

# Chapter 3

## Communities and Biomes

### Reinforcement and Study Guide

#### Section 3.1 Communities

In your textbook, read about living in a community.

Determine if the statement is true. If it is not, rewrite the italicized part to make it true.

- The *interactions* of abiotic and biotic factors result in conditions that are suitable for some organisms but not for others. \_\_\_\_\_
- Food availability and temperature can be *biotic factors* for a particular organism. \_\_\_\_\_
- A limiting factor is any biotic or abiotic factor that *promotes* the existence, numbers, reproduction, or distribution of organisms. \_\_\_\_\_
- At high elevations where the soil is thin, vegetation is limited to *large, deep-rooted* trees. \_\_\_\_\_
- Factors that limit one population in a community may also have *an indirect* effect on another population. \_\_\_\_\_
- Tolerance* is the ability of an organism to withstand fluctuations in biotic and abiotic environmental factors. \_\_\_\_\_
- A population of deer would become *larger* as conditions move away from optimal toward either extreme of the deer's range of tolerance. \_\_\_\_\_
- Different species may have different ranges of tolerance. \_\_\_\_\_

In your textbook, read about succession: changes over time.

Use each of the terms below just once to complete the passage.

climax	primary	decades	succeed
pioneer	succession	species	slows down

The natural changes and (9) \_\_\_\_\_ replacements that take place in the communities of ecosystems are known as (10) \_\_\_\_\_. It can take (11) \_\_\_\_\_ or even centuries for one community to (12) \_\_\_\_\_, or replace, another. When new sites of land are formed, as in a lava flow, the first organisms to colonize the new area are (13) \_\_\_\_\_ species. This colonization is called (14) \_\_\_\_\_ succession. The species inhabiting the area gradually change. Eventually, succession (15) \_\_\_\_\_ and the community becomes more stable. Finally, a mature community that undergoes little or no change, called a (16) \_\_\_\_\_ community, develops.

**Chapter**  
**3****Communities and Biomes, *continued*****Reinforcement and Study Guide****Section 3.1 Communities,  
*continued***

For each item in Column A, write the letter of the matching item in Column B.

**Column A**

- \_\_\_\_\_ 17. Sequence of community changes where soil is formed, allowing small, weedy plants to inhabit the area
- \_\_\_\_\_ 18. Sequence of community changes occurring as a result of a natural disaster, such as a forest fire
- \_\_\_\_\_ 19. A stable, mature community with little or no succession occurring
- \_\_\_\_\_ 20. An example of a biotic limiting factor affecting a community of organisms
- \_\_\_\_\_ 21. An example of an abiotic limiting factor affecting a community of organisms

**Column B**

- a. a severe drought
- b. primary succession
- c. amount of plant growth
- d. secondary succession
- e. climax community

The statements below describe the secondary succession that occurred within an area of Yellowstone National Park. Number the events in the order in which they occurred.

- \_\_\_\_\_ 22. Grasses, ferns, and pine seedlings inhabited the area.
- \_\_\_\_\_ 23. Annual wildflowers grew from the bare soil.
- \_\_\_\_\_ 24. A fire burned thousands of acres of land.
- \_\_\_\_\_ 25. A climax community of lodgepole pines developed.
- \_\_\_\_\_ 26. Bare soil covered the area.