



Name \_\_\_\_\_

Period \_\_\_\_\_

Date \_\_\_\_\_

SECTION | GROUPS OF LIVING THINGS INTERACT WITHIN ECOSYSTEMS.

## 2.1 Reinforcing Key Concepts

**BIG IDEA** Different species live and interact in the same areas, adjusting as the environment changes.

- 1. Organisms occupy certain living areas.** Different populations within a habitat interact, and each population relies on the habitat's resources to meet its needs. Describe a habitat near you and how two or three populations in that habitat meet their needs.

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- 2. The environment can be organized into five levels.** Recall the five levels of organization: biome, ecosystem, community, population, and organism. Explain the difference between each of the following pairs of levels. The first one is filled in for you.

Biome and Ecosystem	A biome is many different areas. An ecosystem is one continuous area.
Community and Population	
Population and Organism	

- 3. Patterns exist in populations.** Read each description of a pattern. Write *L* on the line if the description is a pattern of living space. Write *T* on the line if it is a pattern of time.

       A group of wild dogs hunts in a pack.

       A bird flies from a forest to a certain nesting ground every spring. After the babies are born and raised, the birds fly back to the forest in the summer.

       Small fish swim closely together so that they are less likely to be singled out by predators.

       Trees grow spaced apart so that their leaves can all be reached by the sun.

       Tadpoles hatch every spring. During the next few months, the tadpoles change into frogs. The following spring, the frogs lay eggs.

CHAPTER 2  
Interactions within Ecosystems

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## SECTION | ORGANISMS CAN INTERACT IN DIFFERENT WAYS.

**2.2 Reinforcing Key Concepts**

**BIG IDEA** Different species live and interact in the same areas, adjusting as the environment changes.

- 1. Organisms interact in different ways.** Animals that eat other animals are predators. The animals that become food for the predators are called prey. Animals and plants also compete and cooperate in various ways. Write one example of competition between living things. Write one example of cooperation between living things.

Competition

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Cooperation

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- 2. The survival of one species might depend on another species.** There are three kinds of symbiotic relationships: mutualism, commensalism, and parasitism. Read each description of a relationship between organisms. Draw a picture to illustrate each relationship, then write the name of the relationship in the space provided in the table.

Relationship Between Organisms	Illustration	Mutualism, Commensalism, or Parasitism?
A hookworm lives inside the intestine of another animal. The hookworm thrives, but the animal gets sick.		
An ant lives in a thorny plant. The plant gives the ant food and a place to live. The ant eats pests that attack plants.		
A worm lives in the shell of a hermit crab. The worm does not hurt the crab. The worm shares the hermit crab's food.		
A small fish attaches to the sides of turtles. Turtles provide transportation to the fish. The fish also eat the food that turtles drop.		

- 3. Interactions in an ecosystem are complex.** What different types of symbiosis may overlap with the ecosystem of your local park?

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SECTION | ORGANISMS CAN INTERACT IN DIFFERENT WAYS.

# 2.2 Challenge and Extension

**BIG IDEA** Living things within an ecosystem interact with one another and with the environment.

**KEY CONCEPT** Organisms can interact in different ways.

**Organism Interactions** Organisms interact with one another in a number of different ways. For example, an animal might prey on another animal for food. Organisms can compete for resources. Organisms can also cooperate to get desired resources. Finally, populations of organisms can find themselves in symbiotic relationships with populations of another species.

Look at the chart below. In the first column, list five organisms you see every day. Each of the five organisms should be of a different species. In the next column, list any competition relationships and the organisms involved. In the third column, describe any cooperation relationships. In the fourth column, describe the organism's symbiotic relationships.

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Organism	Competition	Cooperation	Symbiosis

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## SECTION ECOSYSTEMS ARE ALWAYS CHANGING.

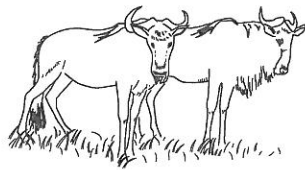
**2.3** Reinforcing Key Concepts

**BIG IDEA** Different species live and interact in the same areas, adjusting as the environment changes.

**1. Populations change over time.** The picture below shows three species of organisms interacting on the African grasslands.

- Lions stalk wildebeests for food.
- Wildebeests graze almost continuously.
- The grasses capture sunlight to make food.

Using these three organisms—lions, wildebeests, and grass—label the organism with at least three limiting factors for its population.



b. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



a. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



c. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**2. Ecosystems change over time.** Both primary and secondary succession take a long time. Both occur after a disturbance, and in both cases, an ecosystem eventually becomes stable. But each type of succession begins differently. Compare the first stage of primary succession with the first stage of secondary succession.

**First Stage of Primary Succession**

Ecosystem has \_\_\_\_\_  
 \_\_\_\_\_

An event that caused disturbance could be: \_\_\_\_\_

**First Stage of Secondary Succession**

Ecosystem has \_\_\_\_\_  
 \_\_\_\_\_