

Name: _____

When Habitats Change

A **habitat** is a place that has everything an animal needs to survive. Sometimes habitats change. Habitats can change quickly or slowly. There are many causes of habitat change.

Sometimes, people change a habitat. They cut down trees to make room for farms. They build roads and towns where there used to be grasslands. Pollution can get into the air or into lakes, streams, or oceans.

Habitats can change naturally, too. Fires can burn large areas of forests or grasslands. Too much rain or melting snow can cause floods. Not enough rain can cause drought. Big storms can damage habitats.

When a plant or an animal’s habitat changes, they might not be able to get what they need to survive. Some can **adapt**, or change, and survive. Raccoons, coyotes, and crows have learned to live in cities. They can find food and shelter there.

Some plants and animals move to a new place that has what they need. Some living things die when their habitat changes. They cannot adapt or move to a new place. Many kinds of plants and animals are **threatened**, or **endangered**, because their habitats have changed. This means there are not many of them left.



Crow

1. Which statement is true?
 - a. Some animals can adapt when their habitat changes.
 - b. All animals can move to a new place when their habitat changes.
 - c. Some animals can cause floods.
2. Name three ways that a *habitat* can change.

3. What can happen to plants and animals when their *habitat* changes?

UNIT 8: When Habitats Change

Name: _____

Raccoons and Habitat Change

Sometimes, the place where an animal lives, its habitat, can change. Some animals can **adapt** to the changed habitat. They can learn to get what they need.

Raccoons usually live in the forest. They eat bugs, frogs, fish, eggs, nuts, seeds, and fruits. They find their food in their habitat.

Sometimes, people build homes and cities where raccoons live. The food that the raccoons usually eat is gone. What can the forest raccoons do? They could leave and look for another place that has the food they are used to. But most of the time, raccoons stay. They learn to find and eat new kinds of food.



City raccoons are very good at getting things open. They can open trash cans, chip bags, and all sorts of containers that have food inside.

When scientists observed city raccoons and forest raccoons, they found that the city raccoons are smarter. They are also less afraid of new things. They adapted to their changed habitat.

1. What does the word *adapt* mean?
 - a. leave
 - b. change
 - c. stay
2. What is the main idea of this passage?
 - a. Raccoons can open trash cans.
 - b. Raccoons are smart.
 - c. Raccoons can adapt to changes in their habitat.
3. What animals have you seen where you live?

How do you think these animals *adapted* to living near people?

Name: _____

Save the Ferrets!

Sometimes, an animal's **habitat** changes. Some animals can't adapt to changes in their habitats. They can't get what they need anymore.

Black-footed ferrets live in grasslands. Their habitats are called **prairies**. They eat prairie dogs, so they live where the prairie dogs live. Ferrets need to catch a lot of prairie dogs to eat. One ferret can eat more than 100 prairie dogs in a year! Ferrets live and nest in old prairie-dog burrows.



Black-footed ferret

What happens when people build farms or cities on the land where the prairie dogs and ferrets live?

Prairie dogs need the plants in the grasslands to eat. Farmers try to get rid of prairie dogs. They do not want the prairie dogs digging on their farms. They don't want them eating the plants.

Prairie dogs cannot live in the new cities. They cannot find enough plants to eat. They cannot find places to make homes.

Ferrets die if they cannot find enough prairie dogs to eat. Black-footed ferrets are **endangered**. This means there are not many of them left. When people changed the ferret habitat, the animals could not adapt. They could not survive.

At one time, there were only 18 black-footed ferrets left! People wanted to help. Some zoos took ferrets to keep them safe. In the zoos, the ferrets got food and had babies. They were safe.

People also worked to bring back prairies. They helped some ferrets go back to the prairies. Now, there are 300 black-footed ferrets in zoos and about 1,000 in the wild.

1. What does it mean when a kind of animal or plant is *endangered*?
 - a. There aren't many left.
 - b. They live in a habitat.
 - c. They need a lot to eat.
2. What do animals need to survive?

3. Why are black-footed ferrets *endangered*?

UNIT 8: When Habitats Change

Name: _____

Help the Warblers!

The golden-cheeked warbler is a small bird. It lives in Texas. These warblers only nest in trees called Ashe junipers. They find their food in these trees. The birds eat the insects they find. They use spider webs and the bark of Ashe junipers to build their nests. The Ashe juniper is where the warbler lives and eats!

Sometimes, people do things that cause harm to an animal species. They build roads, homes, and farms on animal habitats. People in Texas have cut down many Ashe juniper trees for wood and also to build roads, farms, and homes. What happens when Ashe junipers are cut down? The golden-cheeked warblers cannot find food. They cannot nest. They cannot raise babies. That is why these birds are endangered.



Golden-cheeked warbler

But people can also help fix things! They can **restore** habitats. This means they can work to make a place the way it was before. This helps endangered animals and plants. People are working to restore the habitat for the little birds. They are planting new Ashe juniper trees.

1. Why does the golden-cheeked warbler need the Ashe juniper tree?
 - a. for food
 - b. for bark to build their nests
 - c. both a and b
2. What does it mean to *restore* a habitat?
 - a. Make it bigger than it was.
 - b. Make it the way it was.
 - c. Make it better than it was.
3. What are people doing to help the warblers?

Name: _____

Natural or Manmade Change?

Habitats can change quickly or slowly. There are many causes of habitat change. Sometimes, people change a habitat. That is called **manmade change**. Habitat change can also be **natural**, or not caused by people.

Directions: Read each description of habitat change, and circle **Manmade** or **Natural**.

1	A very big hurricane moves over land. Many trees are knocked down. A lot of the land is flooded.	Natural	Manmade
2	A big ship has an accident. Oil spills into the ocean. The oil stays in the water and on the shore for many years.	Natural	Manmade
3	Lightning strikes a grassland. A fire starts. It spreads quickly.	Natural	Manmade
4	A beaver cuts down trees and builds a dam. Some forestland is flooded. A pond is formed.	Natural	Manmade
5	Many acres of rainforest are cut down. Farm crops are planted in their place.	Natural	Manmade
6	Water is pumped out of a river. It is sent to homes, schools, and stores. The river has a lot less water in it.	Natural	Manmade

Answer Key (cont.)

The Best of Its Kind (page 25)

1. b
2. b
3. c
4. Check for appropriate answers.

Unit 5—Biomes and Ecosystems

What Are Biomes? (page 26)

1. b
2. grasslands
3. The marine region has salty water and the freshwater region has fresh water.

Nonliving Parts of Biomes (page 27)

1. a
2. c
3. Check for appropriate answers.

Interpreting Graphs: Biomes (page 28)

1. 110°F; 75°F; 35°F
2. 1 inch
3. The desert biome, because it has high temperatures and very little rain.
4. 85°; 80°; 5°
5. Site B gets a lot of rain each month.
6. The forest, because the temperatures are always warm and there is a lot of rain.

Biome Plants (page 29)

1. grassland
2. desert
3. forest
4. tundra
5. aquatic

Ecosystems (page 30)

1. Since black bears hibernate, they must live in deciduous forests where the winters are cold.
2. Because boa constrictors are cold-blooded, they must live in the rainforest where it is warm all the time.

Unit 6—Physical Adaptations

Physical Adaptations to Get Food (page 31)

1. c
2. Spoonbills probably live in a habitat with shallow water because they walk in the water and swish their beaks.
3. Crossbills live in a habitat with pine trees because they eat seeds from pinecones.
4. A spoonbill could not survive in a crossbill's habitat because it could not find food in pine trees. It needs shallow water.

Physical Adaptations for Protection (page 32)

1. b
2. a
3. They can run very fast.
4. b

Physical Adaptations to Stay Warm or Cool (page 33)

1. c
2. It has a thick layer of fat, or blubber.
3. Foxes have large ears to cool off.
Ostriches do not have feathers on their heads, necks, or legs. This helps them cool off.
Polar bears have black skin and blubber.

Physical Adaptations of Plants (page 34)

1. b
2. leaves, roots
3. No, because it cannot survive in the cold. It is adapted for the hot desert.

Invent an Animal (page 35)

- 1–4. Check for appropriate answers.

Unit 7—Behavioral Adaptations

Instincts for Getting Food (page 36)

1. a
2. Because they cannot find food in the winter.
3. It is something an animal knows how to do without being taught.

Learned Behaviors for Getting Food (page 37)

1. c
2. They might die. They might move lower down the mountain where food is easier to find.
3. Check for appropriate answers.

Behaviors to Stay Safe (page 38)

1. a
2. b
3. sounds
4. Check for appropriate answers. *Example:* Look both ways before crossing the street.

Behaviors to Stay Warm or Cool (page 39)

1. c
2. To keep warm; because they cannot find food in winter
3. Check for appropriate answers. *Examples:* Put on warm clothes; stay inside where it is warmer

Behaviors in Plants (page 40)

Check for appropriate answers.

Unit 8—When Habitats Change

When Habitats Change (page 41)

1. a
2. Check for appropriate answers.
3. They can adapt and survive, they can move to a new place, or they can die.

Answer Key (cont.)

Raccoons and Habitat Change (page 42)

1. b
2. c
3. Check for appropriate answers.

Save the Ferrets! (page 43)

1. a
2. food and shelter
3. People built farms and cities on the grasslands. There weren't enough prairie dogs for the ferrets to eat.

Help the Warblers! (page 44)

1. c
2. b
3. restoring the warbler habitat by planting new Ashe juniper trees

Natural or Manmade Change? (page 45)

- | | | |
|------------|------------|------------|
| 1. Natural | 3. Natural | 5. Manmade |
| 2. Manmade | 4. Natural | 6. Manmade |

Unit 9—Fossils

What Is a Fossil? (page 46)

1. b
2. body fossils, trace fossils
3. Check for appropriate answers.

How Do Fossils Form? (page 47)

1. To decay means to break into tiny pieces and become part of the dirt.
2. b
3. No, a jellyfish cannot become a body fossil because it has no hard body parts.

What Can Fossils Tell Us? (page 48)

1. c
2. how animals lived and what the land was like
3. Fossils found in lower layers of rock lived longer ago than fossils in higher layers. Fossils found in the same layer probably lived at the same time.

Paleontologists (page 49)

1. c
2. Any three: digs them up carefully; measures them; photographs and draws them; cleans them and studies them; writes about them; shares information.
3. Check for appropriate answers.

The Fossil Record (page 50)

1. how living things have changed over millions of years
2. Any two: Not many living things became fossils; we find very few fossils; paleontologists sometimes make mistakes
3. They change their ideas to fit the new evidence.

Unit 10—What Is Weather?

What Is Weather? (page 51)

1. b
2. precipitation
3. Check for appropriate answers.

Weather Can Change (page 52)

1. is not
2. Earth tilts slightly towards the Sun part of the time and slightly away from the Sun the rest of the time. This causes the days to be shorter or longer and the weather to be warmer or colder.
3. Check for appropriate answers.

Types of Weather (page 53)

1. a
2. warm air and cold air bump into one another
3. Check for appropriate answers.

Dangerous Weather (page 54)

1. c
2. Any two: water, wind, electricity
3. *Possible answers:* A hurricane can move cars and ruin buildings. It can push waves to the shore. It can cause flooding.

Weather Activity (page 55)

Check for appropriate answers for each type of weather.

Unit 11—Weather Forecasting

Weather Forecasting (page 56)

1. b
2. c
3. Check for appropriate answers.

Meteorologists (page 57)

1. c
2. patterns in the weather
3. Check for appropriate answers.

Weather Tools (page 58)

1. b
2. a
3. the amount of rain that falls, temperature, wind speed and direction
4. where storms are; how much rain, snow, and wind are in an area; which direction storms are moving and how fast

Fun with Forecasting (page 59)

1. a
2. Look to see if the pinecones are open or closed. If the pinecones are closed, it may rain. If the pinecones are open, it should be a nice day.
3. $43 + 37 = 80^\circ$