AmplifyScience

Plant and Animal Relationships:

Investigating Systems in a Bengali Forest

Investigation Notebook

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Amplify Science Elementary is based on the *Seeds of Science/Roots of Reading*® approach, which is a collaboration between a science team led by Jacqueline Barber and a literacy team led by P. David Pearson.

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Plant and Animal Relationships: Investigation Systems in a Bengali Forest
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Chapter 4

Safety Guidelines for Science Investigations

1. **Follow instructions.** Listen carefully to your teacher's instructions. Ask questions if you don't know what to do.
2. **Don't taste things.** No tasting anything or putting it near your mouth unless your teacher says it is safe to do so.
3. **Smell substances like a chemist.** When you smell a substance, don't put your nose near it. Instead, gently move the air from above the substance to your nose. This is how chemists smell substances.
4. **Protect your eyes.** Wear safety goggles if something wet could splash into your eyes, if powder or dust might get in your eyes, or if something sharp could fly into your eyes.
5. **Protect your hands.** Wear gloves if you are working with materials or chemicals that could irritate your skin.
6. **Keep your hands away from your face.** Do not touch your face, mouth, ears, eyes, or nose while working with chemicals, plants, or animals.
7. **Tell your teacher if you have allergies.** This will keep you safe and comfortable during science class.
8. **Be calm and careful.** Move carefully and slowly around the classroom. Save your outdoor behavior for recess.
9. **Report all spills, accidents, and injuries to your teacher.** Tell your teacher if something spills, if there is an accident, or if someone gets injured.
10. **Avoid anything that could cause a burn.** Allow your teacher to work with hot water or hot equipment.
11. **Wash your hands after class.** Make sure to wash your hands thoroughly with soap and water after handling plants, animals, or science materials.

What Is a Scientific Explanation?

1. It answers a question.
2. It is based on science ideas you have learned.
3. It uses science words.
4. It is shared with someone.

Name: _____ Date: _____

Getting Ready to Read: *My Nature Notebook*

Directions:

1. Before reading *My Nature Notebook*, read the sentences below.
2. If you agree with the sentence, write an "A" on the line before the sentence.
3. If you disagree with the sentence, write a "D" on the line before the sentence.
4. After you read the book, see if your ideas have changed. Be ready to explain your thinking.

_____ You can study one small spot in a habitat for a long time.

_____ Things in a habitat never change.

_____ There are many different ways to study a habitat.

_____ Plants and animals can't live in the same habitat.

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.

Name: _____ Date: _____

Reading Reflection: *My Nature Notebook*

Look at the picture of the spot on the last page of *My Nature Notebook.* What do you think the spot will look like in six months? Draw what you think you might see.

Write about your drawing.

_____

_____

_____

Name: _____ Date: _____

Daily Written Reflection

Do you think your school is located in a broadleaf forest? Why or why not?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Observing Plants in a Sample Study Site

Directions:

1. With your partner, place your string around an area in the habitat. This is your sample study site.
2. Observe the plants in your sample study site.
3. Draw the plants in your sample study site. Label your drawing.

Name: _____ Date: _____

Daily Written Reflection

Think of two very different plants that you have seen before. What did each one look like?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Counting Trees in the Sample Study Site

Directions:

1. Use the table to record how many of each type of tree was growing in the Bengal Tiger Reserve sample study site in 1995 and in 2015.
2. Read and answer the questions.

Type of tree	**Number of trees in 1995**	**Number of trees in 2015**
Chalta		
Fig		
Red silk		
Sal		

How did the number of trees change from 1995 to 2015?

_____

_____

_____

Did the number of trees change for every kind of tree from 1995 to 2015? How do you know?

_____

_____

_____

Name: _____ Date: _____

Investigating a Different Habitat

Directions:

1. With your partner, choose another habitat section in *Handbook of Habitats*.
2. Write the name of the habitat you chose.
3. Look through the section that you chose with your partner.
4. List three plants and three animals in that habitat.

Name of the habitat I chose: _____

Some of the plants in that habitat:

- _____
- _____
- _____

Some of the animals in that habitat:

- _____
- _____
- _____

Name: _____ Date: _____

Daily Written Reflection

Why is it useful to compare maps of the same place at different times?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Seed Observations

Directions:

1. Put your seeds in order from biggest to smallest.
2. Pick two seeds that are different sizes.
3. Draw a picture of each seed in the boxes below.
4. Label your drawings "bigger" and "smaller."
5. Fill in the blank in each box.

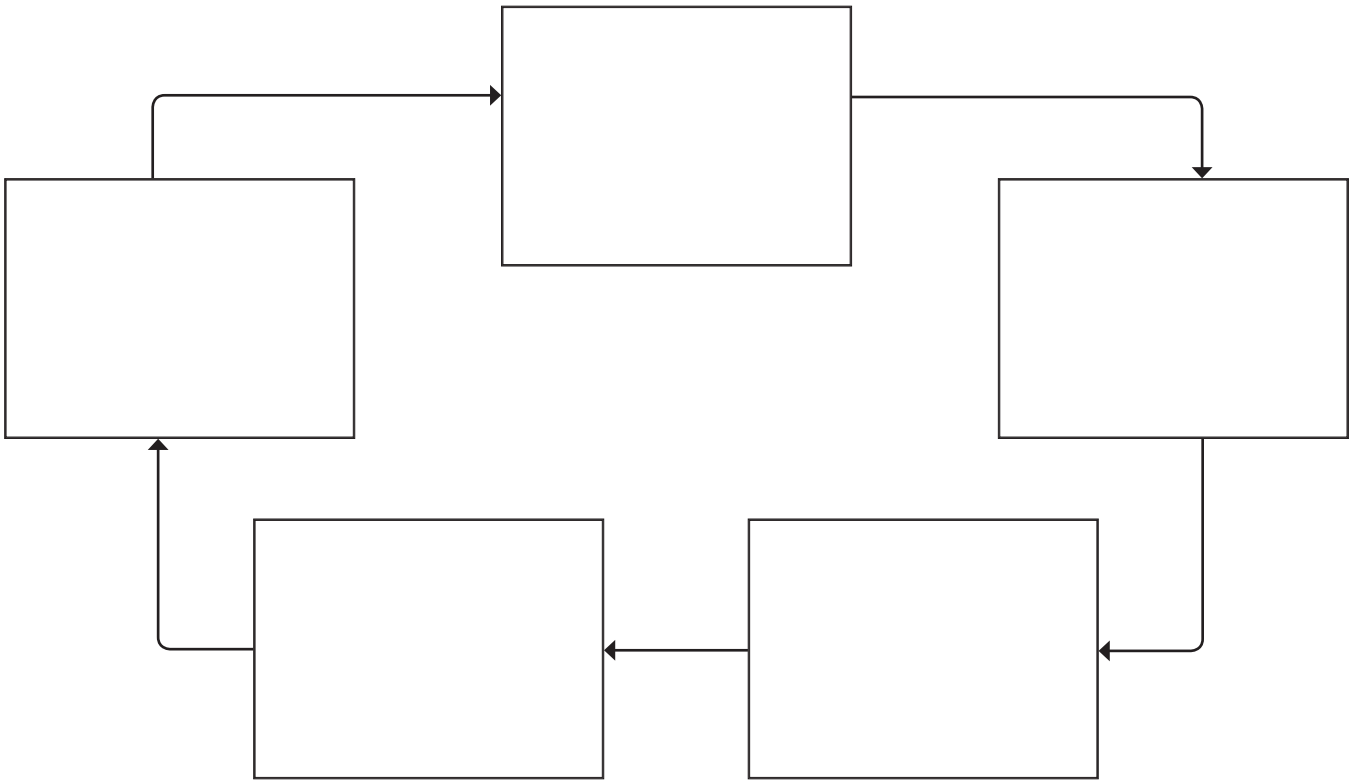
This seed is about the same size as a _____.	This seed is about the same size as a _____.

Name: _____ Date: _____

New Plant Growth

Directions:

1. Put the pictures in order of how you think the plant grows.
2. Glue one picture in each box below.
3. Decide which picture is a picture of seeds. Then label it "seeds."
4. Label the picture that is of a seed sprouting.
5. Label the picture that is of a full-grown plant.



Name: _____ Date: _____

Daily Written Reflection

What do you think would happen to a seed if it was planted in an area without sunlight?

_____

_____

_____

_____

_____

_____

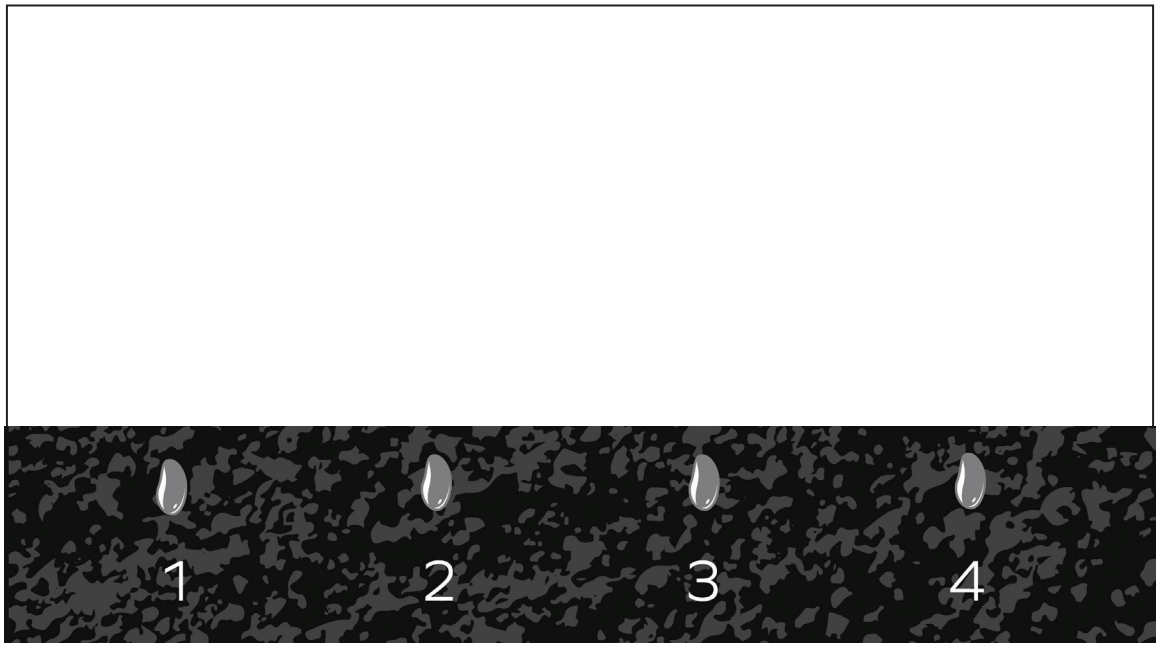
Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

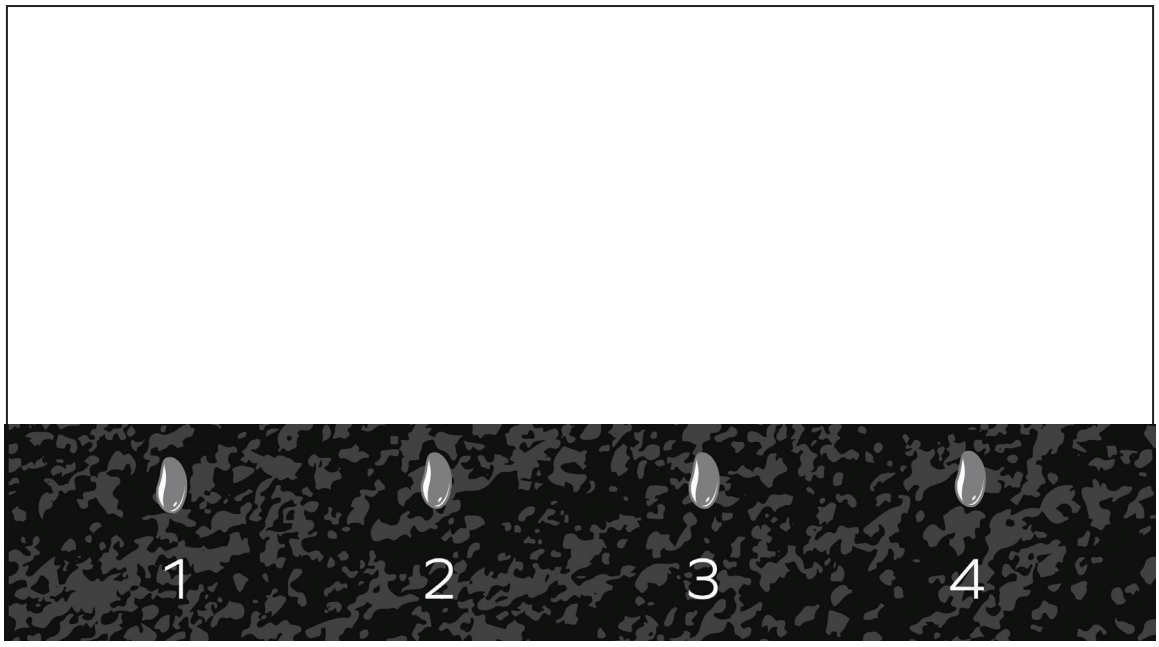
Water Investigation

Draw what you think will happen to the seeds in the two containers.

Water every day



No water



Name: _____ Date: _____

Water Investigation Table

Count the seeds that sprouted in each container and complete the table below.

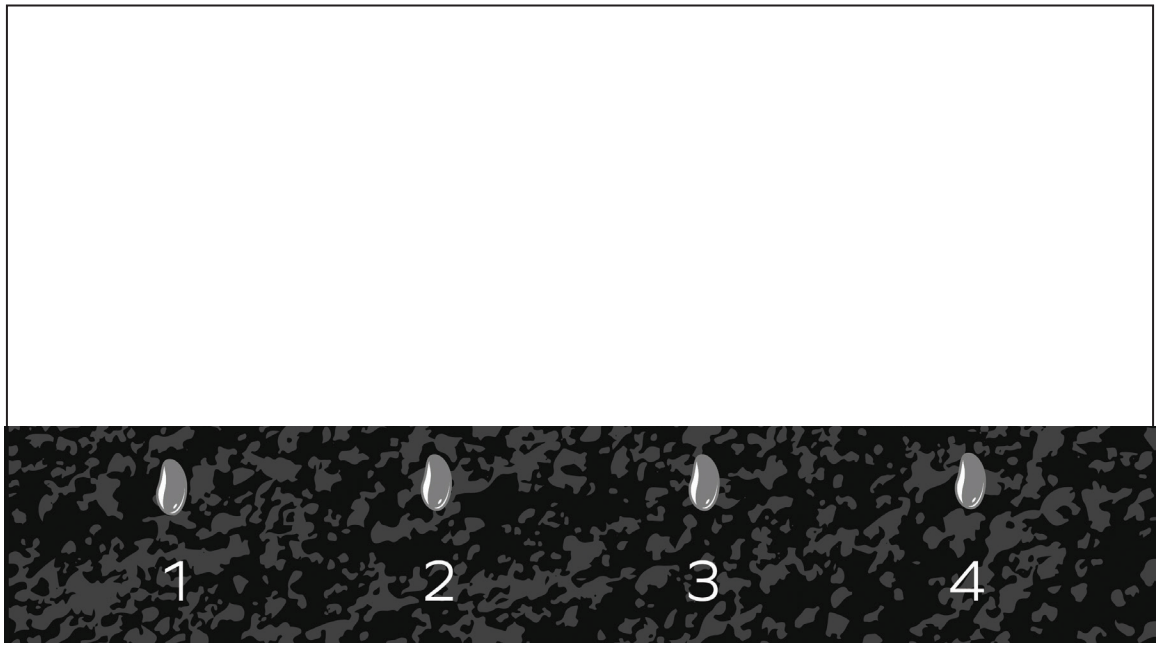
	Seeds that got water every day	**Seeds that did not get water**
Number of seeds that sprouted		

Name: _____ Date: _____

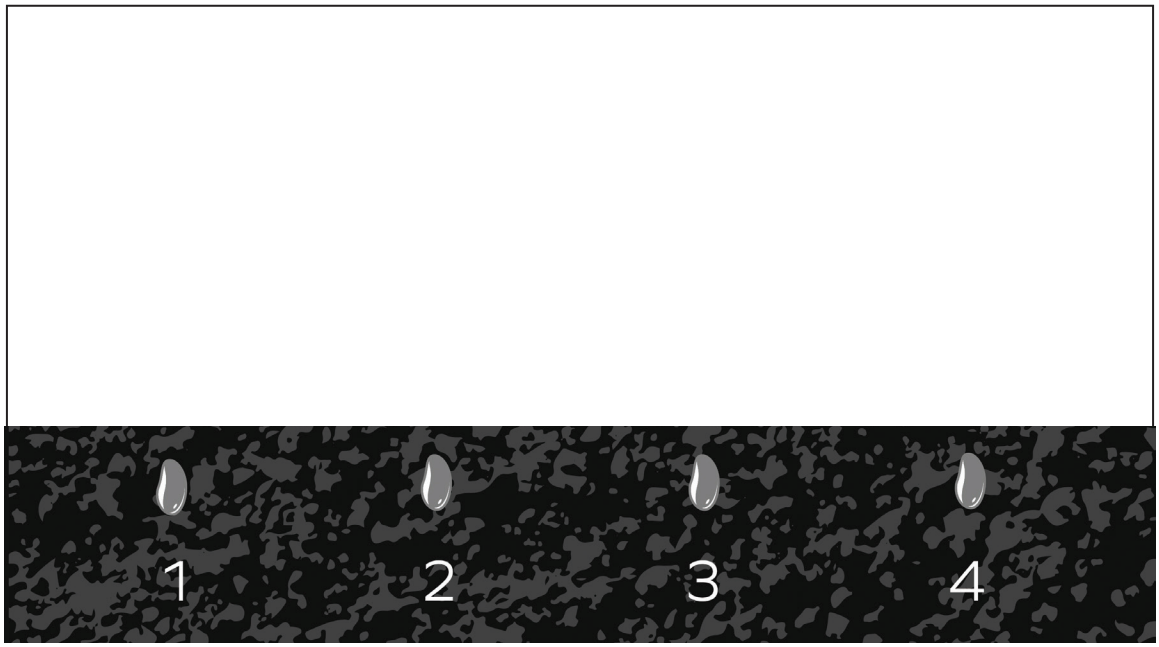
Sunlight Investigation

Draw what you think will happen to the seeds in the two containers.

Sunlight every day



No sunlight



Name: _____ Date: _____

Sunlight Investigation Table: Growth After 3 Days

Complete the table below.

	Seeds that got sunlight every day	**Seeds that did not get sunlight**
Height of Plant 1		
Height of Plant 2		
Height of Plant 3		
Height of Plant 4		

Name: _____ Date: _____

Sunlight Investigation Table: Growth After 3 Weeks

Complete the table below.

	Seeds that got sunlight every day	**Seeds that did not get sunlight**
Height of Plant 1		
Height of Plant 2		
Height of Plant 3		
Height of Plant 4		

Name: _____ Date: _____

Daily Written Reflection

How do you think scientists share their ideas with each other?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Using Science Words to Write About How Plants Grow

Directions:

1. Read each question.
2. Use science words to write an answer to each question.

Where do new plants come from?

_____

_____

_____

What do seeds need to grow into new plants?

_____

_____

_____

Name: _____ Date: _____

Chapter 1: Check Your Understanding

This is a chance for you to reflect on your learning so far. This is not a test. Be open and truthful when you respond.

Scientists investigate in order to figure out how things work. Am I getting closer to figuring out why new chalta trees are not growing in the Bengal Tiger Reserve?

I understand where new chalta trees come from. ____ Yes ____ Not yet

I understand what chalta seeds need to grow into full-grown trees. ____ Yes ____ Not yet

I understand how chalta seeds get the things they need to grow into full-grown trees. ____ Yes ____ Not yet

I understand how the parts of the broadleaf forest habitat depend on each other. ____ Yes ____ Not yet

I think I understand or don't yet understand these ideas because

_____

_____

_____

What are you still wondering about the plants in the Bengal Tiger Reserve?

_____

_____

_____

Name: _____ Date: _____

Daily Written Reflection

Think of a plant. What parts does the plant have? What does the plant need to grow?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Investigating Roots and Leaves

Directions:

1. Pick a root card. Write the name of the plant that the root came from in the blank.
2. Measure and record the length of the root.
3. In the box, make a scientific drawing of the roots.
4. On the next page, repeat steps 1–3 with a leaf.

Plant: _____

The root is _____ centimeters long.

Observations of Roots

Name: _____ Date: _____

Investigating Roots and Leaves (continued)

Plant: _____

The leaf is _____ centimeters long.

Observations of Leaves

Name: _____ Date: _____

Think-Draw-Pair-Share: What Do Plant Parts Do?

Directions:

1. Think about the question, *How do you think a plant's roots and leaves help the plant get what it needs to grow?*
2. In the box below, make a drawing to explain your ideas.
3. Label your drawing.
4. Use your drawing to discuss your ideas with your partner.

Name: _____ Date: _____

Daily Written Reflection

What do you think a plant uses its roots for? Why do you think that?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Getting Ready to Read: *A Plant Is a System*

Directions:

1. Before reading *A Plant Is a System*, read the sentences below.
2. If you agree with the sentence, write an "A" on the line before the sentence.
3. If you disagree with the sentence, write a "D" on the line before the sentence.
4. After you read the book, see if your ideas have changed. Be ready to explain your thinking.

_____ Leaves and roots work together to help a plant grow.

_____ Some plants do not have roots.

_____ Plants use their leaves to catch sunlight.

_____ Roots take in water.

_____ All plants live in the soil.

Name: _____ Date: _____

What Do the Parts of a Plant Do?

Directions:

1. Read *A Plant Is a System.*
2. As you read, think about the purpose for reading: *Find out how a plant uses its parts to get the water and sunlight it needs to grow.*
3. Write what each part of the plant does.

The roots of the plant _____.

The leaves of the plant _____.

Name: _____ Date: _____

Reading Reflection: *A Plant Is a System*

Read page 6. Why are leaves an important part of a plant?

_____

_____

Read page 8. Why are roots an important part of a plant?

_____

_____

Read page 10 and look at the diagram. Why is the stem an important part of a plant?

_____

_____

Read page 11 and look at the diagram. Why are the tubes inside stems an important part of a plant?

_____

_____

A plant is a system. What evidence from the book supports this?

_____

_____

Name: _____ Date: _____

Daily Written Reflection

In the book *A Plant Is a System,* what's something that you found surprising or interesting?

_____

_____

_____

_____

_____

_____

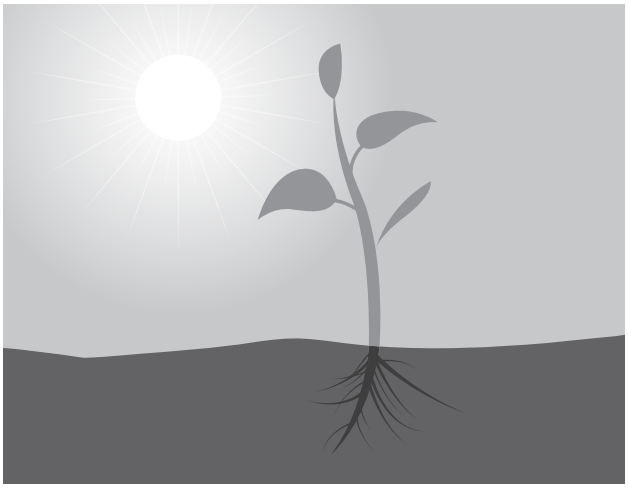
Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

A Plant Is a System

Directions:

1. Read pages 8–10 in *A Plant Is a System* with your partner.
2. Label each part of the plant in the box below.
3. Draw arrows to show how the plant uses sunlight and water.
4. Answer the questions below.



How is a plant a system? How does it use its parts to get what it needs to grow?

_____

_____

_____

_____

_____

_____

_____

_____

Name: _____ Date: _____

Daily Written Reflection

You've learned that a plant is a system made of parts that work together. Think of another system you have seen before. Describe the system and its parts.

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

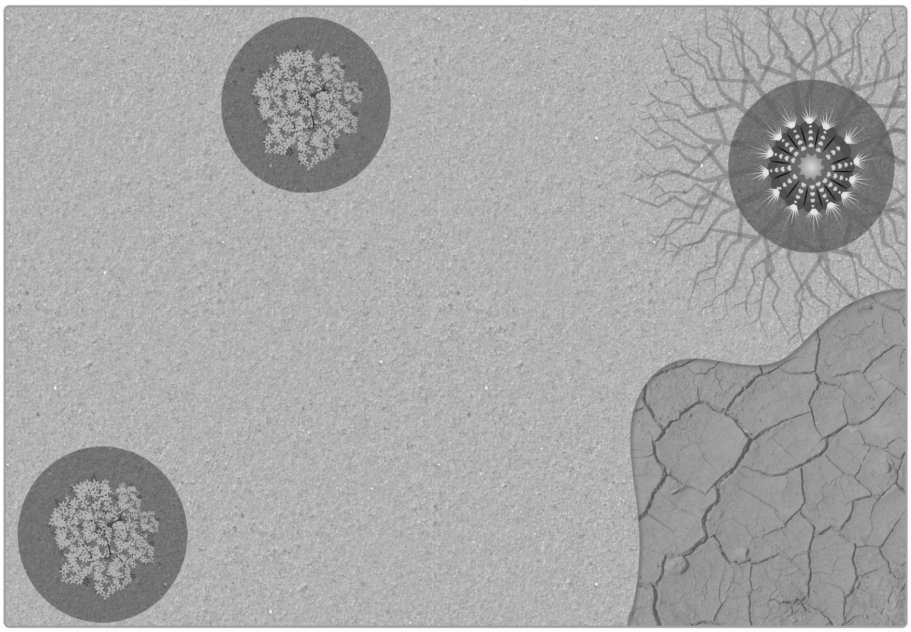
Name: _____ Date: _____

A Good Place to Grow

Directions:

1. In the picture below, circle one spot that is a good place for a new plant to grow.
2. Mark with an X in one spot that is not a good place for a new plant to grow.
3. Answer the questions below.

Desert Habitat



Why do you think the spot you circled is a good place for a new plant to grow?

_____

_____

Why do you think the spot you marked with an X is not a good place for a new plant to grow?

_____

_____

Name: _____ Date: _____

Daily Written Reflection

Why do you think it is important to write scientific explanations?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Writing a Scientific Explanation About Chalta Seeds

Directions:

1. Discuss the question with your partner.
2. Record the topic sentence that answers the question.
3. Write supporting ideas by completing the sentences.

Question:

Why aren't the chalta seeds getting the sunlight and water they need to grow into full-grown trees?

Topic Sentence:

The chalta seeds are not getting what they need to grow into full-grown trees **because** _____

_____

Supporting Ideas:

The seeds need space for _____ to get _____.

The seeds also need space for _____ to get _____.

The seeds can't get the _____ and _____ they need to grow without _____.

Name: _____ Date: _____

Chapter 2: Check Your Understanding

This is a chance for you to reflect on your learning so far. This is not a test. Be open and truthful when you respond.

Scientists investigate in order to figure out how things work. Am I getting closer to figuring out why new chalta trees are not growing in the Bengal Tiger Reserve?

I understand where new chalta trees come from. ____ Yes ____ Not yet

I understand what chalta seeds need to grow into full-grown trees. ____ Yes ____ Not yet

I understand how chalta seeds get the things they need to grow into full-grown trees. ____ Yes ____ Not yet

I understand how the parts of the broadleaf forest habitat depend on each other. ____ Yes ____ Not yet

I think I understand or don't yet understand these ideas because

_____

_____

_____

What are you still wondering about the plants in the Bengal Tiger Reserve?

_____

_____

_____

Name: _____ Date: _____

Daily Written Reflection

Think about your own habitat. What are the parts of your habitat?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Think-Draw-Pair-Share: Seeds and Habitats

Directions:

1. Think about the question, *How can seeds get to new places in their habitats?*
2. In the box below, make a drawing to explain your ideas.
3. Label your drawing.
4. Use your drawing to discuss your ideas with your partner.

Name: _____ Date: _____

Getting Ready to Read: *Habitat Scientist*

Directions:

1. Before reading *Habitat Scientist*, read each sentence below.
2. If you agree with the sentence, write an "A" on the line before the sentence.
3. If you disagree with the sentence, write a "D" on the line before the sentence.
4. After you read the book, see if your ideas have changed. Be ready to explain your thinking.

_____ Humans are a part of every habitat.

_____ Plants do not live in habitats.

_____ One habitat can have many different parts.

_____ All animals live in the same habitat.

_____ A plant's habitat must include sunlight, water, and space to grow.

Name: _____ Date: _____

Habitat Scientist: Parts of the Larkspur Plant's Habitat

Directions:

1. Turn to page 12 in *Habitat Scientist.*
2. List the parts of the habitat in the space below.
3. Draw a checkmark next to the things in your list that might help a larkspur seed get to a new place.

Parts of the Colorado Mountain Habitat

- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____
- _____

Name: _____ Date: _____

Reading Reflection: *Habitat Scientist*

Reread pages 9–10 about how hummingbirds and larkspur flowers depend on each other.

In your own words, explain how hummingbirds and larkspur flowers depend on each other.

_____

_____

_____

_____

_____

What questions do you have about how new larkspur plants grow?

_____

_____

_____

_____

_____

Name: _____ Date: _____

Daily Written Reflection

What did you learn from reading *Habitat Scientist* that was interesting or surprising to you?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Dispersing Seeds Model, Part 1

Directions:

1. Write the name of your group's bird: "Flitterbird" or "Strongbill."
2. Use the Scientist Data Sheet: Bird Observations to count the number of fruits your bird ate.
3. Record your data below.

My group's bird: _____

Total number of fruits we ate: _____

Number of yummyberries: _____

Number of sweetpink fruits: _____

Name: _____ Date: _____

Daily Written Reflection

Think of a cherry tree that grows in a forest. How do you think the cherry seeds get to new places in their habitat?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Measuring Droppings

Directions:

1. Write the name of your group's bird: "Flitterbird" or "Strongbill."
2. With your partner, count the seeds inside your dropping.
3. Record your data below.
4. Use the flitterbird and strongbill droppings data that you collected as a class to help you complete the sentences below.

My group's bird: _____

Total number of seeds in our bird dropping: _____

Number of yummyberry seeds: _____

Number of sweetpink seeds: _____

I think the _____ disperses yummyberry seeds because _____

_____.

I think the _____ disperses sweetpink seeds because _____

_____.

Name: _____ Date: _____

Daily Written Reflection

Is it helpful to use models like the Dispersing Seeds Model in science? Why do you think so?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Identifying the Parts of the Broadleaf Forest Habitat

Directions:

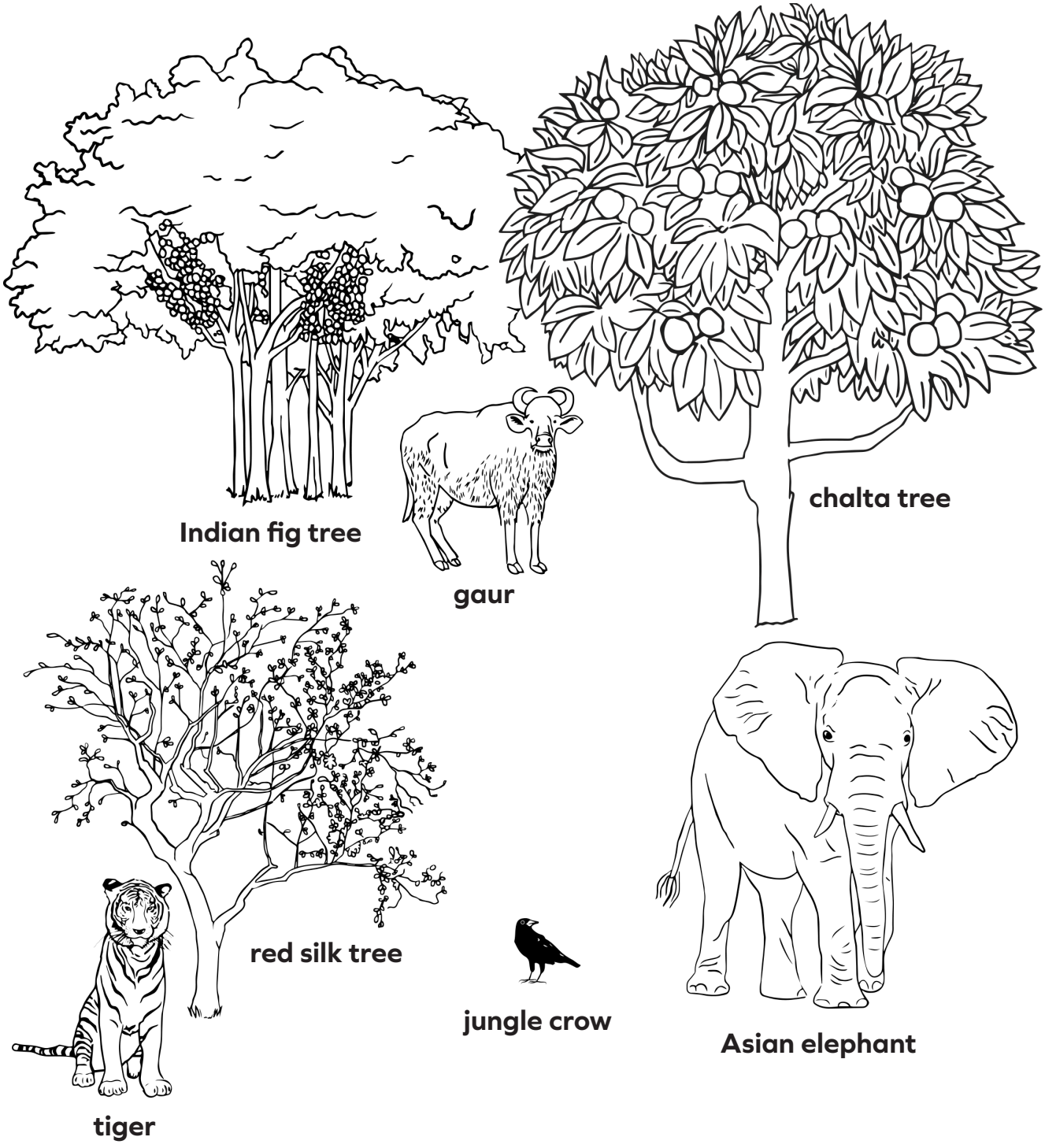
1. Read the "Broadleaf Forest in India" section (pages 16–21) of *Handbook of Habitats.*
2. List the different parts of the broadleaf forest habitat in the table below.

Plants	Animals	Other Important Parts

Name: _____ Date: _____

Broadleaf Forest Habitat Diagram

Label the drawing below to show how the plants and animals in the broadleaf forest habitat depend on each other. Add words or drawings to help you explain.



Name: _____ Date: _____

Daily Written Reflection

Bears can disperse berry seeds. What do you think the bears depend on the berries for? Why do you think so?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Seed Dispersal in Different Habitats

Directions:

1. Write down your purpose for reading.
2. Read about the seeds in each habitat.
3. Complete the table below.

My purpose for reading is to _____

_____

_____.

Habitat	Seed	How do you think the seeds are dispersed?
City Park	Acorn	
Desert	Mesquite	
Everglades	Gumbo-limbo	

Name: _____ Date: _____

Writing About Seed Dispersal

Directions:

1. Pick one habitat below.
2. Complete the sentences about that habitat using information you gathered from *Handbook of Habitats.*

City Park Habitat

The oak tree depends on _____

to _____.

The squirrel depends on _____

to _____.

Desert Habitat

The mesquite tree tree depends on _____

to _____.

The coyotes depend on _____

to _____.

Everglades Habitat

The gumbo-limbo tree tree depends on _____

to _____.

The vireos depend on _____

to_____.

Name: _____ Date: _____

Daily Written Reflection

Think about a time you collected data in science class. Why was it helpful to collect data?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Writing a Scientific Explanation

Directions:

1. Discuss the question with your partner.
2. Record the topic sentence that answers the question.
3. Write a supporting idea by completing the sentence.
4. Add more supporting ideas that will help others better understand your topic sentence.

Question:

Why aren't the chalta seeds getting to places where they can grow?

Topic Sentence:

The chalta seeds are not getting to places where they can grow **because**

_____

_____.

Supporting Ideas:

The chalta trees depend on _____

to _____.

_____

_____

_____

_____

_____

Name: _____ Date: _____

Writing a Scientific Explanation (continued)

Name: _____ Date: _____

Chapter 3: Check Your Understanding

This is a chance for you to reflect on your learning so far. This is not a test. Be open and truthful when you respond.

Scientists investigate in order to figure out how things work. Am I getting closer to figuring out why new chalta trees are not growing in the Bengal Tiger Reserve?

I understand where new chalta trees come from. ____ Yes ____ Not yet

I understand what chalta seeds need to grow into full-grown trees. ____ Yes ____ Not yet

I understand how chalta seeds get the things they need to grow into full-grown trees. ____ Yes ____ Not yet

I understand how the parts of the broadleaf forest habitat depend on each other. ____ Yes ____ Not yet

I think I understand or don't yet understand these ideas because

_____

_____

_____

What are you still wondering about the plants in the Bengal Tiger Reserve?

_____

_____

_____

Name: _____ Date: _____

Daily Written Reflection

Think about all the ways a plant scientist might investigate plants and their habitats. List your ideas below.

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Think-Draw-Pair-Share: Sal and Red Silk Trees

Directions:

1. Think about the question, *How do you think the seeds of the sal tree and red silk tree are dispersed?*
2. In the box below, make a drawing to explain your ideas.
3. Label your drawing.
4. Use your drawing to discuss your ideas with your partner.

Name: _____ Date: _____

Getting Ready to Read: *Investigating Seeds*

Directions:

1. Before reading the book ***Investigating Seeds***, read each sentence below.
2. If you agree with the sentence, write an "A" on the line before the sentence.
3. If you disagree with the sentence, write a "D" on the line before the sentence.
4. After you read the book, see if your ideas have changed. Be ready to explain your thinking.

_____ Seeds can be dispersed by wind.

_____ Seeds can be dispersed by being carried on animal fur.

_____ How seeds are dispersed can only be measured by counting the number of seeds that get to a new place.

_____ Scientists can use models to investigate how seeds are dispersed.

_____ A model needs to look exactly the same as the thing it represents in the real world.

Name: _____ Date: _____

Reading *Investigating Seeds*

Directions:

1. Set a purpose for reading *Investigating Seeds.*
2. Read the book.
3. Draw a picture to show how the friends used a model to investigate how seeds get dispersed. Label your drawing.

My purpose for reading is to _____

_____

_____

Name: _____ Date: _____

Reading Reflection: *Investigating Seeds*

What did the friends in the book measure in their investigation?

_____

_____

_____

_____

_____

_____

Return to page 20 in *Investigating Seeds* and review the data that the friends collected. What did the friends learn in their investigation?

_____

_____

_____

_____

Name: _____ Date: _____

Daily Written Reflection

In *Investigating Seeds*, you read that burclover seeds can be carried by fur. Do you think a chalta seed could be carried by fur? Why or why not?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Fluffy Seed Investigation: Planning How to Measure

Directions:

1. Read the question for investigating.
2. Write your purpose for investigating in the blank below.
3. Decide how you will measure. Circle one response for how you will measure.

My question is, Does a seed move farther in the wind with fluffy parts or without fluffy parts?

1. My purpose for investigating is to _____

   _____

   _____

2. How will you measure? Circle one response below.

   We will measure how far the seeds move.

   We will measure by counting how many seeds move.

   We will measure how big the seeds are.

Name: _____ Date: _____

Daily Written Reflection

Why do you think scientists do more than one test when they investigate?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Propeller Seed Investigation

Directions:

1. Test six seed models with propellers.
2. In the table below, write "Yes" if the seed moved away from the fan, and write "No" if it did not.
3. Test six seed models without propellers.
4. In the table on the next page, write "Yes" if the seed moved away from the fan, and write "No" if it did not.
5. Complete the questions on the next page.

Seeds With Propellers

Test	Did the seed move?
1	
2	
3	
4	
5	
6	

Name: _____ Date: _____

Propeller Seed Investigation (continued)

Seeds Without Propellers

Test	Did the seed move?
1	
2	
3	
4	
5	
6	

How many seeds with propellers moved? _____

How many seeds without propellers moved? _____

Name: _____ Date: _____

Fluffy Seed Investigation

Directions:

1. Test your seed with fluffy parts six times. Record your data in the table below.
2. Test your seed without fluffy parts six times. Record your data in the table on the next page.

Seeds With Fluffy Parts

Test	How far did the seed move?
1	
2	
3	
4	
5	
6	

Name: _____ Date: _____

Fluffy Seed Investigation (continued)

Seeds Without Fluffy Parts

Test	How far did the seed move?
1	
2	
3	
4	
5	
6	

Name: _____ Date: _____

Writing a Scientific Explanation

Directions:

1. Finish the topic sentence that answers the question.
2. Write supporting ideas.

Question

How are other seeds in the Bengal Tiger Reserve able to get to places where they can grow?

Other seeds in the Bengal Tiger Reserve are able to get to places where they can grow because _____

_____

_____

_____

_____

_____

Name: _____ Date: _____

Daily Written Reflection

What is the most interesting thing you have learned about plants and their habitats? Why?

_____

_____

_____

_____

_____

_____

Make a drawing if it helps you explain your thinking. Label your drawing.

Name: _____ Date: _____

Chapter 4: Check Your Understanding

This is a chance for you to reflect on your learning so far. This is not a test. Be open and truthful when you respond.

Scientists investigate in order to figure out how things work. Am I getting closer to figuring out why new trees might not be growing in a habitat?

I understand where new trees come from. ____ Yes ____ Not yet

I understand what seeds need to grow into full-grown trees. ____ Yes ____ Not yet

I understand how seeds get the things they need to grow into full-grown trees. ____ Yes ____ Not yet

I understand how the parts of the broadleaf forest habitat depend on each other. ____ Yes ____ Not yet

I think I understand or don't yet understand these ideas because

_____

_____

_____

What are you still wondering about the plants in the Bengal Tiger Reserve?

_____

_____

_____

Glossary

data: observations or measurements recorded in an investigation
datos: observaciones o mediciones apuntadas en una investigación

disperse: to spread around
dispersar: poner todo alrededor

explanation: a description of how something works or why something happens
explicación: una descripción de cómo algo funciona o por qué algo pasa

evidence: information that supports an answer to a question
evidencia: información que respalda una respuesta a una pregunta

habitat: the place where an animal or plant lives and gets what it needs
hábitat: el lugar donde vive un animal o una planta y obtiene lo que necesita

investigate: to try to learn more about something
investigar: intentar aprender más acerca de algo

leaves: the flat, green plant parts that use light to help the plant grow
hojas: las partes planas y verdes de una planta que usan la luz para ayudar a la planta a crecer

measure: to use a tool to find out information such as how heavy, how big, how fast, or how hot or cold something is
medir: usar un instrumento para averiguar información tal como qué tan pesado, qué tan grande, qué tan rápido o qué tan caliente o frío es algo

model: something scientists make to answer questions about the real world
modelo: algo que los científicos crean para responder preguntas sobre el mundo real

Glossary (continued)

observe: to use any of the five senses to gather information about something
observar: usar cualquiera de los cinco sentidos para recolectar información sobre algo

seeds: things a plant makes that can grow into new plants
semillas: cosas que genera una planta que pueden crecer y convertirse en plantas nuevas

sprout: to start to grow from a seed
germinar: comenzar a crecer de una semilla

system: a group of parts that work together
sistema: un grupo de partes que trabajan juntas

roots: the underground plant parts that take in water to help the plant grow
raíces: las partes bajo tierra de una planta que absorben agua para ayudar a la planta a crecer

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Your Investigation Notebook

Scientists use notebooks to keep track of their investigations. They record things they learn from other scientists. Sometimes they draw or make diagrams. They record ideas and information they want to remember.

Your Investigation Notebook is a place for you to keep track of:

- investigations you do in class.
- what you learn from reading science books.
- your questions, predictions, and observations.
- your explanations and the evidence you find to support those explanations.
- your ideas!

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