9. C
10. tundra
11. permafrost
12. insects
13. B
14. A
15. D
16. A
17. C
18. A

SECTION: CHANGES IN CLIMATE

1. B
2. B
3. C
4. A
5. B
6. D
7. A
8. C
9. C
10. B
11. A
12. D
13. C
14. D
15. C
16. B

Vocabulary and Section Summary

SECTION: WHAT IS CLIMATE?

1. weather: the short-term state of the atmosphere, including temperature, humidity, precipitation, wind, and visibility
2. climate: the average weather condition in an area over a long period of time
3. latitude: the distance north or south from the equator; expressed in degrees
4. prevailing winds: winds that blow mainly from one direction during a given period
5. elevation: the height of an object above sea level
6. surface current: a horizontal movement of ocean water that is caused by wind and that occurs at or near the ocean's surface
7. biome: a large region characterized by a specific type of climate and certain types of plant and animal communities

SECTION: THE TROPICS

1. tropical zone: the region that surrounds the equator and that extends from about 23.5°north latitude to 23.5°south latitude

SECTION: TEMPERATE AND POLAR ZONES

1. temperate zone: the climate zone between the Tropics and the polar zone
2. polar zone: the North or South Pole and its surrounding area
3. microclimate: the climate of a small area

SECTION: CHANGES IN CLIMATE

1. ice age: a long period of climate cooling during which ice sheets cover large areas of Earth's surface; also known as a glacial period
2. global warming: a gradual increase in the average global temperature
3. greenhouse effect: the warming of the surface and lower atmosphere of Earth that occurs when carbon dioxide, water vapor, and other gases in the air absorb and trap thermal energy

Section Review

SECTION: WHAT IS CLIMATE?

1. Sample answer: Weather is the condition of the atmosphere at a certain time. Climate is the average weather in an area over a long period of time. Latitude is the distance in degrees north or south of the equator. Prevailing winds are winds that blow mainly in one direction. Elevation is the height of surface landforms above sea level. Surface currents are streamlike movements of water that occur at or near the surface of the ocean. A biome is a large region characterized by a specific type of climate and certain types of plants and animals.
2. A
3. Weather is the condition of the atmosphere at a particular time. Climate is the average weather of a given area.
4. latitude, prevailing winds, mountains, large bodies of water, and ocean currents
5. Areas at different latitudes receive different amounts of solar energy because the Earth's surface is curved, and because the Earth is tilted on its axis.
6. tropical zone, temperate zone, and polar zone
7. If the Earth were not tilted on its axis, there would be no seasons.

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