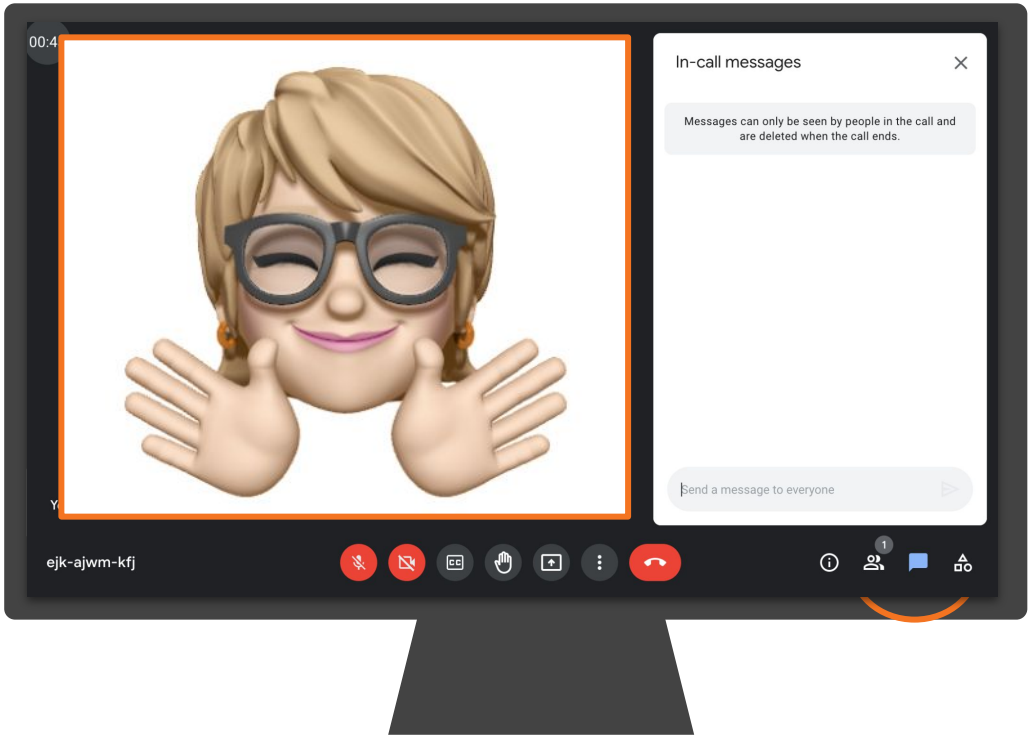
TOP RATED BY EDREPORTS

PLPG CERTIFIED PROVIDER

Ice Breaker!

Who do we have in the room today?

- **Question 1:** Which aspects of implementing the Amplify Science standard curriculum has been the most successful?
- **Question 2:** Which aspects have been the most challenging?



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.

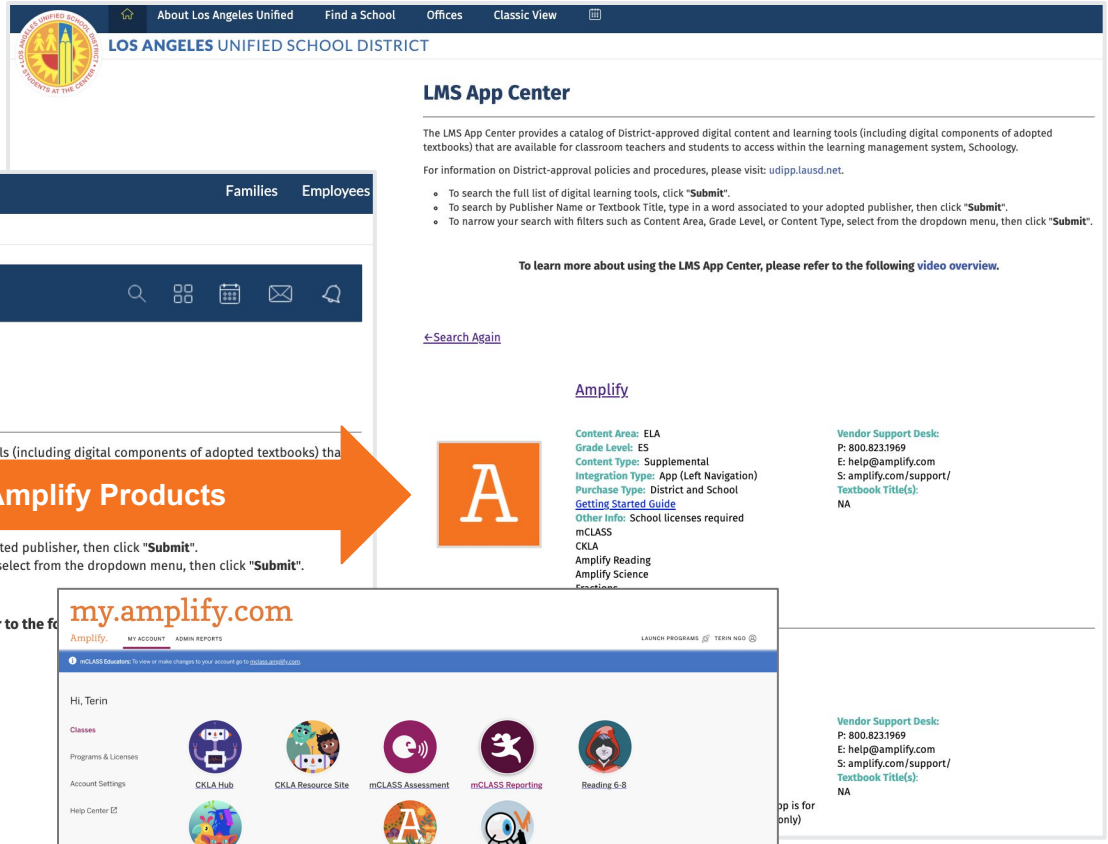
We share your goal of **inspiring all students to think deeply, creatively, and for themselves.**

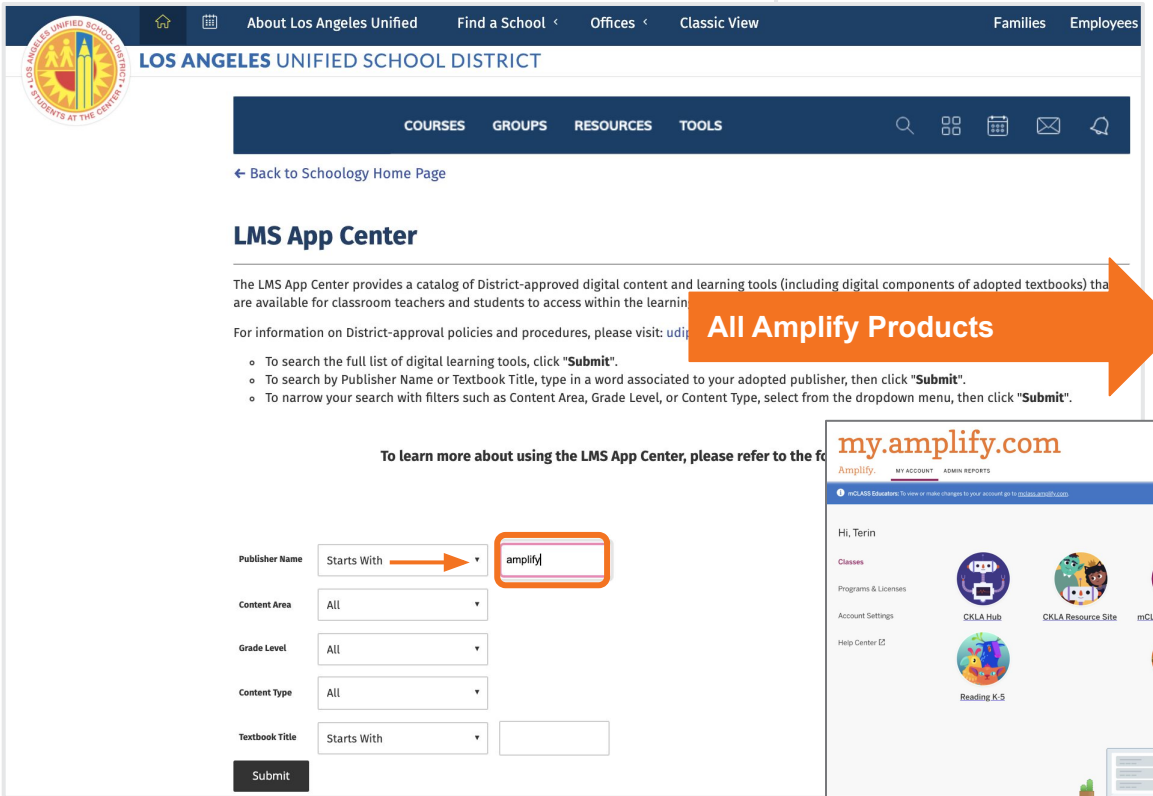
Sincerely,
Amplify

Norms: Establishing a culture of learners

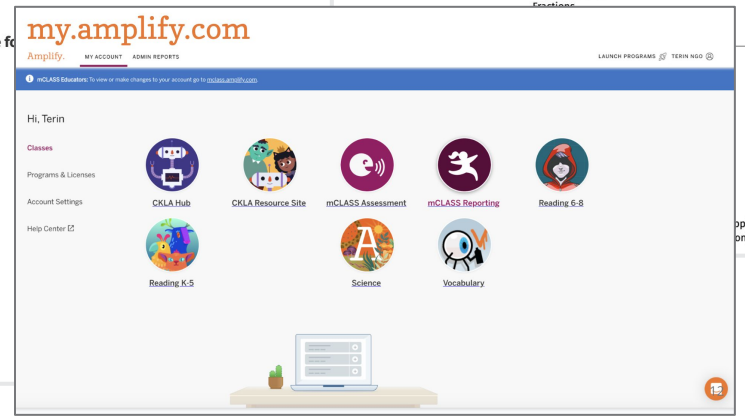
- **Take risks:** Ask any questions, provide any answers.
- **Participate:** Share your thinking, participate in discussion and reflection.
- **Be fully present:** Unplug and immerse yourself in the moment.
- **Physical needs:** Stand up, get water, take breaks.

Schoology





All Amplify Products



Join Amplify Science Schoology Group

To join Amplify Science Schoology ES Group: W4PK-W466-63F5B

Navigation Temperature Check

Rate yourself on your comfort level accessing Amplify Science materials and navigating a digital curriculum.

1 = Extremely Uncomfortable

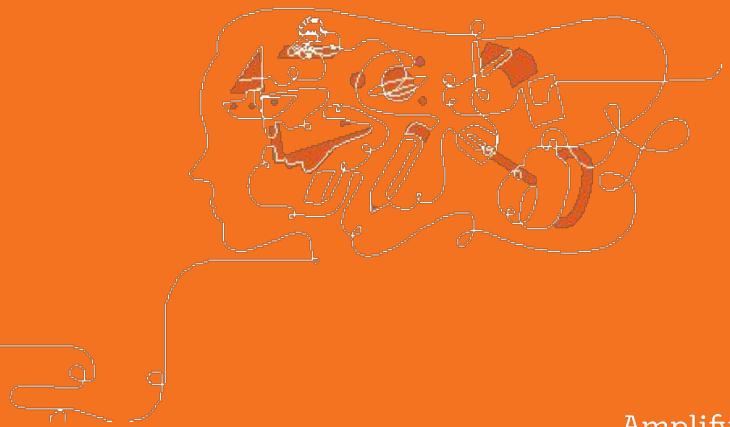
2 = Uncomfortable

3 = Mild

4 = Comfortable

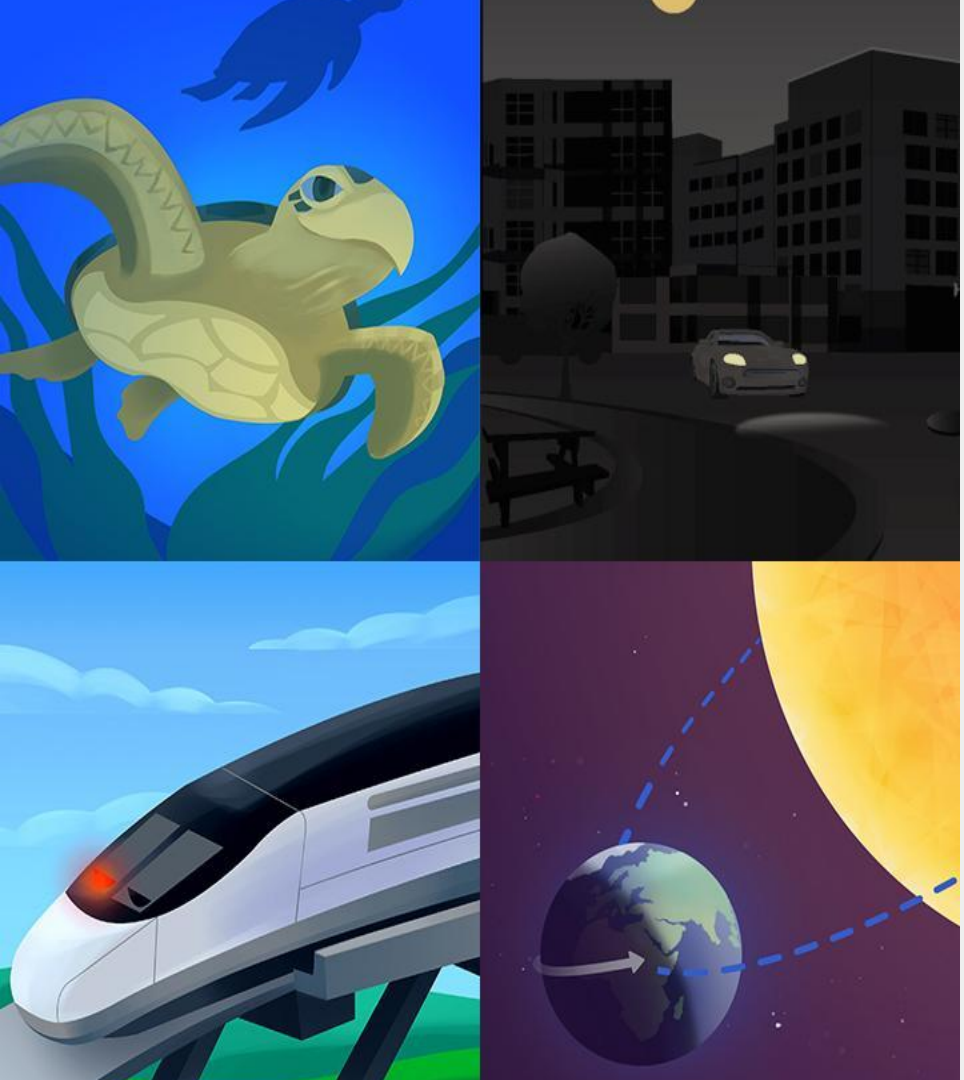
5 = Extremely Comfortable

Part 1



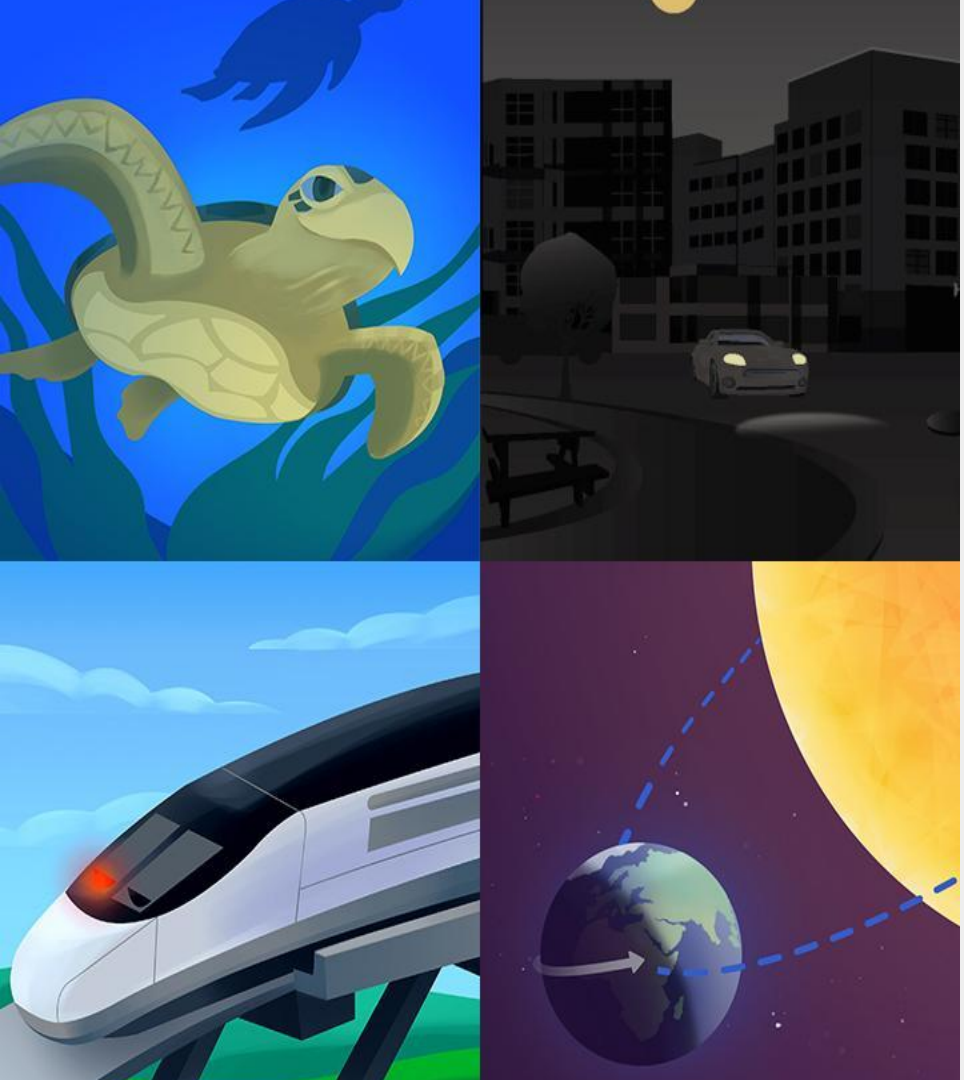
Overarching goals

- ❏ Explain how students engage in phenomenon based and 3D learning to construct an understanding of the science concepts introduced in the unit
- ❏ Internalize the unit and apply your new understanding to plan for the diverse needs of your classroom and students



Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Unit Internalization
- Additional Resources
- Closing



Plan for the day: Part 1

- **Introduction and Framing**
- Phenomenon-based Instruction
- Unit Internalization
- Additional Resources
- Closing

THE LAWRENCE HALL OF SCIENCE
UNIVERSITY OF CALIFORNIA, BERKELEY

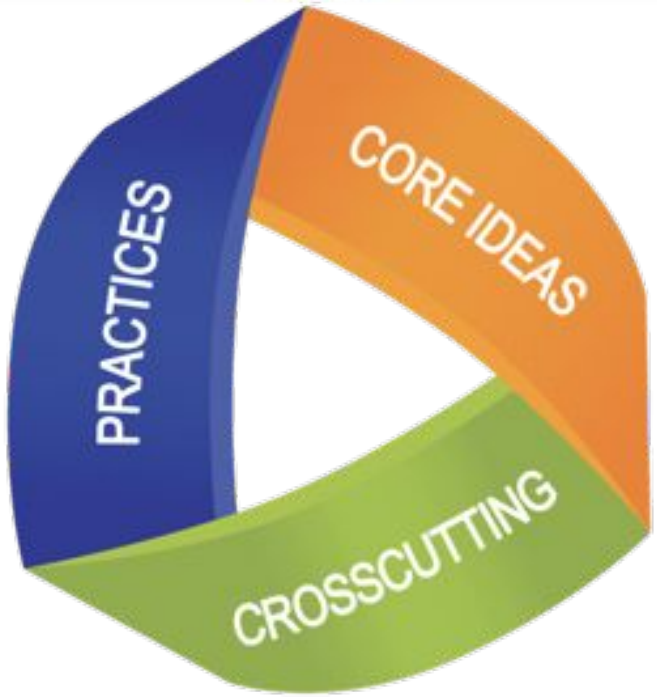
+ Amplify.

Amplify Science

Three dimensional learning

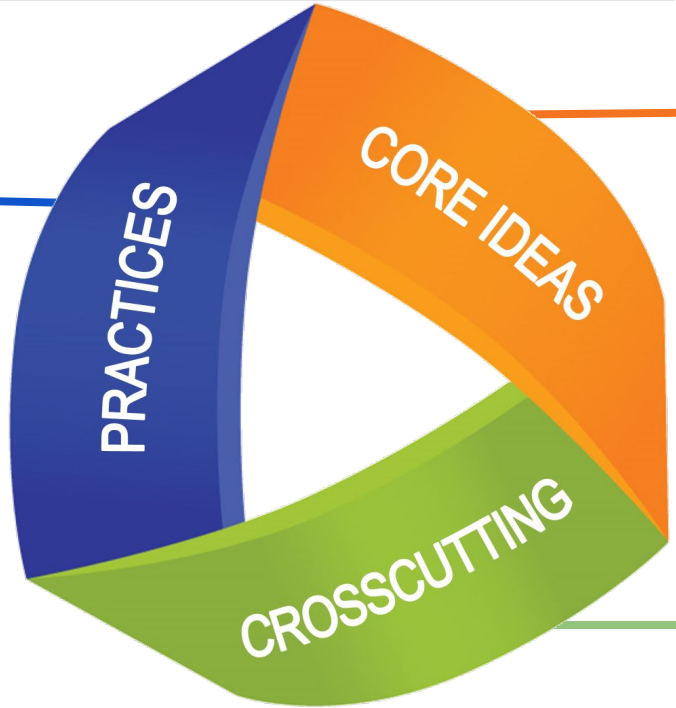
Evaluate your knowledge

- On a scale of 0-5, how would you rate your familiarity with 3-D learning?



Figuring out Phenomena

Using 3-D teaching and learning



What scientists do
Science and Engineering Practices

What scientists want to know
Disciplinary Core Ideas

How scientists think
Crosscutting Concepts

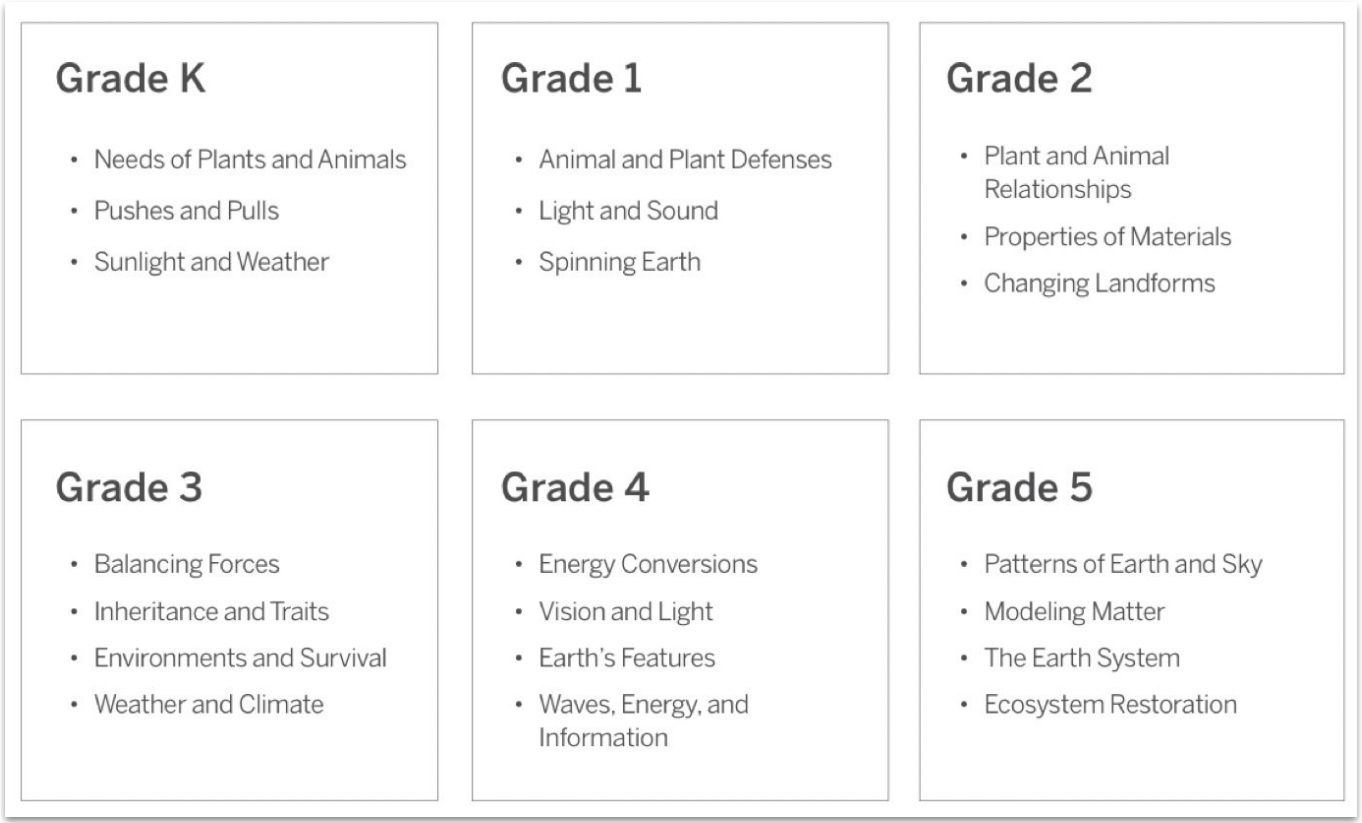
Three-dimensional learning

Reflection

In the video, how did students engage in three-dimensional learning to think like scientists?

Lesson 3.2
Students use a model to figure out the relationship between different parts of a habitat system in order to construct their understanding about how animals can help move seeds around a habitat (systems and system models).

Course curriculum structure



Key takeaways:

- There are 22 lessons per unit
- Lessons at grades K-1 are 45 minutes long

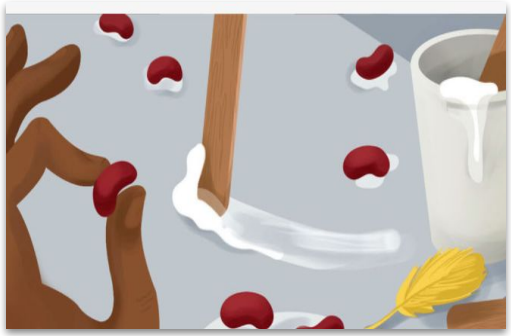
Year at a Glance: Grade 2

Plant and Animal Relationships

Domain: Life Science

Unit type: Investigation

Student role: Plant scientists

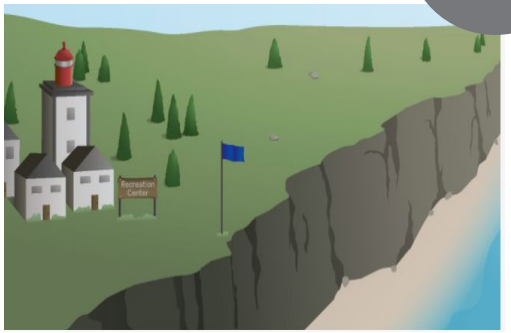


Properties of Matter

Domain: Physical Science

Unit type: Engineering Design

Student role: Glue engineers



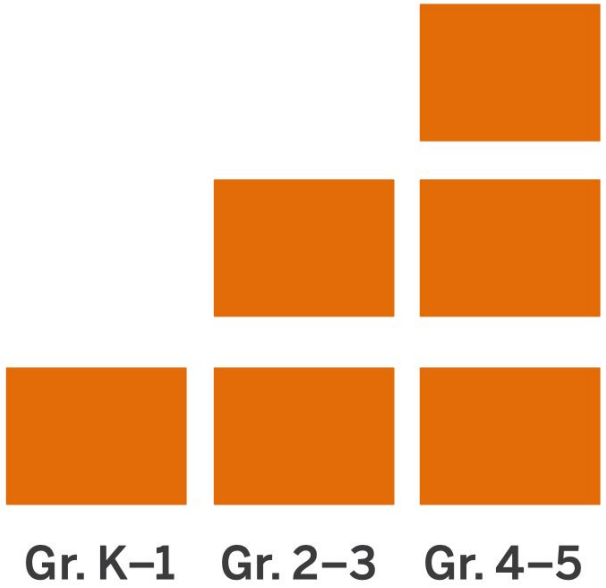
Changing Landforms

Domain: Earth and Space Science

Unit type: Modeling

Student role: Geologists

What are the digital components of Amplify Science Elementary?



Student Simulations

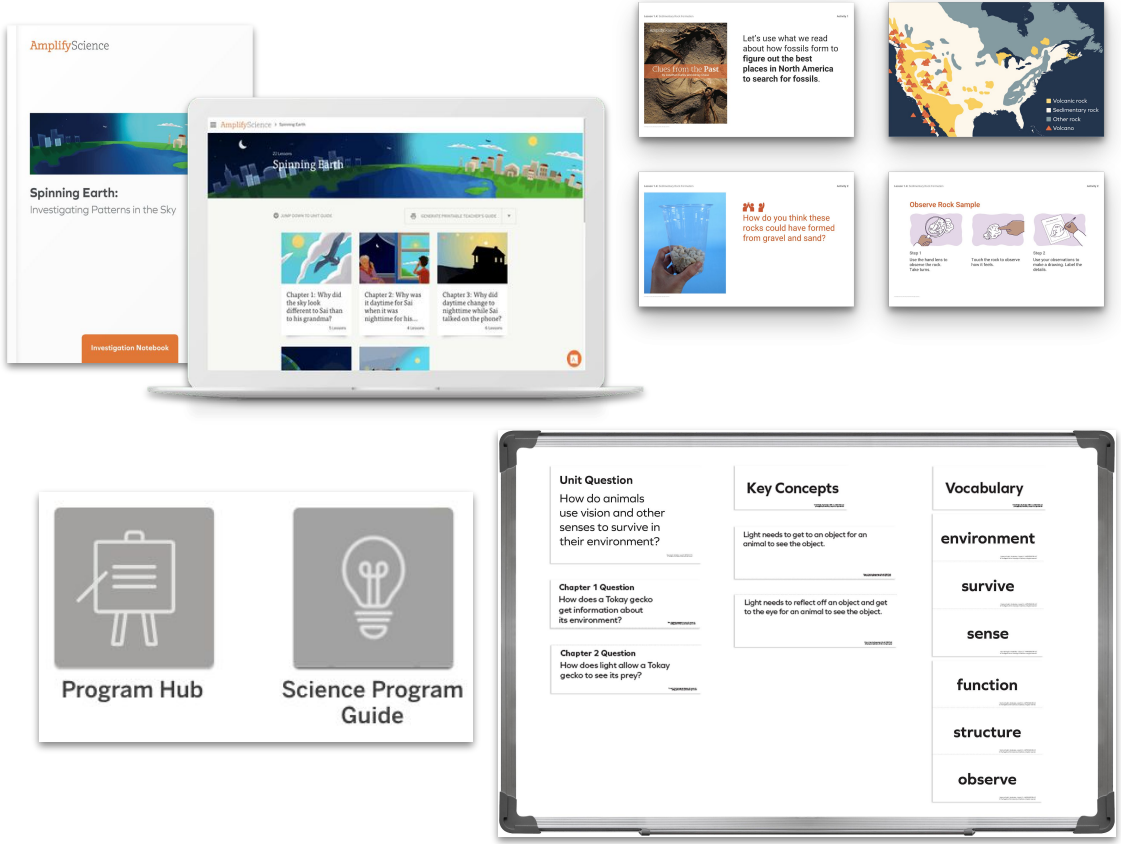
Student Science Practice Tools
(sorting tool, diagramming tool, modeling tool, data tool)

Teacher's Guide
(Online digital books for students)

K-5 Program components

Teacher materials

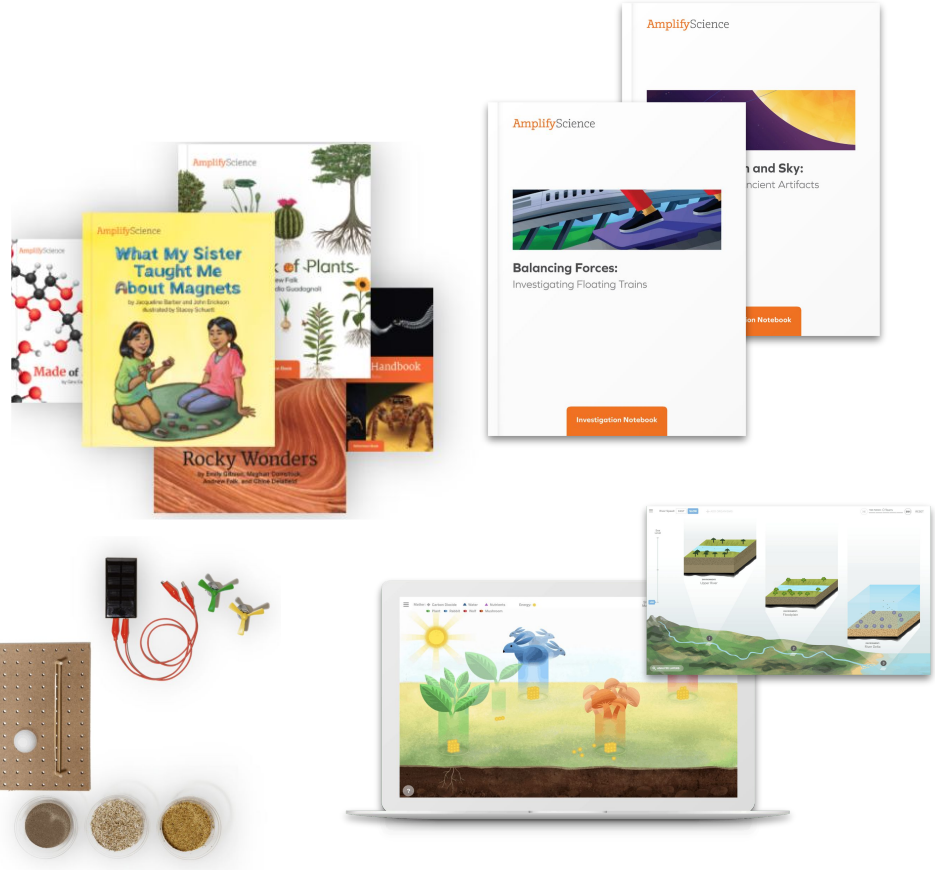
- Teacher's Guide (print and digital)
- Classroom Slides
- Classroom wall materials
- Embedded assessments
- Program Guide
- Program Hub
- Amplify Help Site



K-5 Program components

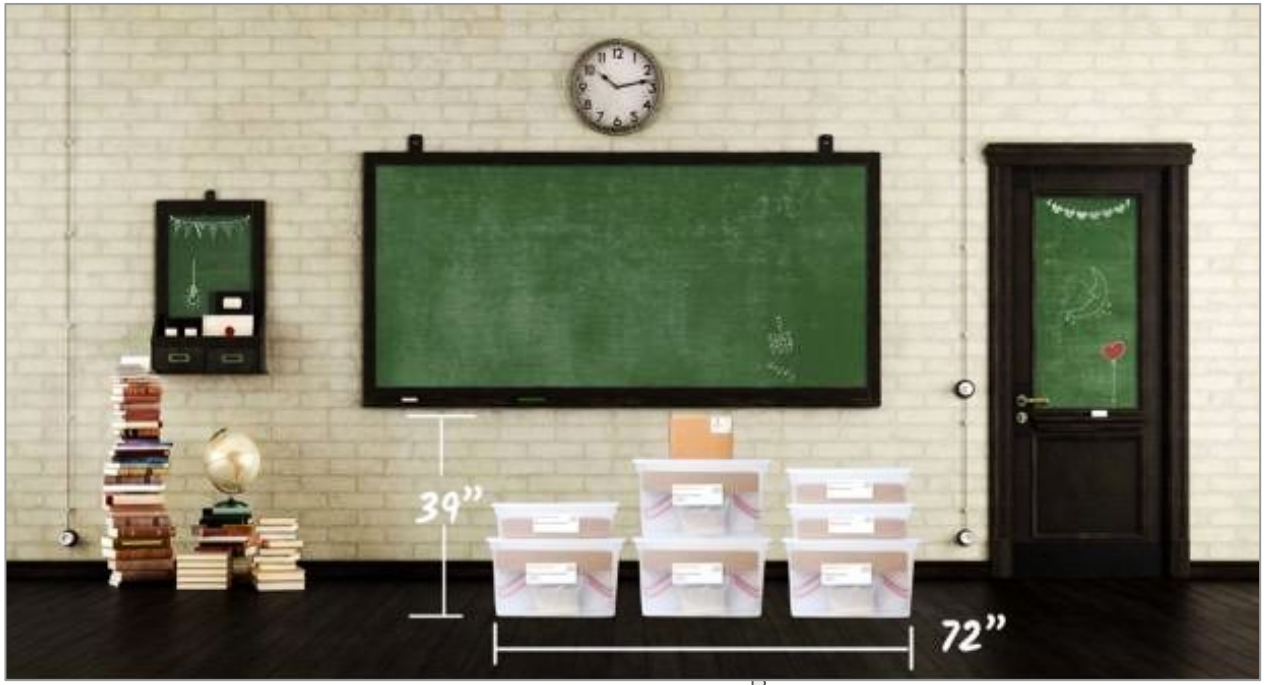
Student materials

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



Prepping Hands-On Materials for the Unit

Microsite: Unit 1, K-2 Lesson Prep Videos



Classroom Kits

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

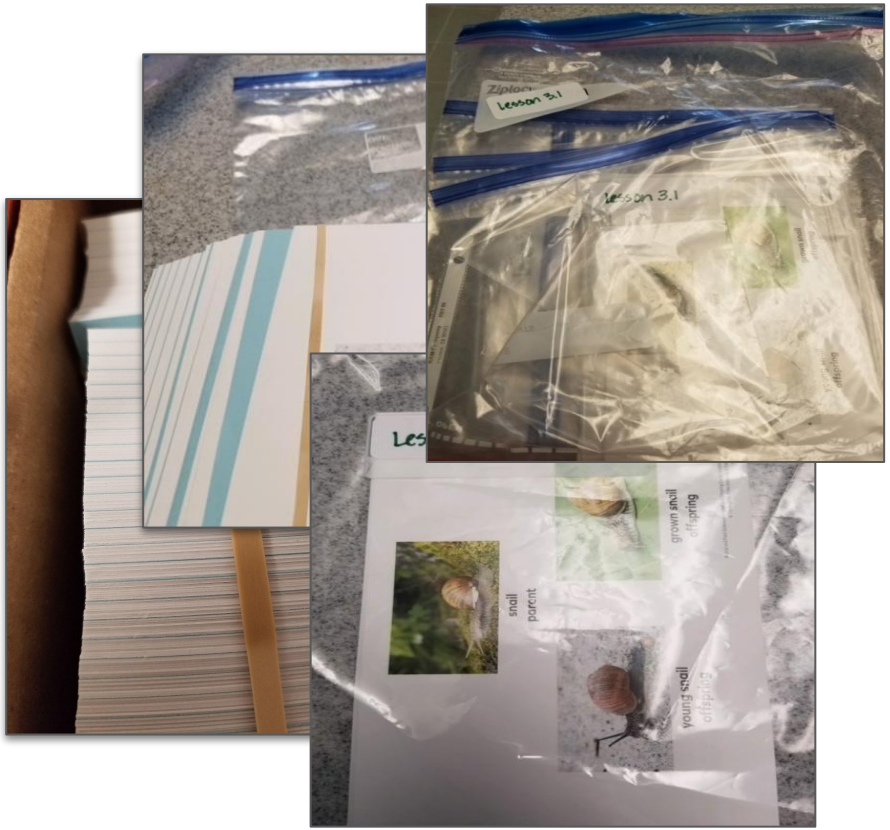
Unpacking the Kit

- 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.)

Cards for games, sorting or matching activities

Organization tips:

- Separate and place in envelopes or bags (or clip together)
- Label the envelopes or bags with the name and lesson # and activity # (ex. Lesson 2.4, Act. 1)
- Put each envelope or bag (1 set) into a bigger bag and label



LAUSD Microsite- https://amplify.com/lausd-science

Welcome to Amplify Science!

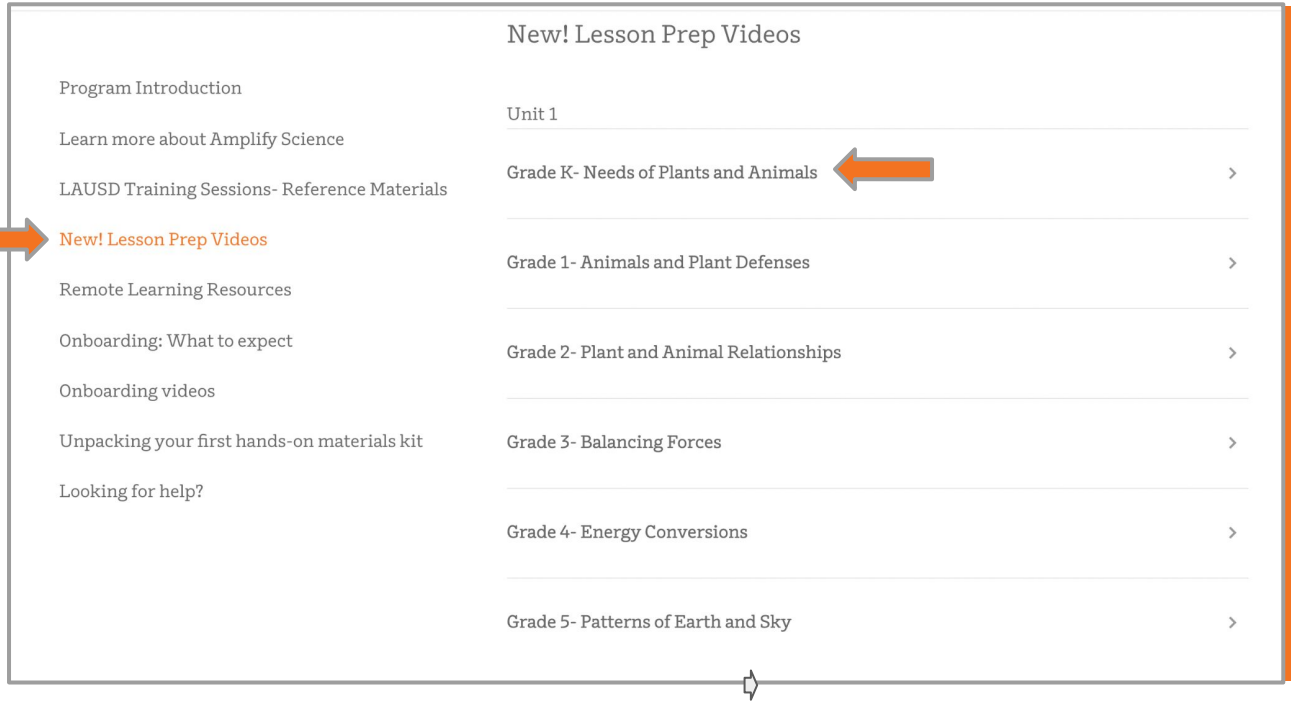
This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK–8.

- 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!

Microsite: Unit 1, K-2 Lesson Prep Videos

Classroom kits



Classroom Kits

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Hands On Material Organization

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.
HANDS-ON
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*

Hands On Material Organization

Completed for Plant and Animal Relationships

	A	B	C	D	E
1	**Directions**				
2	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)				
3	2. Look for the lessons with Hands On.				
4	HANDS-ON				
5	3. Note in the table below.				
6	4. Review the materials and preparation to determine if it can be prepared prior to the lesson or on the day of the lesson.				
7	5. Use this same procedure for each Chapter. (Go to the Chapter Activities Contents)				
8					
9	Chapter/Lesson	Activity	Prep Prior	Prep Day of	What to do
10	1.3	2	x		For each pair of students: Cut string into 2-meter lengths
11	1.5	2	x	x	Prepare cups of seeds. In Activity 2, student pairs will observe and sort seeds. Each cup does not need to have exactly the same amount of e should have at least one of each type. For each pair of students, place the following in a plastic cup (depending on seed availability, you may a type to each cup): • a few sunflower, alfalfa, marigold, and beet seeds • at least one lima bean, corn kernel, and acorn/ginkgo seed
12	2.1	2/3	x		For each group of 4: 4 rulers, handful of leaves, 2 plant roots (all teacher provided)
13	2.3	2/3		x	copies of Growing Roots Game student sheets blue crayons and markers (1 of each per pair of students) Sunlight and Leaves Model https://learning.amplify.com/m/50266b960cb80320/original/ELSCI_2LS_CU_235.pdfproba cubes, flashlight, sheets of paper, marker, masking tape
14	3.1	4		x	Each student will need 3 kidney beans to hide.
15	3.2	3		x	For each flitterbird group, prepare a tray with the following materials: 1 plastic spoon, 1 sealed plastic bag with a strip of masking tape on the outside of the bag and a 1" ball of green play clay ins For each strongbill group, prepare a tray with the following materials: 1 set of tongs, 1 sealed plastic bag with a strip of masking tape on the outside of the bag and a 1" ball of blue play clay insid **Create Fruit Models**: Make 30 sweetpink fruit models. For each fruit model, cover a single kidney bean with a thin layer of pink play clay. Rol inside in your hands to make it spherical. The resulting fruit model should be just larger than the kidney bean itself (about ha Make 20 yummyberry fruit models. For each fruit model, flatten a small amount of purple play clay and place about 6 mung beans in the cen the beans are inside and create a 1"-diameter ball. Roll the play clay with the bean inside in your hands to make it spherical. These models than the sweetpink fruit models. Store each type of fruit model in a sealed plastic bag until immediately before the lesson so the play clay does not har

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

JUMP DOWN TO UNIT GUIDE

GENERATE PRINTABLE TEACHER'S GUIDE

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

Lesson Guides Only

OPEN IN NEW TAB

RESET LESSON

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.

6 Lessons

Inheritance and Traits
Lesson Guides

Chapter 1 Activities

Chapter 1 Activities

Lesson 1.1: Pre-Unit Assessment

1 Introducing the Unit — TEACHER-LED DISCUSSION
2 Writing Initial Explanations — WRITING
3 Introducing the Investigation Notebook — TEACHER-LED DISCUSSION
4 Previewing the Reference Book — STUDENT-TO-STUDENT DISCUSSION

Lesson 1.2: Blue Whales and Buttercups

1 Introducing Asking Questions — TEACHER-LED DISCUSSION
2 Partner Reading — READING
3 Reflecting on Relatedness — TEACHER-LED DISCUSSION

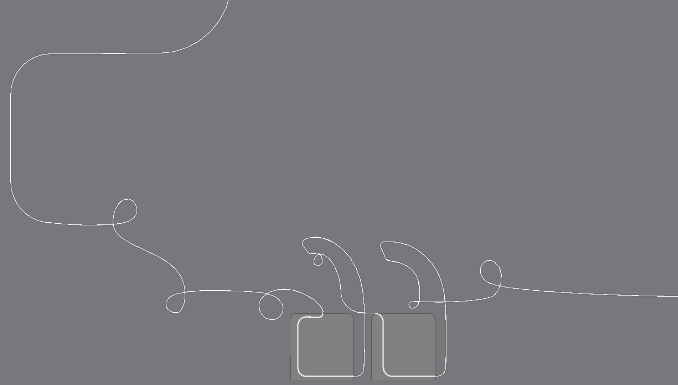
Lesson 1.3: Observing Similarities and Differences

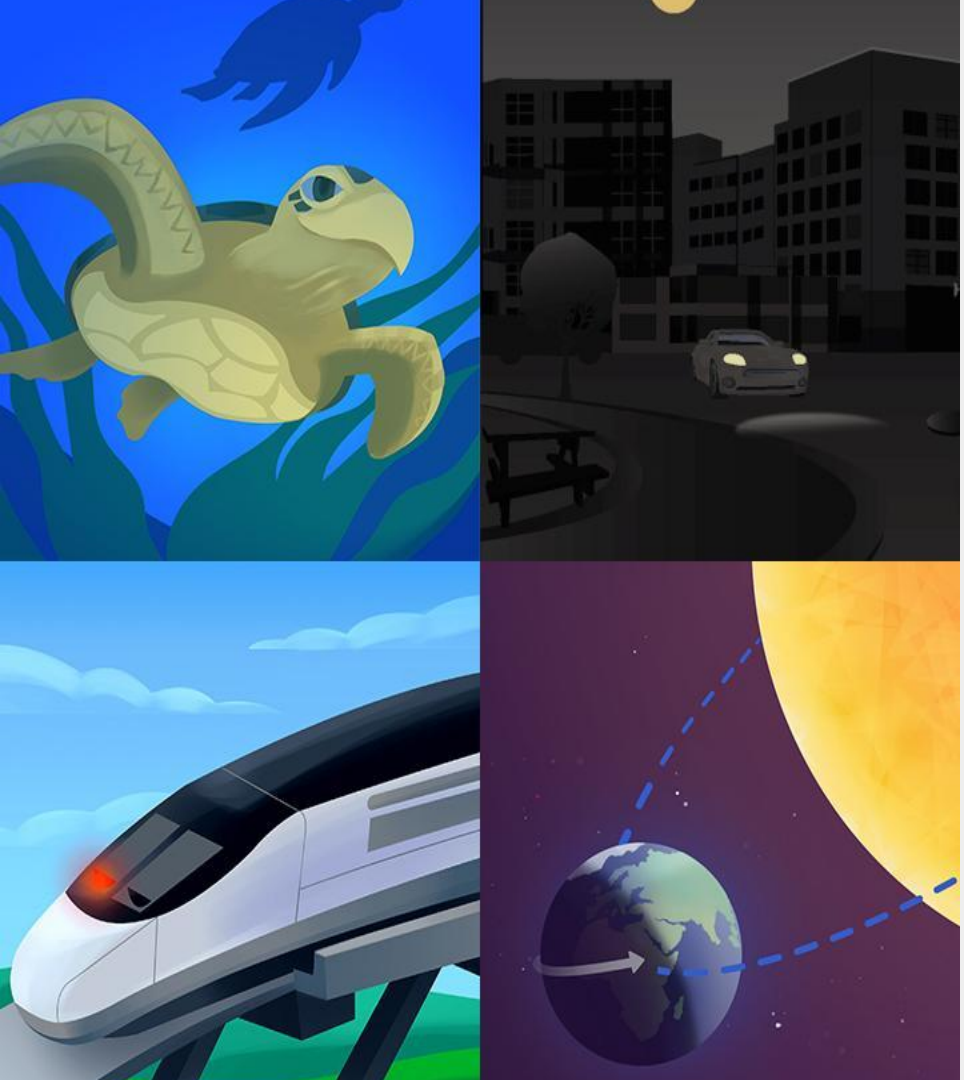
1 Observing Similarities and Differences in Animals — HANDS-ON
2 Observing Bird Traits — STUDENT-TO-STUDENT DISCUSSION
3 Thought Swap — STUDENT-TO-STUDENT DISCUSSION

Lesson 1.4: Introducing Species

T Observing Bird Sounds — TEACHER
1 Identifying Songbirds — TEACHER-LED DISCUSSION
2 Sorting Bear Species — HANDS-ON
3 Introducing the Problem Students Will Investigate — TEACHER-LED DISCUSSION

Questions?





Plan for the day: Part 1

- Introduction and Framing
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Next Generation Science Standards

Phenomenon-based learning and teaching

A scientific phenomenon is an **observable event** that occurs in the universe that we can use science ideas to explain or predict.

Comparing topics and phenomena

Topic-based	Phenomenon-based
Chemical reactions	There's a reddish-brown substance in a town's tap water.

Next Generation Science Standards

How might learning be different?

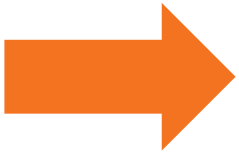
Topic-based	Phenomenon-based
Chemical reactions	There's a reddish-brown substance in a town's tap water.
Electric circuits	A flashlight won't turn on, even though it used to work.
Natural selection	A population of newts has become more poisonous over time.

Comparing topics and phenomena

A shift in science instruction

from learning about

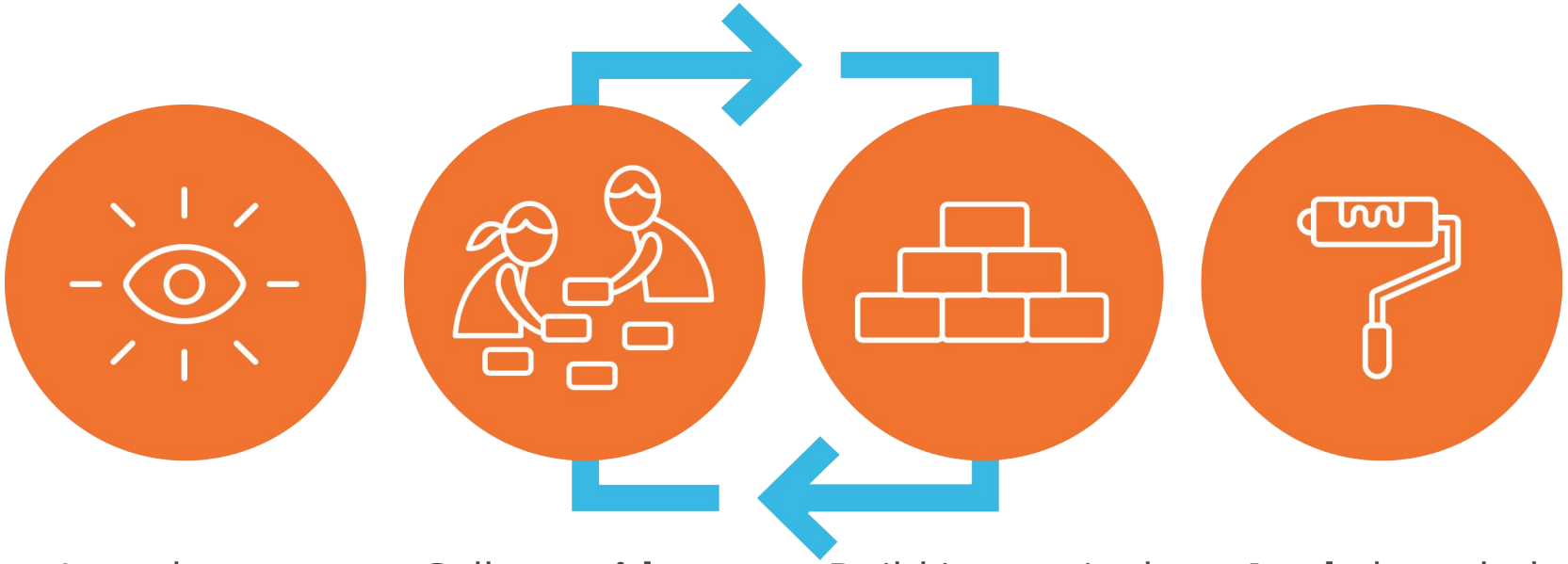
(like a student)



to figuring out

(like a scientist)

Amplify Science Approach



Introduce a **phenomenon** and a related problem

Collect **evidence** from multiple sources

Build increasingly complex **explanations**

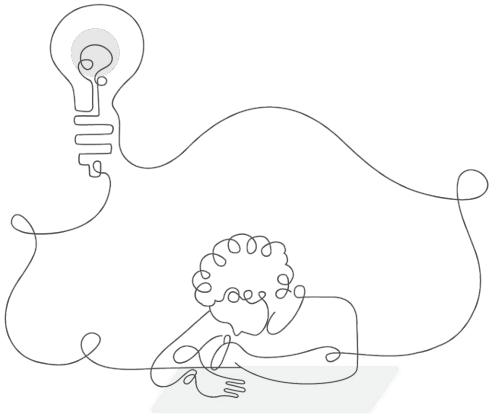
Apply knowledge to solve a different problem

Previewing the unit

Introducing the phenomenon

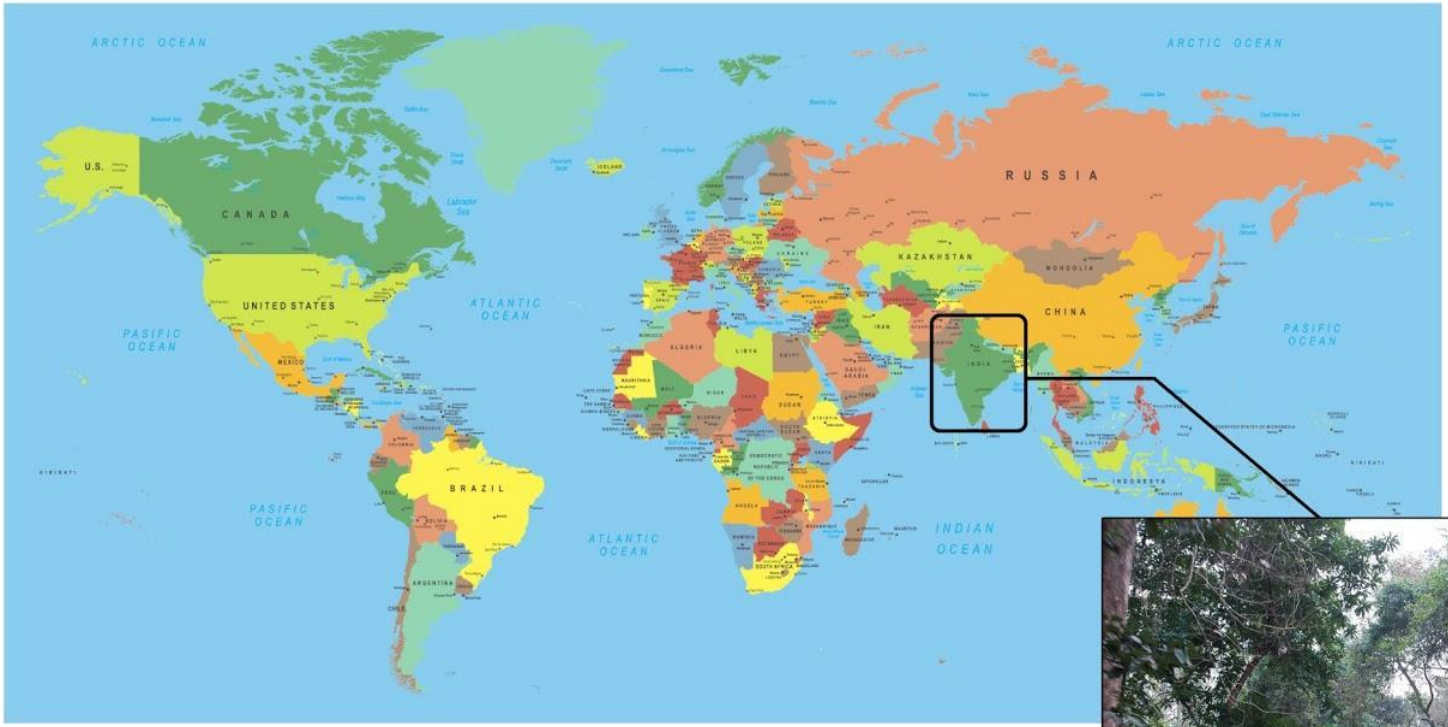
Amplify Science units are designed around complex phenomena that drive student learning through the unit.

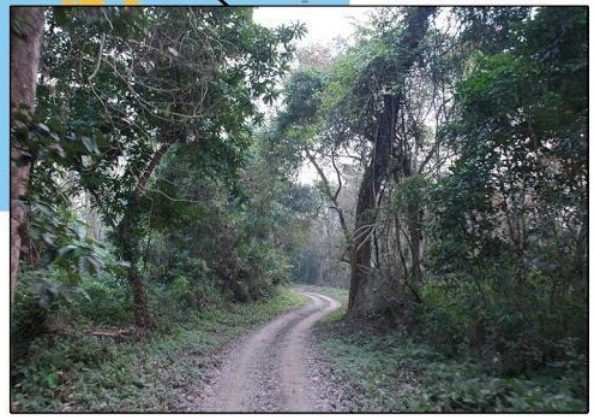
Pay attention to the phenomenon, or observable event, students will figure out in your unit.



The unit we're beginning is called *Plant and Animal Relationships: Investigating Systems in a Bengali Forest*.

In this unit, you will **investigate why the chalta trees are not growing in the Bengali Tiger Reserve.**





Broadleaf Forest

Bengal Tiger Reserve

The Bengal Tiger Reserve is a section of the forest where tigers are protected. Lots of different kinds of plants and animals live in the Bengal Tiger Reserve.

The lead scientist at the Reserve thinks something is **changing** with the trees. We are going to help figure out **what is happening** with the trees that live in the Reserve.

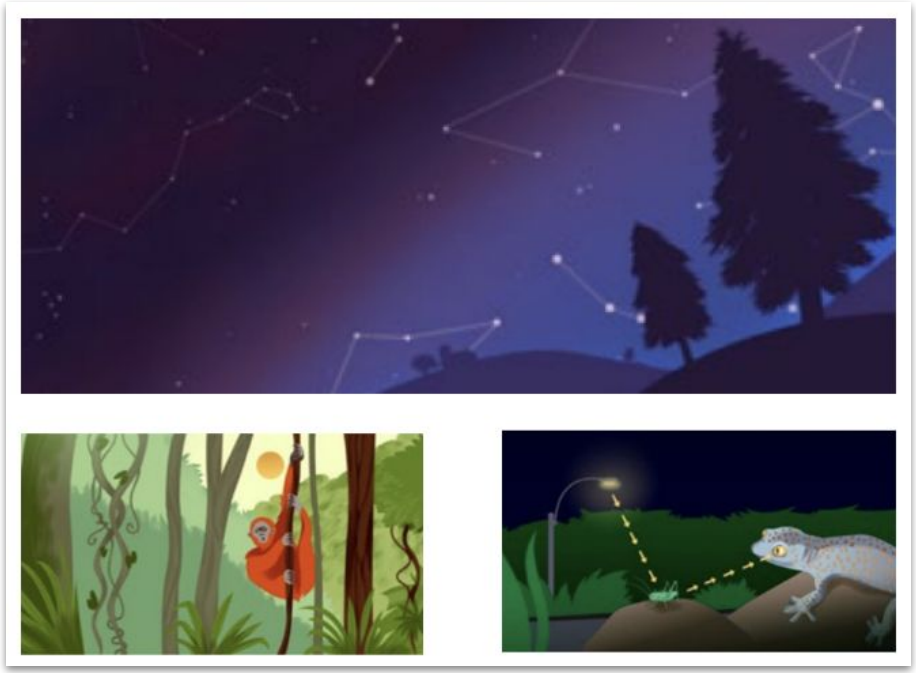
In this unit, we will be **plant scientists.**

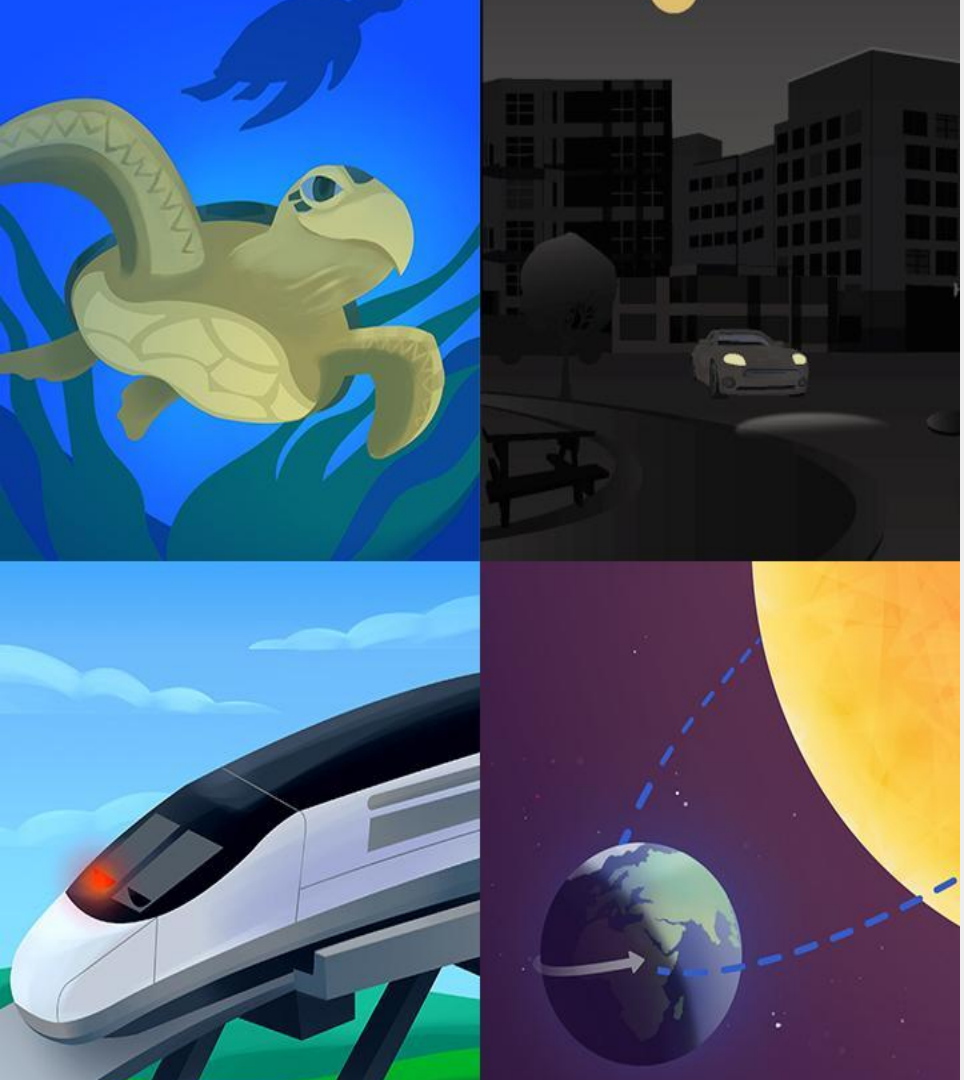
Plant scientists try to answer questions about plants in the places where they live.

Amplify Science

Anchoring phenomenon

- Complex and rich
- Drives learning through a whole unit
- Specific and observable
- Relatable at students' developmental level





Plan for the day: Part 1

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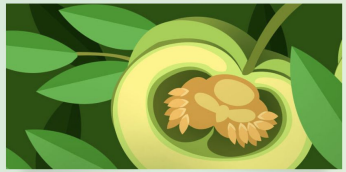
- Unit Internalization
- Additional Resources
- Closing

Unit

Chapters

Lessons

Activities

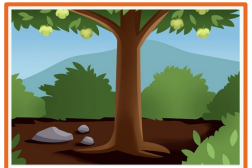


22 Lessons

Plant and Animal Relationships

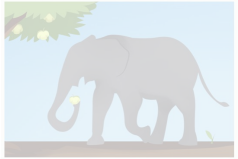
Chapter 1: Why aren't new chalta trees growing in the Bengal Tiger...

7 Lessons



Chapter 2: Why aren't the chalta seeds getting what they need to grow?

5 Lessons



Chapter 3: Why aren't the chalta seeds getting to places where they...

6 Lessons

Chapter 4: How are other seeds in the reserve able to get to places where they...

4 Lessons

Lesson 2.1:
Exploring Plant Parts

Lesson 2.2:
A Plant Is a System

Lesson 2.3:
2.3 Investigating How Roots and Leaves Grow

Lesson 2.4:
2.4 Finding a Good Place to Grow

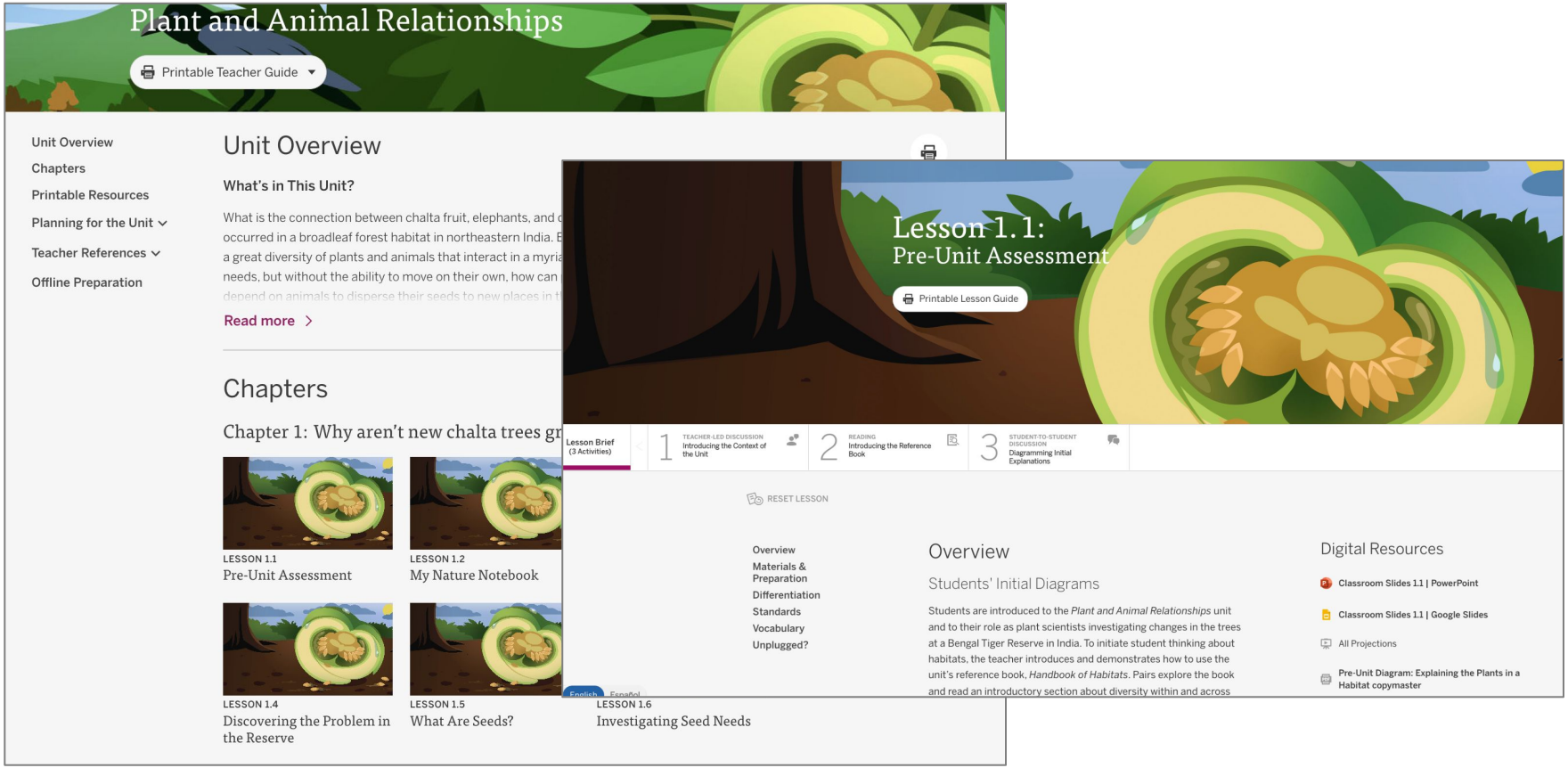
Lesson 2.5:
Why Aren't New Chalta Trees Growing?

1 TEACHER-LED DISCUSSION
Revisiting the Bengal Tigers Reserve

2 MODELING TOOL
A Good Place to Grow in the Everglades

3 WRITING
Writing a Scientific Explanation

Let's Go Live!


Plant and Animal Relationships
Printable Teacher Guide
Unit Overview
Chapters
Printable Resources
Planning for the Unit
Teacher References
Offline Preparation
Unit Overview
What's in This Unit?
What is the connection between chalta fruit, elephants, and
occurred in a broadleaf forest habitat in northeastern India.
a great diversity of plants and animals that interact in a myria
needs, but without the ability to move on their own, how can
depend on animals to disperse their seeds to new places in
Read more
Chapters
Chapter 1: Why aren't new chalta trees gr
LESSON 1.1
Pre-Unit Assessment
LESSON 1.2
My Nature Notebook
LESSON 1.4
Discovering the Problem in the Reserve
LESSON 1.5
What Are Seeds?
LESSON 1.6
Investigating Seed Needs
Lesson 1.1:
Pre-Unit Assessment
Printable Lesson Guide
Lesson Brief (3 Activities)
1 TEACHER-LED DISCUSSION Introducing the Context of the Unit
2 READING Introducing the Reference Book
3 STUDENT-TO-STUDENT DISCUSSION Diagramming Initial Explanations
RESET LESSON
Overview
Materials & Preparation
Differentiation
Standards
Vocabulary
Unplugged?
Overview
Students' Initial Diagrams
Students are introduced to the Plant and Animal Relationships unit and to their role as plant scientists investigating changes in the trees at a Bengal Tiger Reserve in India. To initiate student thinking about habitats, the teacher introduces and demonstrates how to use the unit's reference book, Handbook of Habitats. Pairs explore the book and read an introductory section about diversity within and across
English Español
Digital Resources
Classroom Slides 1.1 | PowerPoint
Classroom Slides 1.1 | Google Slides
All Projections
Pre-Unit Diagram: Explaining the Plants in a Habitat copymaster

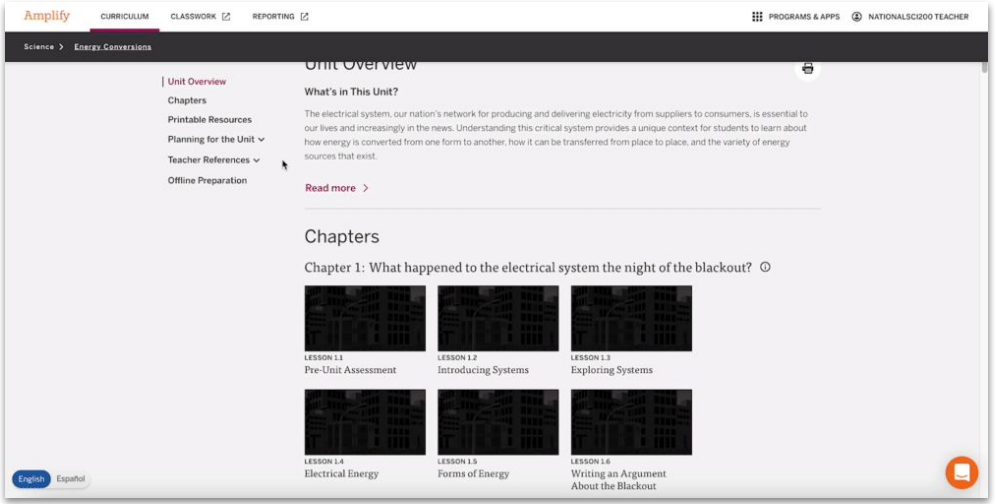
Navigation summary

1. CLICK the caret to select your grade-level.
2. Select your first unit.
    a. You are now on the Unit Landing Page.
3. Expand the **Planning for the unit** menu.
    a. Or scroll down below the lesson buttons.

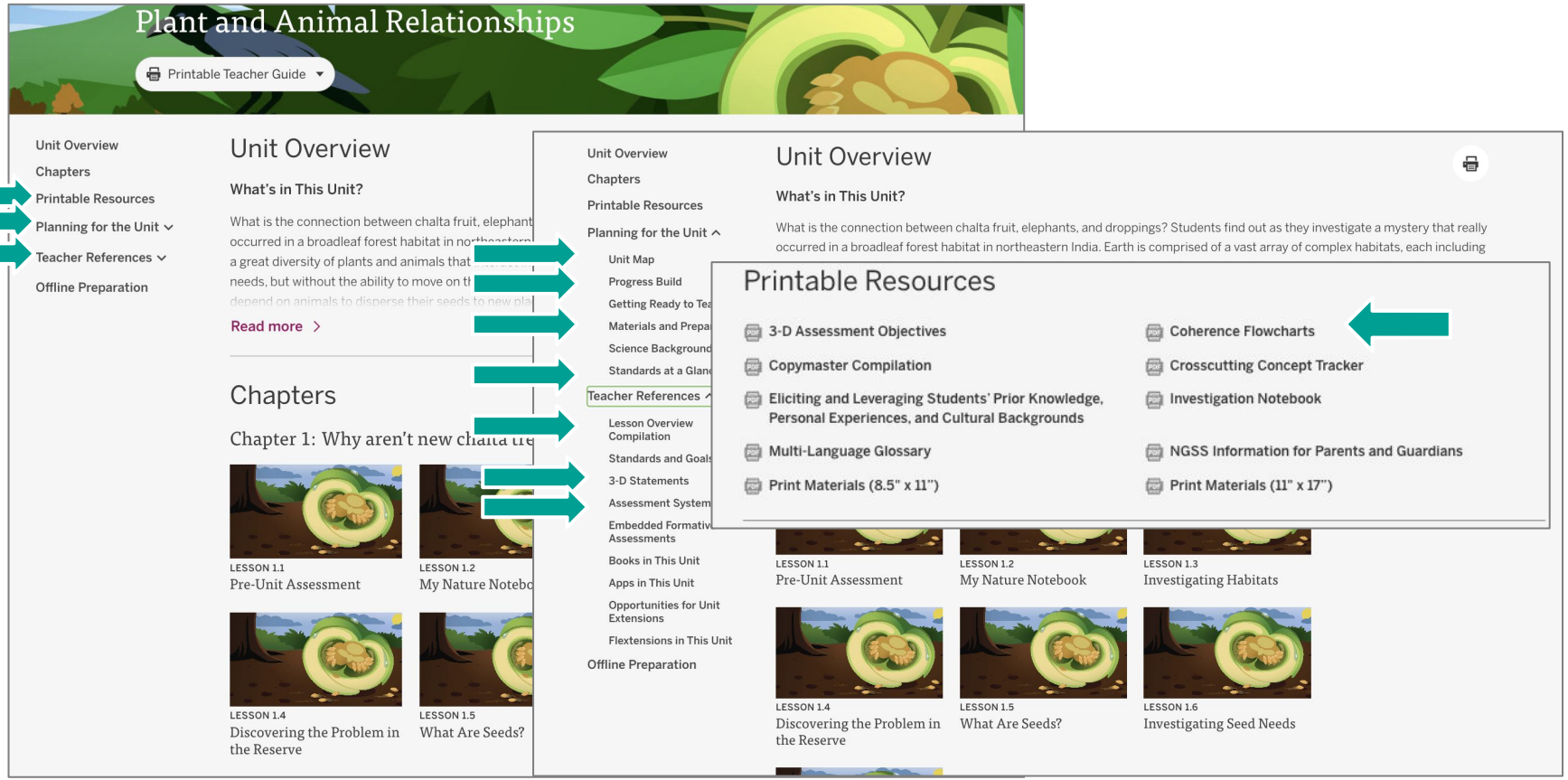
Unit Level resources

Collection of resources to support planning and day-to-day instruction in the unit:

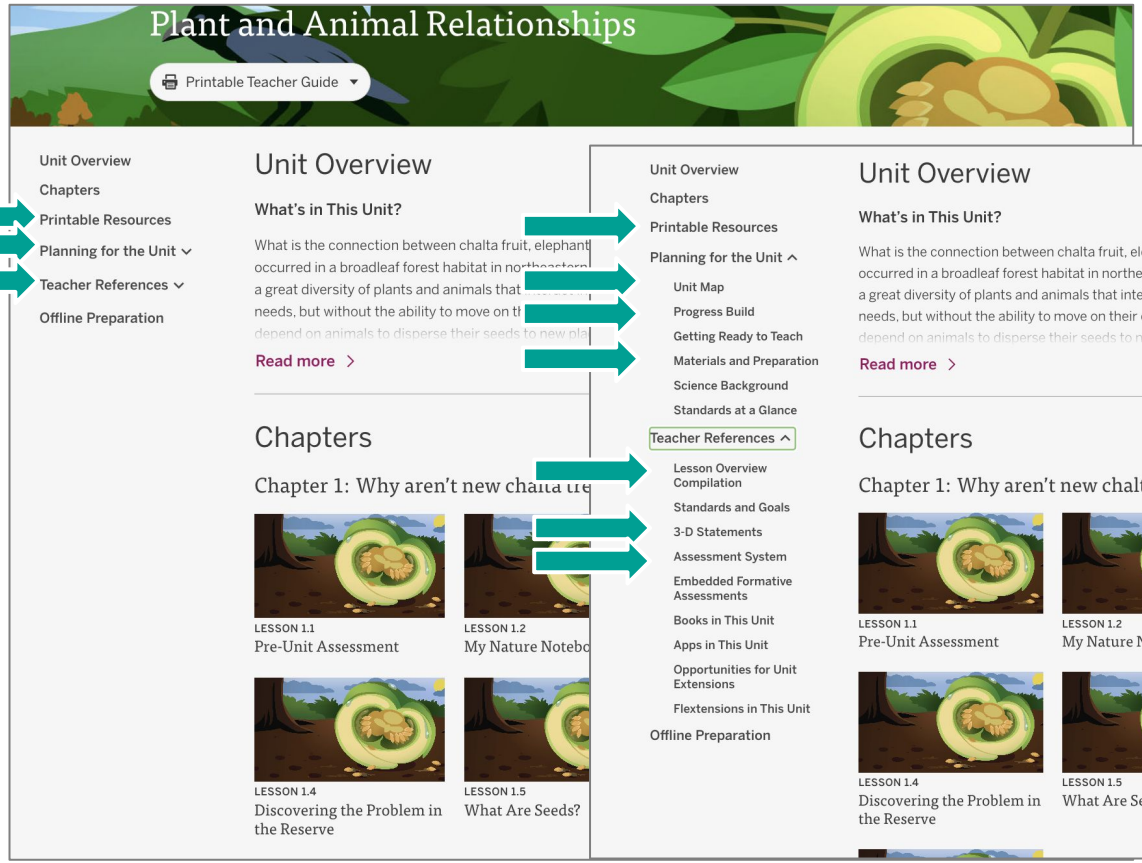
- Printable Resources
- “Planning for the Unit” documents
- Teacher References

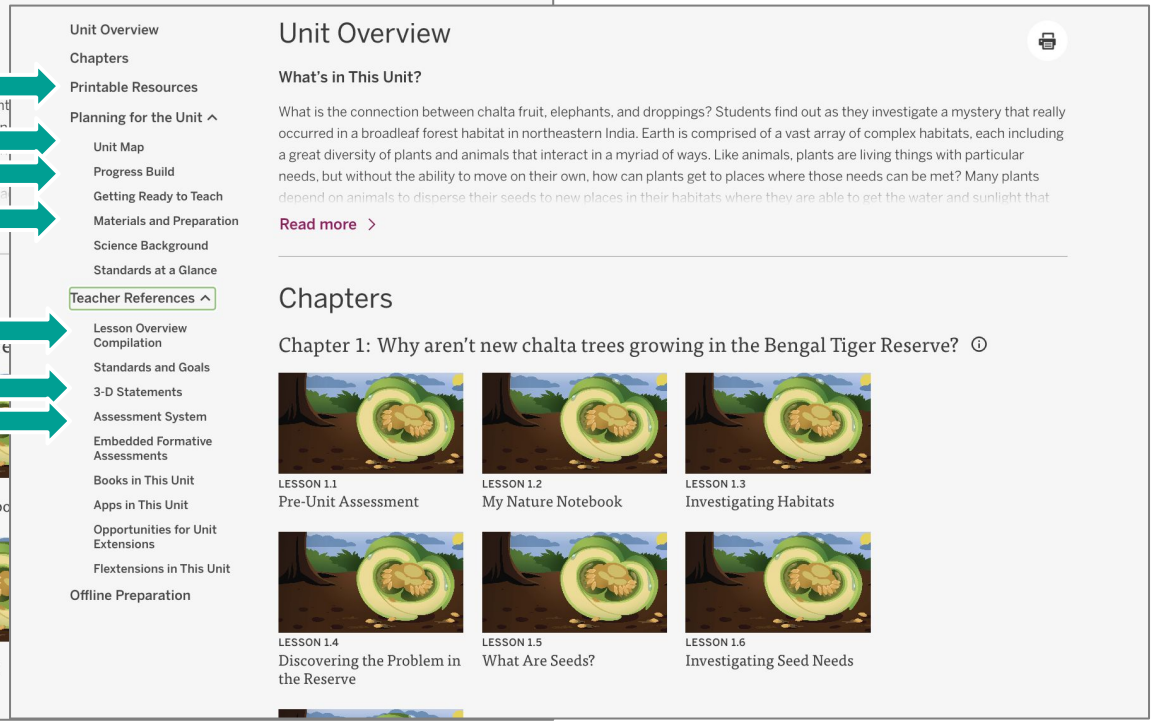


Key Unit Documents for Unit Planning



Key Unit Documents for Unit Planning





Core Unit Planning & Internalization

Unit Title:	1

Overview

[Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]

What is the phenomenon/real-world problem students are investigating in your unit? 2	Student Role: 3
Unit Question: 4	Relationship between the Unit Phenomenon and Unit Question: 5
By the end of the unit, students figure out... 6	
How do students engage with three-dimensional learning to figure out the phenomenon/real-world problem in your unit? 7	

1

Unit Guide resources:
- Unit Overview
- Unit Map
- Coherence Flowchart

Unit Guide resources:
- Lesson Overview Compilation
- Unit Overview

Unit Guide resources:
- Unit Map

Unit Guide resources:
- 3D Statements at the Unit Level

Core Unit Planning & Internalization

Unit Title: Plant and Animal Relationships

Overview

[Resources: Unit Overview, Teacher's Guide, Coherence Flowchart, Unit Map, 3-D Statements]

What is the phenomenon/real-world problem students are investigating in your unit?

What is happening to the chalta trees in the Bengal Tiger Reserve?

Student Role:

Plant Scientists

Unit Question:

How do the living things in a habitat depend on each other?

Relationship between the Unit Phenomenon and Unit Question:

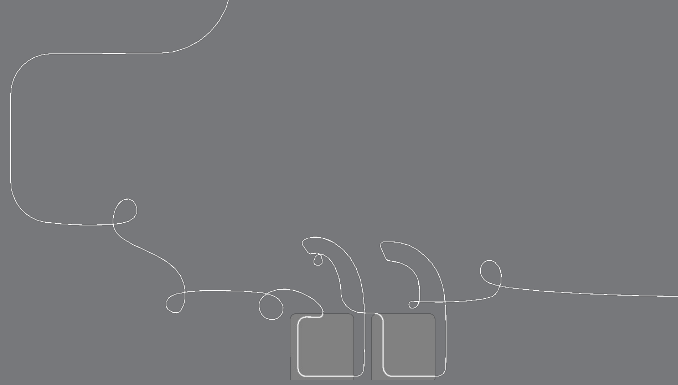
Students use their newfound understanding of plant needs and plant-animal relationships in a habitat to explain what chalta seeds need to grow into full-grown trees and why no new chalta trees are growing in the Bengal Tiger Reserve.

By the end of the unit, students figure out...

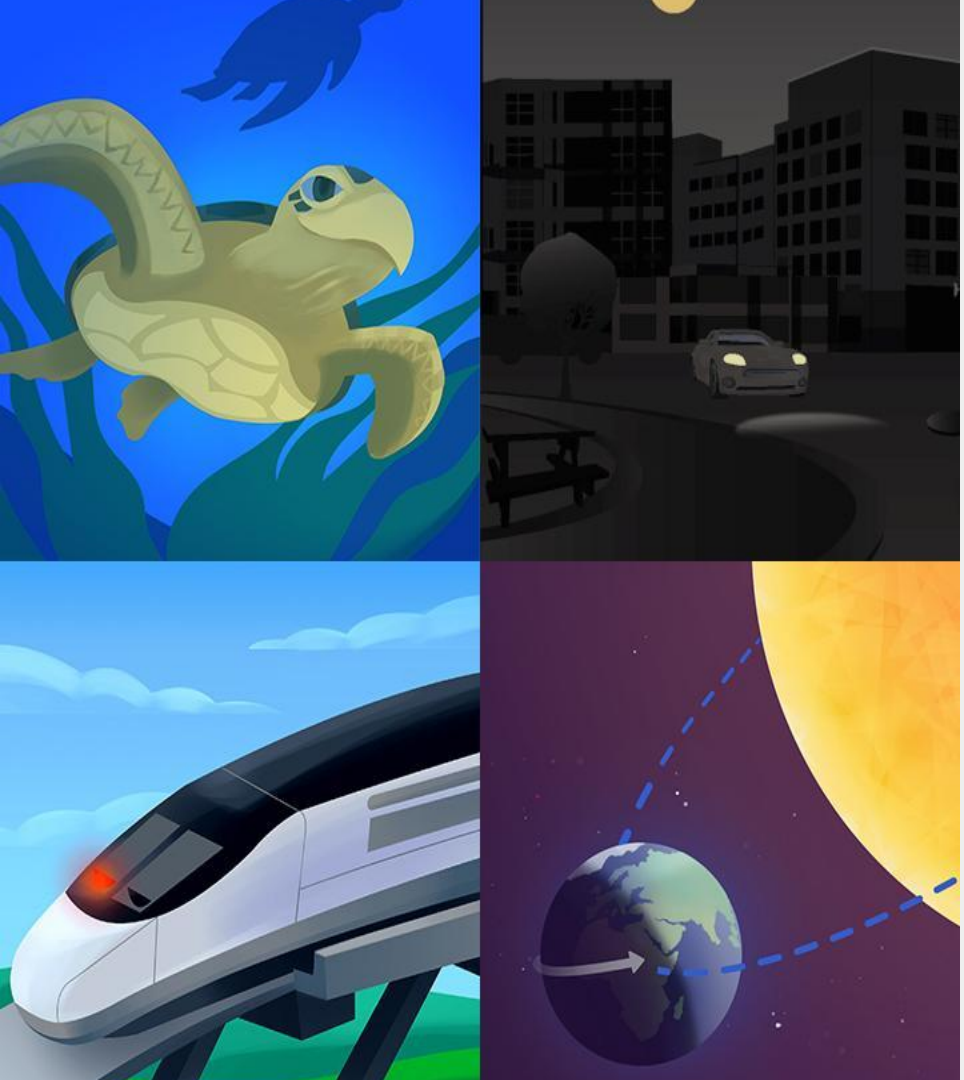
The chalta trees in the Bengal Tiger Reserve depend on elephants to disperse their seeds. Elephants eat the chalta fruit for food, move to other places in the habitat, and leave droppings with seeds. A fence built in 1996 has prevented elephants from coming inside the reserve, so elephants no longer disperse chalta seeds to places where they might grow.

How do students engage with three-dimensional learning to figure out the phenomenon/real-world problem in your unit?

Students use and create models to investigate and then plan and carry out investigations to explain why new chalta trees are not growing in a section of a broadleaf forest in India. In so doing, they figure out how the parts of a habitat system interact generally and about seed dispersal mechanisms specifically



Questions?



Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Unit Internalization
- Additional Resources
- Closing

Additional resources

Welcome, caregivers!

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

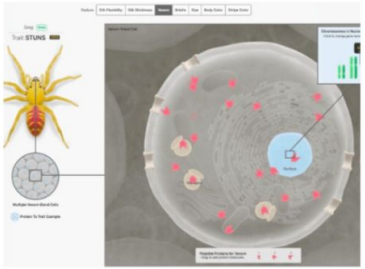
Para acceder a este sitio en español haga clic aquí.

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

TOP RATED BY EDREPORTS

Grades 6-8



Caregivers

LAUSD Microsite- https://amplify.com/lausd-science

Welcome to Amplify Science!

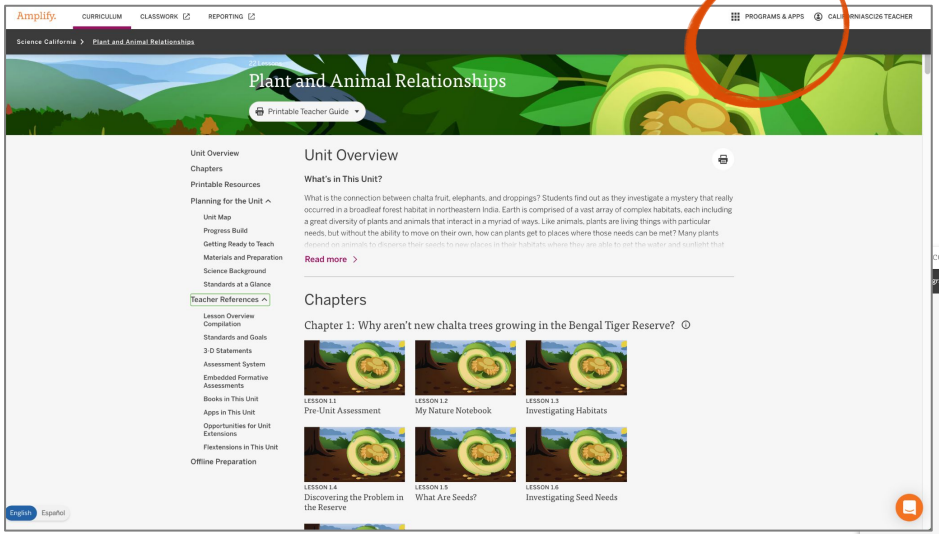
This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK–8.

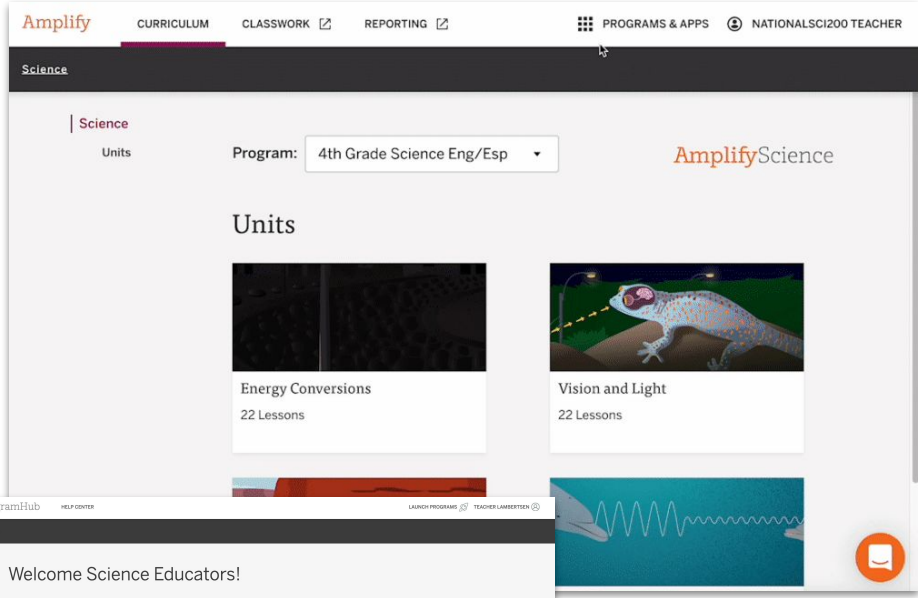
- Access the Amplify Science Program Hub (To help orient you to the new design, watch this video and view this reference guide.)
- Find out more about Amplify Science@Home
- Share the Caregiver Hub (Eng/Span) with your families
- For LAUSD ES Teachers- Amplify Science & Benchmark Advance Crosswalk
-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

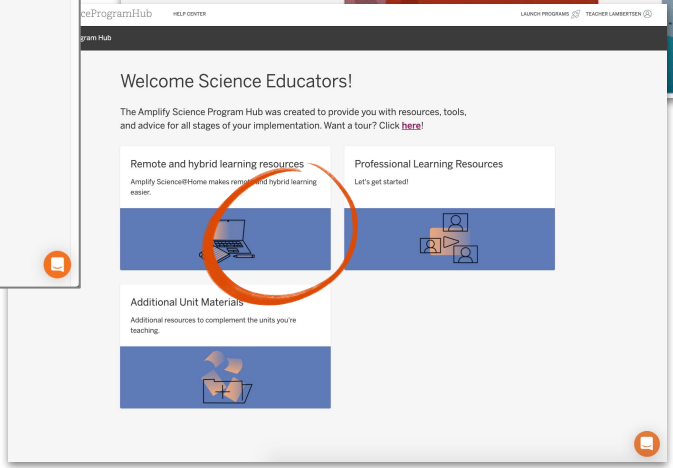
Click the button below to preview the digital Teacher's Guide, and check back for exciting updates to this site!

Program Hub

Use the Amplify Science Program Hub to find useful resources for implementing Amplify Science, including unit overview videos and planning tools.



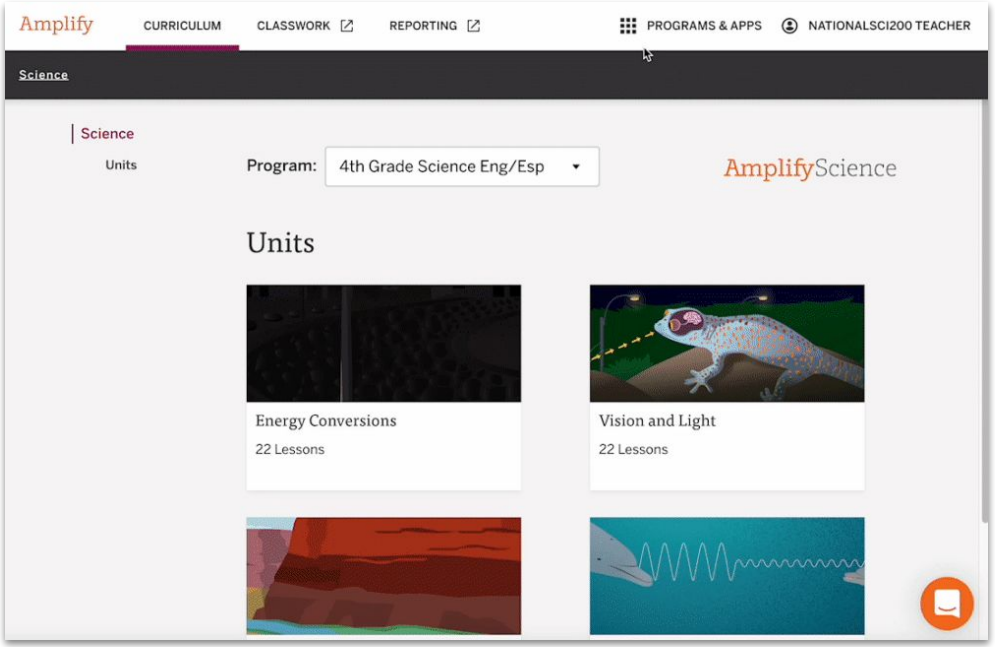


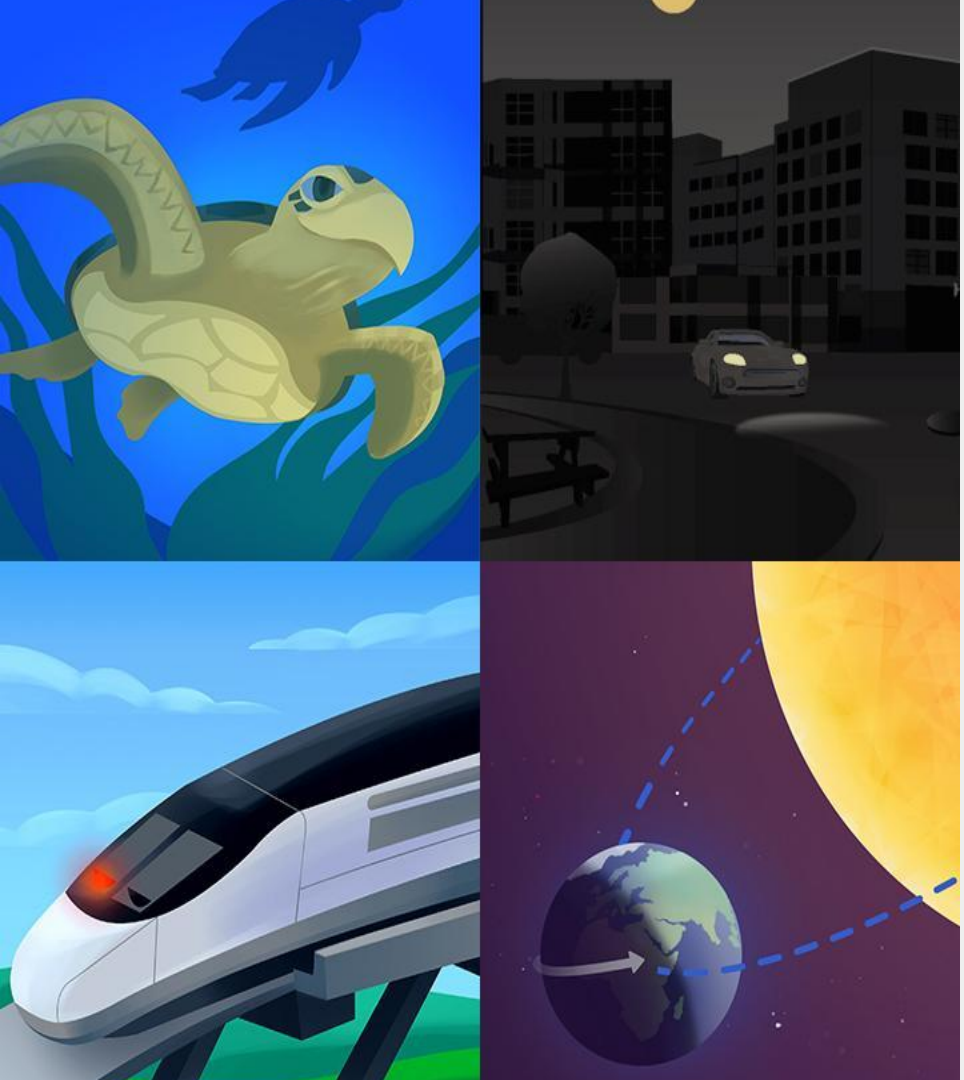


Explore the Program Hub

Familiarize yourself with the Program Hub.

Be ready to share one resource you've found that you'll use while planning and teaching.





Plan for the day: Part 1

- Introduction and Framing
- Phenomenon-based Instruction
- Unit Internalization
- Additional Resources
- Closing

Overarching goals

- ✓ Explain how students engage in phenomenon based and 3D learning to construct an understanding of the science concepts introduced in the unit
- ✓ Internalize the unit and apply your new understanding to plan for the diverse needs of your classroom and students

Closing reflection

Based on our work in Part 1, share:

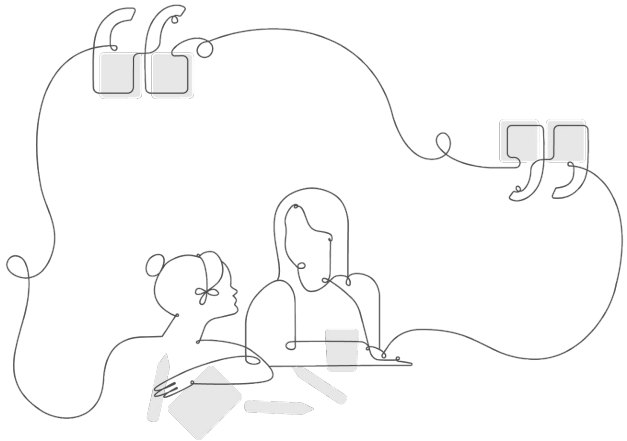
Head: something you'll keep in mind

Heart: something you're feeling

Feet: something you're planning to do

Onsite Upcoming Professional Development!

Part 3: Unit 1 - Supporting English Learners



- October 15th (Alta California ES, NW)
- October 29th (Ochoa Learning Center, East)

In this session, participants explore strategies to support English learners' ability to do, talk, read, write, visualize, and construct arguments like scientists. Participants will identify the supports and strategies embedded in Unit 1 by engaging in model activities followed by independent planning.

Additional resources and ongoing support

Customer Care

Seek information specific to enrollment and rosters, technical support, materials and kits, and teaching support, weekdays 7AM-10PM EST and weekends 10AM-6PM EST.

help@amplify.com

800-823-1969

Amplify Chat

Please provide feedback!

Type:

Strengthen

Session title:

Unit Internalization / Guided Planning

(Part 1)

Professional Learning Specialist name:

Insert name

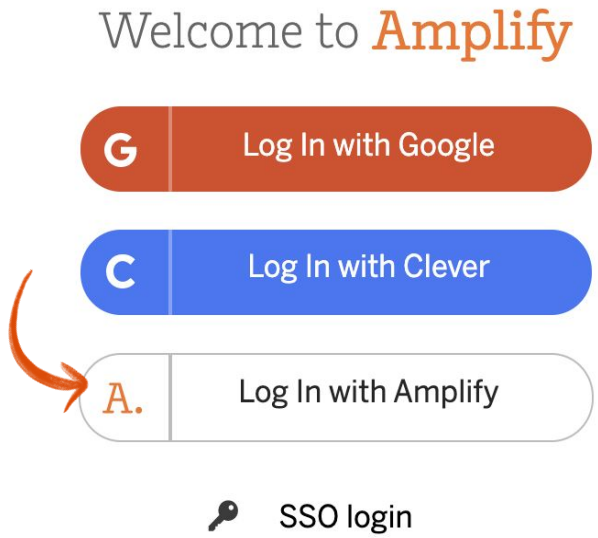
(insert email, if you would like)

Welcome to Amplify Science!

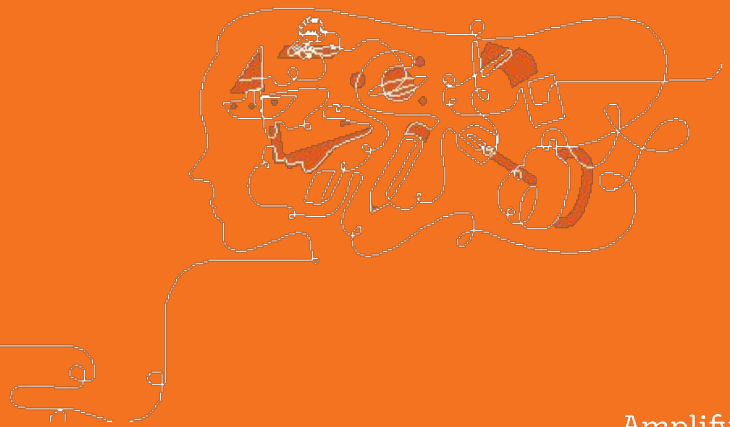
Do Now: Log in through your Schoology account

or use Demo Account

1. Go to **learning.amplify.com**
2. Select **Log in with Amplify**
3. If you're already logged in with other Google accounts, click **Use another account**
4. Enter teacher demo account credentials
   - UN: californiasci60@pd.tryamplify.net
   - PW: AmplifyNumber1
5. Explore as we wait to begin



Part 2:
Guided Lesson Planning

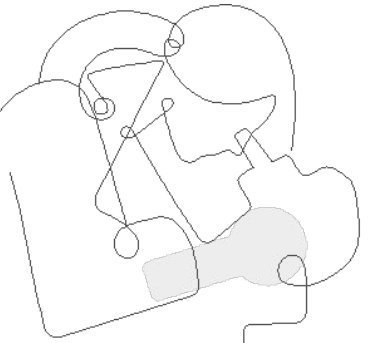


Amplify Science

Unit Internalization / Guided Planning

Grade 2, Unit 1: Plant and Animal Relationships

Part 2



School/District Name: LAUSD
Date: September, 2022
Presented by: Jolene Hori

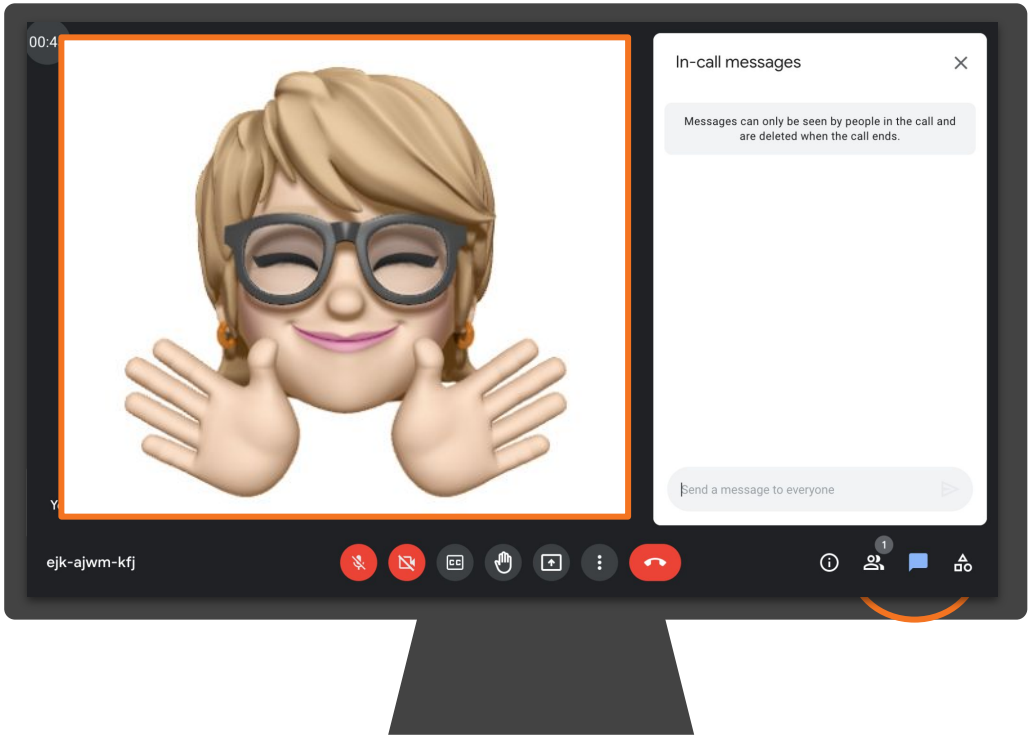
TOP RATED BY EDREPORTS

PLPG CERTIFIED PROVIDER

Ice Breaker!

Who do we have in the room today?

- **Question 1:** Which aspects of implementing the Amplify Science standard curriculum has been the most successful?
- **Question 2:** Which aspects have been the most challenging?



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.

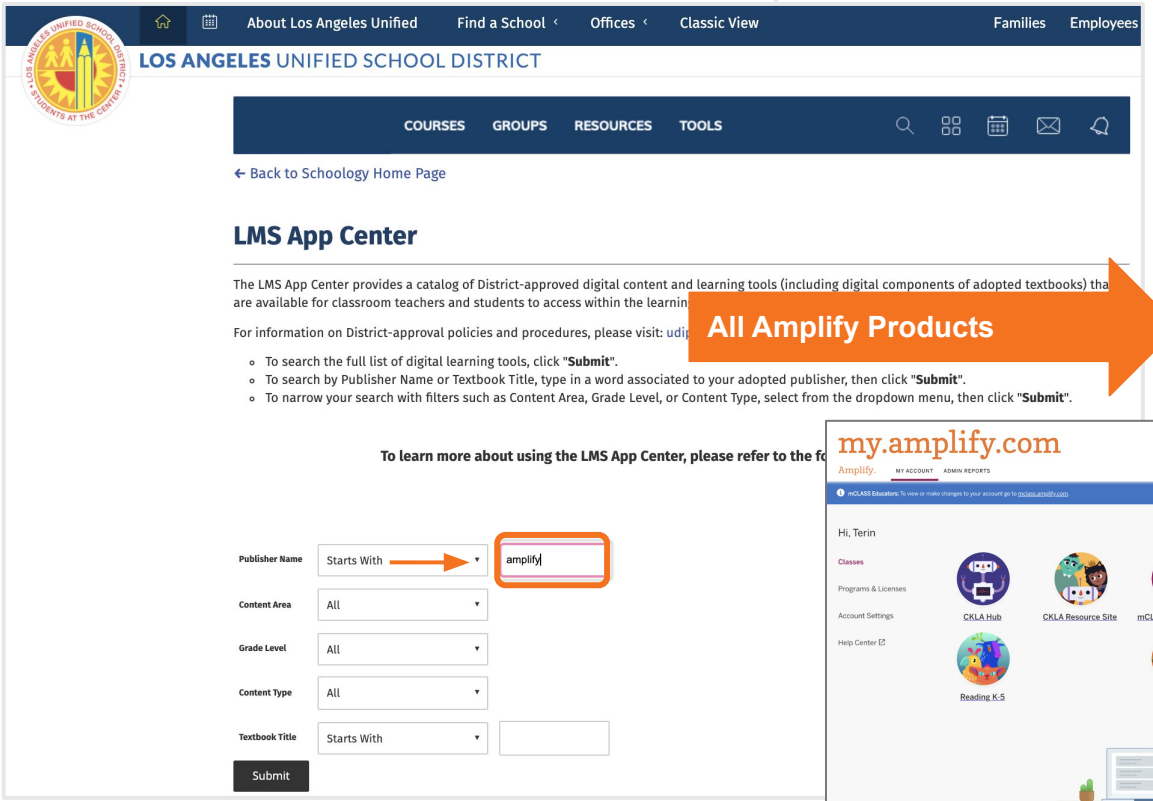
We share your goal of **inspiring all students to think deeply, creatively, and for themselves.**

Sincerely,
Amplify

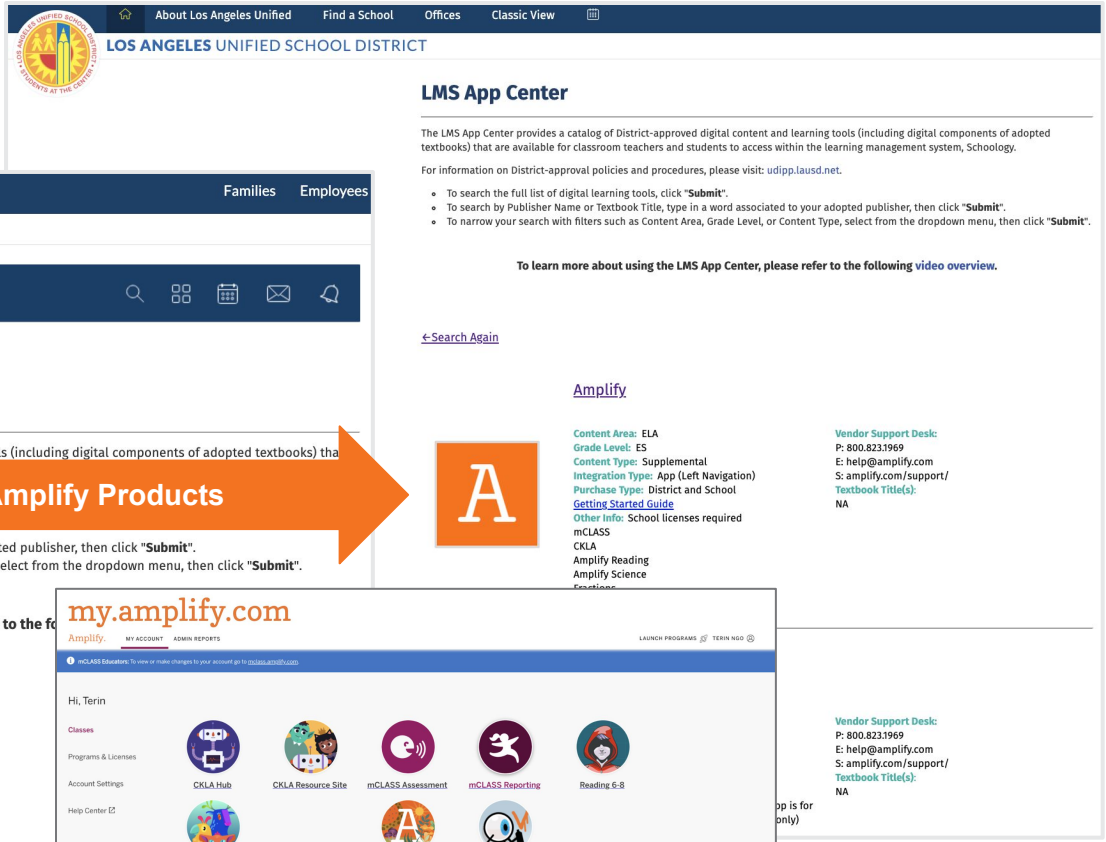
Norms: Establishing a culture of learners

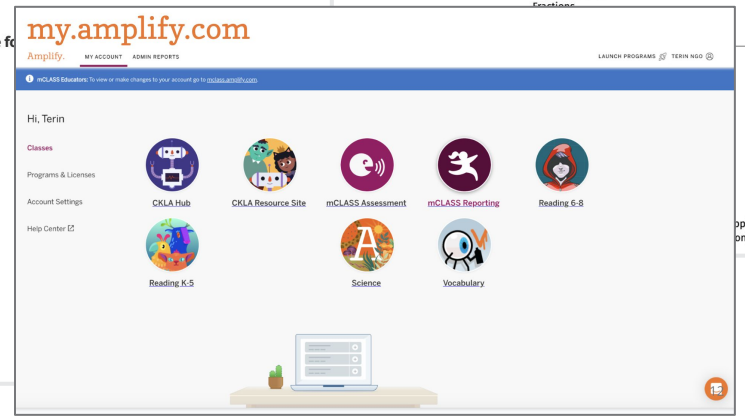
- **Take risks:** Ask any questions, provide any answers.
- **Participate:** Share your thinking, participate in discussion and reflection.
- **Be fully present:** Unplug and immerse yourself in the moment.
- **Physical needs:** Stand up, get water, take breaks.

Schoology



All Amplify Products





Join Amplify Science Schoology Group

To join Amplify Science Schoology ES Group: W4PK-W466-63F5B

Navigation Temperature Check

Rate yourself on your comfort level accessing Amplify Science materials and navigating a digital curriculum.

1 = Extremely Uncomfortable

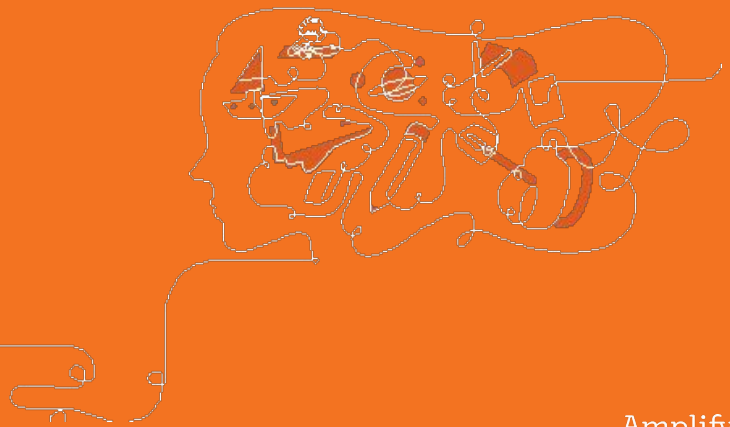
2 = Uncomfortable

3 = Mild

4 = Comfortable

5 = Extremely Comfortable

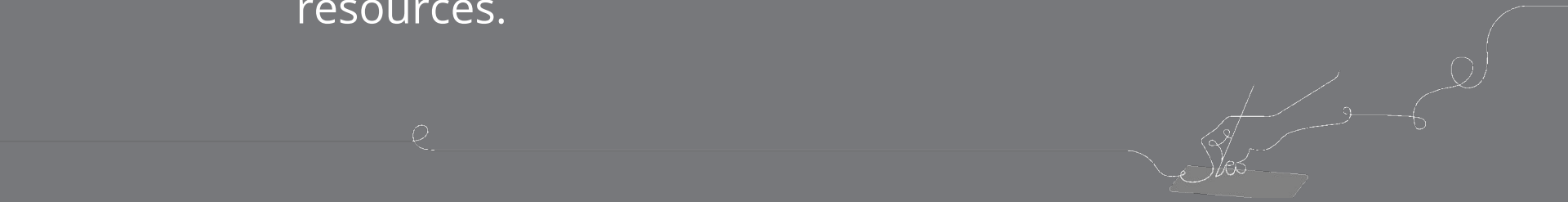
Part 2:
Guided Lesson Planning

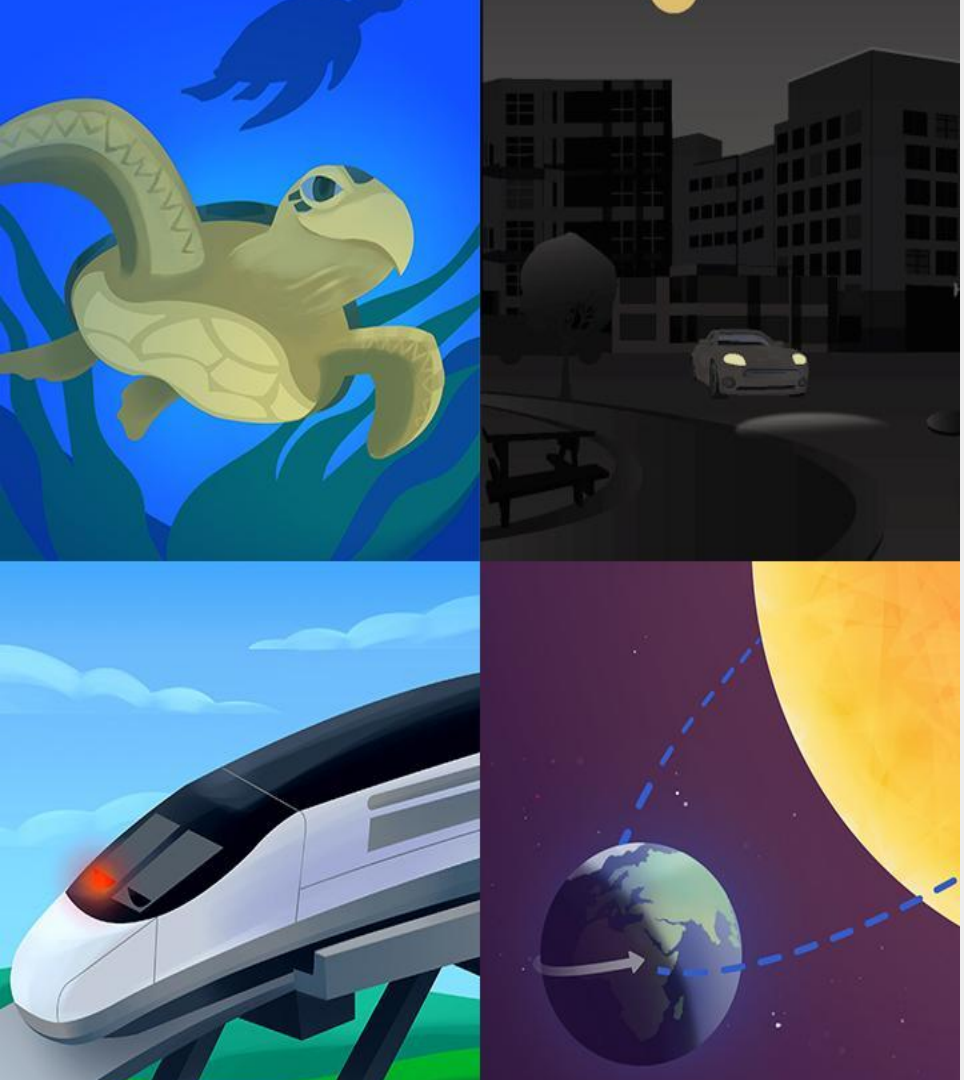


Overarching goals

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

- ❏ Describe what teaching and learning look like in Amplify Science.
- ❏ Prepare to teach using Amplify Science resources.

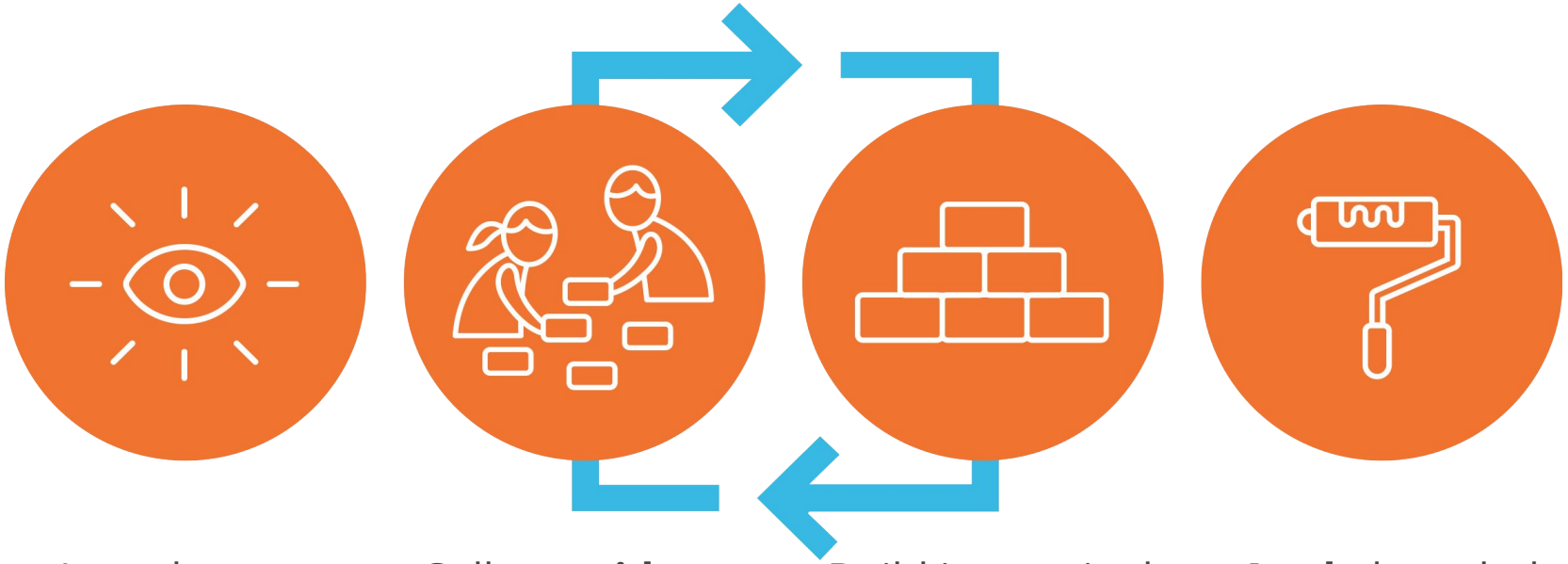




Plan for the day: Part 2

- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

Amplify Science Approach



Introduce a **phenomenon** and a related problem

Collect **evidence** from multiple sources

Build increasingly complex **explanations**

Apply knowledge to solve a different problem

Plant and Animal Relationships

How do the living things in a habitat depend on each other?

Students investigate and pursue a chain of reasoning that takes them from considering how plants get what they need to grow to understanding how seeds depend on animals for dispersal.

Plant and Animal Relationships

Problem: What is happening to the chalta trees in the Bengal Tiger Reserve?

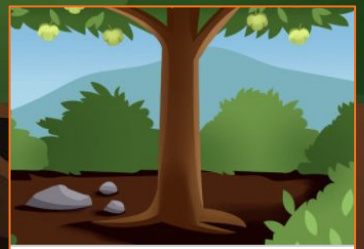
Role: Plant Scientists

Students examine what plant structures allow a plant to get what it needs to grow and how plants depend on the parts of their habitat to get them to new places where there is ample sunlight and water.

Coherent storylines

Chapter 1: Why aren't new chalta trees growing in the Bengal Tiger...

7 Lessons



Chapter 2: Why aren't the chalta seeds getting what they need to grow?

5 Lessons

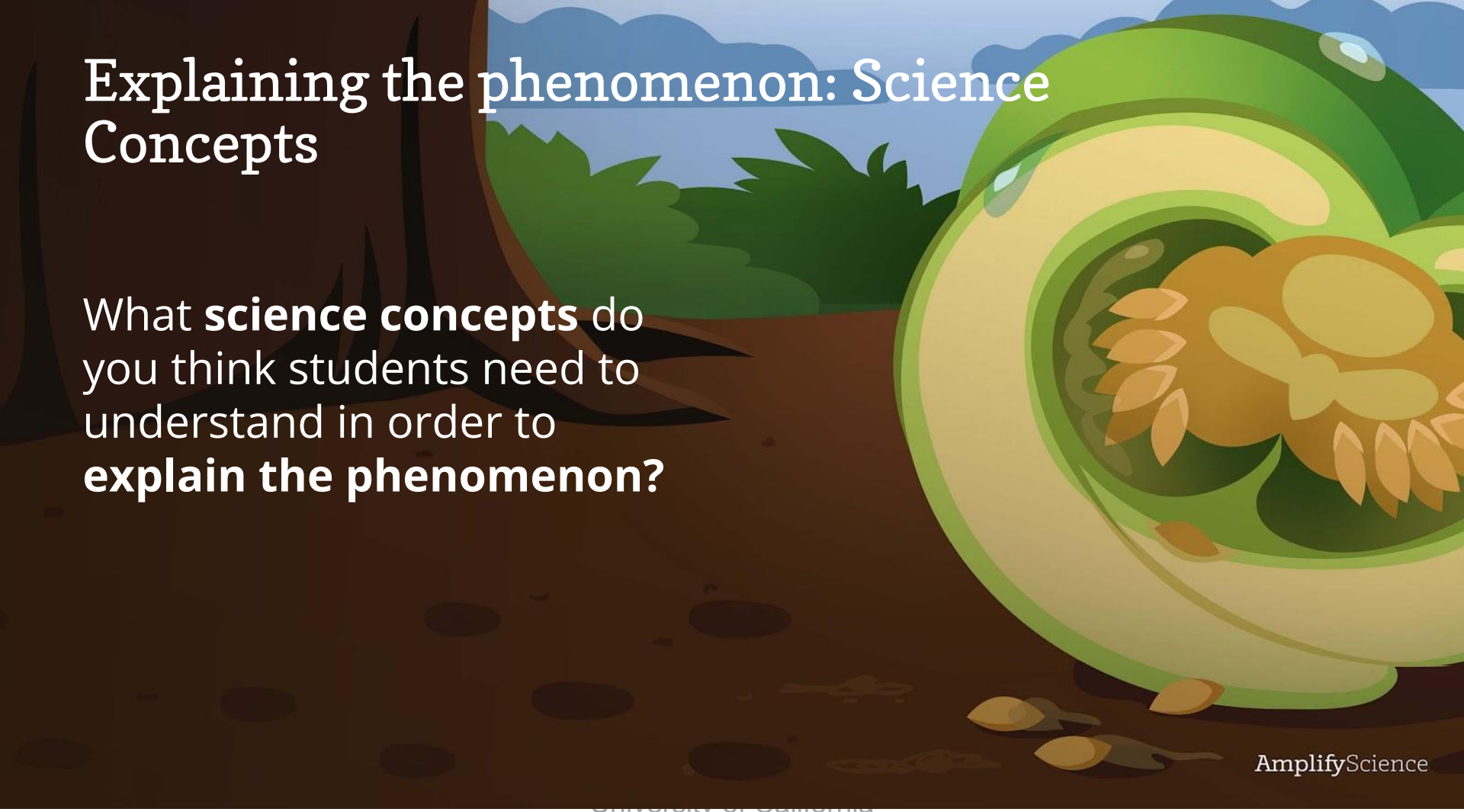
Chapter 3: Why aren't the chalta seeds getting to places where they...

6 Lessons

AmplifyScience

Explaining the phenomenon: Science Concepts

What **science concepts** do you think students need to understand in order to **explain the phenomenon?**



Progress Build

Plant and Animal Relationships

Prior knowledge (preconceptions): Students are likely to understand that some animals eat plants for food and that plants need water and sunlight to grow.

Level 1

Plants make seeds, which can sprout and grow into new plants only if they get enough sunlight and water.

Level 2

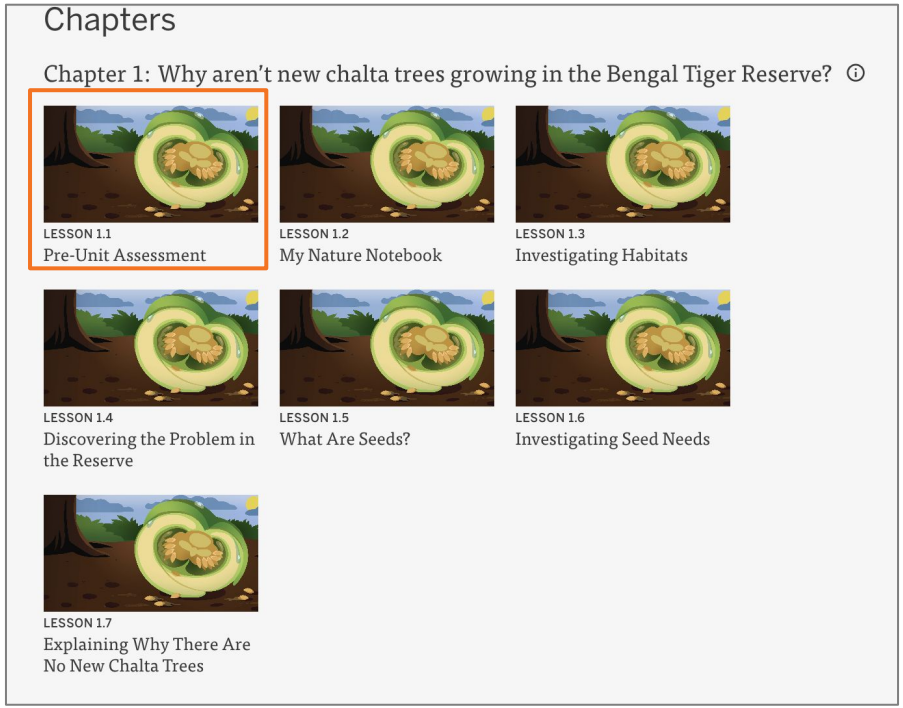
In order to grow, seeds need space to get sunlight on their leaves and to spread their roots to get water.

Level 3

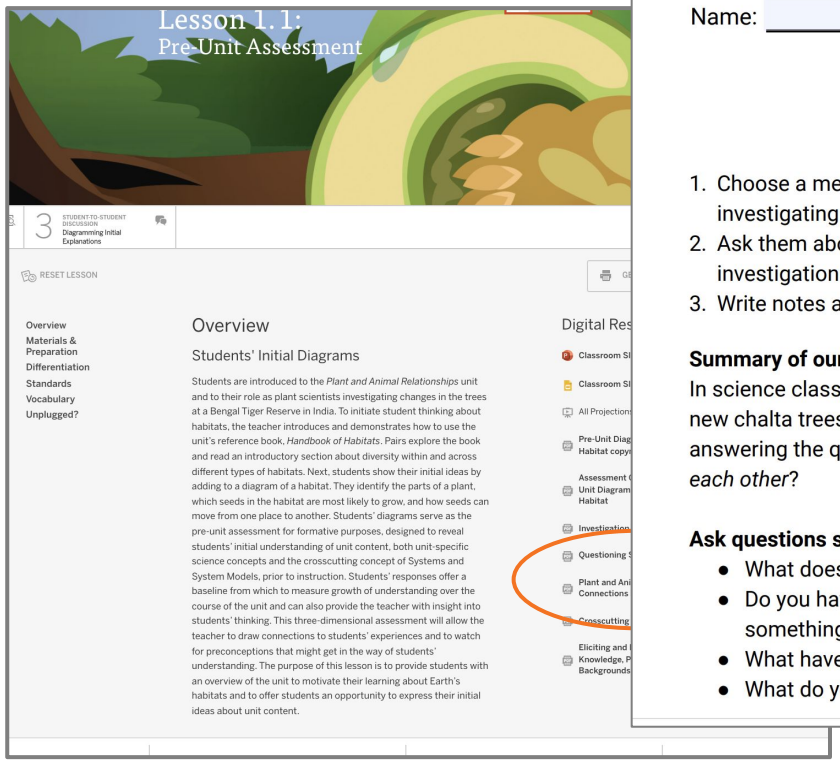
Some plants depend on animals to disperse their seeds, and some animals depend on these plants for food.

Beginning the Unit

The first lesson of every Unit is a pre-unit assessment.



Plant and Animal Relationships - Family Connection



Name: _____ Date: _____

Plant and Animal Relationships
Family Connections Homework

1. Choose a member of your family and tell them about what we are investigating in science class.
2. Ask them about their experiences, ideas, and questions related to our investigations.
3. Write notes about what you learn.

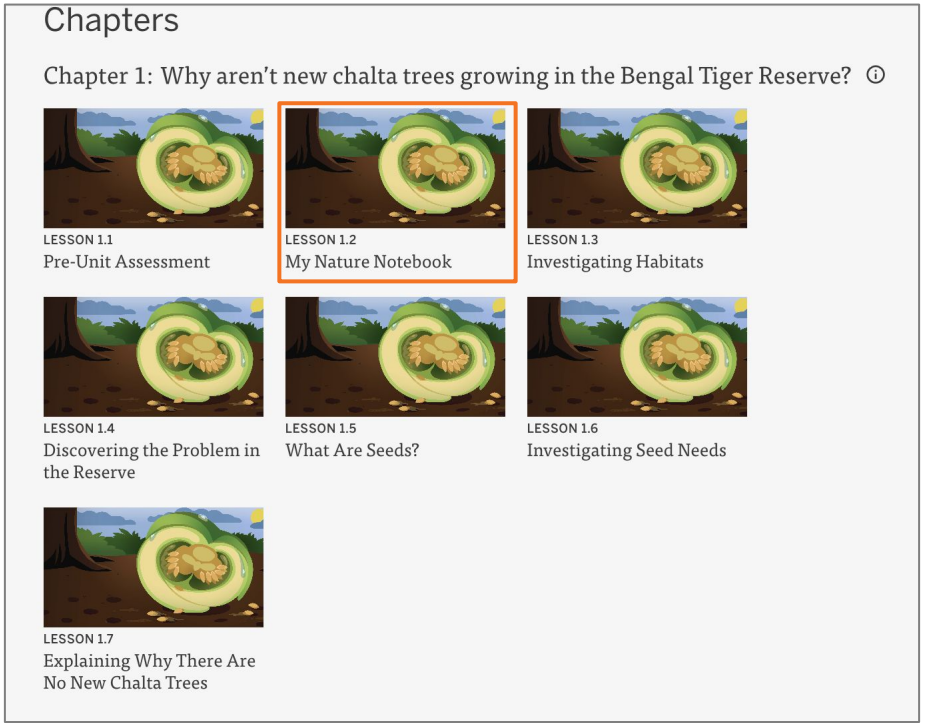
Summary of our investigation you can share:
In science class, we are working as plant scientists to figure out why no new chalta trees are growing in a tiger reserve in India. We will be answering the question, *How do the living things in a habitat depend on each other*?

Ask questions such as:

- What does our investigation make you think of?
- Do you have any memories, stories, expertise, or experiences about something like what we're investigating?
- What have you heard or learned about these topics?
- What do you wonder about what we are investigating?

Beginning the Unit

Model lesson 1.2



10 MIN

Activity 1

Setting a Purpose for Reading

Today, we are going to investigate this question:

How do scientists study habitats?

Plant and Animal Relationships Classroom Wall

Unit Question
How do the living things in a habitat depend on each other?

Chapter 1 Question
Why aren't new chalta trees growing in the Bengal Tiger Reserve?

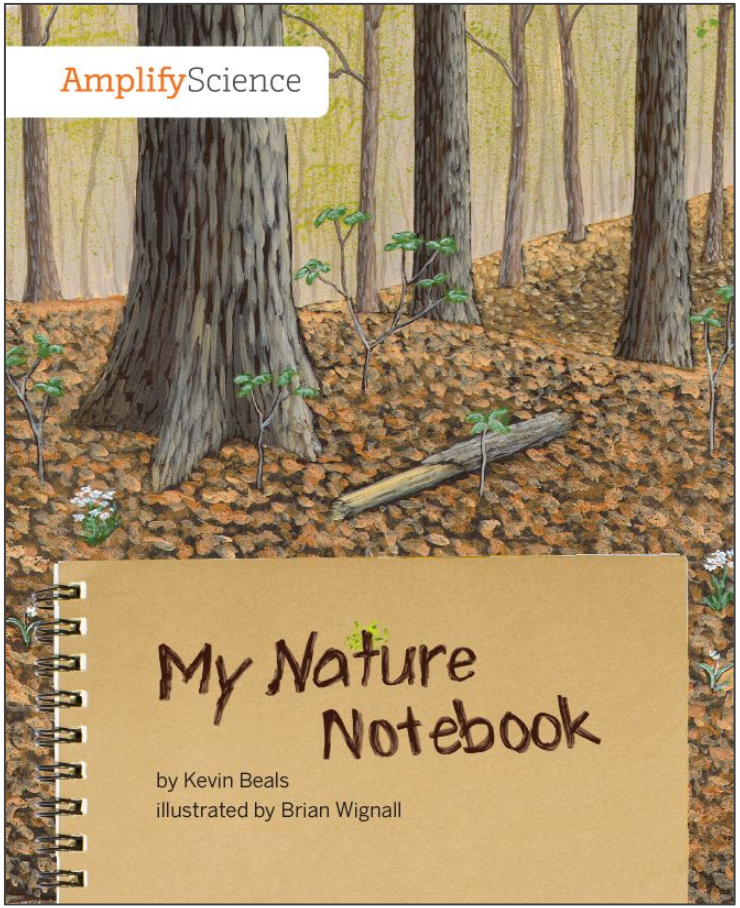
Investigation Question
How do scientist study habitats?

Key Concepts

Vocabulary

habitat

investigate



The title of this book is *My Nature Notebook*.

What are some things you observe about the front cover?

Setting a Purpose

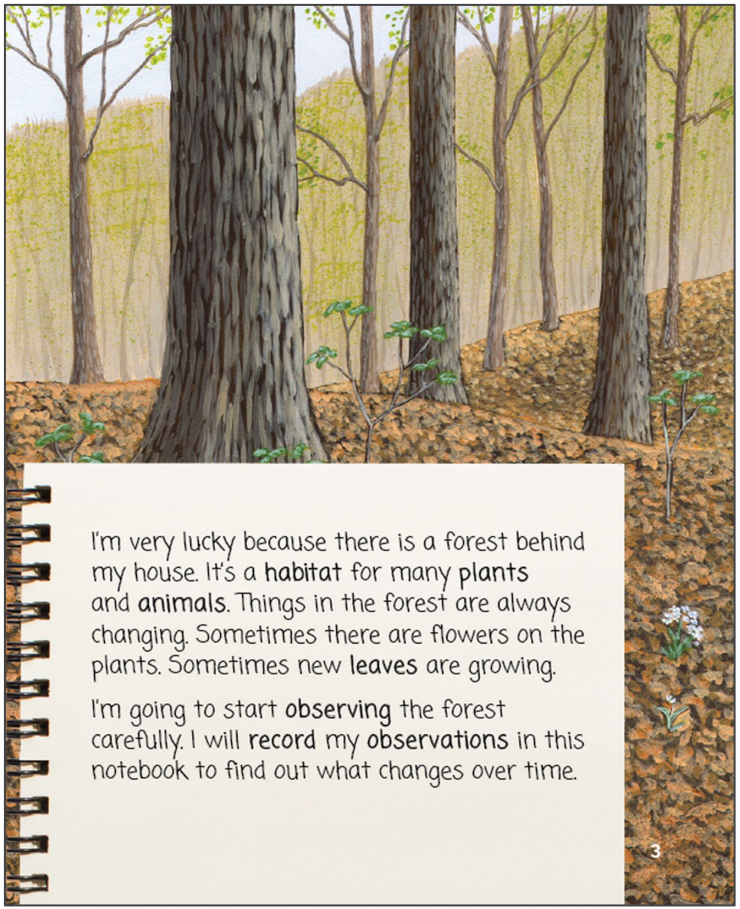
Reading	
Find out different ways to study a habitat.	

Our **purpose for reading** today is to find out different ways to study a habitat.

25 MIN

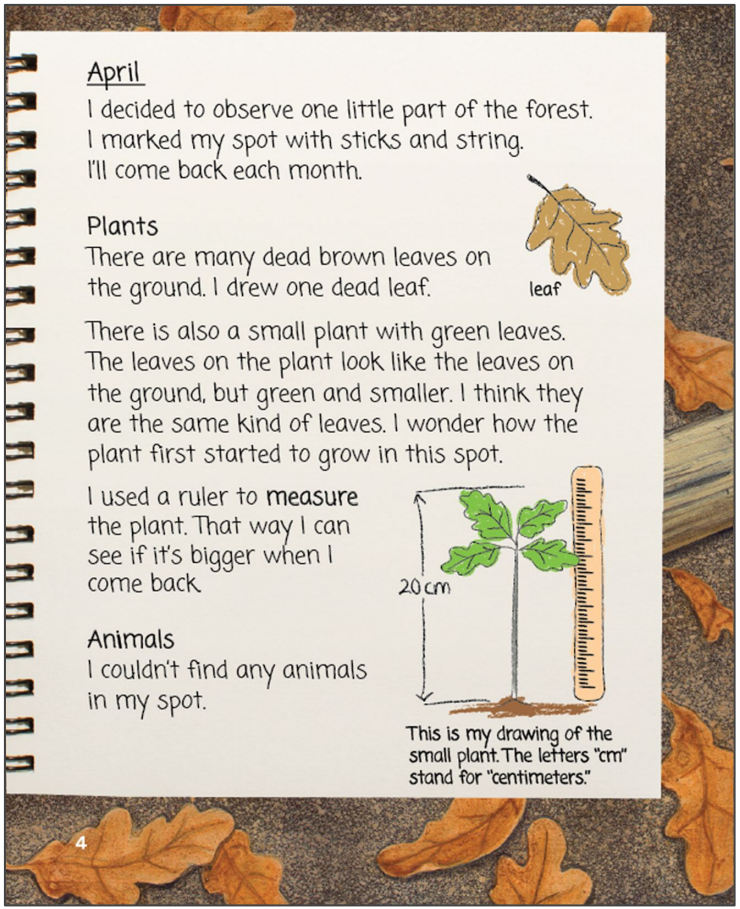
Activity 2

Partner Reading

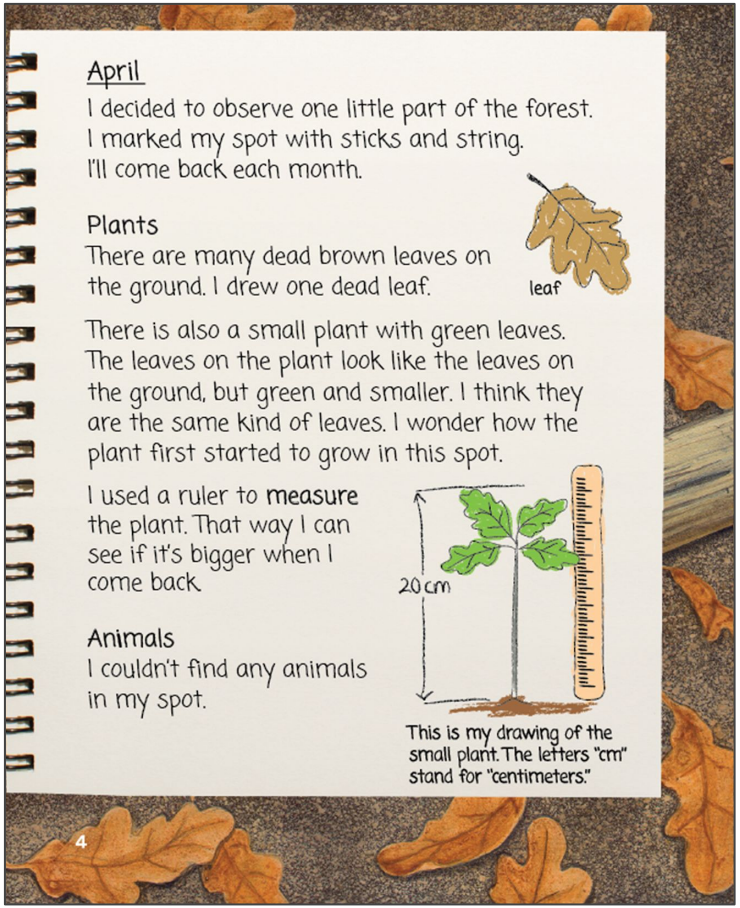


Turn to page 3 in *My Nature Notebook*.

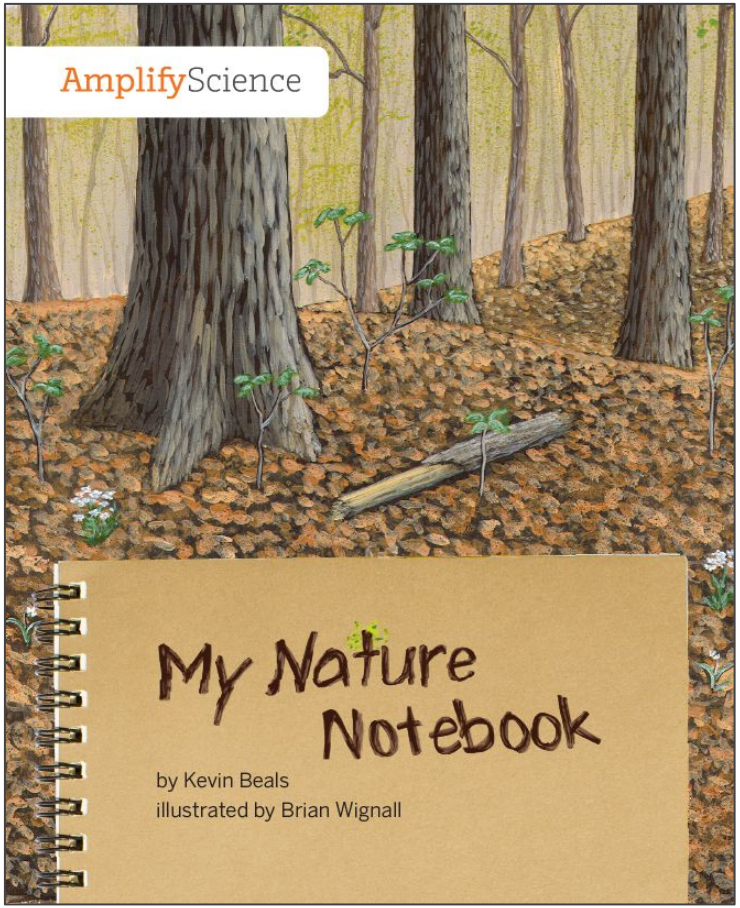
Remember, our purpose is to learn **different ways** that scientists study a habitat.



Turn to page 4 in *My Nature Notebook*.

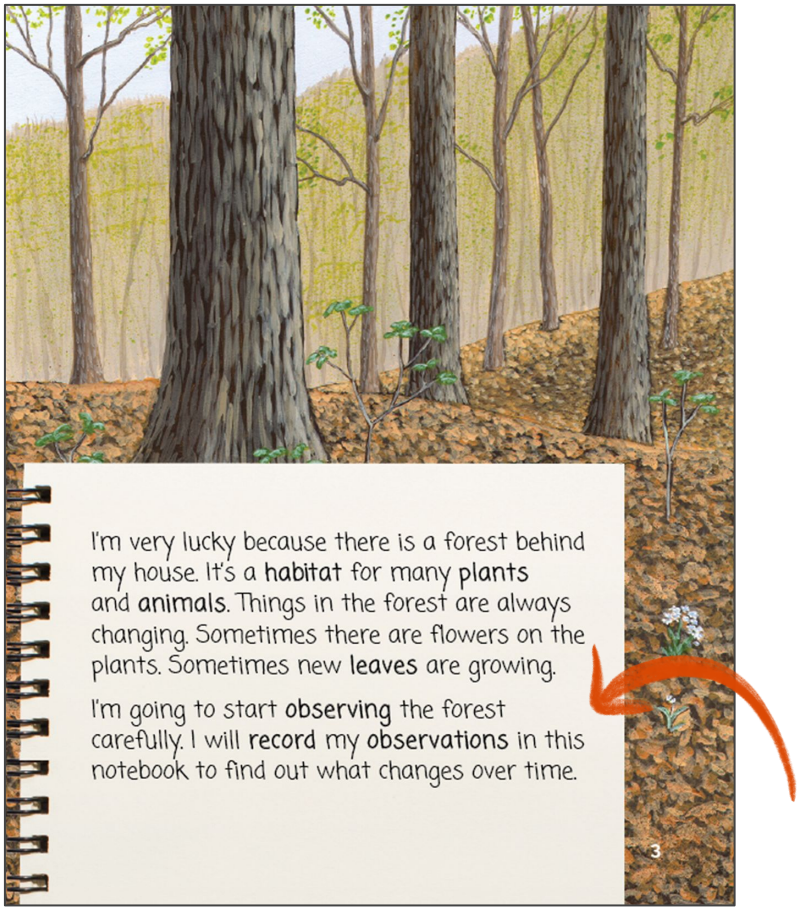


Discuss what you have found about different ways to study a habitat.



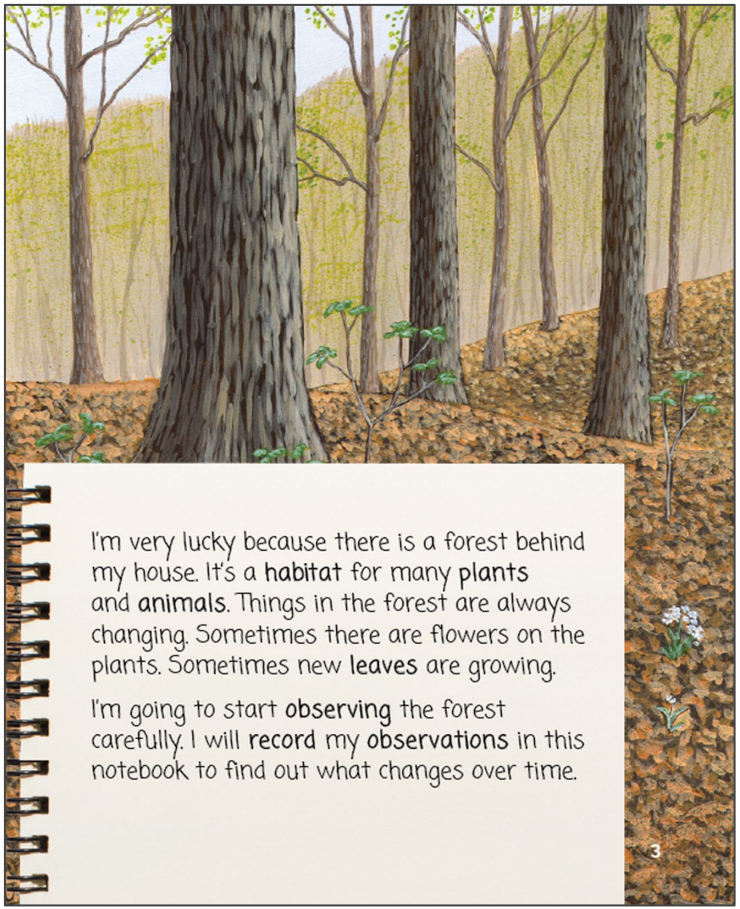
Read the rest of the book.

Remember to read with the **purpose** of finding out different ways to study a habitat.



Turn to page 3.

Let's think about the word *observe*.



Let's think about the meaning of *observe*.

Can you **observe** plants in this forest habitat?

What do you **observe** about the plants?

Vocabulary

observe

to use any of the five senses to gather information about something

Plant and Animal Relationships Classroom Wall

Unit Question
How do the living things in a habitat depend on each other?

Chapter 1 Question
Why aren't new chalta trees growing in the Bengal Tiger Reserve?

Investigation Question
How do scientist study habitats?

Key Concepts

Vocabulary

- habitat
- investigate
- observe

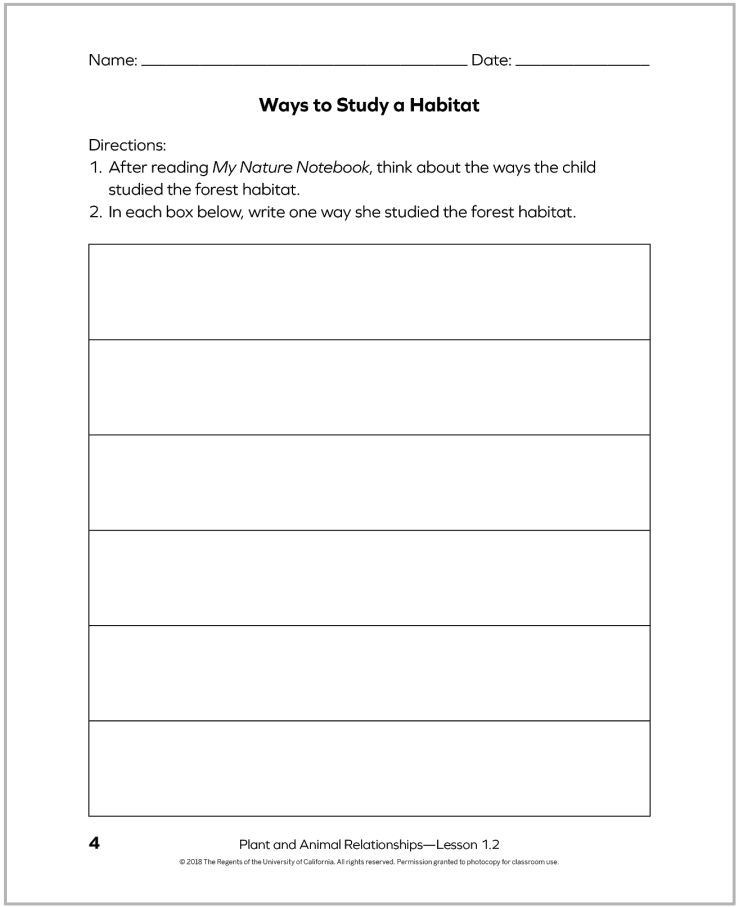
20 MIN

Activity 3

Reflecting on Ways to Study a Habitat

Remember that we are investigating this question:

How do scientists study habitats?



Name: _____ Date: _____

Ways to Study a Habitat

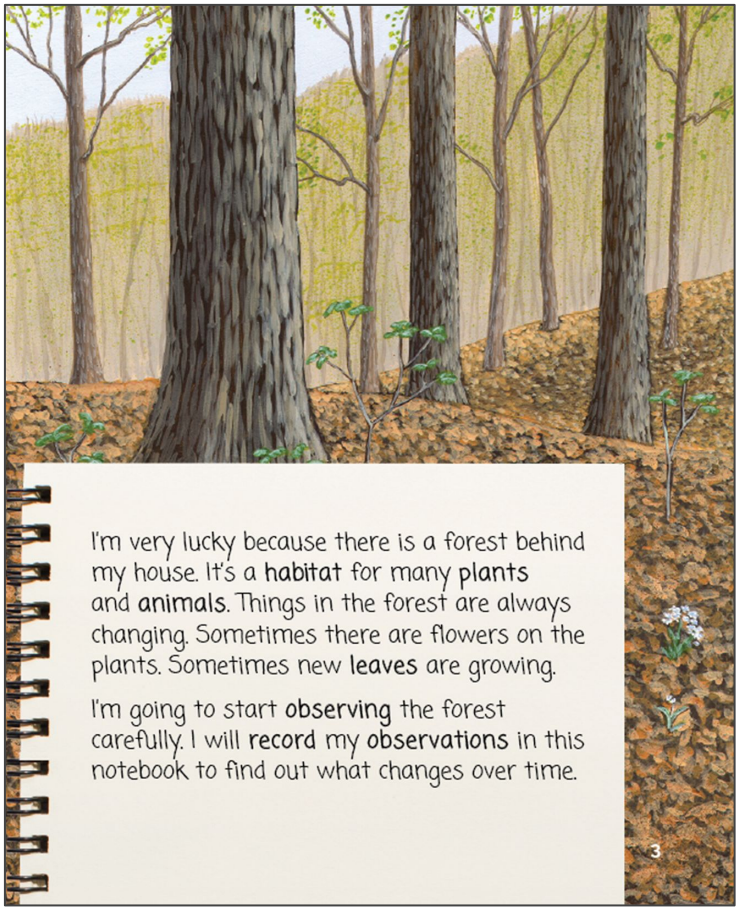
Directions:
1. After reading *My Nature Notebook*, think about the ways the child studied the forest habitat.
2. In each box below, write one way she studied the forest habitat.

4

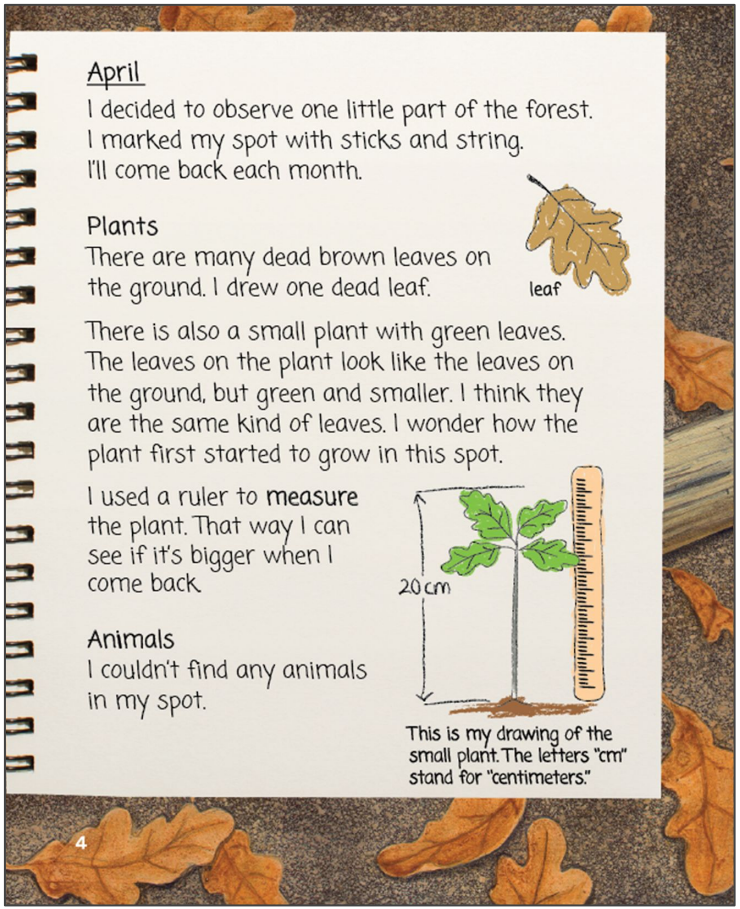
Plant and Animal Relationships—Lesson 1.2

Turn to page 4 in your notebooks.

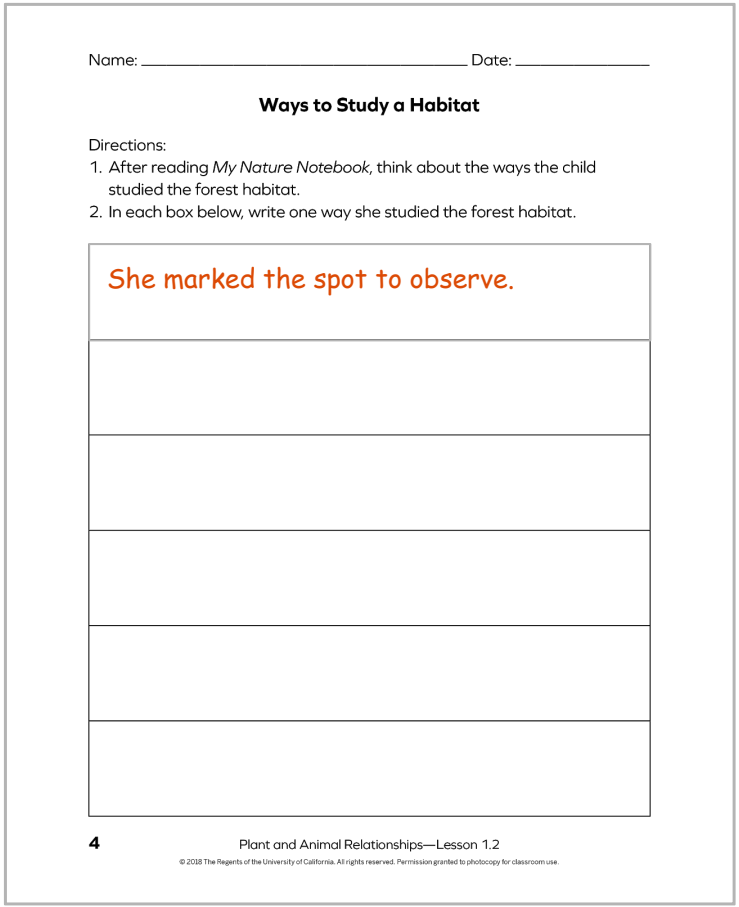
We will **record** different ways to study a habitat that we read about in *My Nature Notebook*.



The child is studying the forest habitat by making **observations** and **recording** them in her notebook.



To study this habitat, the child **marks the spot she is going to observe**.



Name: _____ Date: _____

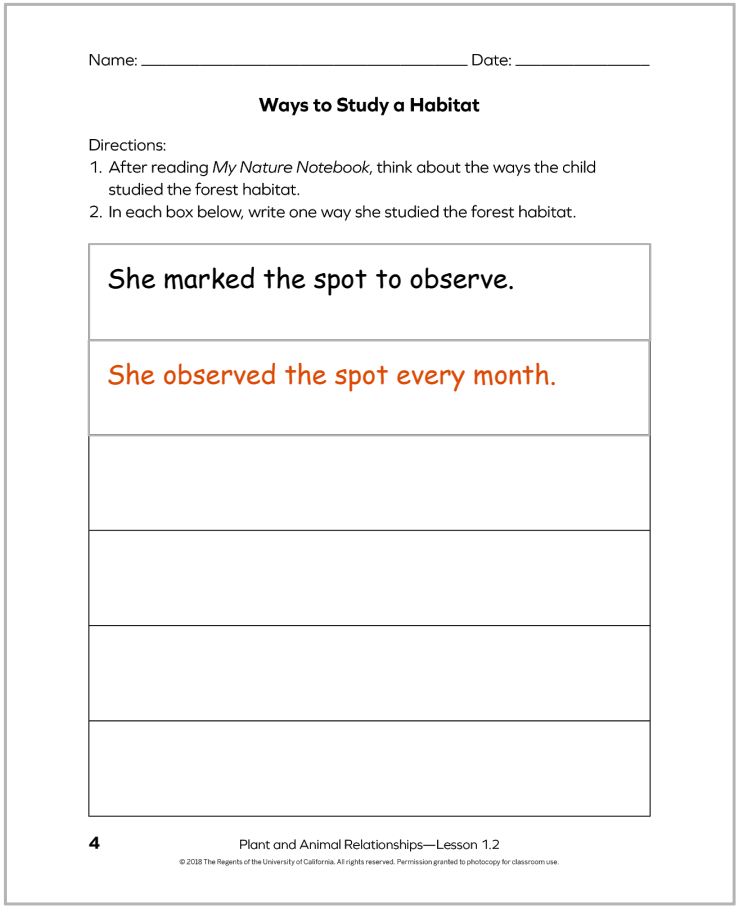
Ways to Study a Habitat

Directions:

1. After reading *My Nature Notebook*, think about the ways the child studied the forest habitat.
2. In each box below, write one way she studied the forest habitat.

She marked the spot to observe.

Let’s add that to the top box on the notebook page.



Name: _____ Date: _____

Ways to Study a Habitat

Directions:
1. After reading *My Nature Notebook*, think about the ways the child studied the forest habitat.
2. In each box below, write one way she studied the forest habitat.

She marked the spot to observe.
She observed the spot every month.

4 Plant and Animal Relationships—Lesson 1.2

Another way the child is studying the forest habitat is to **observe the same spot once every month.**

We can add that to the next box.

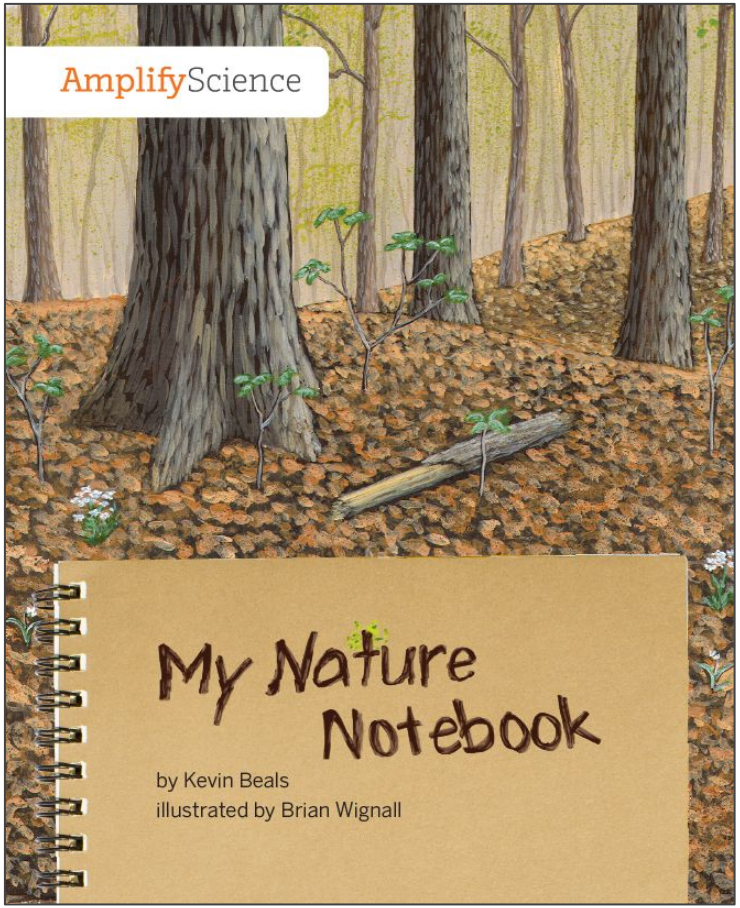
Name: _____ Date: _____

Ways to Study a Habitat

Directions:

1. After reading *My Nature Notebook*, think about the ways the child studied the forest habitat.
2. In each box below, write one way she studied the forest habitat.

Write different ways that the child studied the forest habitat.



***My Nature Notebook* was about one type of habitat: a forest habitat.**

What are the different kinds of plants that live in the forest habitat in this book?

We live in a habitat. What kinds of plants have you **observed in our habitat**?

How are the plants in our habitat **similar** to the plants in the forest habitat in the book? How are they **different**?

End of Lesson

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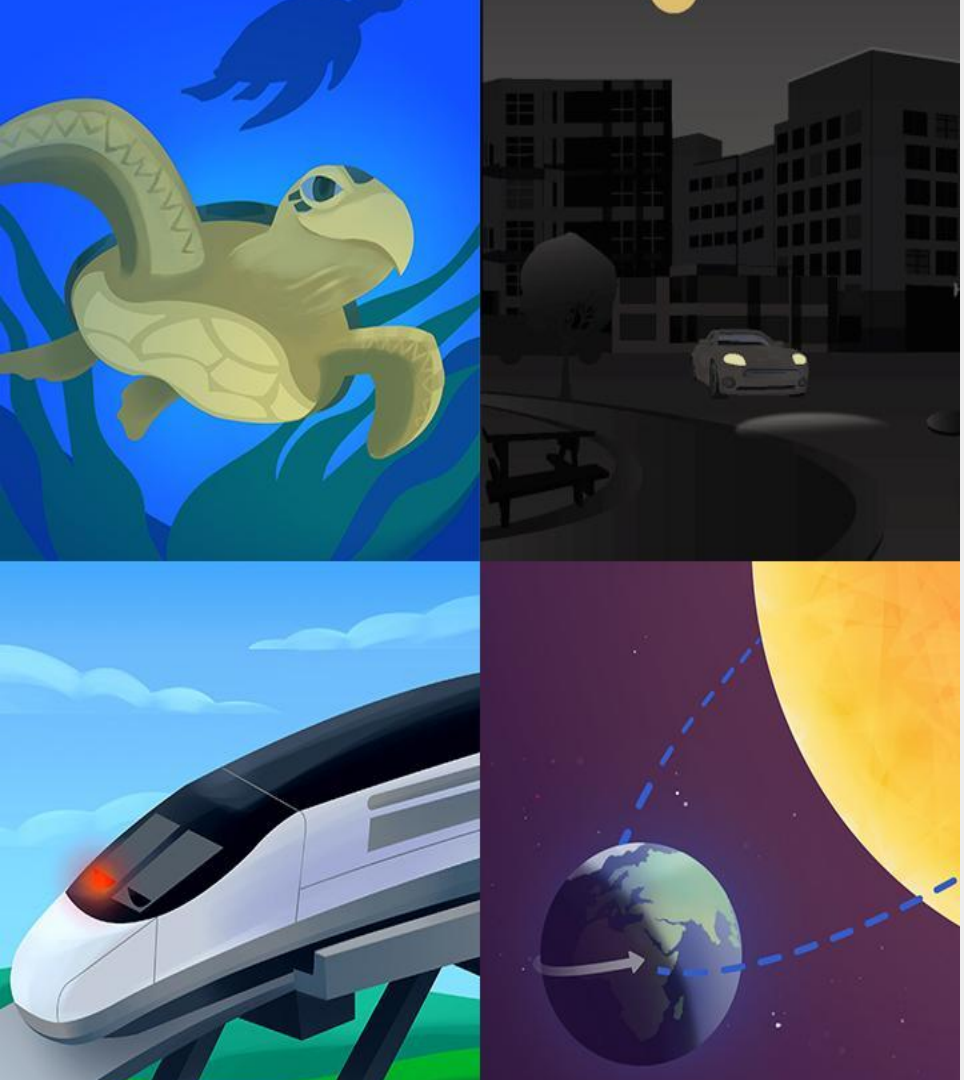


Plan for the day

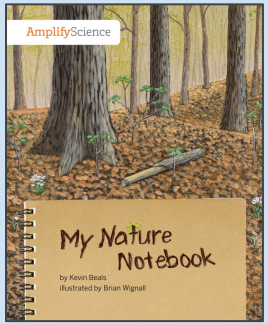
- Introduction and framing
- Navigation and planning
- Teaching and learning in an Amplify Science lesson
- **Instructional approach reflection**
- Additional program resources
- Closing

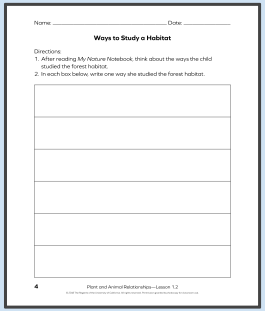
Gathering evidence

Plant and Animal Relationships Lesson 1.2

Chapter Question: Why aren't new chalta trees growing in the Bengal Tiger Reserve?

Investigation Question: How do scientists study habitats?




Name _____ Date _____

Ways to Study a Habitat

Directions:
1. After reading *My Nature Notebook*, think about the ways the child studied the forest habitat.
2. In each box below, write one way she studied the forest habitat.

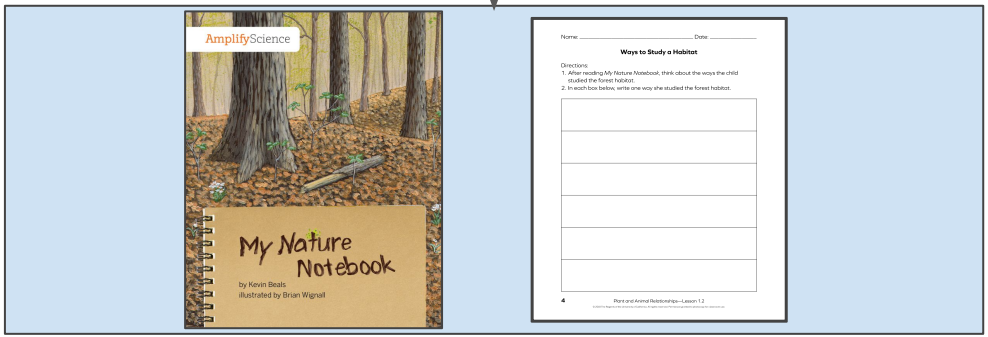
4 Plant and Animal Relationships—Lesson 1.2

Evidence sources work together

Reading *My Nature Notebook* and notebook activity

How do these activities **work together** to support understanding of how scientists study habitats?

Investigation Question: How do scientists study habitats?



Gathering evidence

Plant and Animal Relationships Lesson 1.2

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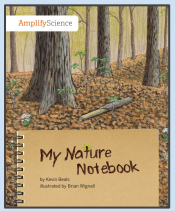
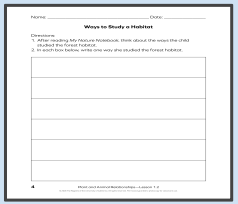
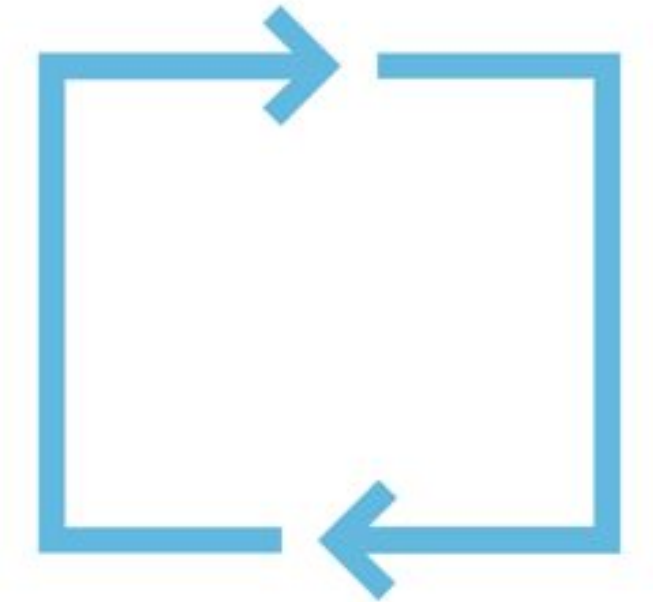




What have students figured out so far?

Multimodal learning

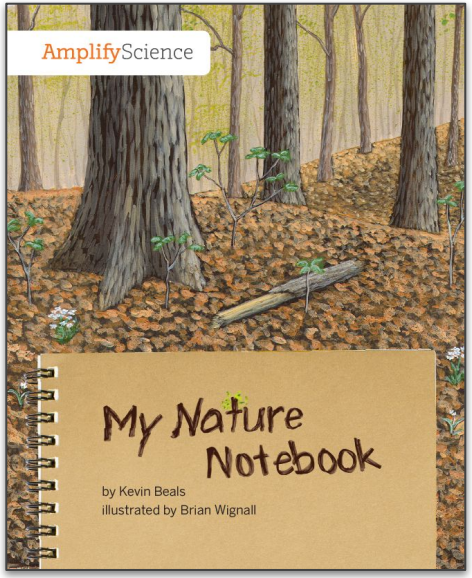
Gathering evidence over multiple lessons

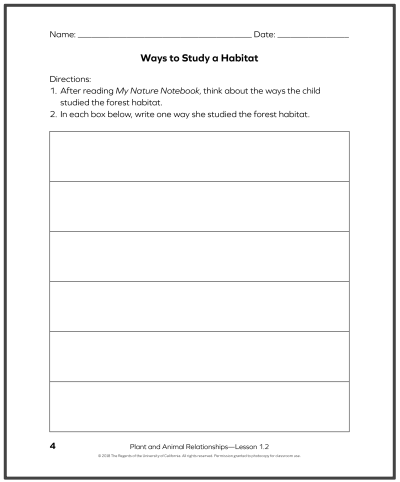


Do,
Talk,
Read,
Write,
Visualize

Evidence sources work together

Teacher tip: Every evidence source plays an important role in student learning. Be sure to teach every activity in order!





Name: _____ Date: _____

Ways to Study a Habitat

Directions:
1. After reading *My Nature Notebook*, think about the ways the child studied the forest habitat.
2. In each box below, write one way she studied the forest habitat.

4 Plant and Animal Relationships—Lesson 1.2

Coherence Flowchart

A diagram of student learning

Phenomenon
(Chapter Question)

Investigation Question

Multiple sources of evidence

Key concepts

Chapter Question: Why aren't new chalta trees growing in the Bengal Tiger Reserve?

Investigation Question: How do scientists study habitats?

Coherence Flowchart

Plant and Animal Relationships Lesson 1.2-1.4

Chapter Question: Why aren't new chalta trees growing in the Bengal Tiger Reserve?

↓

Investigation Question: How do scientists study habitats?

↓

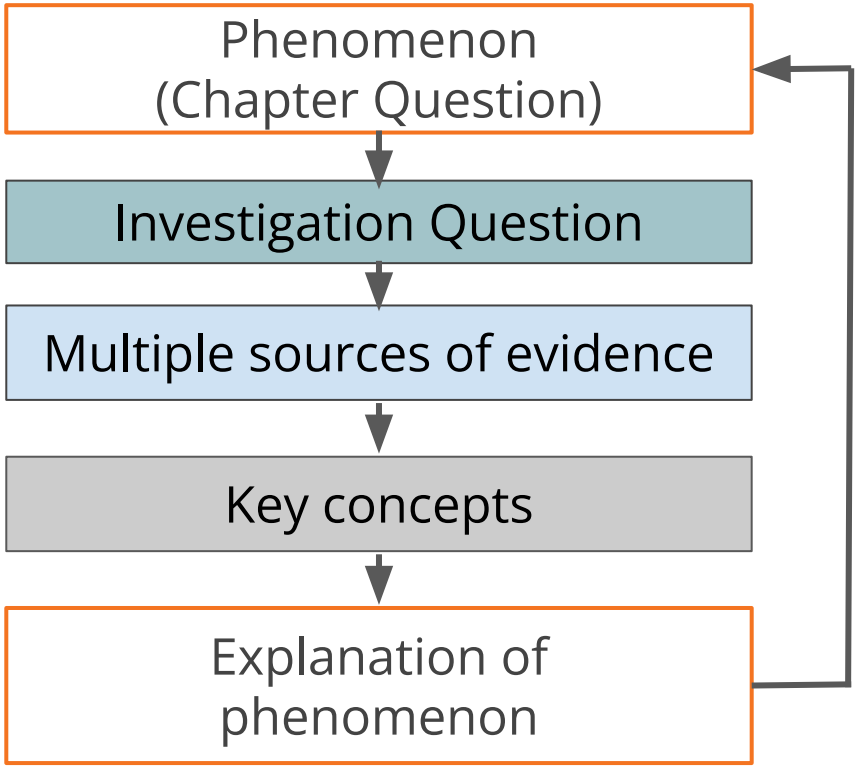
Evidence: Read *My Nature Notebook* (1.2)
Evidence: Discuss and record ways to study a habitat (1.2)
Evidence: Investigate a sample study site habitat (1.3)
Evidence: Read about the broadleaf forest and other habitats in *Handbook of Habitats* (1.4)

↓

Key concepts: One way scientists study habitats is by observing the plants in them over time. (1.4) There are many types of habitats. Each habitat has many different types of plants and animals. (1.4)

Coherence Flowchart

A diagram of student learning



Coherence Flowchart

Plant and Animal Relationships Lesson 1.2-1.4

Chapter Question: Why aren't new chalta trees growing in the Bengal Tiger Reserve?

↓

Investigation Question: How do scientists study habitats?

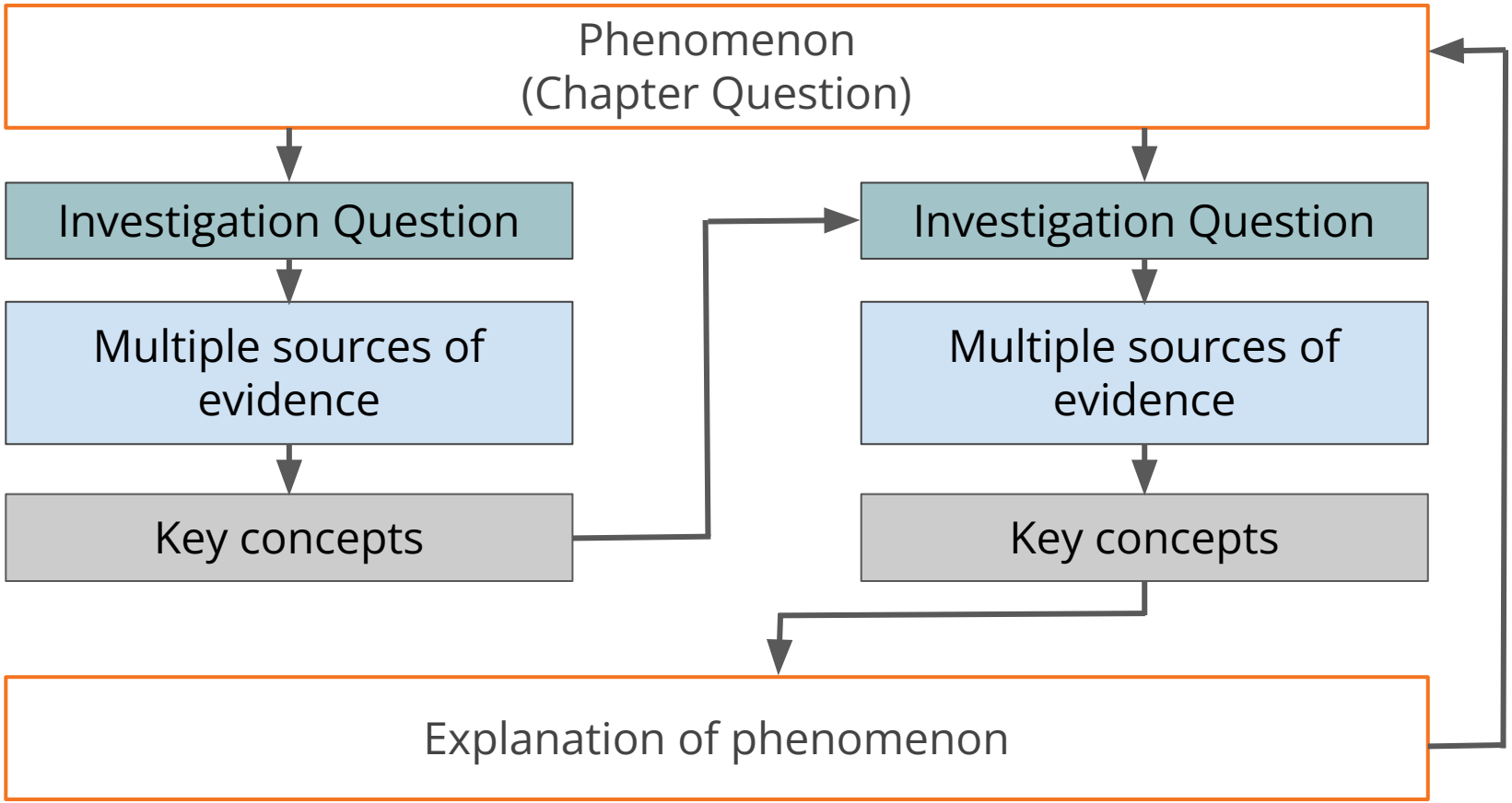
↓

Evidence: Read *My Nature Notebook* (1.2)
Evidence: Discuss and record ways to study a habitat (1.2)
Evidence: Investigate a sample study site habitat (1.3)
Evidence: Read about the broadleaf forest and other habitats in *Handbook of Habitats* (1.4)

↓

Key concepts: One way scientists study habitats is by observing the plants in them over time. (1.4) There are many types of habitats. Each habitat has many different types of plants and animals. (1.4)

Coherence Flowchart



Plant and Animal Relationships: Investigating Systems in a Bengali Forest

Unit Anchor Phenomenon

Problem students work to solve

There are many new trees growing in the Bengal Tiger Reserve but none of them are chalta trees.
What is happening to the chalta trees in the Bengal Tiger Reserve?

Chapter-level Anchor Phenomenon
Chapter 1 Question

There are no new chalta trees growing in the Bengal Tiger Reserve.
Why aren't new chalta trees growing in the Bengal Tiger Reserve?

Investigative Phenomena
Investigation Questions

The plants in a habitat change slowly over time.
How do scientists study habitats? (1.2, 1.3, 1.4)

Some new plants grow. Some do not.
How do new plants grow? (1.5, 1.6)

Evidence sources and reflection opportunities

- Read *My Nature Notebook* (1.2)
- Discuss and record ways to study a habitat (1.2)
- Investigate a sample study site habitat (1.3)
- Read about the broadleaf forest and other habitats in *Handbook of Habitats* (1.4)

- Observe and sort seeds (1.5)
- Read about seeds in Handbook of Habitats (1.5)
- Sequence plant growth cards (1.5)
- Investigate water and seeds (1.6)
- Investigate sunlight and plant growth (1.6)
- Discuss relationships between science words (1.7)

Key concepts

- One way scientists study habitats is by observing the plants in them over time. (1.4)
- There are many types of habitats. Each habitat has many different types of plants and animals. (1.4)

- Plants make seeds that can grow into new plants. (1.5)
- Only seeds that get enough sunlight and water sprout and grow into full-grown plants. (1.6)

Application of key concepts to problem

- Count the trees in the Bengal Tiger study site and discuss data (1.4)
- Revisit Bengal Tiger study site maps (1.5)
- Discuss data about chalta trees in the Bengal Tiger Reserve (1.7)
- Explain why there are no new chalta trees growing in the Bengal Tiger Reserve (1.7)

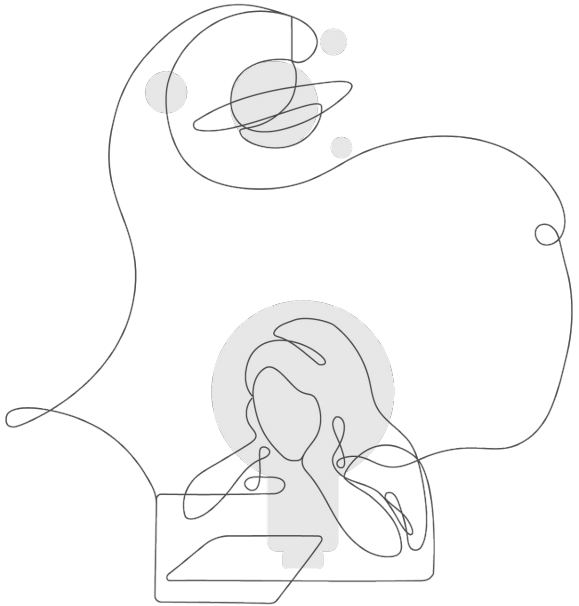
Explanation that students can make to answer the Chapter 1 Question

The chalta trees in the Bengal Tiger Reserve make seeds. Only the seeds that get enough water and sunlight will sprout and grow into new adult plants. There are no new chalta trees because the chalta tree seeds must not be getting enough water and sunlight.

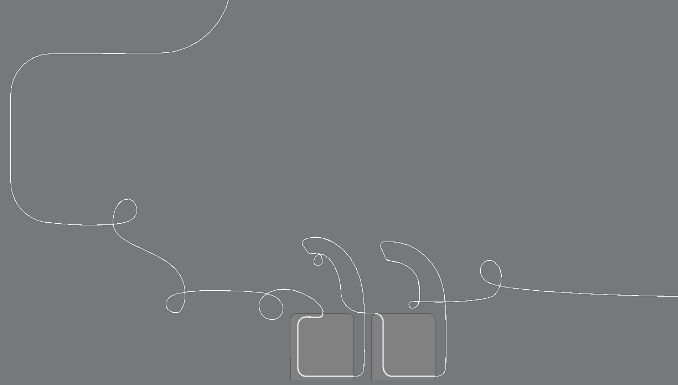
Explore the Coherence Flowchart

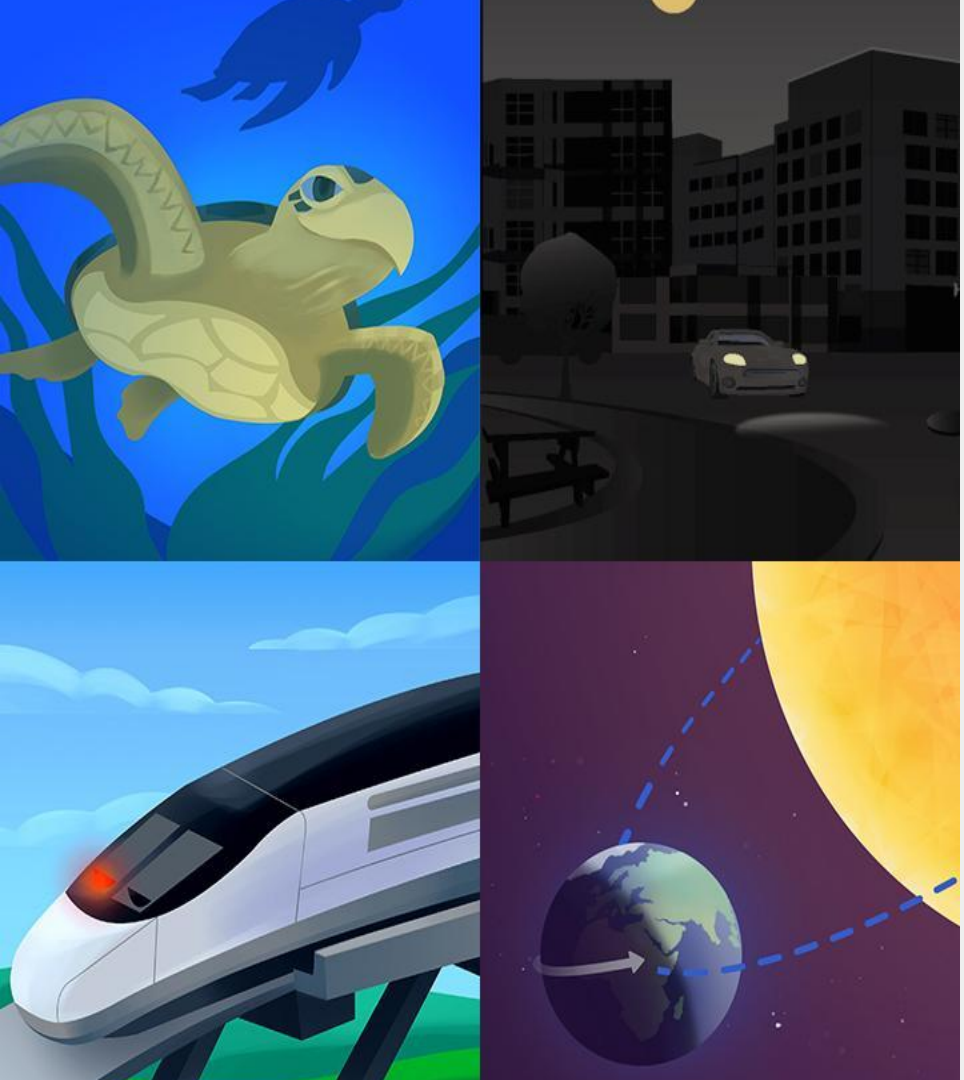
Skim the Chapter 1 Coherence Flowchart.

Think about how you might use the Coherence Flowchart to summarize learning throughout Chapter 1.



Questions?

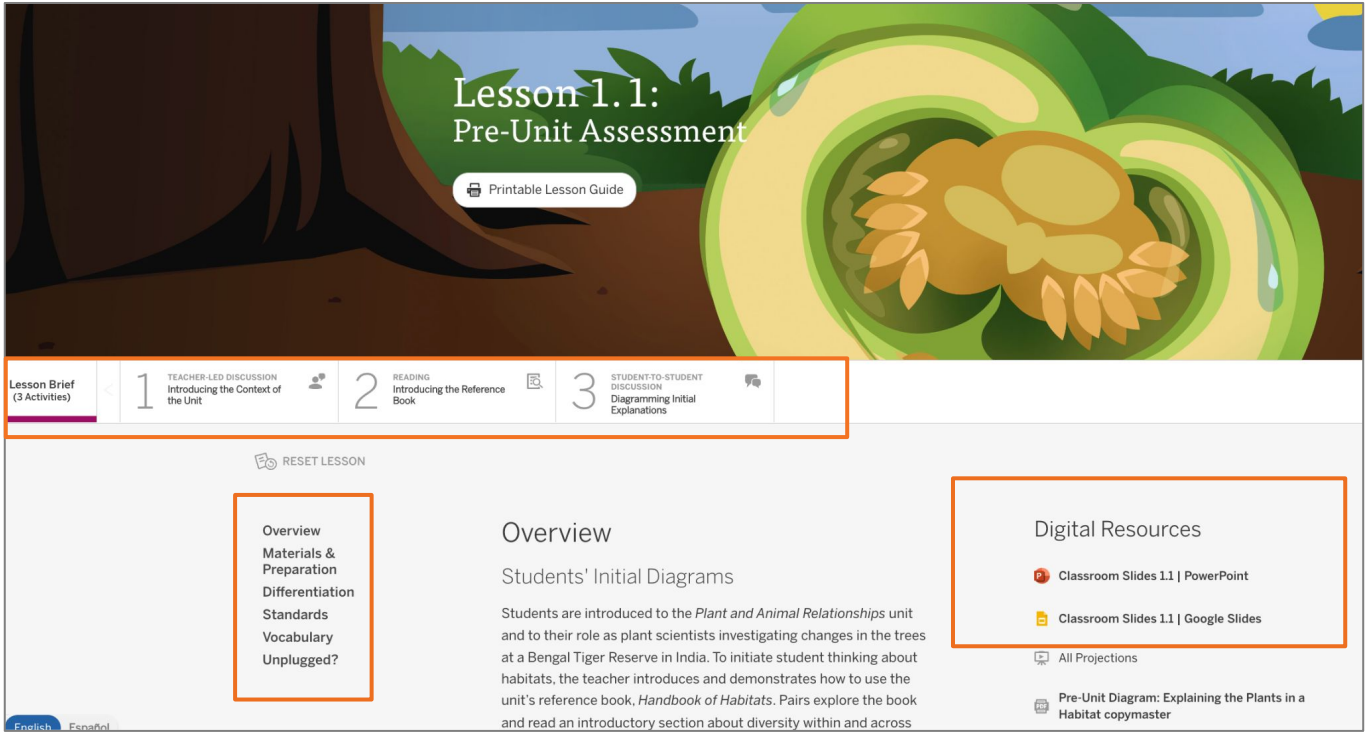




Plan for the day: Part 2

- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

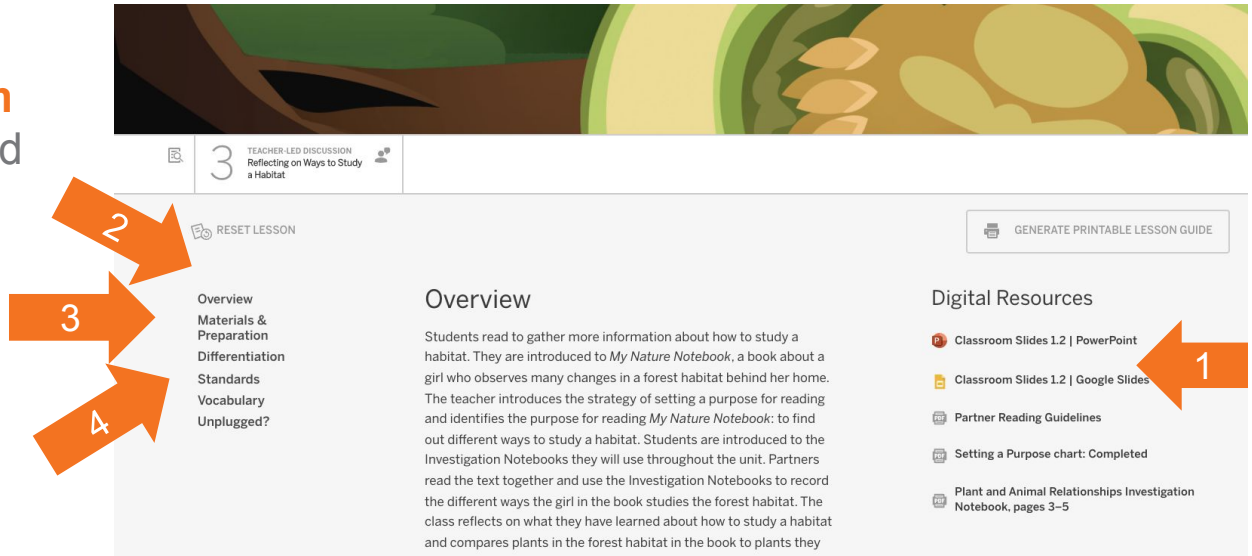
Navigate to a lesson page



4 Easy Steps to Teaching a lesson

DIRECTIONS:

1. Download the **Classroom Slides** for **Lesson 1.1** and review them.
2. Read the **Overview**.
3. Explore the **Materials & Preparation** document.
4. Read the **Differentiation** document.



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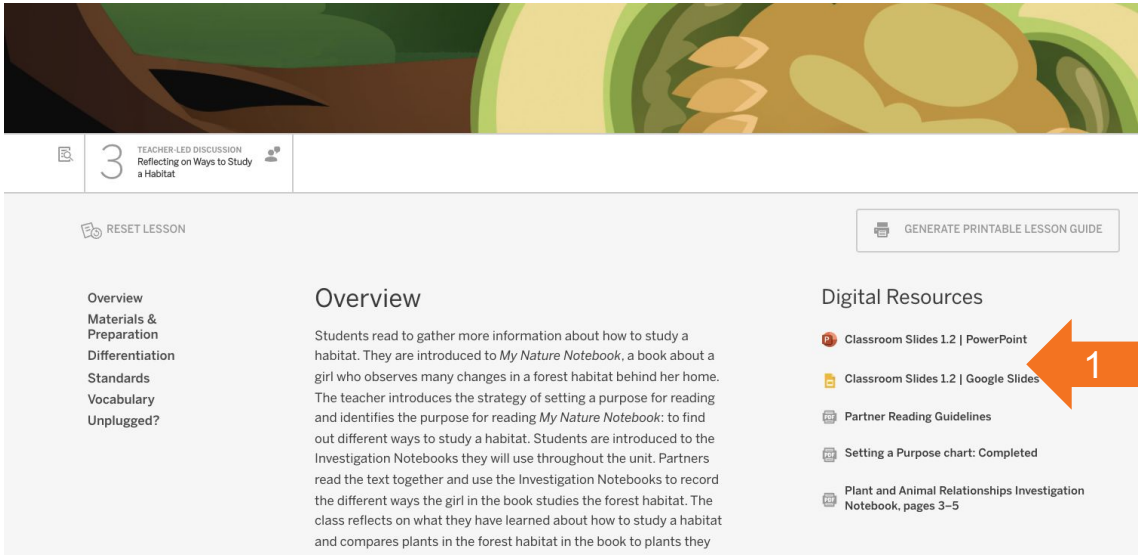
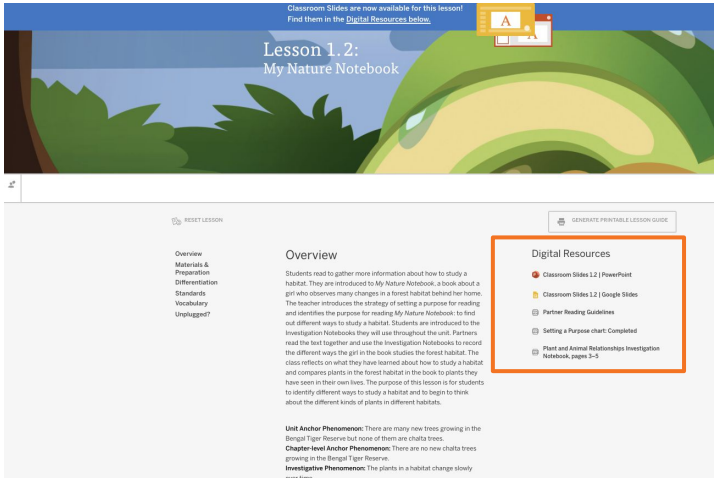


Preparing to teach

Classroom Slides

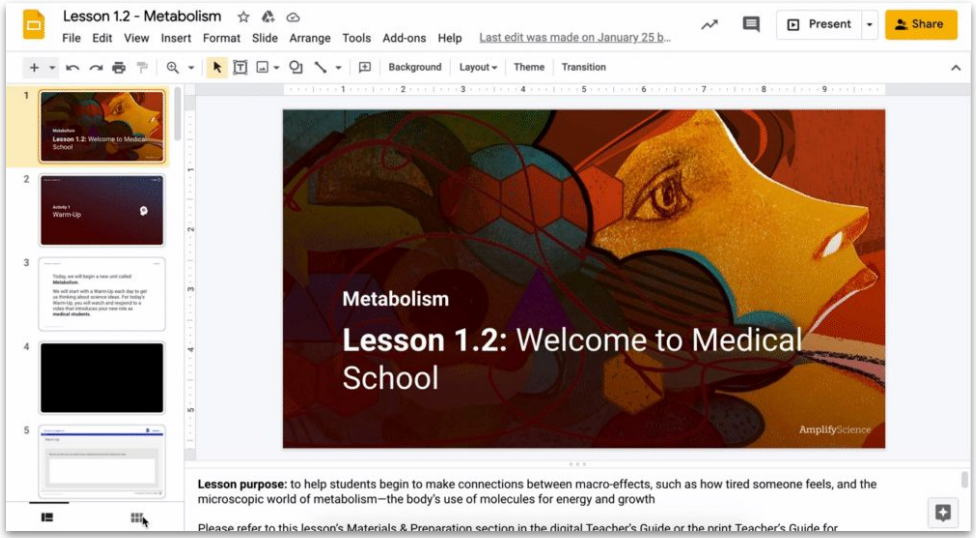
1. Open the **Classroom Slides** under the **Digital Resources** (a lesson of your choice)
2. Read through the Classroom Slides including the **presenter notes** to gain a better understanding of the lesson.
3. **Consider:**
    - What features of the Classroom Slides will support you in teaching this lesson?



Using Classroom Slides as a planning tool

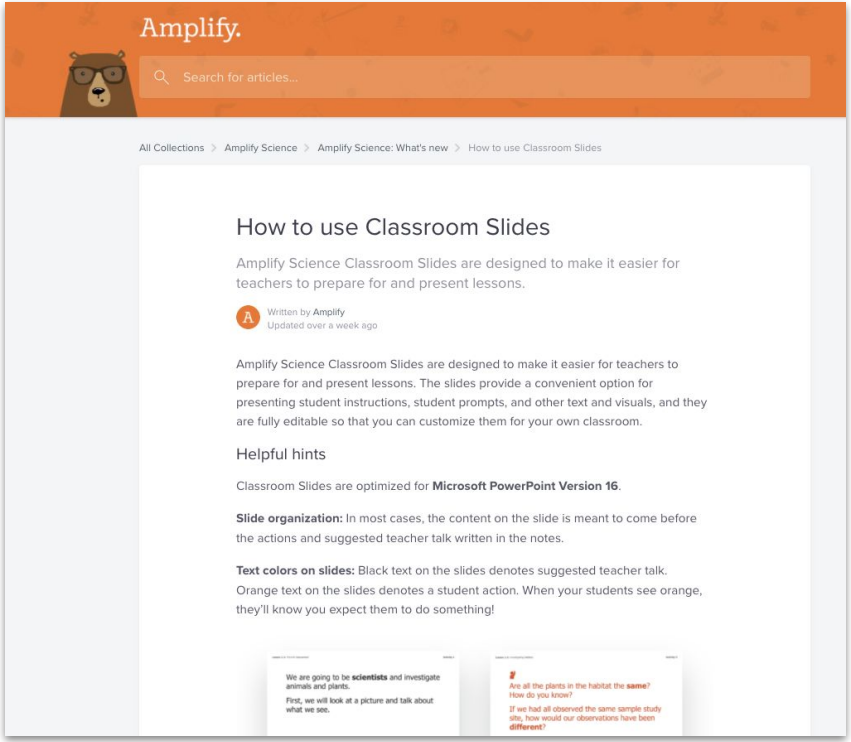
Teacher tip: Classroom Slides are a great visual summary of a lesson. Many teachers download and flip through a lesson's Classroom Slides deck to preview what happens in the lesson.

This is a useful first step for preparing to teach the lesson.



Teaching with Classroom Slides

This detailed guide on the Amplify Science Help Site includes tips for teaching with Classroom Slides and information about the different symbols and activity types you'll find in the slide deck.



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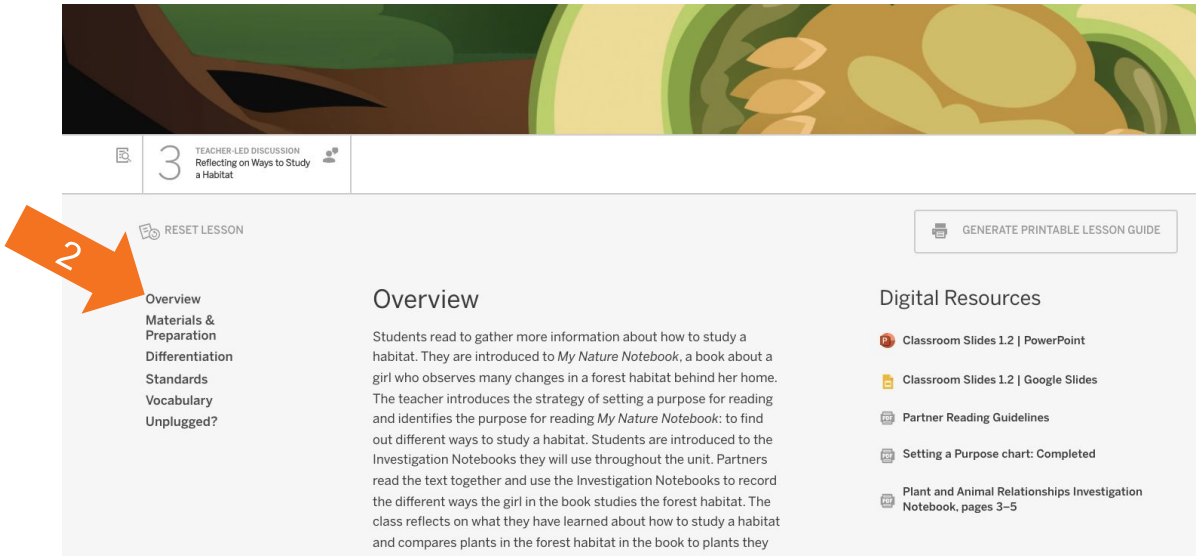
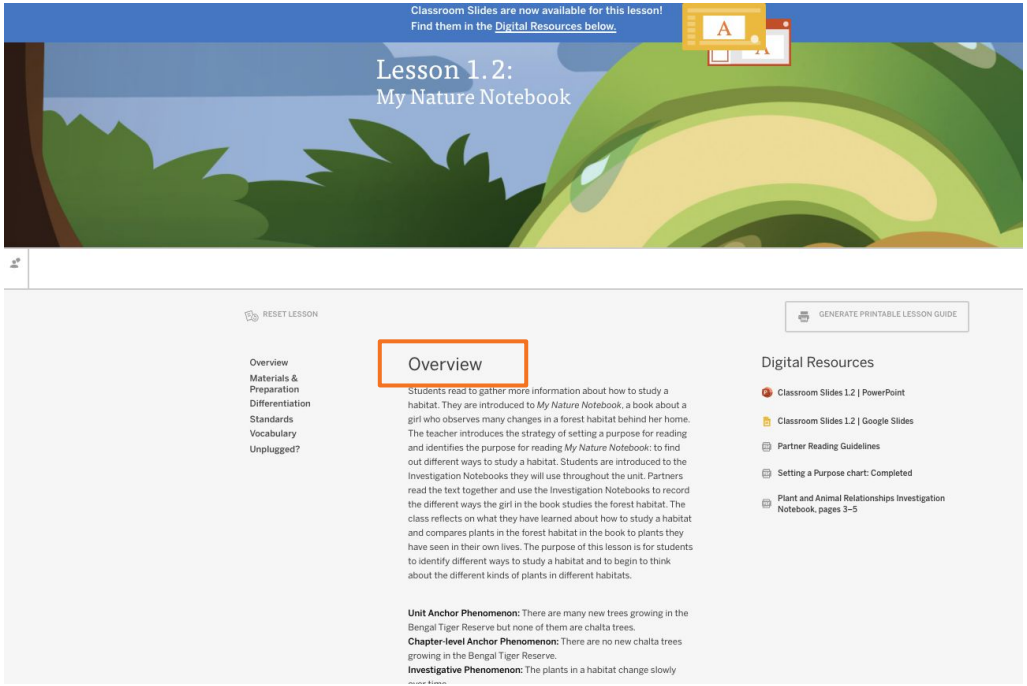


Preparing to teach

The Overview

- Read through the lesson overview.
- Find the purpose of the lesson.



4 Easy Steps to Teaching a lesson

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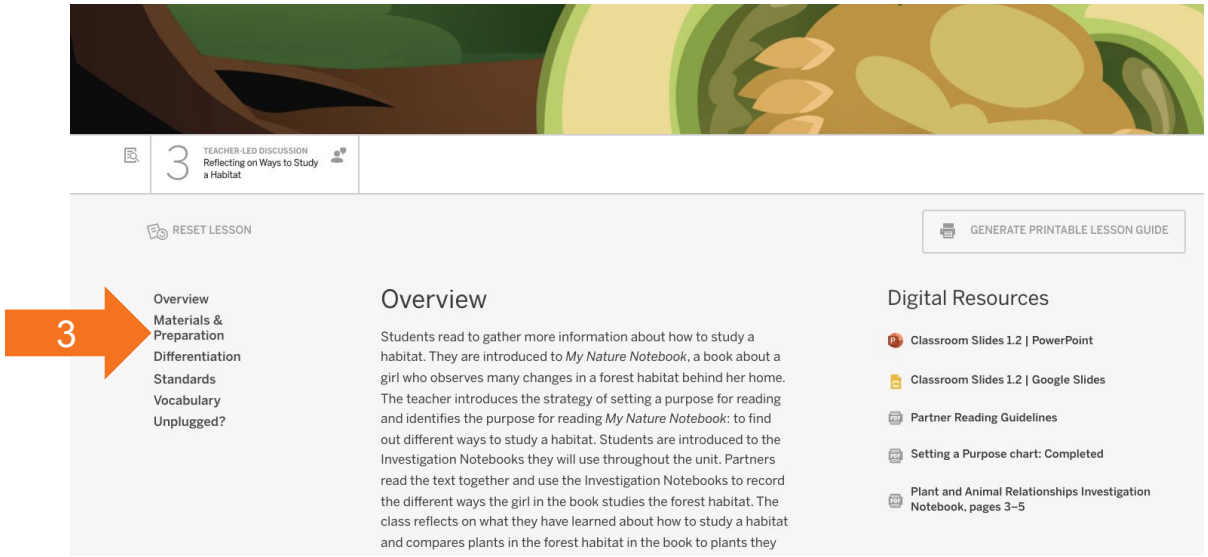
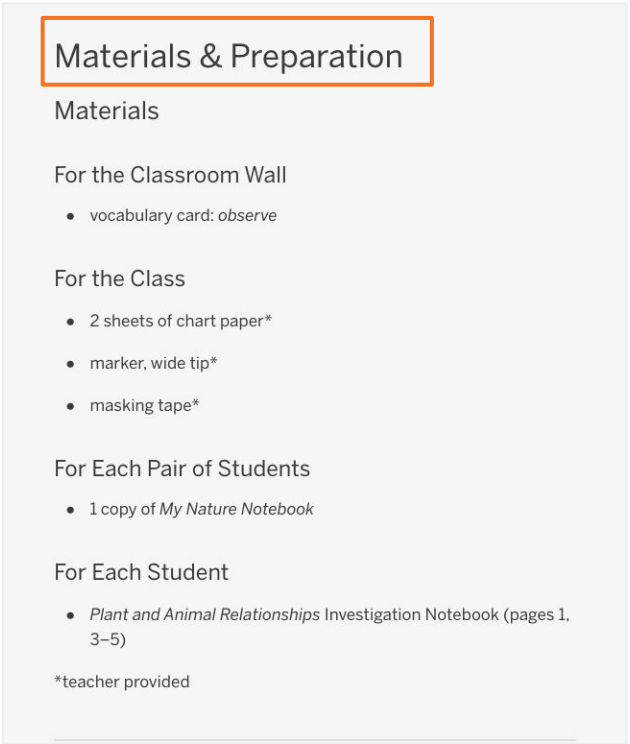


Preparing to teach

Materials and Prep

Review the materials needed for:

- The Classroom Wall
- For the Class
- For each pair of students (if applicable)
- Preparation



Materials & Preparation

Materials

For the Classroom Wall

- vocabulary card: *observe*

For the Class

- 2 sheets of chart paper*
- marker, wide tip*
- masking tape*

For Each Pair of Students

- 1 copy of *My Nature Notebook*

For Each Student

- *Plant and Animal Relationships* Investigation Notebook (pages 1, 3–5)

*teacher provided

4 Easy Steps to Teaching a lesson

DIRECTIONS:

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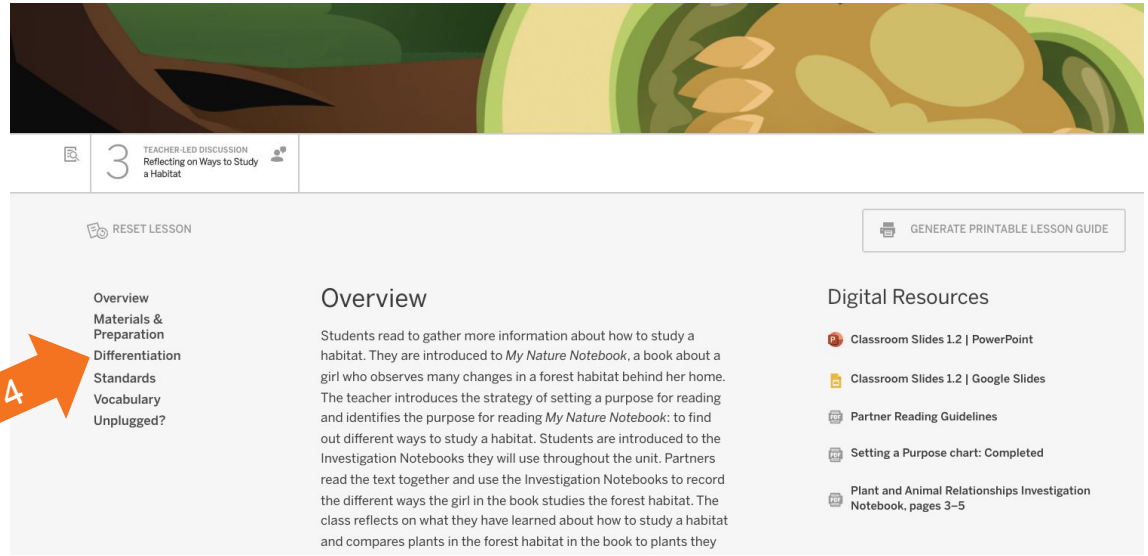
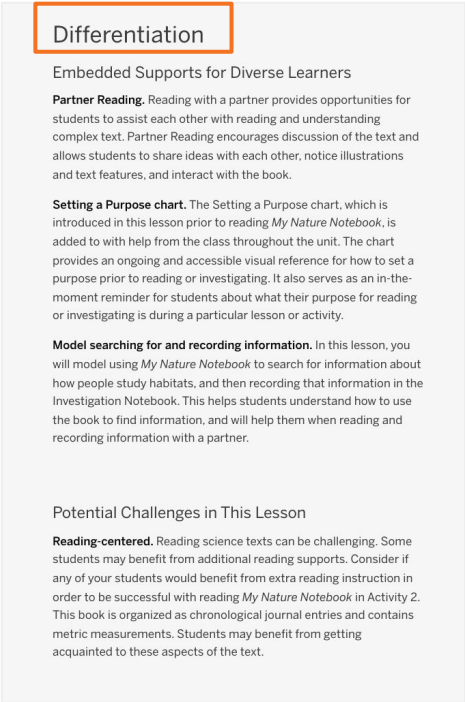


Preparing to Teach

Lesson-specific differentiation

- Embedded supports
- Potential challenges
- Strategies for:
  - English Learners
  - Students who need more support
  - Students who need more challenge



Differentiation

Embedded Supports for Diverse Learners

Partner Reading. Reading with a partner provides opportunities for students to assist each other with reading and understanding complex text. Partner Reading encourages discussion of the text and allows students to share ideas with each other, notice illustrations and text features, and interact with the book.

Setting a Purpose chart. The Setting a Purpose chart, which is introduced in this lesson prior to reading *My Nature Notebook*, is added to with help from the class throughout the unit. The chart provides an ongoing and accessible visual reference for how to set a purpose prior to reading or investigating. It also serves as an in-the-moment reminder for students about what their purpose for reading or investigating is during a particular lesson or activity.

Model searching for and recording information. In this lesson, you will model using *My Nature Notebook* to search for information about how people study habitats, and then recording that information in the Investigation Notebook. This helps students understand how to use the book to find information, and will help them when reading and recording information with a partner.

Potential Challenges in This Lesson

Reading-centered. Reading science texts can be challenging. Some students may benefit from additional reading supports. Consider if any of your students would benefit from extra reading instruction in order to be successful with reading *My Nature Notebook* in Activity 2. This book is organized as chronological journal entries and contains metric measurements. Students may benefit from getting acquainted to these aspects of the text.

4 Easy Steps to Teaching a lesson

DIRECTIONS:

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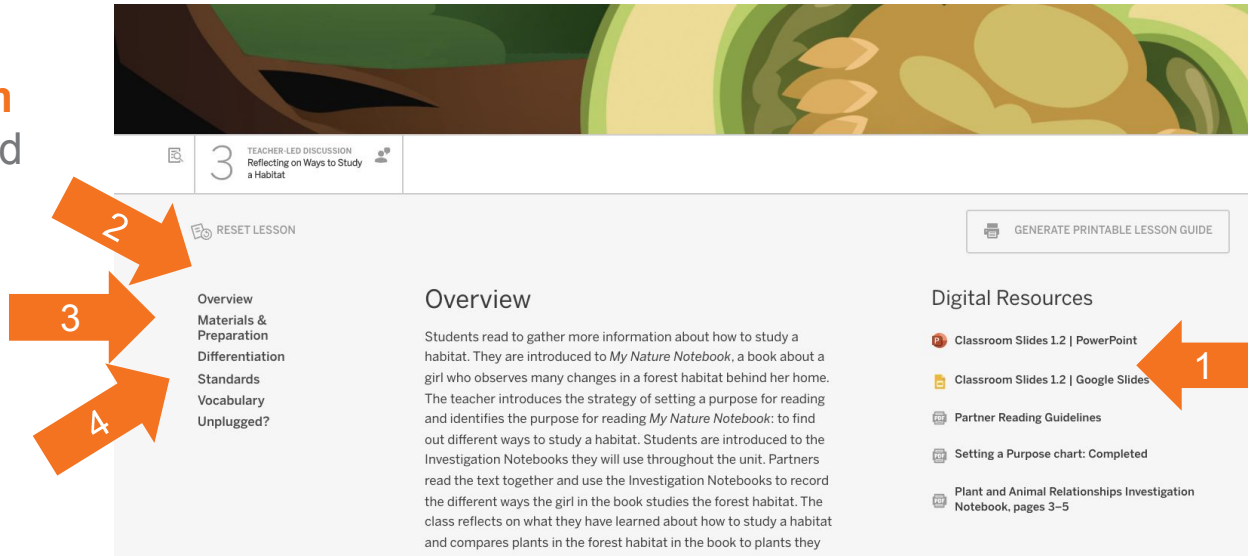
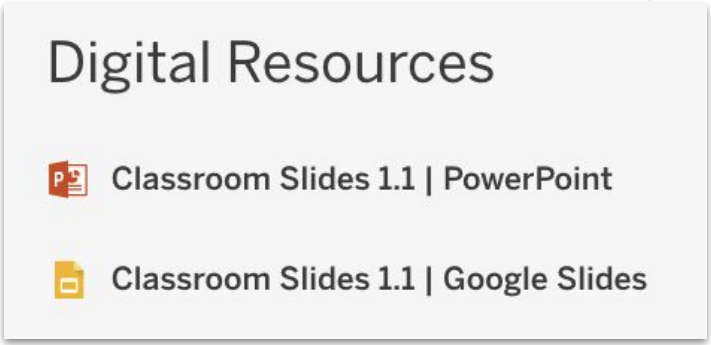


Lesson __	Activity Overview	From the Lesson at a glance in the overview
What is the purpose of this lesson? From the lesson overview	**Activity 1 (##min)**	
What will students learn?	**Activity 2 (##min)**	
3-D Statement (identify SEP, CCC, and DCI): From the lesson standards	**Activity 3 (##min)**	
Student Resources: From the lesson materials and preparation	**Activity 4 (##min)**	
Assessment Opportunities: From the lesson at a glance in the overview or classroom slides	**Activity 5 (##min)**	

Directions for Planning Time

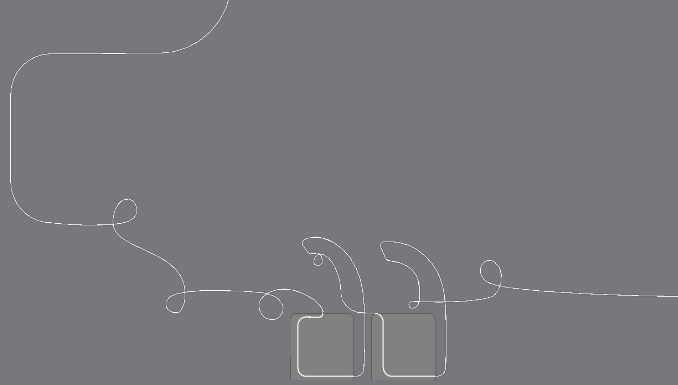
(Make your own copy first before planning)

1. Make a copy of this planning slide.
2. Download the classroom slides for the lesson you would like to plan
3. Insert the planning slide at the front of the classroom slide deck
4. Navigate at the lesson level to answer the questions on this slide
5. Make edits directly on your side deck to meet the needs of your students



Lesson 1.2	Activity Overview	
What is the purpose of this lesson? The purpose of this lesson is for students to identify different ways to study a habitat and to begin to think about the different kinds of plants in different habitats.	**Activity 1 (10 min)**	Setting a Purpose for Reading
What will students learn? Scientists study habitats in multiple ways., Setting a purpose before reading can help readers focus their attention.	**Activity 2 (25 min)**	Partner Reading
3-D Statement (identify SEP, CCC, and DCI): Students read the book *My Nature Notebook* to obtain information about the different ways that plant scientists study habitats in order to prepare for conducting their own investigations of a habitat systems (systems and system models)	**Activity 3 (20 min)**	Reflecting on Ways to Study a Habitat
Student Resources: For Each Pair of Students: 1 copy of *My Nature Notebook* For Each Student *Plant and Animal Relationships* Investigation Notebook (pages 1, 3-5)	**Activity 4 (xx min)**	
Assessment Opportunities: Activity 2	**Activity 5 (xx min)**	

Questions?



Gr. 1 LAUSD New Teacher Part 2:
Unit 1, Animal and Plant Defenses

Plan for the day: Part 2

- Part 1 Review
- Teaching and Learning in an Amplify Science Lesson
- Instructional Approach Reflection
- Planning a Lesson
- Closing

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

TOP RATED BY EDREPORTS

Grades 6-8

[Caregivers]

LAUSD Microsite- https://amplify.com/lausd-science

Welcome to Amplify Science!

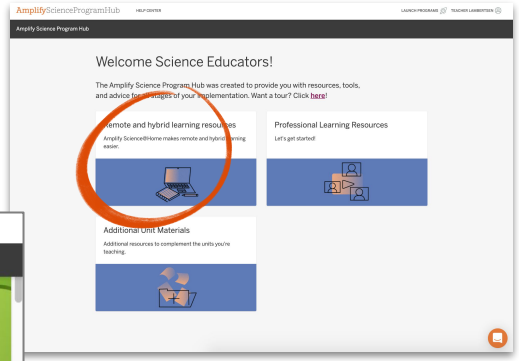
This site contains supporting resources designed for the LAUSD Amplify Science adoption for grades TK–8.

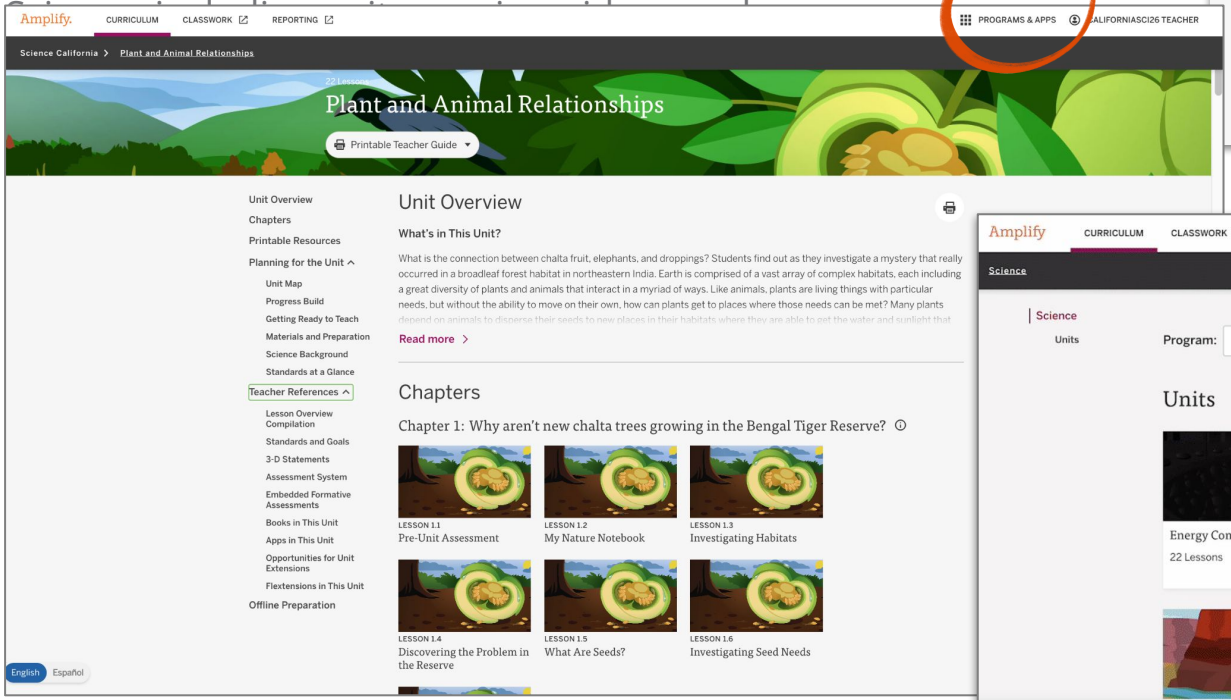
- Access the Amplify Science Program Hub (To help orient you to the new design, watch this video and view this reference guide.)
- Find out more about Amplify Science@Home
- Share the Caregiver Hub (Eng/Span) with your families
- For LAUSD ES Teachers- Amplify Science & Benchmark Advance Crosswalk
-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

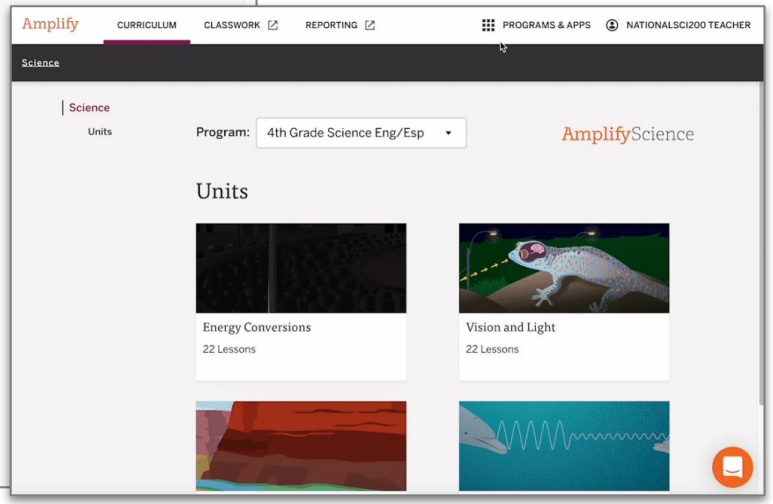
Click the button below to preview the digital Teacher's Guide, and check back for exciting updates to this site!

Program Hub

Use the Amplify Science Program Hub to find useful resources for implementing Amplify



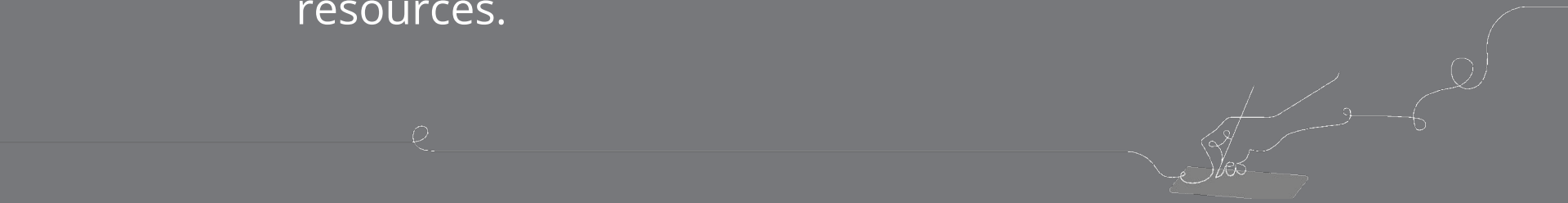




Overarching goals

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

- ✓ Describe what teaching and learning look like in Amplify Science.
- ✓ Prepare to teach using Amplify Science resources.



Closing reflection

Based on our work today in Part 2, share:

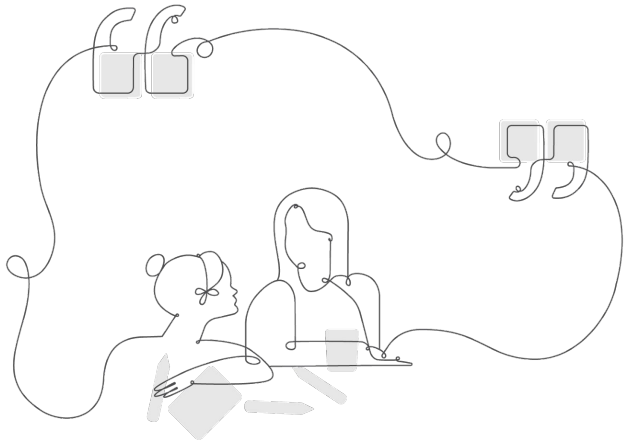
Head: something you'll keep in mind

Heart: something you're feeling

Feet: something you're planning to do

Onsite Upcoming Professional Development!

Part 3: Unit 1 - Supporting English Learners



- October 15th (Alta California ES, NW)
- October 29th (Ochoa Learning Center, East)

In this session, participants explore strategies to support English learners' ability to do, talk, read, write, visualize, and construct arguments like scientists. Participants will identify the supports and strategies embedded in Unit 1 by engaging in model activities followed by independent planning.

Additional resources and ongoing support

Customer Care

Seek information specific to enrollment and rosters, technical support, materials and kits, and teaching support, weekdays 7AM-10PM EST and weekends 10AM-6PM EST.

help@amplify.com

800-823-1969

Amplify Chat

Please provide feedback!

Type:

Strengthen

Session title:

Unit Internalization / Guided Planning

(Part 2)

Professional Learning Specialist name:

Insert name

(insert email, if you would like)