# **Amplify** Science

Unit 1: Plant and Animal Relationships (with a focus on Science & Engineering Practices)

School/District Name: LAUSD

Date: April, 2022

Grade 2, Part 1

Presented by: Suzy Takeda



# 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.

8

# Navigation Temperature Check

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

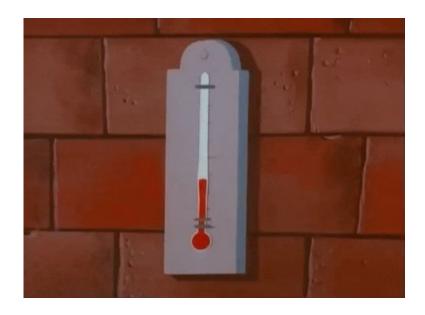
1 = Extremely Uncomfortable

2 = Uncomfortable

3 = Mild

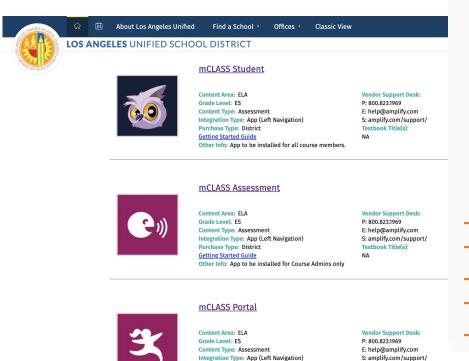
4 = Comfortable

5 = Extremely Comfortable





# Last year's Amplify apps.

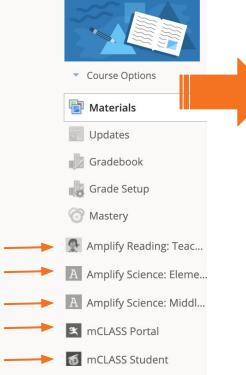


**Purchase Type: District** 

Other Info: App to be installed for Course Admins only

**Getting Started Guide** 

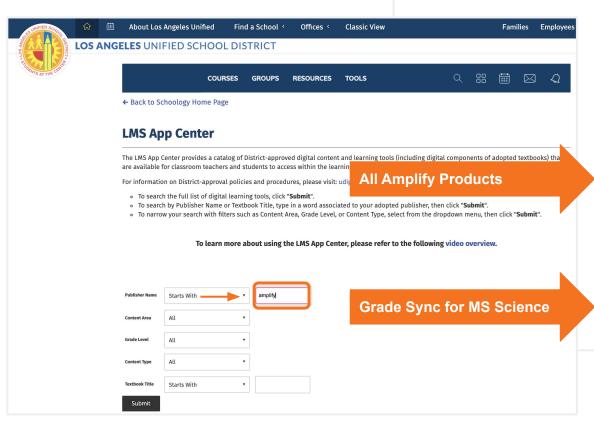
Textbook Title(s):







# This year's app(s).



#### **LMS App Center**

Classic View

The LMS App Center provides a catalog of District-approved digital content and learning tools (including digital components of adopted textbooks) that are available for classroom teachers and students to access within the learning management system, Schoology.

For information on District-approval policies and procedures, please visit: udipp.lausd.net.

- · To search the full list of digital learning tools, click "Submit".
- . To search by Publisher Name or Textbook Title, type in a word associated to your adopted publisher, then click "Submit".
- To narrow your search with filters such as Content Area, Grade Level, or Content Type, select from the dropdown menu, then click "Submit".

To learn more about using the LMS App Center, please refer to the following video overview.

#### ←Search Again

#### **Amplify**

Fractions



Content Area: ELA Grade Level: ES Content Type: Supplemental Integration Type: App (Left Navigation) Purchase Type: District and School Getting Started Guide Other Info: School licenses required

Other Info: School licenses requ mCLASS CKLA Amplify Reading Amplify Science P: 800.823.1969
E: help@amplify.com
S: amplify.com/support/
Textbook Title(s):

Vendor Support Desk:

#### **Amplify Classwork**



Content Area: ELA
Grade Level: ES
Content Type: Supplemental
Integration Type: App (Left Navigation)
Purchase Type: District and School
Getting Started Guide

Purchase Type: District and School Getting Started Guide Other Info: School licenses required. This app is for teacher use only (install for Course Admins only) Vendor Support Desk:

P: 800.823.1969 E: help@amplify.com S: amplify.com/support/ Textbook Title(s):

extbook Ht

# my.amplify.com

Amplify.

MY ACCOUNT ADMIN REPORTS

LAUNCH PROGRAMS Ø TERIN NGO



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

#### Hi, Terin

#### Classes

Programs & Licenses

**Account Settings** 

Help Center ☑



**CKLA Hub** 



**CKLA Resource Site** 





mCLASS Assessment



mCLASS Reporting



Reading 6-8



Reading K-5



**Science** 



Vocabulary



# Amplify. on Schoology 2021-2022





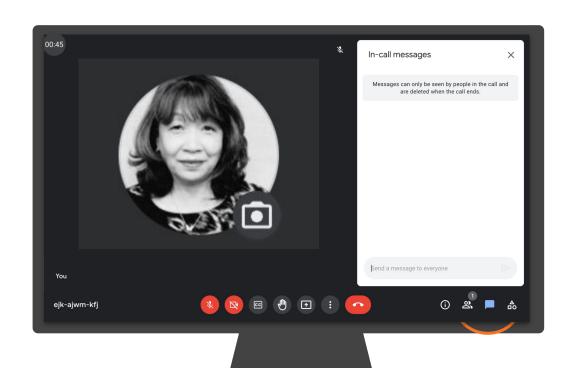
# Schoology

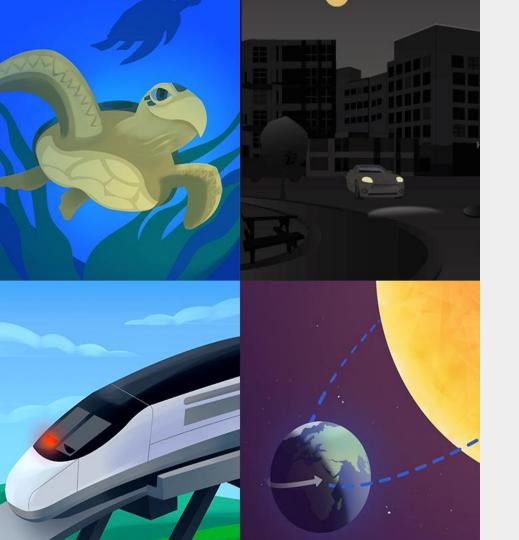
To join Amplify ES Group: W4PK-W466-63F5B



## Ice Breaker!

 Question: In the chat, share out a positive experience with your students using Amplify Science.





# Plan for the day

- Framing
- Introducing the Unit
- Unit Internalization
- Identifying the Science and Engineering Practices at the unit and chapter level
- Science and Engineering Practices within a lesson
- Lesson Planning
- Closing

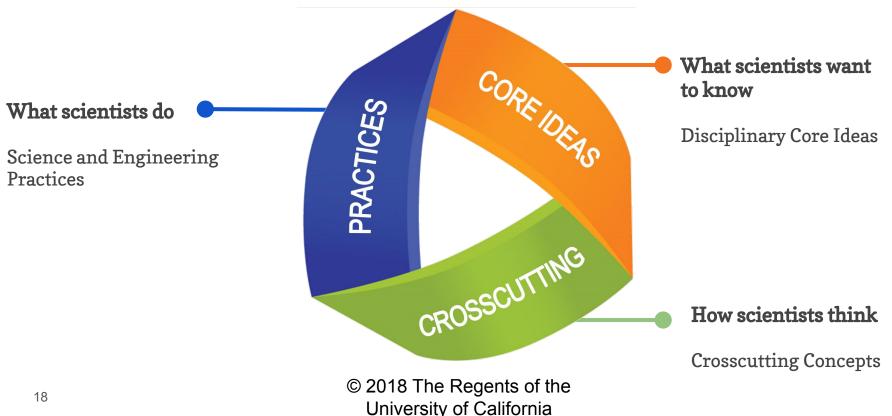
# Overarching goals

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

- ☐ Internalize the unit
- Identify the Science and Engineering Practices within the unit

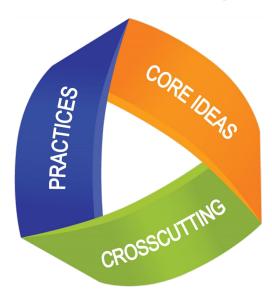
## Next Generation Science Standards

Designed to help students build a cohesive understanding of science



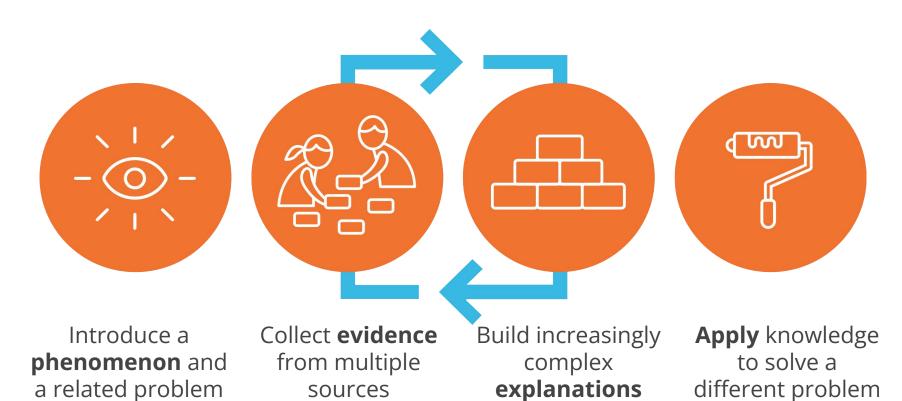
## **Next Generation Science Standards**

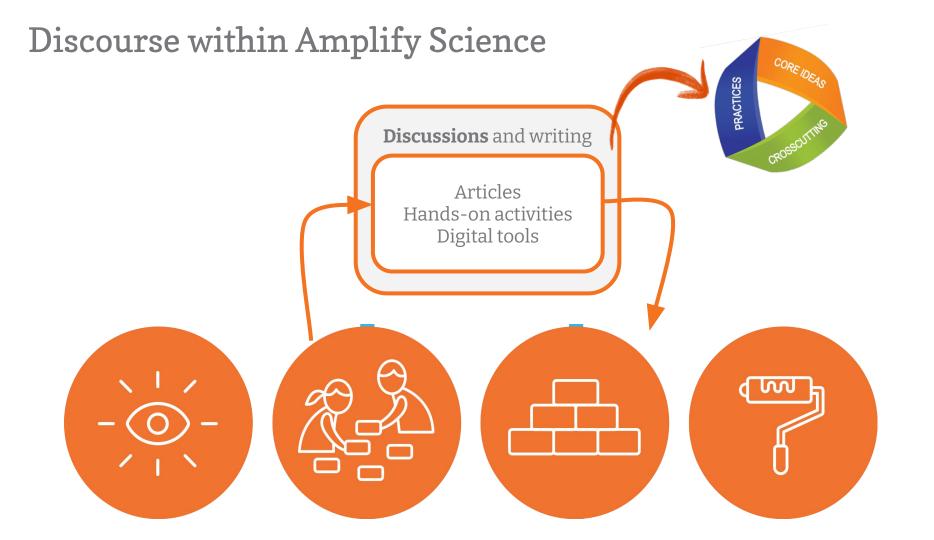
## Science and Engineering Practices

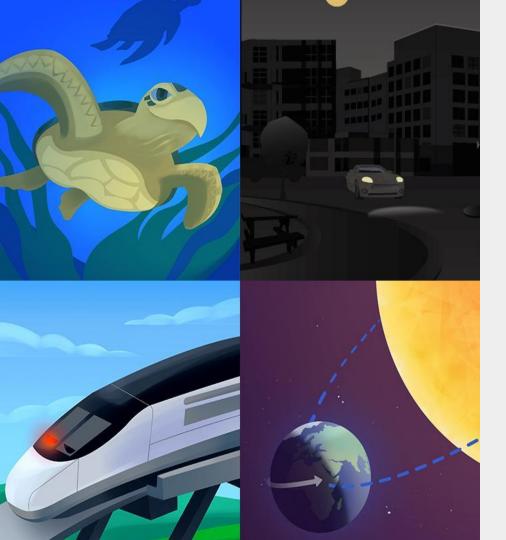


- 1. Asking questions (for science) and defining problems (for engineering)
- 2. Developing and using models
- 3. Planning and carrying out investigations
- 4. Analyzing and interpreting data
- 5. Using mathematics and computational thinking
- Constructing explanations (for science) and designing solutions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

# **Amplify Science Approach**

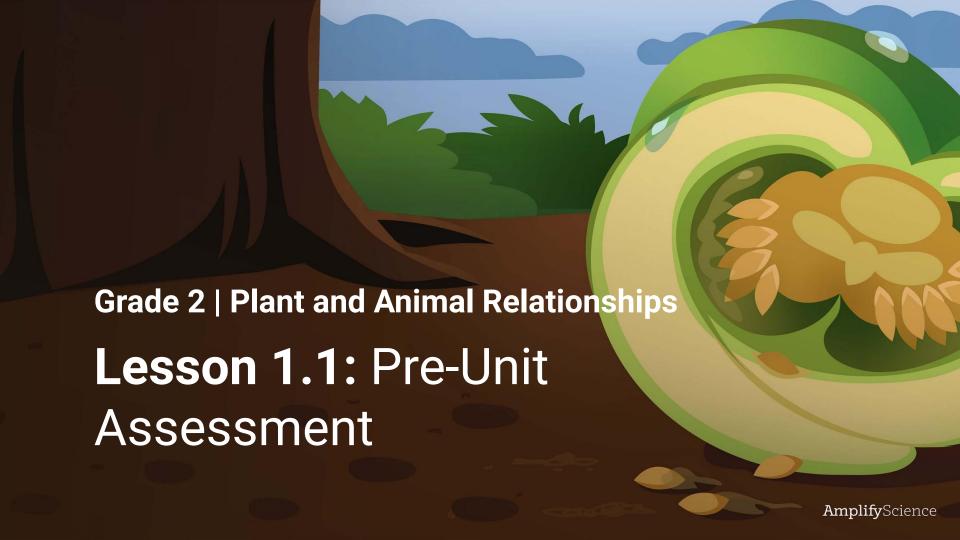






# Plan for the day

- Framing
- Introducing the Unit
- Unit Internalization
- Identifying the Science and Engineering Practices at the unit and chapter level
- Science and Engineering Practices within a lesson
- Lesson Planning
- Closing





# Introducing the Context of the Unit



In this unit, we will learn about habitats.



What do you know about habitats?

#### **Broadleaf Forest Habitat**



This is one kind of habitat called a broadleaf forest.



What kinds of plants and animals do you think might live in this habitat?

## **Animals in the Broadleaf Forest Habitat**









## Plants in the Broadleaf Forest Habitat













**Broadleaf Forest** 

# **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.

# Vocabulary

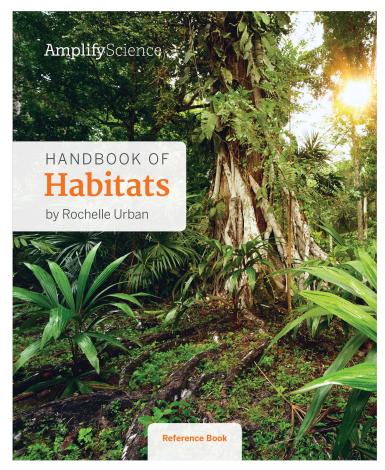
# investigate

to try to learn more about something



Introducing the Reference Book





Before we begin, let's read information that other scientists have gathered about the topic.

#### Contents

Different Habitats	4
Kinds of Plants	6
Making New Plants	7
Amazon Rain Forest	10
Broadleaf Forest	16
Everglades Wetlands	22
Serengeti Plains	28
Sonoran Desert	34
A New York City Park	40
Glossary	46
Index	47

Turn to page 3 in *Handbook of Habitats*.

The table of contents lists the important sections of the book. It tells us on what pages we can find information we are looking for.

## Different Habitats

Every living thing has a **habitat**. A habitat is place where a **plant** or animal lives and gets what it needs.

Habitats can be very different. Some habitats are hot and dry. Other habitats are wet.

page 10



page 16



page 22



Turn to page 4 in Handbook of Habitats.





Look carefully at the different habitats on this page. What do you notice?

# Vocabulary

# habitat

the place where an animal or plant lives and gets what it needs

## Different Habitats

Every living thing has a **habitat**. A habitat is place where a **plant** or **animal** lives and gets what it needs.

Habitats can be very different. Some habitats are hot and dry. Other habitats are wet

page 10



page 16



page 22



4

Read pages 4–5, and look through the book.



What do you observe?

What questions do you have about the **habitats**?



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



# Activity 3 Diagramming Initial Explanations



Name:	Date:

#### Pre-Unit Diagram: Explaining the Plants in a Habitat

#### Directions:

- 1. Read the information below.
- 2. Complete the diagram and questions in Part 1 and Part 2.

A plant scientist notices that the seeds of a certain kind of fruit tree fall in many parts of the Hawaii forest, but not all of them grow into fruit trees.

Here's what the plant scientist knows about the habitat:

- There are no people in this habitat.
- The fruit tree grows juicy fruit. The fruit tree looks like this:



. The inside of the fruit looks like this:



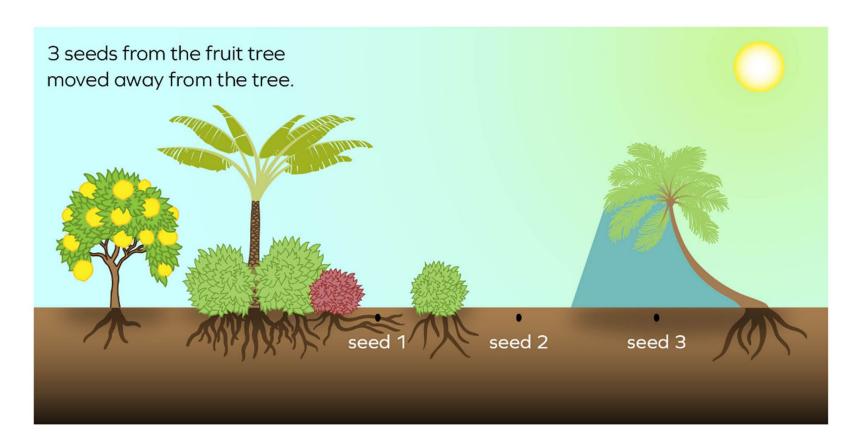
Plant and Animal Relationships—Lesson 1.1

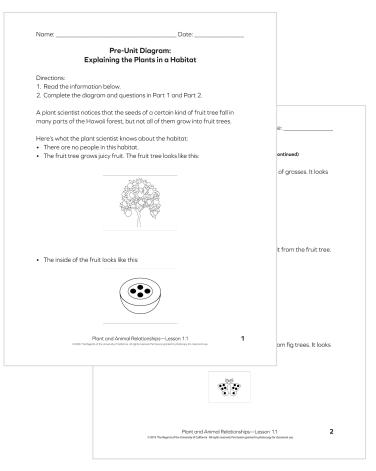
© 2018 The Regents of the University of California. All rights reserved. Permission granted to photocopy for classroom use

1

# You are going to write about the plants and animals in another habitat.

## **Hawaii Forest Habitat**





You will be **reading**, **drawing**, and **answering** questions.

Lesson 1.1: Pre-Unit Assessment

Activity 3

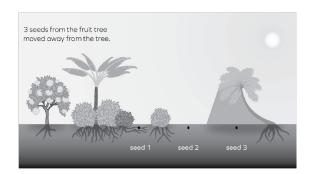
Name: Date:

#### Pre-Unit Diagram: Explaining the Plants in a Habitat (continued)

#### Part 1

Directions:

- 1. On the picture below, write the names of the parts of the fruit tree that will help the tree get what it needs to grow.
- 2. Circle the seeds in the picture that you think WILL grow into full-grown trees.
- 3. Write an X on the seeds that you think WILL NOT grow into full-grown trees.
- 4. Answer the three questions on page 4.



Plant and Animal Relationships—Lesson 1.1

© 2018 The Regents of the University of California All rights reserved. Permission granted to photocopy for classroom use

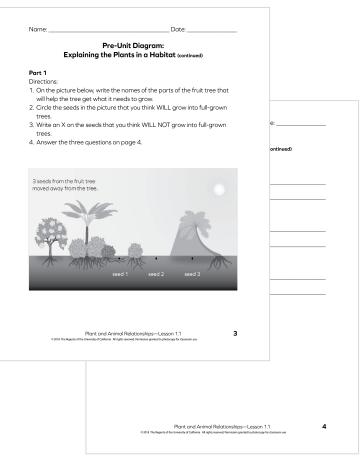
3

Look at page 3.

Let's go over the directions for Part 1 together.

Lesson 1.1: Pre-Unit Assessment

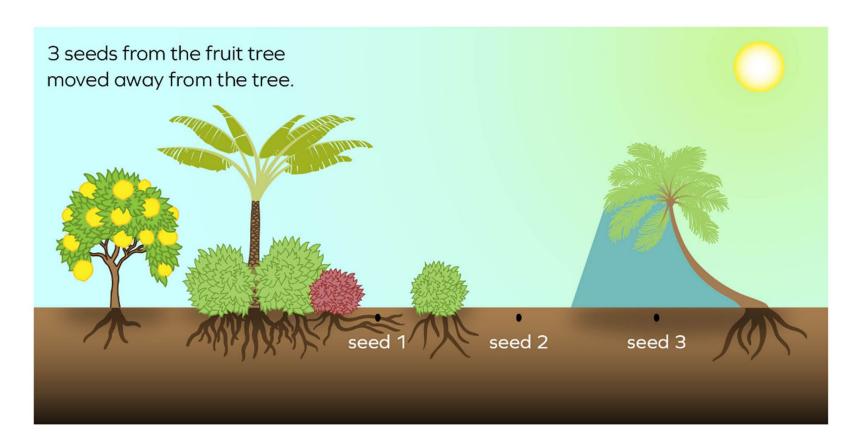
Activity 3





Complete the drawing and answer the questions for Part 1.

## **Hawaii Forest Habitat**



Lesson 1.1: Pre-Unit Assessment

Activity 3

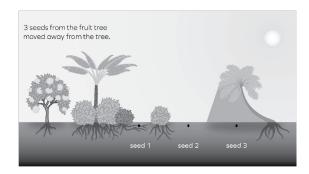
Name: Date:

#### Pre-Unit Diagram: Explaining the Plants in a Habitat (continued)

#### Part 2

Directions:

- 1. On the picture below, add drawings to show how each seed got to a place away from the fruit tree. Use what you know about the habitat.
- 2. Label your drawings.
- 3. Answer the two questions on page 6.



Plant and Animal Relationships—Lesson 1.1
© 2018 The Regents of the University of California All rights reserved. Permission granted to photocopy for classroom use.

5

Look at page 5.

Let's go over the directions for Part 2 together.

Lesson 1.1: Pre-Unit Assessment

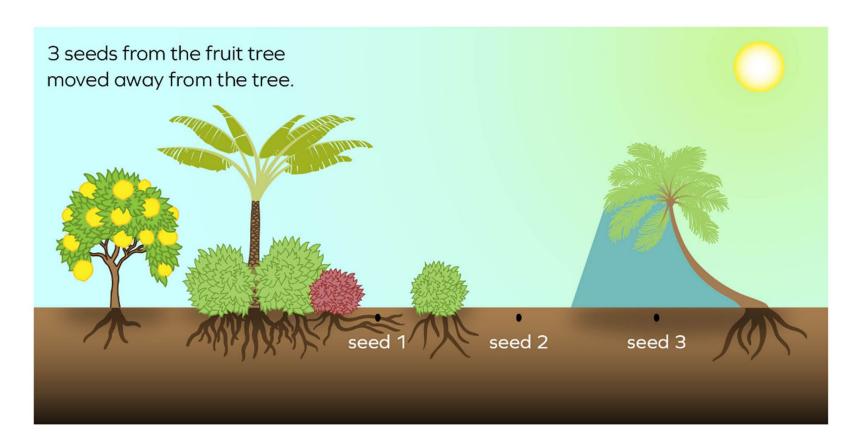
Activity 3





Complete the drawing and answer the questions for Part 2.

## **Hawaii Forest Habitat**



## **End of Lesson**



Amplify.

 $\label{published} \hbox{ Published and Distributed by Amplify.} \hbox{ www.amplify.com}$ 

Plant and Animal Relatonships

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

**Role: Plant Scientists** 

© 2018 The Regents of the University of California

# Plant and Animal Relationships

### **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



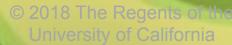
Chapter 3: Why aren't the chalta seeds getting to places where they...

6 Lessons



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

4 Lessons



Plant and Animal Relationships

# Unit Question:

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



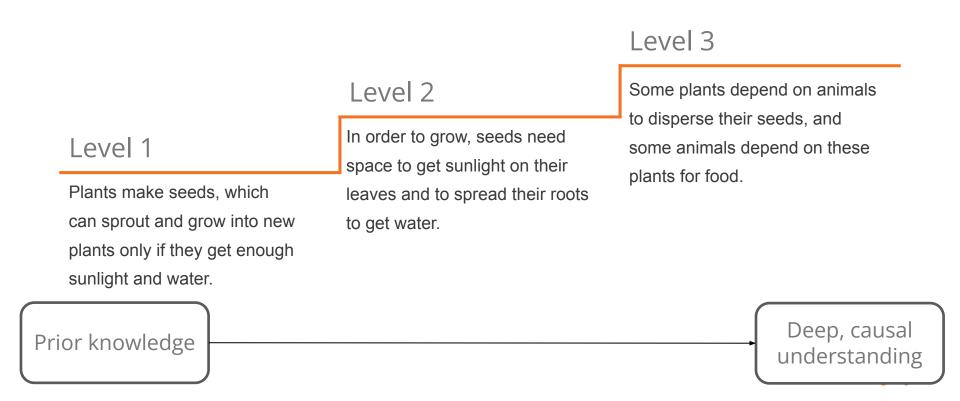
Plant and Animal Relationships

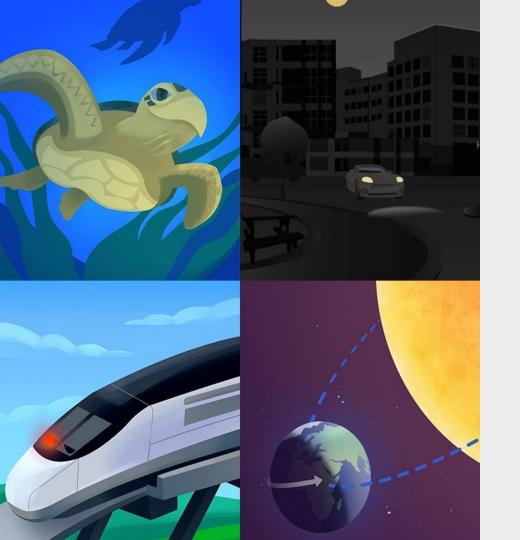
What science concepts do you think students need to understand in order to explain the phenomenon?



## Plant and Animal Relationships, Progress Build

**Assumed prior knowledge (preconceptions)**: Students are likely to understand that some animals eat plants for food and that plants need water and sunlight to grow. Students may have learned that new plants grow from seeds.

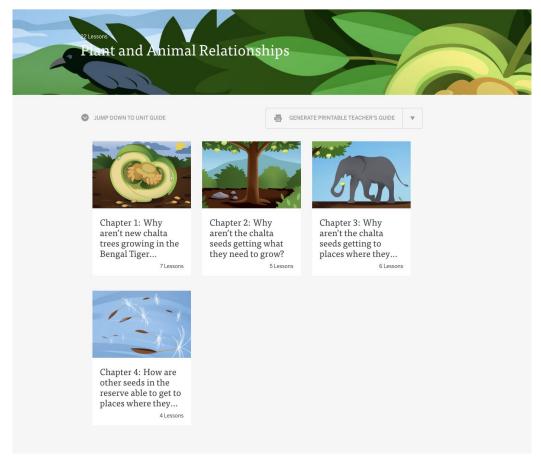




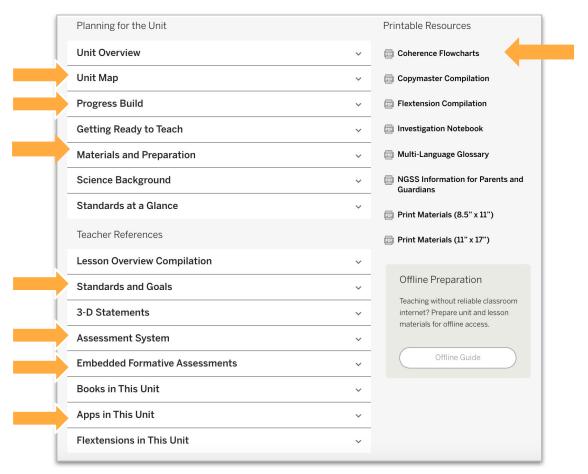
## Plan for the day

- Framing
- Introducing the Unit
- Unit Internalization
- Identifying the Science and Engineering Practices at the unit and chapter level
- Science and Engineering Practices within a lesson
- Lesson Planning
- Closing

## Navigate to the Unit Page



## **Key Unit Guide Documents for 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?	Student Role:
Unit Question:	Relationship between the Unit Phenomenon and Unit Question:
By the end of the unit, students figure out	
	6
How do students engage with three-dimensional learning to figure out the ph	nenomenon/real-world problem in your unit?

#### **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]

[Resources: Onlt Overview, Teacher's Guide, Conerence Flowchart, Onlt Map, 3-D Statements]		
What is the phenomenon/real-world problem students are investigating in your unit?	Student Role:	
What is the connection between chalta fruit, elephants, and droppings?	Plant Scientists	
Unit Question:	Relationship between the Unit Phenomenon and Unit	
How do the living things in a habitat depend on each other?	Question: Students figure out how seeds depend on animals for dispersal.	

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

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

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

As plant scientists, 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 (systems and systems models; scale, proportion, and quantity). In so doing, they figure out how the parts of a habitat system interact generally and about seed dispersal mechanisms specifically (systems and systems models, structure and function)

#### **Core Unit Planning & Internalization**

Unit	Titl	e:

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

you

What is the connection between chalta fruit, elephants, and droppings?

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 Ouestion:

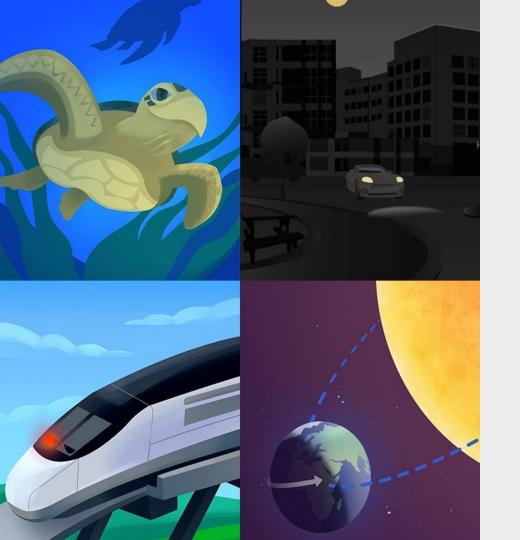
Students figure out how seeds depend on animals for dispersal.

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

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

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

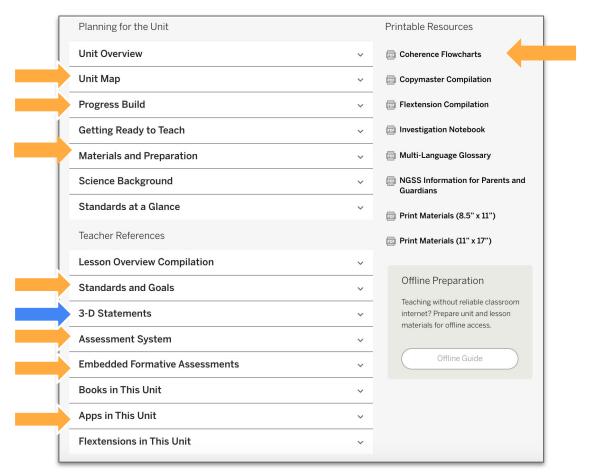
As plant scientists, students use and create models to investigate and then plan and carry out investigations to explain why new chalta trees are not growing in a section of a broadleaf forest in India (systems and systems models; scale, proportion, and quantity). In so doing, they figure out how the parts of a habitat system interact generally and about seed dispersal mechanisms specifically (systems and systems models, structure and function).



## Plan for the day

- Framing
- Introducing the Unit
- Unit Internalization
- Identifying the Science and Engineering Practices at the unit and chapter level
- Science and Engineering Practices within a lesson
- Lesson Planning
- Closing

## **Key Documents for Planning** Work Time



## Unit 3D Statements

Key

**Practices** 

**Disciplinary Core Ideas** 

**Crosscutting Concepts** 

#### Unit Level

As plant scientists, 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 (systems and systems models; scale, proportion, and quantity). In so doing, they figure out how the parts of a habitat system interact generally and about seed dispersal mechanisms specifically (systems and systems models, structure and function).

## Unit 3D Statements

Key

**Practices** 

**Disciplinary Core Ideas** 

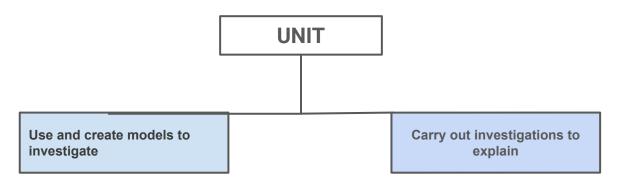
**Crosscutting Concepts** 

**Unit Level** 

As plant scientists, 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 (systems and systems models; scale, proportion, and quantity). In so doing, they figure out how the parts of a habitat system interact generally and about seed dispersal mechanisms specifically (systems and systems models, structure and function).

## Plant and Animal Relatonships

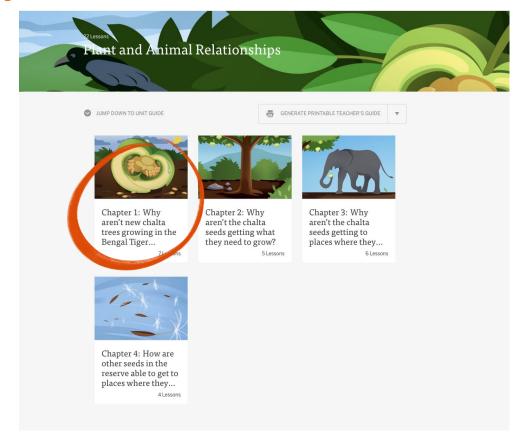
Science & Engineering Practices



These are the two main categories of Science and Engineering Practices that the students will be engaged with in this unit.



## Waves, Energy and Information



## Chapter 1 3D Statements

Key

**Practices** 

**Disciplinary Core Ideas** 

**Crosscutting Concepts** 

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

Students investigate and analyze data about the relationship between seeds, sunlight, and water (systems and system models; scale, proportion, and quantity) in order to gather evidence to explain why new chalta trees are not growing in the Bengal Tiger Reserve (systems and system models; scale, proportion, and quantity).

## **Science & Engineering Practices**

Plant and Animal Relationships, Unit SEP

Investigate, design, test and evaluate

Make Arguments based on evidence

Chapter 1: investigate and analyze data

Chapter 2

Chapter 2

Chapter 3

Chapter 4

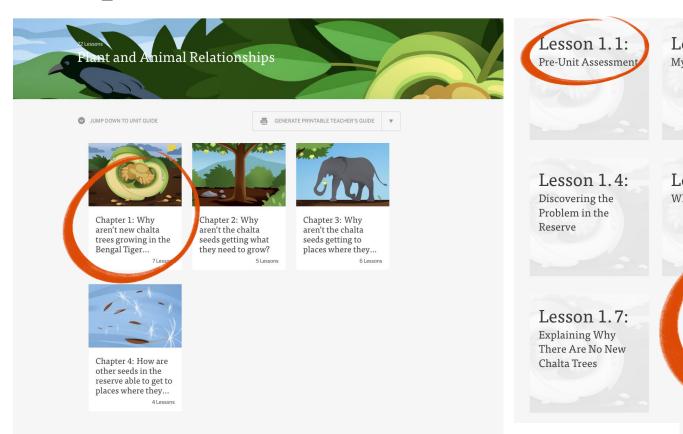
Chapter 3

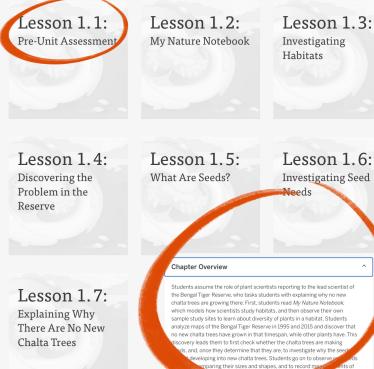
**Chapter 1: Gather evidence** 

to explain

Chapter 4

## Chapter 1 Overview





s planted in various conditions

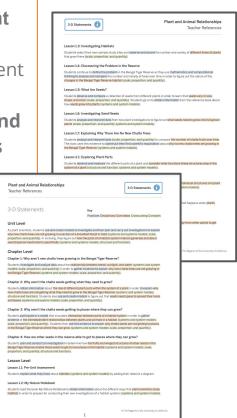
co-constructing a scientific explanation for the lead scientist of the Bengal Tiger Reserve. Students explain that the chalta seeds must not be getting the sunlight and water they need to grow into full-grown plants. Through the chapter, students engage in the scientific practices of planning and carrying

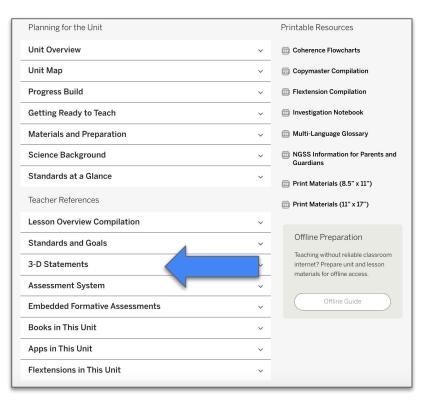
out investigations and constructing explanations.

seeds need sunlight

## 3D Statements Work time

- Go to the 3D Statement on the Unit Page.
- 2. Look at the 3D Statement for each chapter
- Identify the Science and Engineering Practices for each chapter.
- 4. **Categorize** them.





## **Science & Engineering Practices**

Plant and Animal Relationships, Unit SEP

Investigate, design, test and evaluate

Make Arguments based on evidence

Chapter 1: investigate and analyze data

Chapter 2

Chapter 2

Chapter 3

Chapter 4

Chapter 3

**Chapter 1: Gather evidence** 

to explain

Chapter 4

## Let's Review

Plant and Animal Relationships, Unit SEP

Investigate, design, test and evaluate

Make Arguments based on evidence

Chapter 1: investigate and analyze data

Chapter 2: Use and create models

Chapter 2: obtain information to explain

Chapter 3: Participate in a model

Chapter 4: Plan and conduct an investigation

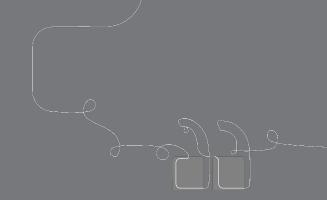
Chapter 3: Gather evidence and use to explain

**Chapter 1: Gather evidence** 

to explain

Chapter 4: NA

## Questions?



### Share Out

#### **Jamboard**

**Reflect** on how these practices are scaffolded through the unit and what that means for student learning.

## **Science & Engineering Practices:**

Building the practices incrementally, chapter by chapter.



Plant and Animal Relationships, Unit SEP

Investigate, design, test and evaluate

Chapter 1: investigate and analyze data

Chapter 3: Participate in a model

Chapter 2: Use and create models

Chapter 4: Plan and conduct an investigation

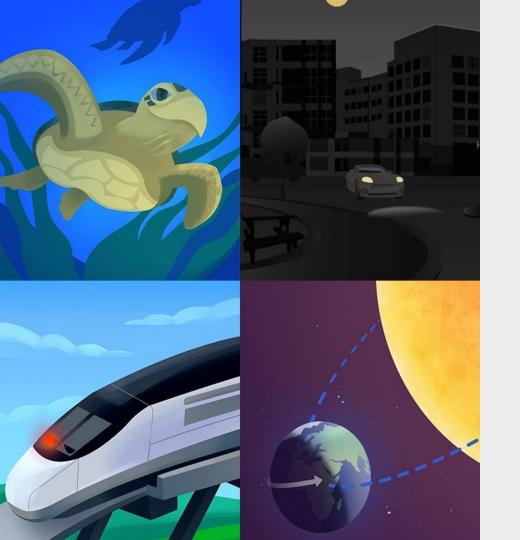
Make Arguments based on evidence

Chapter 1: Gather evidence to explain

Chapter 3: Gather evidence and use to explain

Chapter 2: obtain information to explain

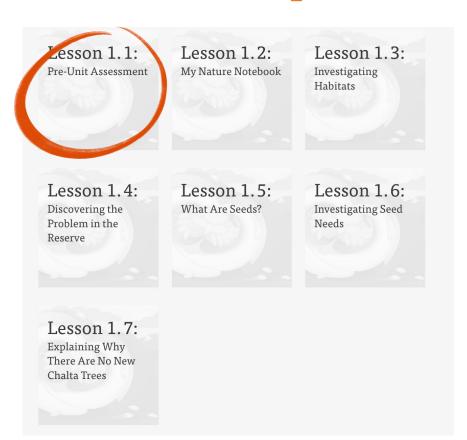
Chapter 4: NA



## Plan for the day

- Framing
- Introducing the Unit
- Unit Internalization
- Identifying the Science and Engineering Practices at the unit and chapter level
- Science and Engineering Practices within a lesson
- Lesson Planning
- Closing

## Plant and Animal Relationships



## 3D Statements, Lesson 1.1

Key

**Practices** 

**Disciplinary Core Ideas** 

**Crosscutting Concepts** 

Students explain what they know about habitats (systems and system models) by adding their ideas to a diagram.

Name:	Date:

#### Pre-Unit Diagram: Explaining the Plants in a Habitat

#### Directions:

- 1. Read the information below.
- 2. Complete the diagram and questions in Part 1 and Part 2.

A plant scientist notices that the seeds of a certain kind of fruit tree fall in many parts of the Hawaii forest, but not all of them grow into fruit trees.

Here's what the plant scientist knows about the habitat:

- There are no people in this habitat.
- The fruit tree grows juicy fruit. The fruit tree looks like this:



. The inside of the fruit looks like this:



Plant and Animal Relationships—Lesson 1.1

© 2018 The Regents of the University of California. All rights reserved. Permission granted to photocopy for classroom use

1

# You are going to write about the plants and animals in another habitat.

## **Science & Engineering Practices**

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

Students investigate and analyze data about the relationship between seeds, sunlight, and water (systems and system models; scale, proportion, and quantity) in order to gather evidence to explain why new chalta trees are not growing in the Bengal Tiger Reserve (systems and system models; scale proportion, and quantity).

Chapter 1: investigate and analyze data

Lesson 1:

**Chapter 1:Gather evidence to explain** 

#### Lesson 1:

What - Write their initial explanations

How - Pre-Unit Assessment (They use

diagrams as their evidence to explain.)

Students explain what they know about habitats (systems and system models) by adding their ideas to a diagram.

## 3D Statements, Lesson 1.2

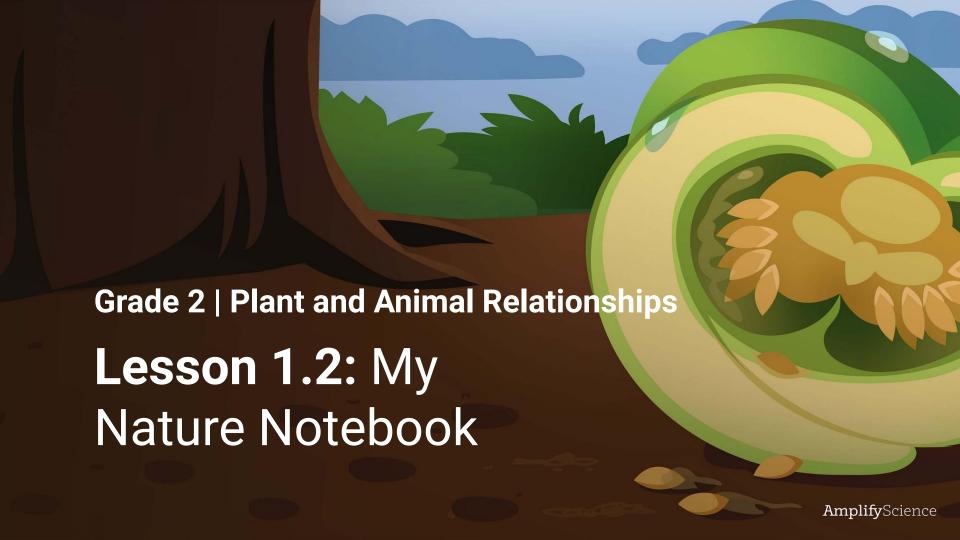
Key

**Practices** 

**Disciplinary Core Ideas** 

**Crosscutting Concepts** 

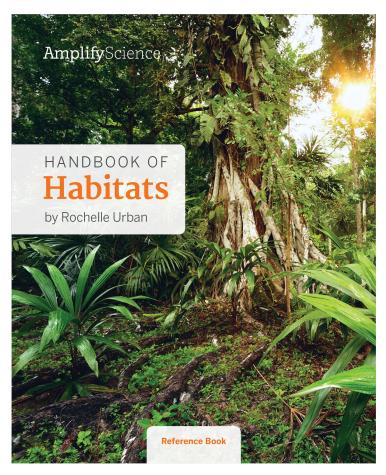
Students read the book My Nature Notebook to obtain information about the different ways that plant scientists study habitats in order to prepare for conducting their own investigations of a habitat systems (systems and system models).





# Setting a Purpose for Reading





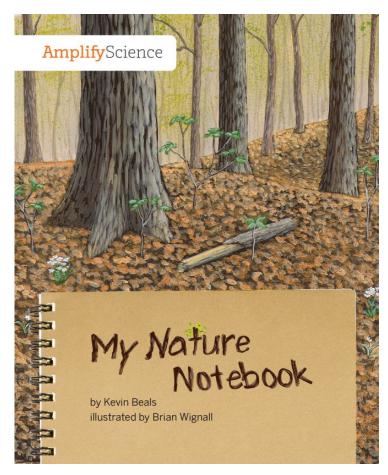
In our last lesson, you explored Handbook of Habitats.



What are some things you noticed about different habitats?

Today, we are going to investigate this question:

How do scientists study habitats?



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



What are some things you observe about the front cover?

#### **Setting a Purpose**

Reading		

One way readers learn from a book is to **set a purpose** before reading.

Then, as you read, think about how what you are reading relates to what you wanted to find out.

#### **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.



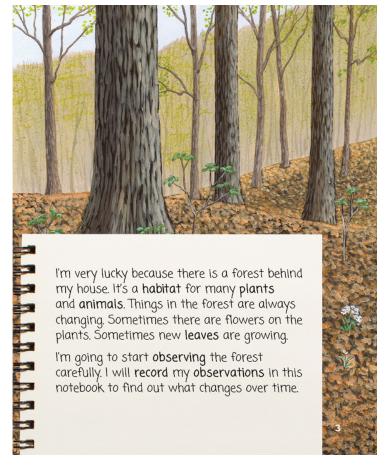
Students read the book My Nature Notebook to obtain information about the different ways that plant scientists study habitats in order to prepare for conducting their own investigations of a habitat systems (systems and system models).

Activity 2
Partner Reading



### **Partner Reading Guidelines**

- 1. Sit next to your partner and place the book between you.
- 2. Take turns reading.
- 3. Read in a quiet voice.
- 4. Be respectful and polite to your partner.
- **5.** Ask your partner for help if you need it. Work together to make sure you both understand what you read.

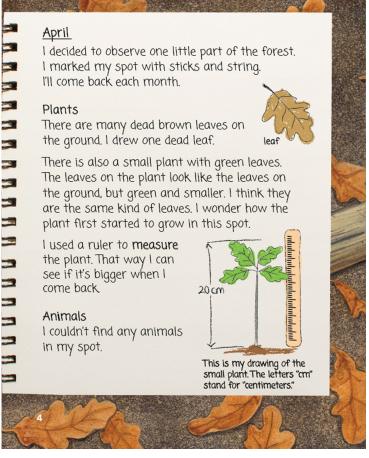


Turn to page 3 in *My Nature Notebook*.

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

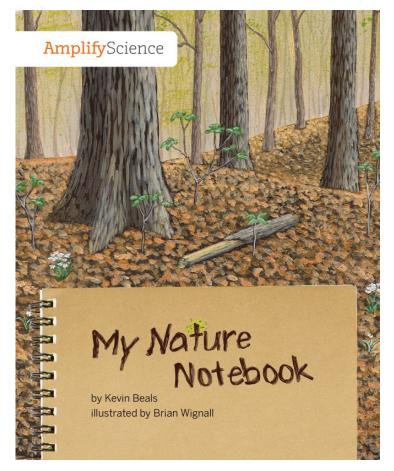
#### April I decided to observe one little part of the forest. I marked my spot with sticks and string. I'll come back each month. Plants There are many dead brown leaves on the ground. I drew one dead leaf. There is also a small plant with green leaves. The leaves on the plant look like the leaves on the ground, but green and smaller. I think they are the same kind of leaves. I wonder how the plant first started to grow in this spot. I used a ruler to measure the plant. That way I can see if it's bigger when I come back 20 cm Animals I couldn't find any animals in my spot. This is my drawing of the small plant. The letters "cm" stand for "centimeters."

## Turn to page 4 in *My Nature Notebook*.





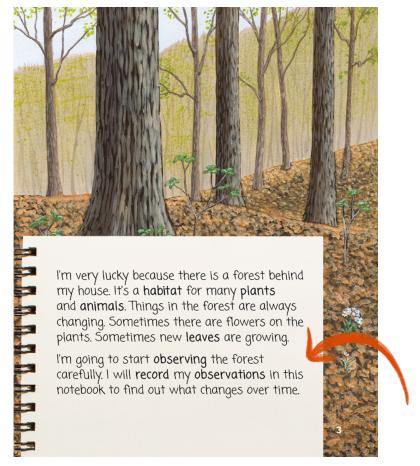
Discuss what you have found about different ways to study a habitat.





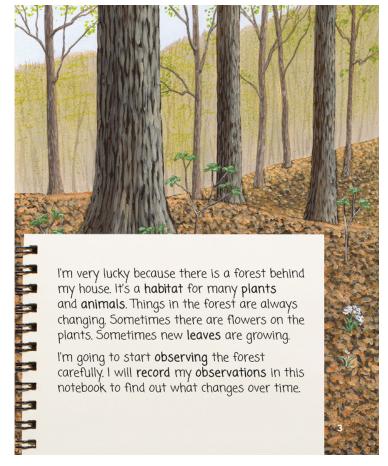
**Read** the rest of the book.

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*.

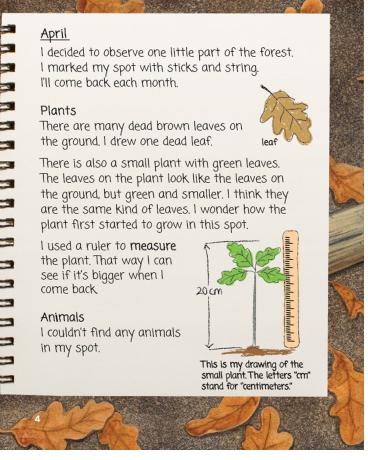


Let's think about the meaning of observe.



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

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



Turn to page 4.



Find and read the sentence that includes the word *observe*.

## Vocabulary

## observe

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



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** 

## Reflecting on Ways to Study a Habitat



Remember that we are investigating this question:

How do scientists study habitats?

#### **Amplify**Science



Plant and Animal Relationships:

Investigating Systems in a Bengali Forest

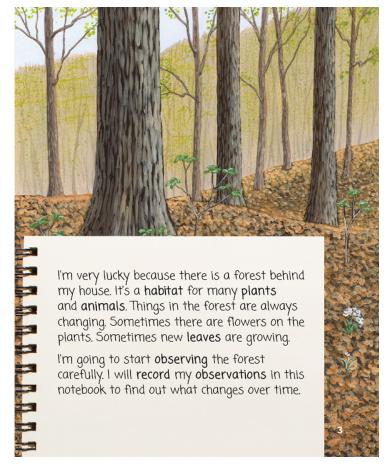
Scientists use **notebooks** like this one to draw and write what they observe and learn, and to keep track of their ideas.

**Investigation Notebook** 

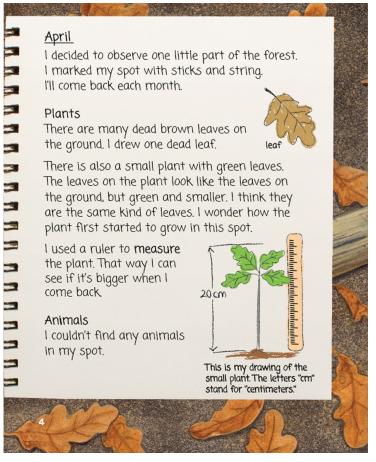
	Ways to Stud	v a Habitat	
	ways to Stud	y a riabitat	
Directions:	My Natura Natabaak	think about the ways th	o child
studied the fo	rest habitat.		
2. In each box b	elow, write one way she	studied the forest hab	itat.

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.



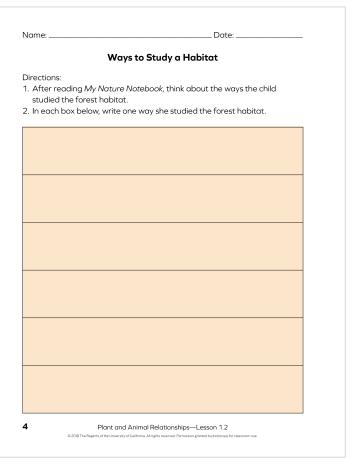
## To study this habitat, the child marks the spot she is going to observe.

lame:	Date:	
Ways to Study a Habitat		
studied the forest habitat	Notebook, think about the ways the child . nne way she studied the forest habitat.	
She marked the	e spot to observe.	
	Animal Relationships—Lesson 1.2	

Let's add that to the top box on the notebook page. Another way the child is studying the forest habitat is to observe the same spot once every month.

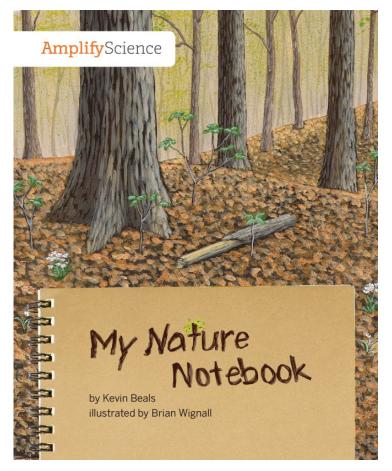
**Activity 3** 

We can add that to the next box.





**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**

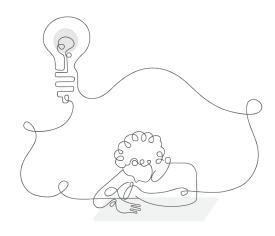


Amplify.

Published and Distributed by Amplify. www.amplify.com

### Science and Engineering Practices

Describe the science and engineering practices the students were engaged in during this lesson.



### Science & Engineering Practices

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

Chapter 1:investigate and analyze data

Lesson 1.1

NA

Lesson 1.2

What - Read about other scientists and how they investigate How - learn from other plant scientists to prepare for their own investigations

**Chapter 1: Gather evidence to explain** 

Lesson/1.1

What - Write their initial explanations

**How** - Pre-Unit Assessment

Lesson 1.2

What - Obtain information

**How** - Students will read *My Nature Notebook* and record observations

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).

### Lesson Brief

#### Lesson at a Glance

#### 1. Setting a Purpose for Reading (10 min.)

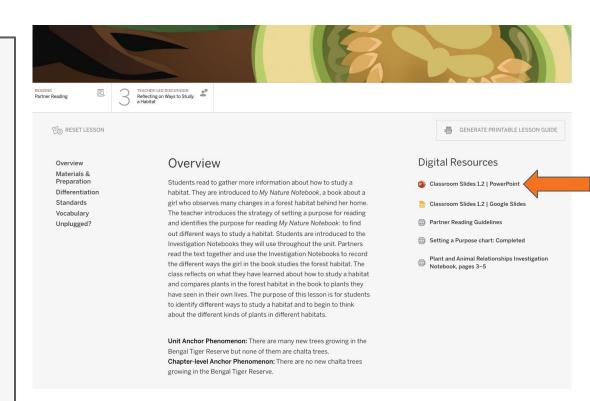
Students prepare to focus their thinking on different ways to study a habitat by setting a purpose for reading *My Nature Notebook*. The Setting a Purpose chart provides the class with a place to record and compare the varied purposes used across reading and scientific investigation throughout the unit.

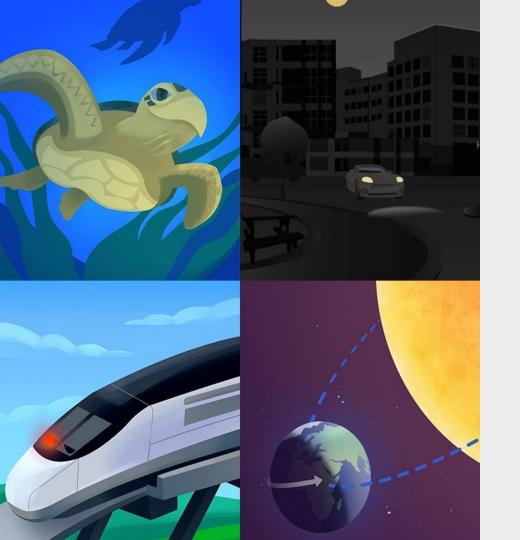
#### 2: Partner Reading (25 min.)

Students work with a partner to read *My Nature Notebook* to practice reading with a purpose and to understand how plant scientists study habitats. This activity provides an opportunity for an On-the-Fly Assessment of students' understanding of the sense-making strategy of reading with a purpose.

#### 3: Reflecting on Ways to Study a Habitat (20 min.)

Students receive their Investigation Notebooks and learn some of the ways that scientists use notebooks. Students record different ways to study a habitat based on what they read in *My Nature Notebook* and then consolidate their understanding of the investigation practices in a whole-class debrief. Naming plants observed in the text and in the local habitat helps students make initial comparisons of plants across different habitats.



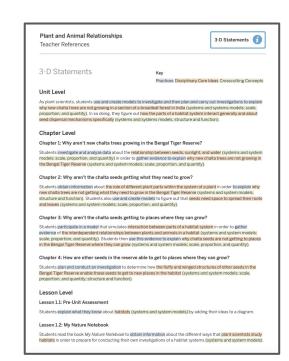


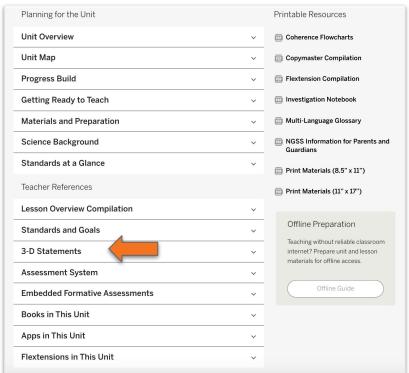
### Plan for the day

- Framing
- Introducing the Unit
- Unit Internalization
- Identifying the Science and Engineering Practices at the unit and chapter level
- Science and Engineering Practices within a lesson
- Lesson Planning
- Closing

### 3D Statements Lesson Work time

- Identify what
   Science and
   Engineering
   Practices are
   addressed in each
   lesson in Chapter
   One.
- Identify how the Science and Engineering Practices are addressed





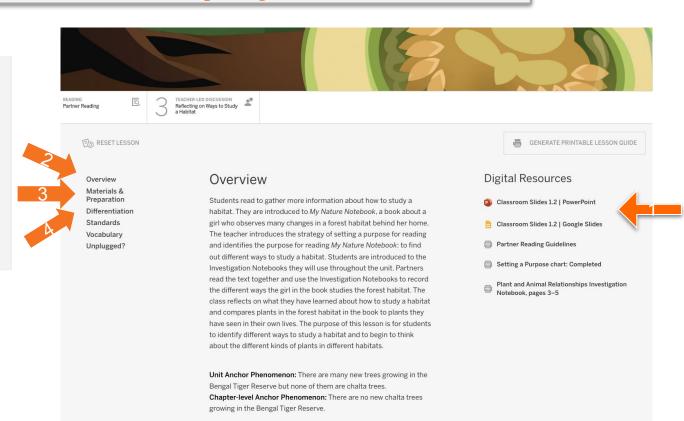
# 4 Easy Steps to Teaching an **Amplify Lesson**

**Step 1:** Download the Classroom Slides

**Step 2:** Read the Overview Section

**Step 3:** Read the Materials & Preparation Section

**Step 4:** Read the Differentiation Section









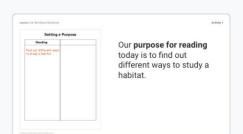


1

The title of this book is My Nature Notebook.

What are some things you observe about the front cover?







5

Partner Reading Guidelines

1. Sit next to your partner and place the book between you.

2. Take turns reading.

3. Read in a quiet voice.

4. Be respectful and polite to your partner.

5. Ask your partner for help if you need it. Work together to make sure you both understand what you read.



Turn to page 3 in My Nature Notebook.

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



Annual Table Of Market National Continues

Annual Continues and Market of the Market National Continues and Market National Co



Actions 2
Leases 1.2 bits factor blook cost

10



11



Learner 1.2 (b) Station Production

Authory 2

Authory 2

Learner 1.2 (b) Station Production Station S

12

eie

Turn to page 3.

### Materials Management

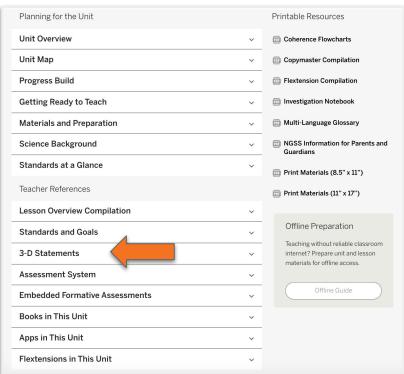
	Chapter/Lesson	Activity	Prep Prior	Prep Day of	What to do
	1.3	2	x	88.	For each pair of students: Cut string into 2-meter lengths
	1.5	2	×	x	Prepare cups of seeds. In Activity 2, student pairs will observe and sort seeds. Each cup does not need to have exactly the same amount of each seed type, but each cup 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 add additional seeds of each type to each cup): • a few sunflower, alfalfa, marigold, and beet seeds • at least one lima bean, corn kernel, and acorn/ginkgo seed
Chanter/Lesson	Activity	Pren Prior	Pren D	av of	ecore each type of han meach in a econe placific bag alWhattada.org ecore and record out in play each next initiation.
3.3	2/3	x		pla She	contents of each stomach bag. In Activity 2, students will make droppings from the stomach bags of play clay from Lesson 3.2. Using your hands, mix together the y clay in each stomach bag from Lesson 3.2 so the colors are mixed and the seeds are evenly distributed throughout the bag. Make copies of the Scientist Data et: Bird Droppings copymaster. https://learning.amplify.com/m/7a7138a316e2bc2/original/ELSCI_2LS_CU_195.pdf Make copies of the Brain Role Cards: Set 2 copymaster. https://learning.amplify.com/m/7fc14e00cc376b57/original/ELSCI_2LS_CU_196.pdf On Chart paper, create the Seeds in Flitterbird Droppings chart. https://learning.amplify.com/m/1e35837b351e4ca6/original/ELSCI_2LS_CU_194.pdf On chart paper, create the Seeds in Strongbill Droppings chart https://learning.amplify.com/m/326c3ae52d229f9a/original/ELSCI_2LS_CU_193.pdf
3.5	1				No prep. Review of Hiding Seeds Model
4.2	1	x		Cr cot C mod	epare seed models. In Activity 1, you will present your models of propeller seeds and fluffy seeds to students. You will only use 1 of each seed model in this lesson; however, you will need 6 propeller seed models and one fluffy seed model per group in Lesson 4.3. It may be more efficient to make all seeds at the same time.  https://learning.amplify.com/m/67091ca5f5d4e866/original/ELSCI_2LS_CU_172.pdf  eate fluffy seed models. Create enough seed models so that each group can get one in Lesson 4.3. To create each seed, loosen a cotton ball by gently pulling the ton apart, being careful not to tear the cotton ball into separate pieces. Hook one end of the paper clip into the center of the cotton ball to attach the paper clip to it. reate 6 propeller seed models. Print out the Propeller Seed copymaster (in Digital Resources). Cut out the boxes on the page along the solid lines. For each seed el, fold the paper along the dotted line labeled "1" so that the labels face outward. The three propellers should splay outwards. Then, fold the paper inward along the ed lines labeled "2" and "3" and bring the ends of the paper to touch. The ends of the paper should form a 3-D triangular shape. Then, pinch the bottom of the paper together and fold an approximately 1-centimeter segment upwards. Fasten the folded base with a paper clip.
					For Each Group of Four Students (From lesson 4.2)  1 fluffy seed model
					1 paper clip
4.3	1,2,3				1 tape measure, 150 cm
	3-62		1000	1	
	4.2	1	×		Create fluffy seed models. Create enough seed models so that each group can get one in Lesson 4.3. To create each seed, loosen a cotton ball by gently pulling the cotton apart, being careful not to tear the cotton ball into separate pieces. Hook one end of the paper clip into the center of the cotton ball to attach the paper clip to it. Create 6 propeller seed models. Print out the Propeller Seed copymaster (in Digital Resources). Cut out the boxes on the page along the solid lines. For each seed model, fold the paper along the dotted line labeled "1" so that the labels face outward. The three propellers should splay outwards. Then, fold the paper inward along the dotted lines labeled "2" and "3" and bring the ends of the paper to touch. The ends of the paper should form a 3-D triangular shape. Then, pinch the bottom of the paper to touch.
					For Each Group of Four Students (From lesson 4.2) 1 fluffy seed model 1 paper clip

1 tape measure, 150 cm

### 3D Statements Share Out

Share the what and how of the Science and Engineering Practices addressed in each lesson.





### Science & Engineering Practices redo

**Chapter 1:** What happened to the electrical system the night of the blackout?

Chapter 1: By obtaining information by reading and using a digital model

Chapter 1: Explain

Lesson 1.1

NA

Lesson 1.2

What - Read about other scientists and how they investigate How - learn from other plant scientists to prepare for their own investigations

Lesson 1.3

What - Observe and record

**How** - Observe plants in sample study site

Lesson 1.1

What - Write their initial explanations

How - Pre-Unit Assessment

Lesson 1.2

What - Obtain information

**How** - Students will read *My Nature Notebook* and record observations

Lesson 1.3

NA

### Science & Engineering Practices redo

**Chapter 1:** What happened to the electrical system the night of the blackout?

Chapter 1: By obtaining information by reading and using a digital model

#### Lesson 1.4

**What -** use mathematics and computational thinking to analyze and compare

**How** - record data from maps of Bengal Tiger Reserve from 1995 and 2015

#### Lesson 1.5

What - Observe and compare

How - Students will different types of seeds,

#### Lesson 1.6

What: Obtain information

**How:** Students will plant seeds then use a model to measure growth of plants over time.

Chapter 1: Explain

#### Lesson 1.4

What - Discussing data

**How -** After recording data, students discuss results. Students read about the Broadleaf forest and investigate different habitats

#### Lesson 1.5

What obtain information

**How** - Students will read about seeds in *Handbook of Habitats*.and sequence plant growth

#### Lesson 1.6

What - Analyze and interpret data

How Measuring and reflecting on plant growth

### Science & Engineering Practices redo

**Chapter 1:** What happened to the electrical system the night of the blackout?

Chapter 1: By obtaining information by reading and using a digital model

Lesson 1.7

**What** Observe

**How:** Observe photos of chalta fruit.

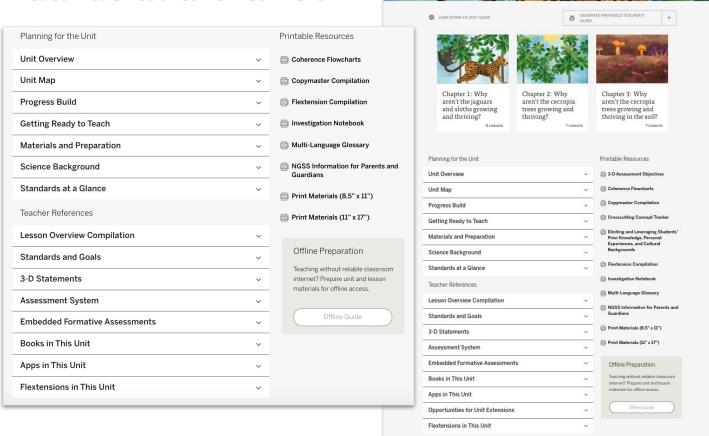
Chapter 1: Explain

Lesson 1.7

**What -** Analyze and interpret data, construct their first scientific explanation

**How -** Use scientific words to explain what they learned, Create a scientific explanation as a class.

### Standards at a Glance

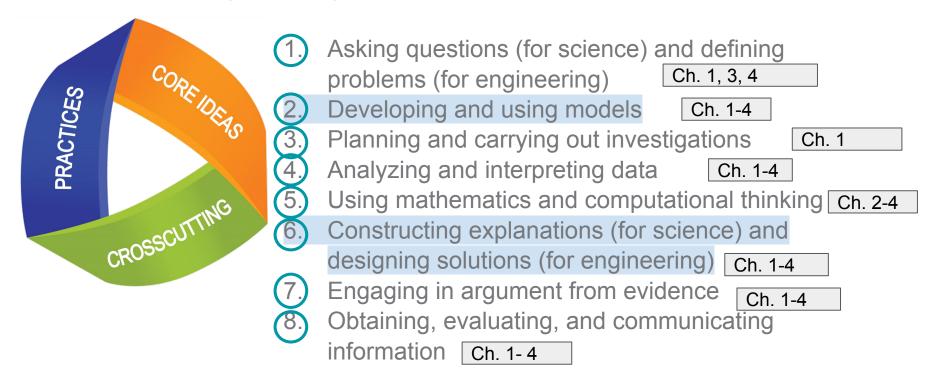




ALL CONTRACTOR OF THE PARTY OF

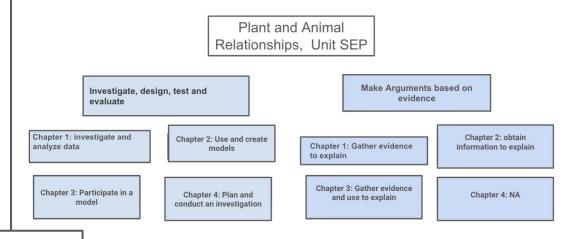
### **Next Generation Science Standards**

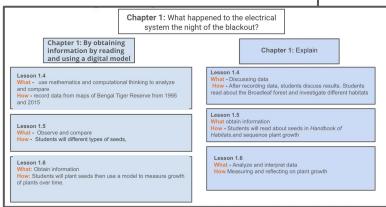
### Science and Engineering Practices



### **Science & Engineering Practices:**

Building the practices incrementally, lesson by lesson, chapter by chapter.







## Questions?



### **Unit Extensions**

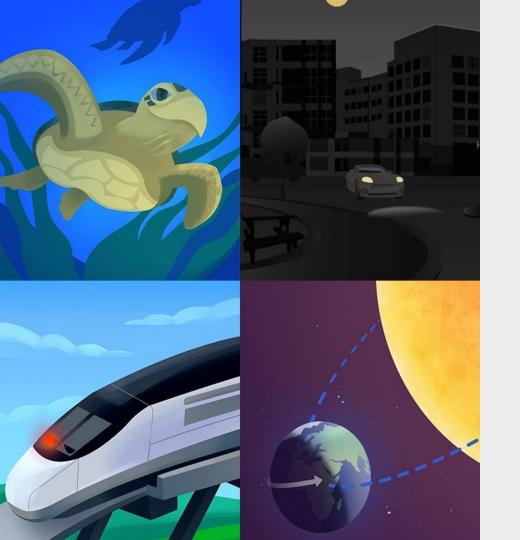
- What is a Habitat? <a href="https://www.youtube.com/watch?v=CxrlEajA398">https://www.youtube.com/watch?v=CxrlEajA398</a>
- Virtual tour of Botanical Gardens
  - https://thespaces.com/take-a-virtual-tour-of-beautiful-botanical-gardens/
- Beauty of North Bengal Forest <a href="https://www.youtube.com/watch?v=rMCjdw2oWG8">https://www.youtube.com/watch?v=rMCjdw2oWG8</a>
- DAY IN THE LIFE of a wildlife biologist & answering YOUR questions <a href="https://www.youtube.com/watch?v=|14GXzMWaLk">https://www.youtube.com/watch?v=|14GXzMWaLk</a>











### Plan for the day

- Framing
- Introducing the Unit
- Unit Internalization
- Identifying the Science and Engineering Practices at the unit and chapter level
- Science and Engineering Practices within a lesson
- Lesson Planning
- Closing

### Overarching goals

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

- Identify the Science and Engineering Practices within a lesson and how they are taught.
- ☐ Apply this knowledge to prepare to teach.



### Closing reflection

Based on our work today, share:

Head: something you'll keep in mind

Heart: something you're feeling

Feet: something you're planning to do

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



## Welcome to Amplify Science!

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

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

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

### Additional resources and ongoing support

#### **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



## End of Part 2

