

SECTION

GROUPS OF LIVING THINGS INTERACT WITHIN ECOSYSTEMS.

2.1 Reading Study Guide A

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

KEY CONCEPT Groups of living things interact within ecosystems.

Vocabulary

species a group of similar organisms whose offspring can produce offspring

population organisms of the same species that live in the same area

habitat the place where a population lives in the natural world

niche the role of a species in a habitat

community the populations that live and interact in one area

Review

1. Abiotic and biotic factors describe an ecosystem. Sketch three examples of each type of factor found in a forest ecosystem.

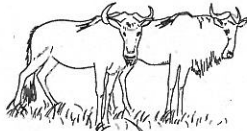
Abiotic (Nonliving) Factors	Biotic (Living) Factors

Take Notes**I. Organisms occupy specific living areas. (p. 45)**

2. What is a species? _____

A. Populations (p. 46)

3. Name three populations that live in the environment shown.



B. Habitats and Niches (pp. 46–47)

- 4. Describe the niche, or role, of the cactus as it moves energy and matter through its ecosystem.

Cactus

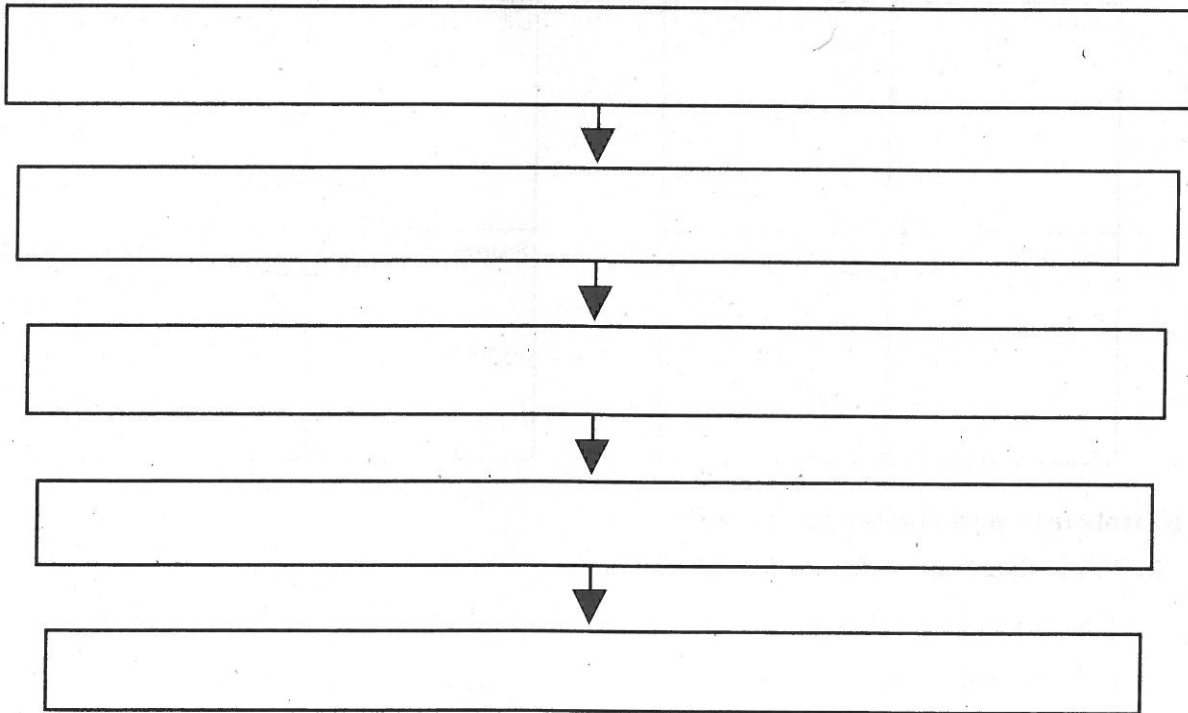


C. Communities (p. 48)

- 5. What are some populations that make up the Galapagos Island community?

II. The environment can be organized into five levels. (p. 48)

- 6. Write each level and a word or words to help you remember it.



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III. Patterns exist in populations. (p. 48)

- 7. Identify each situation as a pattern in space (S) or a pattern in time (T).
 - a. _____ Some cicadas appear every 17 years.
 - b. _____ Many birds fly south for the winter.
 - c. _____ Wildebeests travel in herds.
 - d. _____ Creosote bushes grow spaced evenly apart.

C. Communities (p. 48)

3. What is the scientific meaning of the word *community*?
- _____

II. The environment can be organized into five levels. (p. 48)

4. Fill in the mini-outline with the five levels used to classify the environment.

I. Levels of organization in the environment

A. Biome: large area having similar climate and vegetation worldwide

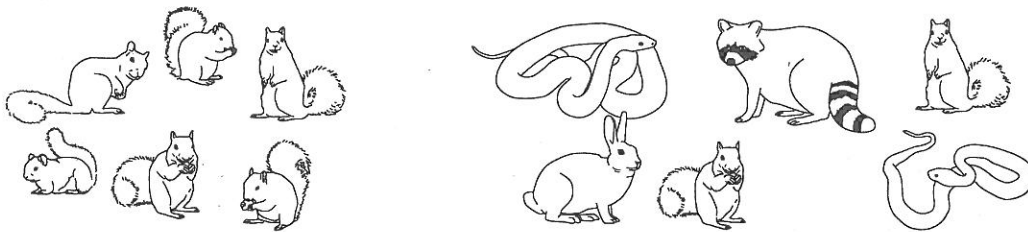
B. Ecosystem: _____

C. _____:

D. _____:

E. _____:

5. Circle the picture that illustrates a population.

**III. Patterns exist in populations. (p. 48)****A. Patterns in Living Space (p. 50)**

6. Write or draw 3 examples of animal populations forming patterns within their environment.

B. Patterns in Time (p. 51)

7. Yellow jackets are rarely found at a spring picnic but often swarm around a picnic during late summer. Ants, however, can appear during spring and summer. What does this show about patterns in an ant population compared with patterns in a yellow jacket population?
- _____

SECTION 2.2 | ORGANISMS CAN INTERACT IN DIFFERENT WAYS.
Reading Study Guide A

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

KEY CONCEPT Organisms can interact in different ways.

Vocabulary

predator an animal that eats another

prey an animal that is eaten by another

competition struggle between organisms for the same resources

cooperation organisms work together for a common purpose

symbiosis a close relationship between two species who live together

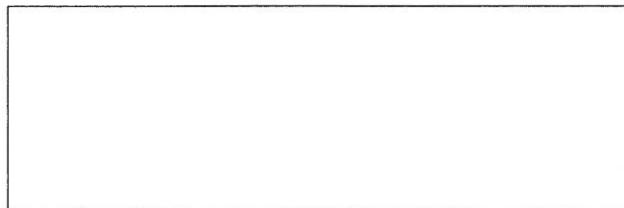
mutualism a relationship between two species that benefits both

commensalism a relationship between members of two species that benefits one and has no effect on the other

parasitism a relationship between members of two species in which one benefits and the other is harmed

Review

1. Draw and label a picture to represent an *organism*, its *population*, and its *community*.



Take Notes

1. **Organisms interact in different ways. (p. 54)**
 2. List five needs of all living things.
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A. Predators and Prey (p. 55)

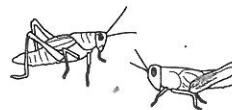
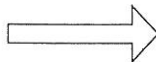
3. Identify each organism as a predator or a prey.



Prairie Falcon



Meadowlark



Grasshoppers

B. Competition (p. 55)

4. Name three reasons why plants compete with each other.
-

Name _____

Period _____

Date _____

5. Name three things that might cause animals to compete.

C. Cooperation (p. 57)

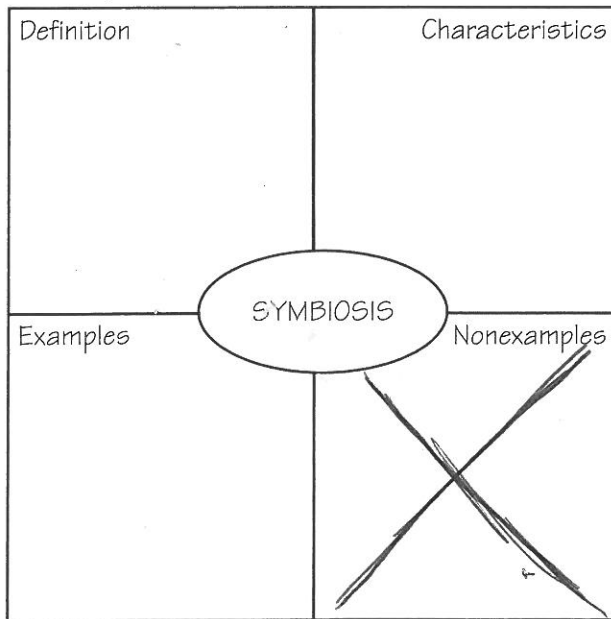
6. What are some reasons organisms cooperate?

II. The survival of one species might depend on another species. (p. 58)

7. For each picture, label the type of symbiosis.



8. Complete the four square diagram for symbiosis.



III. Interactions in an ecosystem are complex. (p. 61)

9. Use the picture on page 60 to help you explain how an organism might be involved in more than one symbiotic relationship.

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SECTION | ECOSYSTEMS ARE ALWAYS CHANGING.

2.3 Reading Study Guide A

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

KEY CONCEPT Ecosystems are always changing.

Vocabulary

limiting factor a factor that limits the size of a population in an ecosystem

carrying capacity the number of members of a population an environment can support

succession gradual change in an ecosystem after a disturbance

pioneer species the first living things to move into an environment

Review

1. Organisms compete and cooperate to obtain the things needed for life. Examine the drawing. Does it show competition or cooperation? Explain how.



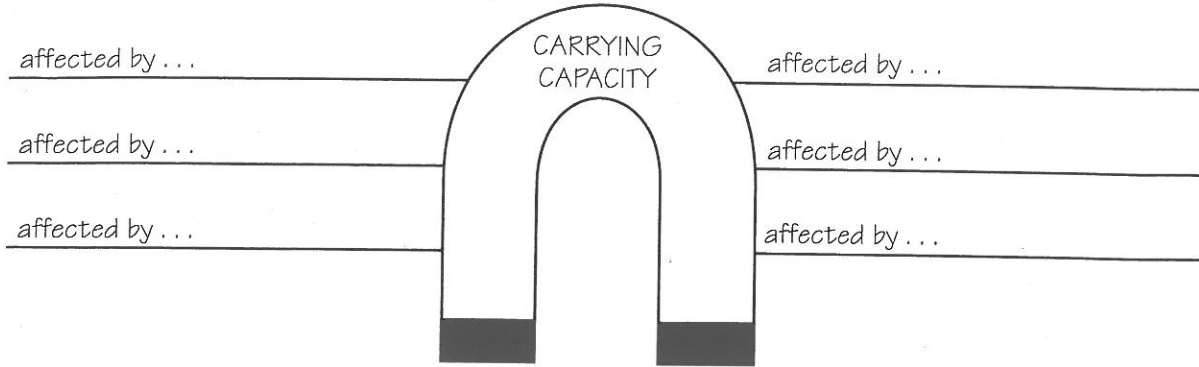
Take Notes**I. Populations change over time. (p. 63)****A. Population Growth and Decline (p. 64)**

2. Take notes in the chart as you read. List causes of population growth and population decline in ecosystems. Some are done for you.

Causes of Population Change	
Growth	Decline
much food	
	too much or too little water
birth rate	
right amount of light	

B. Maintaining a Balance (p. 65)

3. Complete the word magnet with limiting factors that can affect an area's carrying capacity for a population. Hint: Consider both biotic and abiotic factors.



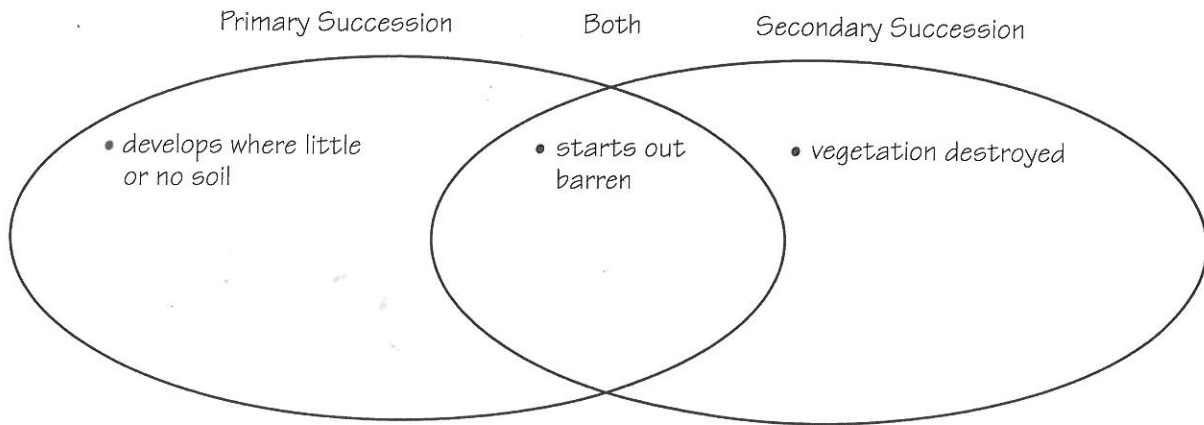
II. Ecosystems change over time. (p. 66)

A. Primary Succession (p. 66)

4. Lichen is one pioneer species. Tell why it is called a "pioneer." Use the phrase "primary succession" in your answer.

B. Secondary Succession (p. 67)

5. Complete the Venn diagram for primary and secondary succession. How are they each different? How are they both alike?



C. Patterns of Change (p. 68)

6. Complete the two-column chart noting how plants may affect succession.

Ways Plants Affect Succession	