

Skills Worksheet

Chapter Review

USING KEY TERMS

1. Use each of the following terms in a separate sentence: *symbiosis*, *mutualism*, *commensalism*, and *parasitism*.

Complete each of the following sentences by choosing the correct term from the word bank.

biotic abiotic ecosystem community

2. The environment includes _____ factors including water, rocks, and light.
3. The environment also includes _____, or living, factors.
4. A community of organisms and their environment is called a(n) _____

For each pair of terms, explain how the meanings of the terms differ.

5. *community* and *population*

6. *ecosystem* and *biosphere*

Chapter Review *continued*

7. *producers and consumers*

UNDERSTANDING KEY IDEAS**Multiple Choice**

- _____ 8. A tick sucks blood from a dog. In this relationship, the tick is the _____ and the dog is the _____.
- | | |
|-------------------|-------------------|
| a. parasite, prey | c. parasite, host |
| b. predator, host | d. host, parasite |
- _____ 9. Resources such as water, food, or sunlight are likely to be limiting factors
- when population size is decreasing.
 - when predators eat their prey.
 - when the population is small.
 - when a population is approaching the carrying capacity.
- _____ 10. Nature's recyclers are
- | | |
|-----------------|---------------|
| a. predators. | c. producers. |
| b. decomposers. | d. omnivores. |
- _____ 11. A beneficial association between coral and algae is an example of
- | | |
|------------------|---------------|
| a. commensalism. | c. mutualism. |
| b. parasitism. | d. predation. |
- _____ 12. The process by which energy moves through an ecosystem can be represented by
- food chains.
 - energy pyramids.
 - food webs.
 - All of the above
- _____ 13. Which organisms does the base of an energy pyramid represent?
- | | |
|---------------|---------------|
| a. producers | c. herbivores |
| b. carnivores | d. scavengers |
- _____ 14. Which of the following is the correct order in a food chain?
- sun→producers→herbivores→scavengers→carnivores
 - sun→consumers→predators→parasites→hosts
 - sun→producers→decomposers→consumers→omnivores
 - sun→producers→herbivores→carnivores→scavengers

Chapter Review *continued*

- _____ 15. Remoras and sharks have a relationship that is best described as
- a. mutualism.
 - b. commensalism.
 - c. predator and prey.
 - d. parasitism.

Short Answer

16. Describe how energy flows through a food web.

17. Explain how the food web changed when the gray wolf disappeared from Yellowstone National Park.

18. How are the competition between two trees of the same species and the competition between two different species of trees similar?

19. How do limiting factors affect the carrying capacity of an environment?

20. What is coevolution?

Chapter Review *continued*

CRITICAL THINKING

21. **Concept Mapping** Use the following terms to create a concept map:
herbivores, organisms, producers, populations, ecosystems, consumers, communities, carnivores, and biosphere.

22. **Identifying Relationships** Could a balanced ecosystem contain producers and consumers but not decomposers? Why or why not?

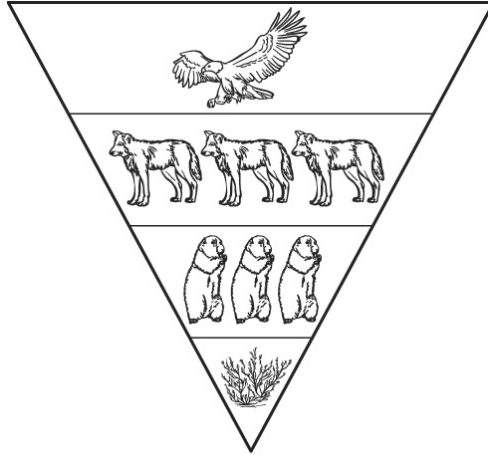
23 **Predicting Consequences** Some biologists think that certain species, such as alligators and wolves, help maintain biological diversity in their ecosystems. Predict what might happen to other organisms, such as gar fish or herons, if alligators were to become extinct in the Florida Everglades.

24. **Expressing Opinions** Do you think there is a carrying capacity for humans? Why or why not?

Chapter Review *continued*

INTERPRETING GRAPHICS

Use the energy pyramid below to answer the questions that follow.



25. According to the energy pyramid, are there more prairie dogs or plants?

26. What level has the most energy?

27. Would an energy pyramid such as this one exist in nature?

28. How could you change this pyramid to look like one representing a real ecosystem?
