

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
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*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.