

# Environments

**Lesson 1** Where Plants and Animals Live

**Lesson 2** Plants and Animals Change the Environment

**Lesson 3** People Change the Environment

**Lesson 4** People Can Protect the Environment




## Next Generation Science Standards

**K-ESS2-2. Construct** an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs

**K-ESS3-1 Use** a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live

**K-ESS3-3. Communicate** solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment

Go online to access  
your digital course.

-  VIDEO
-  eTEXT
-  INTERACTIVITY
-  SCIENCE SONG
-  GAME
-  ASSESSMENT

## The Essential Question

How do plants and animals  
change their environment?

### Show What You Know

Plants and animals change the  
land where they live.

Circle a plant in the photo.

Draw a box around an animal.

## Trails for All

How do people change their local environment?

Hi, I'm Mr. Stone.

I'm a park ranger. I help people observe living things.

I have new signs for a nature trail. These signs tell people how to use the trail wisely.

What should go on each sign?

Look for ideas as you read.

Follow the path. Do the steps to make the trail signs. Check off each one here.

QUEST CHECK  OFF



### Next Generation Science Standards

K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs

K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment





**INTERACTIVITY**

Watch a video about a park ranger.

**Quest** Check-In Lab 3

**Lesson 3** ◆

Tell how people change where they live.

**Quest** Check-In 2

**Lesson 2** ●

Use what you learned to explain how plants and animals change where they live.

**Quest** Check-In 4

**Lesson 4** ▲

Explain ways to take care of nature.

**Quest** Check-In 1

**Lesson 1** ■

Use what you learned to show where plants and animals live.

**Quest** Findings

Finish your Quest. Find a fun way to show and tell about your ideas for signs along the trail.



# How does a **plant** **make a change** to the **place where it lives**?

Scientists look for evidence when they investigate. Look for evidence to answer the question in the title.

## Procedure

1. Use the materials to find out if a plant changes the place where it lives. Make a plan.
2. Show your plan to your teacher. Do your investigation.

## Analyze and Interpret Data

- 3. Tell** how the plant made a change to the place where it lives.

### Material

- radish seeds
- clear plastic cups
- soil
- water

### Science Practice

You use **evidence** to make an argument.

**!** Wash hands after handling plants and soil.



## Sequence

Scientists observe how animals change the places where they live.

How can a squirrel make a change?

Sequence means to put things in order. "First," "next," and "last" are sequence words.

### A Squirrel Hides Food

First, the squirrel digs a hole.

Next, it drops a nut into the hole.

Last, the animal covers the nut with dirt.



#### GAME

Practice what you learn with the Mini Games.

Reading Check

Sequence

Circle what happens first.





## Lesson 1



VIDEO

Watch a video about where plants and animals live.

# Where Plants and Animals Live

## Vocabulary

shelter  
forest  
plain  
desert  
ocean

**I can** observe different places where plants and animals live.

K-ESS3-1

## Jumpstart Discovery!

Name a plant or animal that lives near you.

# Who lives **here?**

Scientists make models to show where plants and animals live.

What plants and animals live near you?

## Material

- crayons
- paper

## Science Practice

When you draw, you make a **model**.

## Procedure

1. Think of plants and animals that live near you.
2. Draw a picture of the plants and animals that live near you.

## Analyze and Interpret Data

3. Tell a partner where your plants and animals live.
4. Explain why you think your drawing is a good model to show this place.





## Needs

Plants and animals need water, air, and resources from the land.

Animals need air, food, and water.

Plants need air, water, and space to grow.

Animals need shelter.

A **shelter** is a safe place to live.

Plants and animals live where they can survive.

**Sequence** Look at the three pictures. What is the first step in building a bird nest? Put a box around the photo.



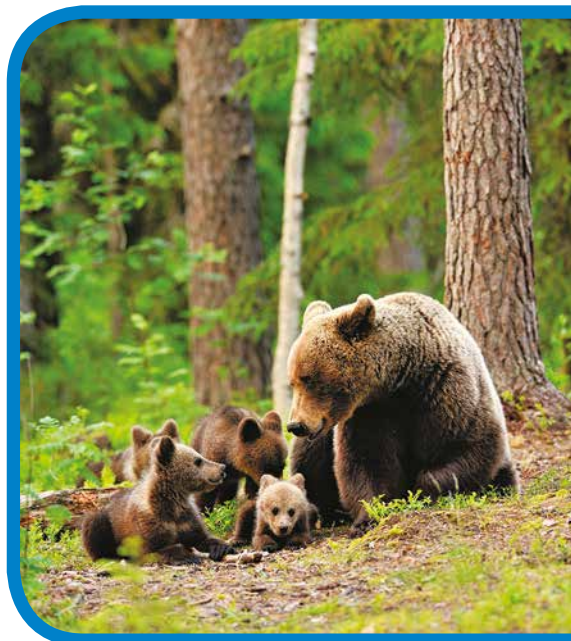
## Forests and Plains

Some plants and animals live in forests.

A **forest** is land with many trees.

Some plants and animals live on the plains.

A **plain** is a flat area of land with lots of grass.



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**Label** Write a label for each photo.

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### Crosscutting Concepts ▶ Toolbox

**Cause and Effect** A tree falls in the forest.

Tell what might happen to the animals that live in the tree.





### INTERACTIVITY

Learn more about a desert environment.

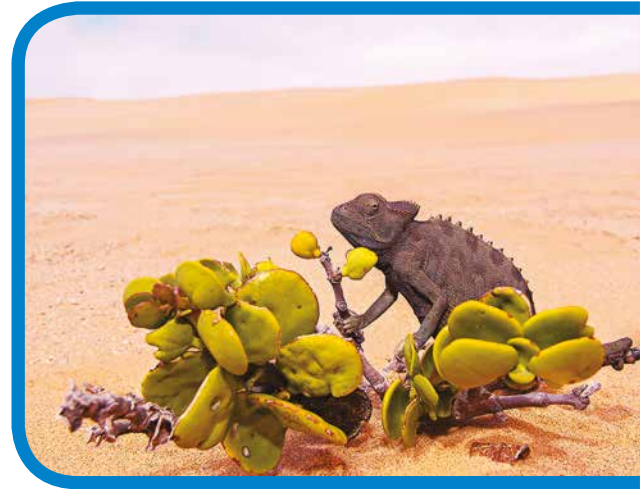
# Deserts and Oceans

Some plants and animals live in the desert.

A **desert** is very dry land.

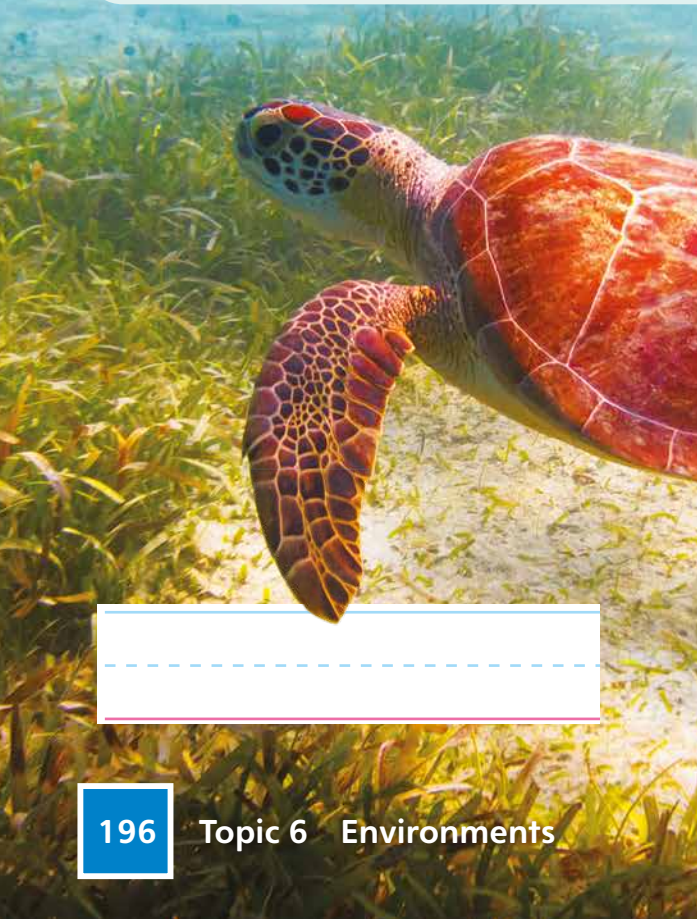
Some plants and animals live in the ocean.

The **ocean** is a big area of salt water.



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**Label** Write a label for each photo.



\_\_\_\_\_  
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\_\_\_\_\_

## Quest Connection



Tell about some places where plants live. Tell about some places where animals find shelter.





## A Nature Walk

People like to hike in nature.

People like to go on trails.

People like to see plants and animals where they live.

**Draw** Make a trail sign to tell people where plants and animals live in the picture.



## Lesson 2



VIDEO

Watch a video about how plants and animals change their environment.

# Plants and Animals Change the Environment

**Vocabulary**  
environment

I **can** observe ways that plants and animals change their environment.

KESS2-2 K-ESS3-1

### Jumpstart Discovery!

Look at the picture.  
How are plants, animals, and people making changes?  
Circle four ways.



# How do squirrels change the land?



Scientists use evidence to support their opinions. How can you use a model to get evidence?

## Materials

- container of damp sand
- classroom objects to represent nuts, acorns, and seeds

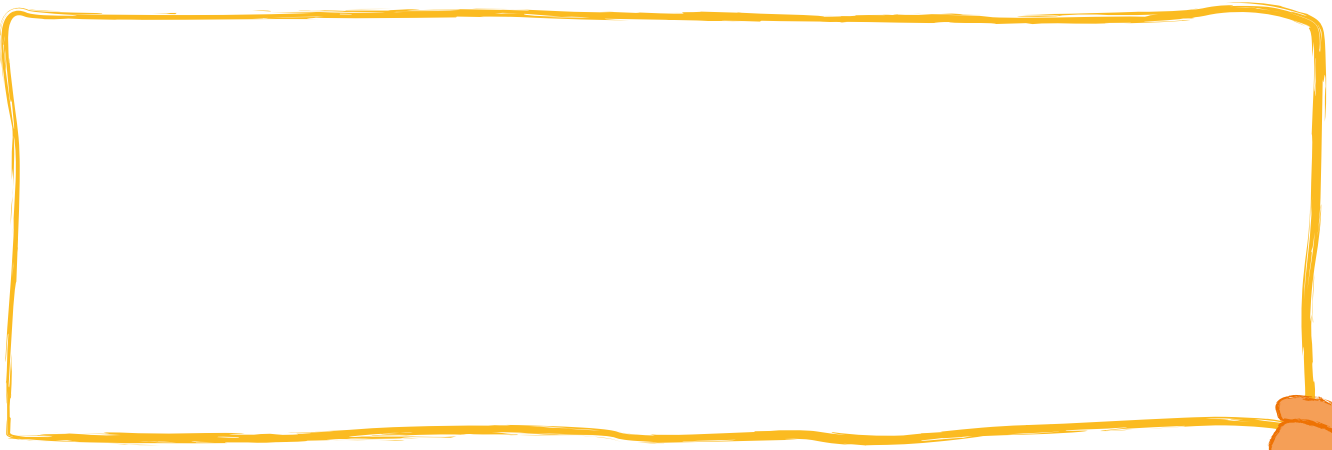


## Science Practice

You can use **evidence** to support your argument.

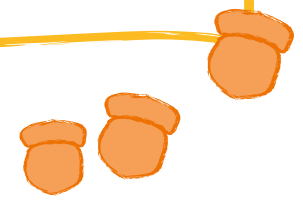
## Procedure

1. Show ways that squirrels can change the land.
2. Build your model and then draw it.



## Analyze and Interpret Data

3. Tell how your model shows that squirrels change the land. Use evidence.







### INTERACTIVITY

Show how plants and animals change their environment.

## Where Plants Live

A plant is part of its **environment**. An environment is everything around a living thing.

A plant can change its environment.

**Sequence** Tell what happens first, next, and last. Write 1, 2, or 3 in each box.



### Quest Connection



Tell how a plant can change its environment.



# Animals in Their Environment

An animal can change its environment.

Termites make huge nests.

Elk eat grass and flowers.

**Describe** Tell about another animal that can change its environment.



termites and nest



elk eating grass



# Plants and Animals Together

Plants and animals live together in an environment.

Animals help plants by spreading their seeds.

Plants help animals by providing food and shelter.



## Crosscutting Concepts ▶ Toolbox

**Systems in Nature** Tell what would happen to the animals that eat grass if all the grass died.

**Identify** Look at the photos. Tell how the plants and animals live together.



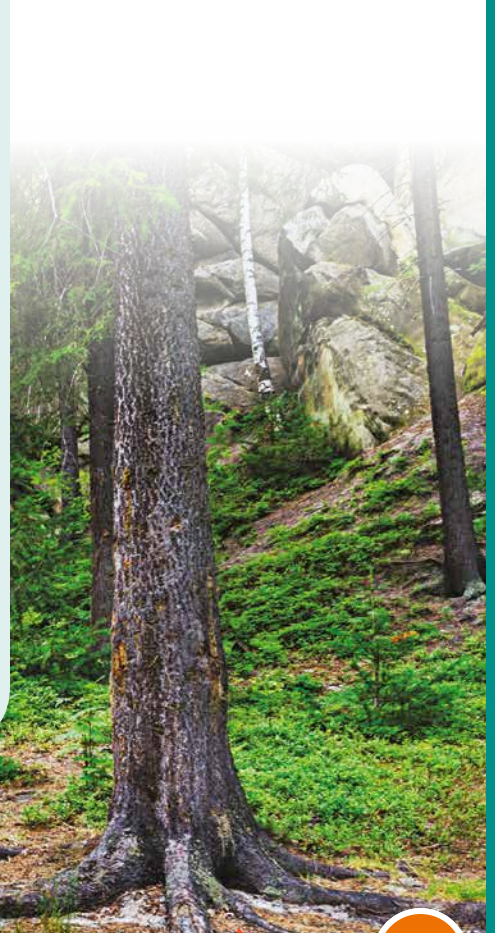
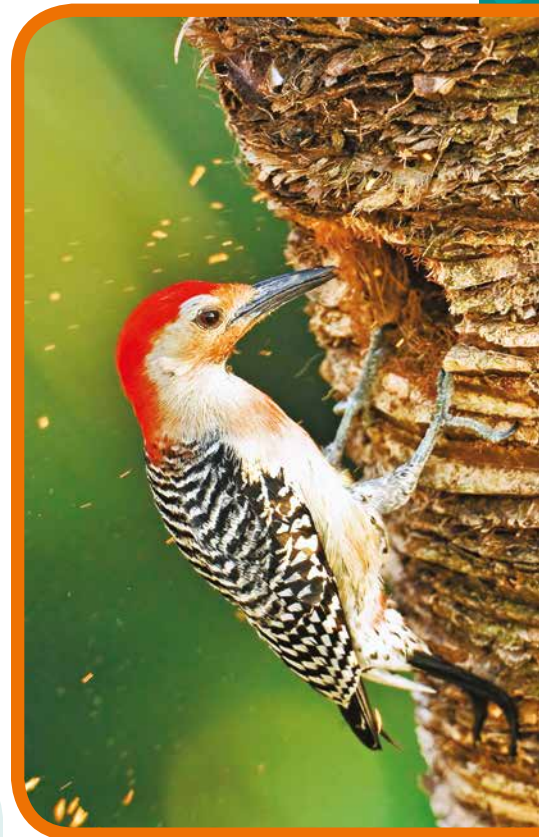


## Quest Check-In

### Changes in Nature

Plants and animals can change their environments. Plants and animals can change how a trail looks. Look at the photos that show changes.

**Draw** Make a trail sign to tell how the plants and animals in the pictures changed the nature trail.





## Lesson 3



VIDEO

Watch a video about how people change their environment.

# People Change the Environment

**Vocabulary**  
resources

I can observe ways that people change their environment.

K-ESS3-1 K-ESS2-2 K-ESS3-3

### Jumpstart Discovery!

You want to make a garden. Name the tools you will use. Act out how to use each tool.

# How can you model changing the environment?

Workers changed the land to build your school.

How can you make a model to show other changes?

## Procedure

1. Make a model of land.
2. Find ways to change the sand.

## Analyze and Interpret Data

3. **Explain** What is the biggest change you made?
- 
- 
- 

4. **Draw Conclusions** Tell how people changed the land near where you live.

### Materials

- container of sand or dirt
- water

### Suggested Materials

- toy garden tools
- toy construction vehicles

### Science Practice

You use a **model** to answer questions about nature.





## People and Resources

**Resources** are things that people use to live.

Air, soil, water, and plants are some resources.

People need resources.



cutting down a tree



wood from trees



fresh water





### INTERACTIVITY

Learn more about how people change their environment.

# Getting What We Need

People change the environment to get the resources they need.

Sometimes the changes can hurt the land, soil, air, or water.



stream with trash

**Identify** Look at the photos. Tell one way to stop changes that hurt the land, air, soil, and water.



## Quest Connection



Tell how people changed the environment.



# How can people change the land?

Park rangers make sure the trail is not being damaged by too many people using it. What happens to the plants if a trail is used too much?



## Materials

- container of sand or dirt
- toy people
- model trees, plants, or bushes

## Science Practice

A **model** can help you understand events.

## Procedure

1. Make a model of a trail.
2. Find ways to show what happens when many people use the trail.

## Analyze and Interpret Data

- 3. Explain** How do the people and plants change the trail?
- 4. Describe** Tell how the plants look different.



## Subtracting Numbers

Subtracting is taking one number away from another to tell how many.

Look at the picture on the left.

Write how many trees there are.

Look at the picture on the right.

Write how many trees there are.

Left \_\_\_\_\_ trees

Right \_\_\_\_\_ trees



Complete the subtraction problem.

$$\begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} \text{ trees} - \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} \text{ trees} = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} \text{ trees}$$





## Lesson 4

# People Can Protect the Environment



VIDEO

Watch a video about how people can protect their environment.

### Vocabulary

recycle

reuse

**I can** tell how  
**I can** protect the environment.

K-ESS2-2, K-ESS3-3

### Jumpstart Discovery!

Tell one way that you can help the environment.

# How can you make something useful?



We throw away many things that we can use again. How can you make something useful from something old?

## Suggested Materials

- old, clean socks
- clean cans, plastic bottles and jars
- paper and fabric scraps
- safety scissors
- glue

## Design and Make It!

1. Choose something old.
2. Think of ways to change it to make something useful.
3. Ask your teacher for help if you need it.
4. Make something useful.

## Engineering Practice

You can **design** a solution to a problem.

## Evaluate Your Design

- 5. Tell** how people can use the object you made.



Be careful with scissors.





## INTERACTIVITY

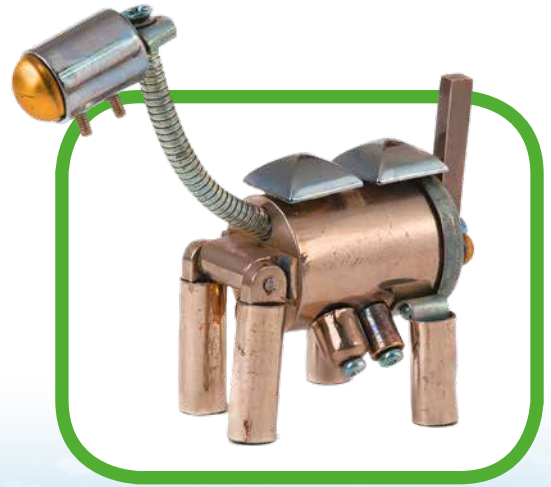
Show how you can protect Earth.

# New Uses for Old Things

People can help Earth.

We can reuse objects.

**Reuse** means we can use an object again.



## Quest Connection



Tell how reusing and recycling helps the environment.

## Helping Earth

People can recycle things.

**Recycle** means we can make an object into something new.

We can recycle bottles and cans.

We can recycle paper and cloth.

**Explain** Write a caption for the photo of the bins.

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Crosscutting  
Concepts ▶ Toolbox



### Cause and Effect

Look at the photo of trash. Tell what caused this to happen.





## What You Can Do

We all need to protect the environment.

You can use less water.

You can reuse things you have.

### Visual Literacy

Draw a way you help Earth.



**Stay on a bike path.**



**Put litter in a trash can or recycling can.**





**Turn off the water while you brush your teeth.**



**Help other people reuse.**



**Crosscutting Concepts ▶ Toolbox** 🔍

**Systems in Our World** Tell how you can protect the air and water you need.

**Pick up litter when you see it.**



# How can we **save our** trails?

Some people ride bikes on nature trails.

Some people walk on nature trails.

What happens when too many people and bikes use nature trails?



## Materials

- model from Lesson 3
- craft sticks
- tape
- model plants
- markers

## Model

1. Look at each picture. Think about what each picture is showing.
2. Choose one picture.
3. Use your model from Lesson 3.

## Engineering Practice

You can **design a solution** to a problem.





- 4. Use your model to show how to save the trail.
- 5. Make a sign that will help save the trail. Put it with your model.

## Draw your model and sign

## Evaluate Your Model

- 6. **Explain** your solution to a partner.





Watch a video about how engineers use tools.

# The Problem with a Tree

Jay and his dad built a tree house.

How can Jay get up in the tree?





## Design It

What is the problem?

\_\_\_\_\_

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\_\_\_\_\_

Look at the clues.

Draw two new ideas  
that Jay could try.

Talk with a partner.  
Choose the best idea.







Apply what you learned in the Quest.

# Trails for All

How do people change their local environment?

You have learned how people can change an environment.

## Show What You Know

You have made some trail signs to protect a nature trail.

What other signs can you make to help the park ranger save the nature trails?

Tell how your signs will help plants and animals on the trail.





## Park Ranger

Park rangers keep parks safe for animals, plants, and people.

A ranger shows people how plants and animals live together in an environment.

Would you like to be a park ranger?

Explain in a sentence.

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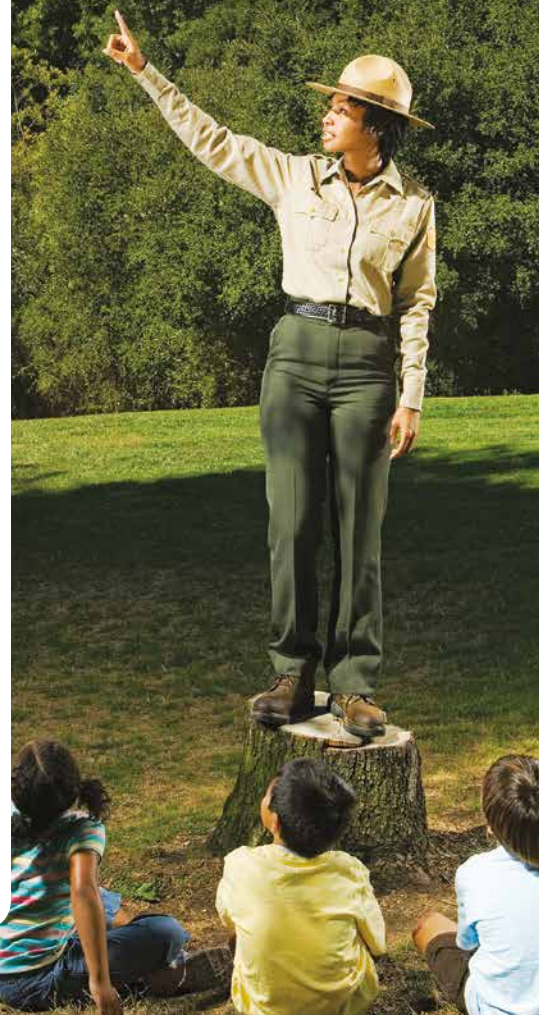
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The Essential Question

How do plants and animals change their environment?

Show What You Learned

Tell a partner what you learned about how plants and animals change their environment.

1. Choose a word from the word bank to correctly complete the sentence. The photo shows a animal in the

\_\_\_\_\_ .

- desert forest plain ocean



2. What is an environment?
  - a. a way to reuse objects in the trash
  - b. everything around a living thing
  - c. an animal that can meet its needs
  - d. a plant that can meet its needs
  
3. Why should people recycle?
  - a. to use more resources
  - b. to keep plants and animals safe
  - c. to get more sun and water
  - d. to use fewer resources.
  
4. What is one way you can help Earth?
  - a. Go to the store every day.
  - b. Turn on the lights at home.
  - c. Reuse toys and books.
  - d. Eat more fish and meat.



Read and answer questions 1-4.

Ella loves to camp. Her family likes to camp by Elk River. But this year, something has changed. Use the pictures to answer the questions.



1. What kind of environment does Ella camp in?
  - a. an ocean
  - b. a plain
  - c. a desert
  - d. a forest

2. How did the environment change?
- a. Trees were cut down.
  - b. Animals made homes in the soil.
  - c. Trees fell over in a storm.
  - d. Campers caught too many fish.
3. Why did the change happen?
- a. to meet animals' needs
  - b. to meet people's needs
  - c. to help plants grow bigger and stronger
  - d. to give fish a better home
4. Tell how the environment can be protected.

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# How can an animal **change** where it lives?

Scientists observe with their senses. How do worms change the soil where they live?

## Procedure


1. Make a plan to show how worms change soil.
2. Show your plan to your teacher.
3. Observe the worms for 5 days.
4. Draw your observations on Day 1.

### Materials

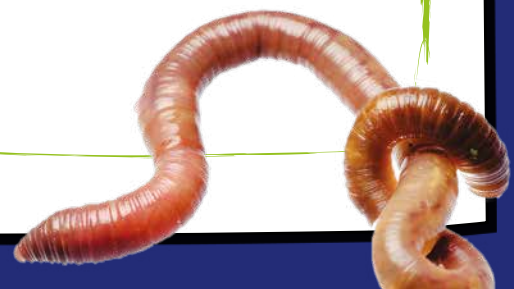
- worms
- soil
- clear plastic container with lid
- gloves
- black paper
- tape

### Science Practice

You use **evidence** to make an argument.

 Wear gloves when handling worms.

## How Worms Change Soil Day 1





5. Draw your observations on Day 5.

## How Worms Change Soil Day 5



### Analyze and Interpret Data

6. **Explain** how worms changed their environment. Use your drawings as evidence.