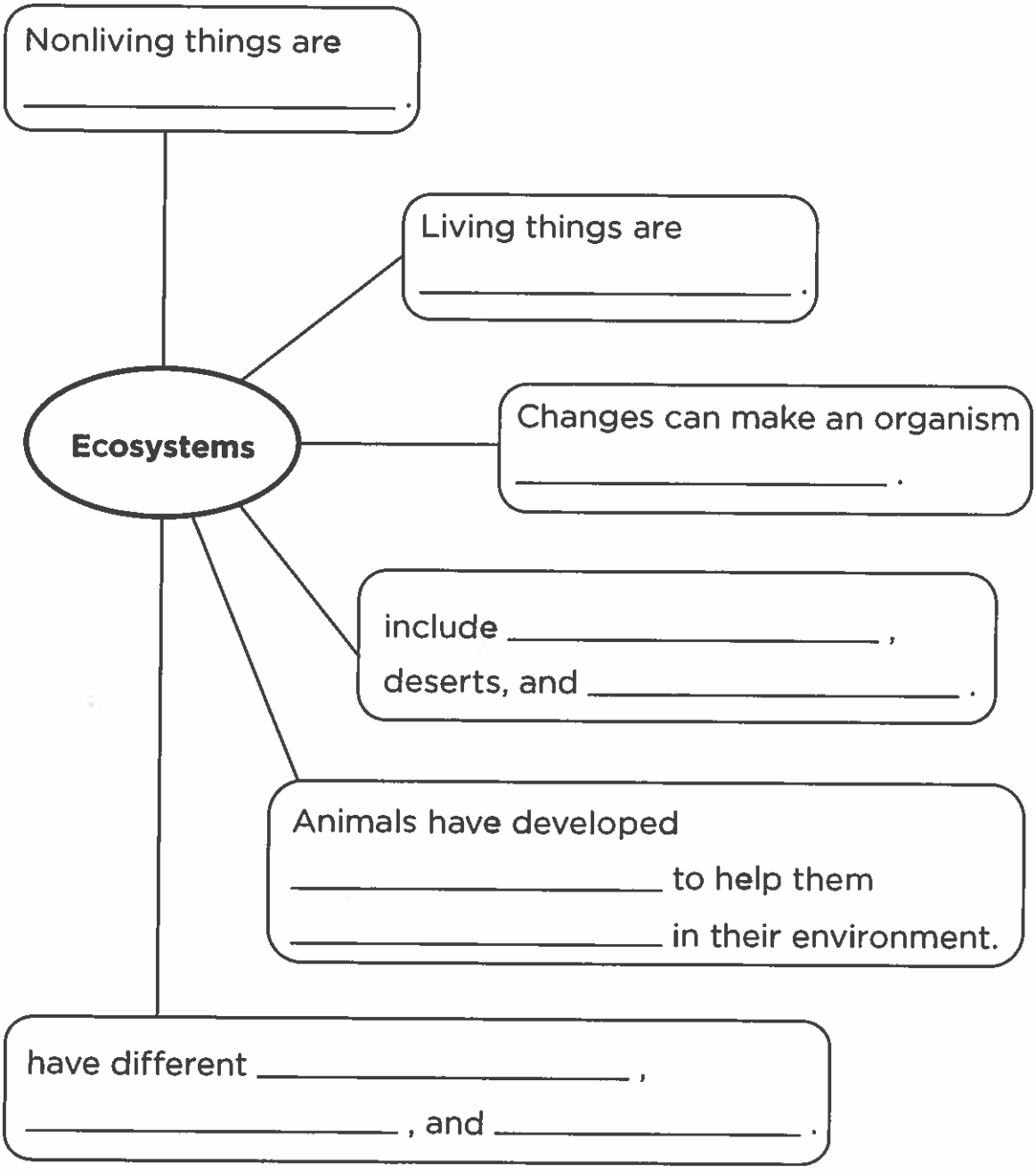
Name _____ Date _____

CHAPTER LEVEL
Concept Map

Living Things and Their Environment



CHAPTER LEVEL
Literature

Name _____ Date _____

Welcome to the Sea of Sand

Read the Literature feature in your textbook.

Write About It

Response to Literature The poet uses figurative language and vivid details to describe the desert environment. Write a composition describing your own environment. Tell the impression it creates. Use figurative language and descriptive words to paint a vivid picture.

Name _____ Date _____ **Outline**

Ecosystems

Use your textbook to help you fill in the blanks.

What is an ecosystem?

1. _____ and their nonliving environment make up an ecosystem.
2. Plants, animals, and microorganisms are _____ in an ecosystem.
3. Rainfall and temperature are _____ in an ecosystem.
4. Abiotic factors that make up a pond include _____ .
5. Plants in a pond need a lot of _____ .
6. A special _____ helps pond animals grow well in the ecosystem.

What is a desert ecosystem?

7. The food that some desert animals eat provides all the _____ they need.
8. Many desert animals survive very hot and very cold weather by living _____ .

What is a rainforest ecosystem like?

9. More life is found in the _____ than any place on Earth.
10. The _____ are called the emergent layer of the rainforest.

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11. Snakes and treefrogs can be found in the _____ layer of the rain forest.

12. Below the rain forest canopy is the _____ layer of the rain forest.

13. Very few plants grow on the _____ because there is little sunlight.

What is a coral reef ecosystem?

14. Organisms that are no longer living form _____ .

15. Coral is an _____ of the reef ecosystem.

Summarize the Main Idea

16. What two things are included in an ecosystem?

_____

_____

Name _____ Date _____ **Vocabulary**

Ecosystems

a. abiotic factors	**d.** climate	**g.** forest floor
b. biotic factors	**e.** ecosystem	**h.** understory
c. canopy	**f.** emergent layer	

Match the correct letter with the description.

1. _____ A layer of the rain forest just below the emergent layer
2. _____ A group of living things and their nonliving environment
3. _____ The typical weather patterns of an area
4. _____ The place where few plants grow because there is very little sunlight
5. _____ All of the living things in an ecosystem
6. _____ The area beneath the rain forest canopy
7. _____ Nonliving things in an ecosystem
8. _____ The tops of the tallest trees

Cloze Test Name _____ Date _____

Ecosystems

biotic factors	emergent	rain forest	understory
canopy layer	living things	sunlight	water
coral reefs	rainfall	underground	

Fill in the blanks.

An ecosystem includes all _____ and their nonliving environment. You can find plants and animals that are called _____ in an ecosystem. Abiotic factors such as _____ and temperature are also found in an ecosystem. Animals living in a desert ecosystem get their _____ from the food they eat. Desert animals survive extreme temperatures in the desert by living _____ . Most of life on Earth is found in the _____ . The top layer of the rain forest is the _____ layer. Underneath the emergent layer are the _____ and the _____ layer. The forest floor gets very little _____ . _____ are formed from dead organisms. Coral is an abiotic factor found in a reef ecosystem.

Name _____ Date _____ **Outline**

Living Things Need Each Other

Use your textbook to help you fill in the blanks.

How do animals depend on plants?

1. Animals breathe in _____ that is produced by plants.
2. _____ are eaten by caterpillars and rabbits.
3. Other animals, such as beetles, eat plant _____ .
4. Earthworms and some snails eat plants that are _____ .
5. Plants are the main source of _____ entering food chains.

Plants as Shelter

6. Some animals such as birds use plants to build _____ that they use as their homes.
7. Plants help keep animals _____ from harm.

How do plants depend on animals to reproduce?

8. _____ is the process when male cells are transported to female cells in a flower.
9. The male cells are stored in the _____ of a flower.
10. The _____ holds the female cells.
11. After pollination, the _____ , at the base of the pistil, turns into a fruit.

Outline Name _____ Date _____

Moving Pollen Around

12. _____ is a sweet drink found inside the flower.

13. As animals travel from flower to flower, _____ rubs off the flower to the next flower.

14. Animals help flowers _____ by rubbing pollen on different flowers.

How do plants depend on animals to carry seeds?

15. The process of spreading seeds is called _____ .

16. Animals eat fruit and seeds and leave fruit seeds on the ground in their _____ .

17. Some seeds stick to _____ and fall to the ground and grow into new plants.

Summarize the Main Idea

18. What are two ways that animals depend on plants and two ways that plants depend on animals?

_____

_____

_____

Name _____ Date _____ **Vocabulary**

Living Things Need Each Other

a. nectar	**d.** pollen	**g.** stamen
b. ovary	**e.** pollination	
c. pistil	**f.** seed dispersal	

Match the correct letter with the description.

1. _____ Part of the flower that holds the pollen and contains the male cells
2. _____ A sweet drink inside the flower
3. _____ The female part of a plant that turns into a fruit after pollination
4. _____ Part of the flower that holds the female egg cells
5. _____ Male and female cells from flowers join together
6. _____ A flower's powdery material
7. _____ The process of spreading seeds

Cloze Test Name _____ Date _____

Living Things Need Each Other

fruits	pistil	seed dispersal
nectar	pollen	stamen
nests	pollination	stems

Fill in the blanks.

Plants produce the oxygen in the air we breathe. Every day we eat plants such as _____ and vegetables. Other animals such as rabbits and beetles eat plant leaves, roots, and _____ . Birds use plants to build _____ for protection against danger in the environment. Plants depend on animals for _____ to make new plants. The male part of the plant is called the _____ , and the _____ holds the female cells. Both parts must join to make new plants. Animals such as bees and birds drink _____ from flowers. _____ is transferred by animals as they travel from flower to flower. Animals also help plants by spreading seeds through _____ . Sometimes animals spread seeds when the seeds stick to their skin, fall to the ground, and then grow into new plants.

Name _____ Date _____ **Writing**

Write About It

Write a report that shows how plants are useful to us. Include facts and details that you have learned in this chapter and from your own online research. Use words such as *because* and *since* that show cause and effect.

Getting Ideas

Start with the question: How are plants useful to us? Then do some print and online research to answer this question. Make a chart to record information.

Planning and Organization

Kevin came up with four categories of ways that plants are useful to people. They are

- food
- clothing
- shelter
- transportation

He wants to organize information into these categories. When he writes his report, he will use a new paragraph for each category.

Here are some sentences he wrote. Write the category each sentence fits in.

1. Plants provide fruits and vegetables. _____
2. Native Americans hollowed out tree trunks to make canoes. _____
3. Cotton comes from cotton plants. _____
4. The lumber industry replants trees in the Northwest. _____

For each category, write sentences that you could use in your report. Write five sentences on a separate sheet of paper.

Writing

Name _____ Date _____

Drafting

Write a sentence to begin your report. Focus on your most important idea about the topic.

_____

Now write your report. Begin with a paragraph that tells your most important idea about how plants are useful to us. Write paragraphs including facts and details from more than one source. At the end summarize the ways plants are useful to us.

Revising and Proofreading

Help Kevin connect these sentences with words like *because* or *since* to show cause and effect.

1. Wood can be used to make boats. Wood floats on water.

_____

_____

2. The white, fibrous substance around cotton seeds can be made into a soft material. We use cotton for clothing.

_____

_____

Now revise and proofread your report. Ask yourself:

- Have I clearly stated my main idea about plants?
- Have I included facts and details showing plants' usfulness?
- Have I used transition words to show cause and effect?
- Have I ended with a logical conclusion about the value of plants?
- Have I corrected all grammar errors?
- Have I corrected all problems in spelling, punctuation, and capitalization?

Name _____ Date _____ **Outline**

Changes in Ecosystems

Use your textbook to help you fill in the blanks.

How can ecosystems change?

1. When biotic or abiotic factors change, the _____ changes, too.
2. Over time, ecosystems can become warmer or colder, _____ or drier.
3. Changes in the ecosystems can make it difficult for plants and animals to _____ .

Natural Events Change Ecosystems

4. _____ and _____ changes affect ecosystems.
5. _____ and tropical storms are examples of a weather change that affects ecosystems.
6. Long periods of no rain are called _____ .

Humans Change Ecosystems

7. Cutting down forests and digging for resources in Earth's surface can change _____ .
8. Many human activities cause _____ and make living things sick.

What happens when ecosystems change?

9. A _____ can change a forest ecosystem quickly.
10. Some animals change their behaviors and habits to _____ changes in the ecosystem.

 Name _____ Date _____

11. Some fires help a forest ecosystem from becoming too _____ .
12. If there are only a few of a specific plant or animal in an ecosystem, that plant or animal is _____ .
13. When all of a specific plant or animal are destroyed or die, that plant or animal becomes _____ .

How can humans protect ecosystems?

14. _____ are made to limit pollution and make hunting certain animals or picking certain plants illegal.
15. An example of an endangered animal is the _____ .

Summarize the Main Idea

16. What causes ecosystems to change?

_____

_____

Name _____ Date _____ **Vocabulary**

Changes in Ecosystems

a. accommodation	**c.** extinct	**e.** survival
b. endangered	**d.** pollution	

Match the correct letter with the description.

1. _____ Makes living things sick and can even raise the temperatures on Earth
2. _____ An individual organism's response to change
3. _____ An animal or plant that has very few left of its kind
4. _____ An animal or plant that has none left of its kind
5. _____ The ability to stay alive

Cloze Test Name _____ Date _____

Changes in Ecosystems

California condor	extinct	laws	weather
changing	fires	pollution	
endangered	habits	surviving	

Fill in the blanks.

An ecosystem changes when biotic or abiotic factors change. Ecosystems are always _____ . Plants and animals have a difficult time _____ because of changes in the ecosystem. A hurricane is an example of a _____ change that affects ecosystems. Rising temperatures on Earth are caused by _____ . To survive changes in the ecosystem, animals must change their behaviors and _____ . _____ can help with overcrowding in forests. When very few of an animal or plant type are left, it becomes _____ . The _____ is an endangered animal. When there are no longer any animals of a certain kind left, it is _____ . One way to limit pollution and make hunting certain animals or picking certain plants illegal is to make _____ .

Name _____ Date _____ **Reading**

Mail Call

Scientists at the American Museum of Natural History collect stories from people around the world to learn about local environments.

TO: American Museum of Natural History
FROM: Clara
SUBJECT: The Chaparral After a Wildfire

Dear Museum Scientists,

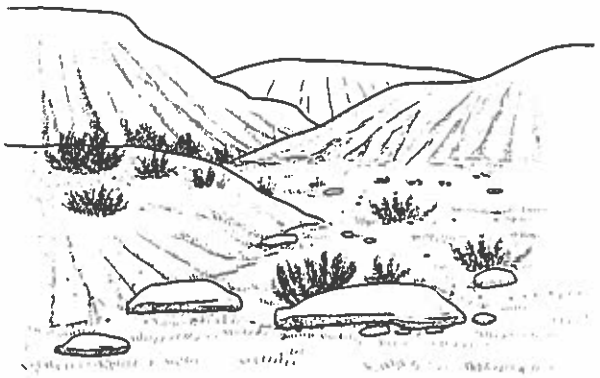
My name is Clara. I live in a small town in Southern California. The hills around our town are covered with evergreen shrubs. The land is very dry and there are not a lot of trees. This environment is called chaparral.

We didn't get a lot of rain here last summer. In August, a lightning storm started a wildfire in the chaparral. When I walked through the area after the fire, all I saw were gray ashes and dead shrubs.

It's April now, and I hiked through the burnt chaparral last week. I brought my field guide with me so I could look up the plants and animals I saw. The chaparral has changed so much! There are fields of wildflowers blooming everywhere. I found a hillside monkey flower and scarlet larkspur. My guidebook told me that these flowers have seeds that can stay dormant for several years. They need fire, heat, or smoke to sprout. The wildflowers have attracted insects like honeybees. The birds and animals are back, too! I saw a cactus wren and jackrabbits. My guidebook explained that the low bushes provide shelter for jackrabbits and nesting for cactus wrens.

I can't wait to go back to see how the chaparral will change even more!

Your friend,
Clara



Reading

Name _____ Date _____

Make Predictions

- Use what you know to tell what might happen.
- Use what you read to tell what might happen.

Write About It

Read the letter again. Predict what the chaparral will be like next year.

What might happen if a drought were to affect the chaparral environment? Write your prediction in the form of a paragraph.

Name _____ Date _____ **Outline**

Adaptations

Use your textbook to help you fill in the blanks.

What is an adaptation?

1. _____ are special features that help living things survive in their environment.
2. A fish's gills, a dragonfly's wings, and an eagle's sharp _____ are adaptations.
3. Adaptations help animals move, _____ , and live in certain climates.

How do animals adapt?

4. Some insects look like leaves. Blending into an environment is called _____ .
5. _____ is an adaptation in which animals hide by looking like other organisms.
6. The study of how organisms pass traits from one generation to the next is called _____ .

What are some adaptations of desert plants and animals?

7. Desert plants have many adaptations that help them survive with little _____ .
8. Desert animals have adaptations that keep them _____ .
9. Creosote bushes have mainly shallow roots that help them take in the _____ that falls.
10. The jackrabbit has extra large ears to help it keep _____ .
11. Animals that sleep during the day and are active at night are called _____ .

Outline Name _____ Date _____

What are some adaptations of arctic plants and animals?

12. In the arctic tundra, living things have special adaptations to help them _____ .

13. The arctic willow has _____ on its leaves to keep heat in.

14. The smaller an animal is the more quickly it _____ . That's why many arctic animals have very large bodies.

15. The polar bear's waterproof outer fur _____ , and its thick inner fur _____ .

What are some adaptations of living things in the ocean?

16. A thick layer of fat called _____ keeps a whale's body warm in cold ocean water.

17. The leafy sea dragon confuses its predators because it _____ .

Summarize the Main Idea

18. How do adaptations help organisms? Explain how adaptations work.

_____

_____

_____

_____

_____

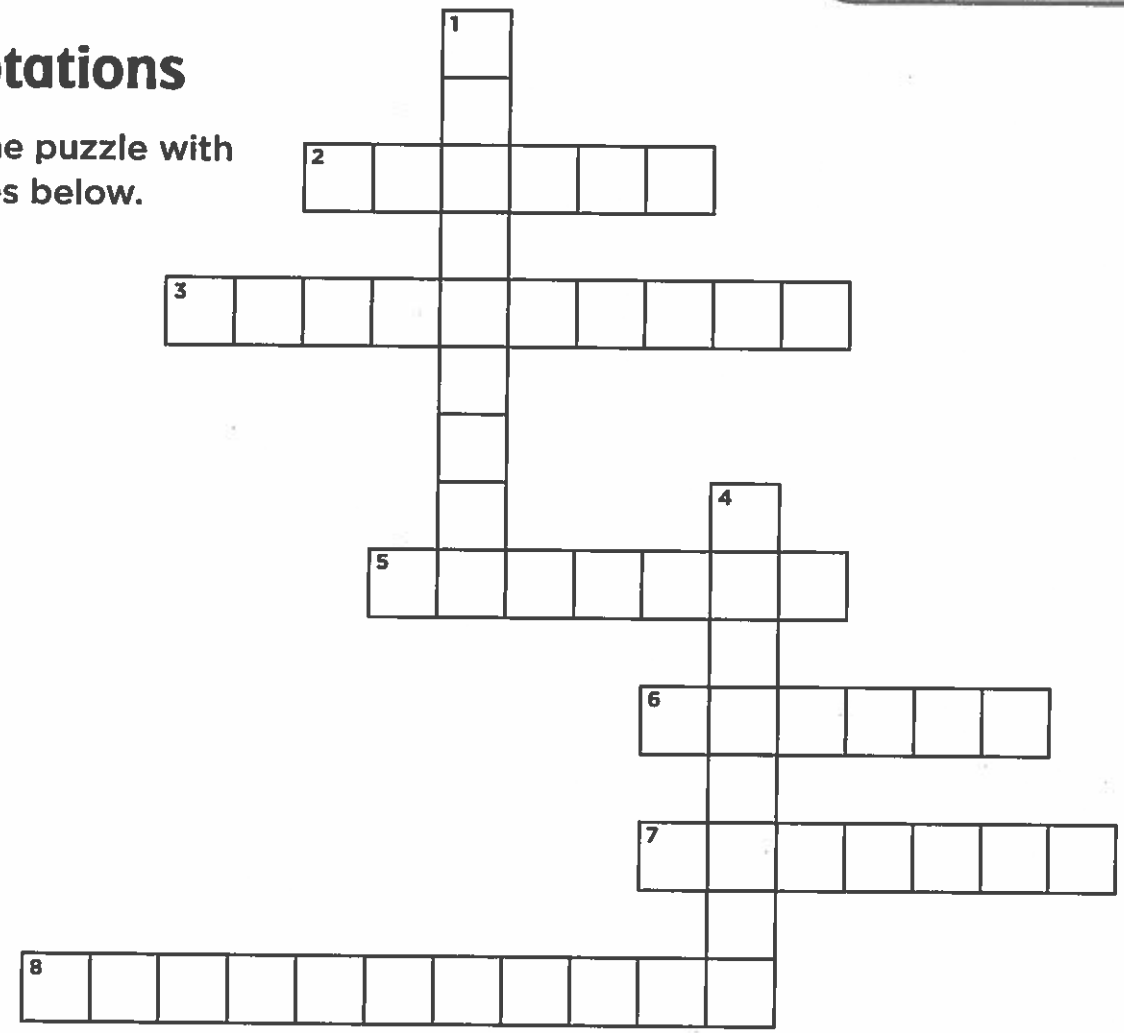
_____

Name _____ Date _____

Vocabulary

Adaptations

Fill in the puzzle with the clues below.



Across

2. an environment that is very cold _____

3. blending into an environment _____

5. a thick layer of fat that keeps a whale's body warm _____

6. a very hot, dry environment _____

7. occurs when one organism imitates another _____

8. special features that help living things survive in their environment _____

Down

1. animals that sleep during the day and are active at night _____

4. the study of how organisms pass traits from one generation to the next _____

Cloze Test Name _____ Date _____

Adaptations

adaptations	camouflage	genetics	nocturnal
arctic	desert	mimicry	polar bears

Fill in the blanks.

Organisms are wonderfully adapted to the environments in which they live. Whether a plant or animal lives in a hot, dry _____ or the cold _____ tundra, they have special features called _____ to help them survive. Examples of adaptations include _____ animals that survive the desert heat by sleeping during the day and being active at night. On the other hand, _____ have two coats of fur to help keep them warm and dry in their very cold environment. Other methods of adaptation include ways animals confuse their predators. Some animals use _____ and imitate other animals. Still other animals adapt by _____ and blend into the environment. Parents pass these useful traits from one generation to the next. The science of _____ studies how these traits are passed from parents to their children.

Name _____ Date _____

CHAPTER LEVEL
Vocabulary

Living Things and Their Environment

Choose the letter of the best answer.

1. A hummingbird's narrow beak is an example of
   - **a.** adaptation.
   - **b.** camouflage.
   - **c.** mimicry.
   - **d.** pollination.

2. A living thing that has very few left of its kind is said to be
   - **a.** abiotic.
   - **b.** adapted.
   - **c.** endangered.
   - **d.** extinct.

3. Which is an example of an abiotic factor in an environment?
   - **a.** bacteria
   - **b.** fish
   - **c.** snow
   - **d.** trees

4. Mimicry occurs when
   - **a.** an animal sleeps during the day and is active at night.
   - **b.** an organism cannot adapt to its environment.
   - **c.** an organism is one of a few remaining of its kind.
   - **d.** one organism imitates another organism.

5. Genetics is the study of how organisms
   - **a.** change their environments.
   - **b.** compete for food within their enviroment.
   - **c.** pass traits from one generation to the next.
   - **d.** use sunlight to make food.

6. An ecosystem is
   - **a.** the climate and other abiotic factors of an area.
   - **b.** a group of living things.
   - **c.** a group of living things and their nonliving environment.
   - **d.** the nonliving environment.

CHAPTER LEVEL
Vocabulary

Name _____ Date _____

Choose the letter of the best answer.

7. Male and female cells from flowers join together in a process called

a. accommodation. **c.** pollination.

b. adaptation. **d.** seed dispersal.

8. Animals move fruit seeds from place to place in a process called

a. accommodation. **c.** pollination.

b. mimicry. **d.** seed dispersal.

9. Which is an example of camouflage?

a. an insect that looks like a leaf

b. an eagle's sharp claws

c. a rabbit's long ears

d. the thick skin on a cactus

10. The typical weather pattern of an area is its

a. biotic factor. **b.** climate. **c.** ecosystem. **d.** environment.

11. An animal may survive changes to its food supply by

a. becoming endangered.

b. blending into its environment.

c. making an accommodation.

d. passing traits.

12. An animal that is extinct

a. can no longer be found.

b. has only a few left of its kind.

c. has adapted to its environment.

d. will reappear over time.