

CH 21: STUDY GUIDE

Thinking Visually: Identifying Causes and Effects

| Some Factors That Influence Climate | |
|-------------------------------------|-------------------------|
| Causes | Effects |
| 1. Increase in latitude | 1. _____ ? |
| 2. _____ ? | 2. Highland climate |
| 3. Increase in greenhouse gases | 3. _____ ? |
| 4. _____ ? | 4. More coastal erosion |
| 5. Large volcanic eruption | 5. _____ ? |
| 6. Nearby lake | 6. _____ ? |

Reviewing Content

Choose the letter that best answers the question or completes the statement.

- _____ Which of the following is true?
 - Climates at high latitudes are very warm.
 - A nearby lake causes a climate to be colder.
 - Vegetation can increase the amount of precipitation that falls over an area.
 - Places at lower elevations generally have lower temperatures.

- _____ Humid tropical climates always experience
 - severe winters.
 - dry summers.
 - low humidity.
 - warm temperatures.

- _____ In a dry climate, yearly precipitation is
 - less than the rate of evaporation.
 - greater than the rate of evaporation.
 - greater in a desert than a steppe.
 - less than that in a polar climate.

- _____ The greenhouse effect is best described as
 - an increase in Earth's surface temperature.
 - a natural warming effect of the atmosphere.
 - a result of global warming.
 - any short-term change in climate.

- _____ Recent global warming appears to be the result of
 - changes in global wind patterns.
 - a decrease in the greenhouse effect.
 - increases in greenhouse gases in the air.
 - changes in Earth's revolution around the sun.

- _____ Melting ice caps can result in which of the following?
 - a rise in sea level
 - a fall in sea level
 - colder temperatures
 - less precipitation

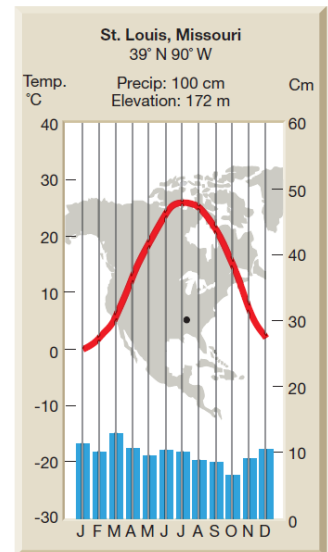
Understanding Concepts

7. What powers Earth's climate system?
8. Why can two places at the same latitude have different climates?
9. What climate data are needed in order to classify a climate using the Köppen climate classification system?
10. Describe the characteristics of a wet tropical climate.
11. Explain the greenhouse effect caused by Earth's atmosphere.
12. How have humans contributed to the increase in the levels of carbon dioxide in the atmosphere?
13. What is global warming?
14. How might global warming affect global precipitation?

Using Graphs

Use the graph below to answer Questions 15 - 19

15. What is the highest average annual temperature, and during which month does it occur?
16. What is the lowest annual temperature, and during which month does it occur?
17. What is the average annual temperature range for St. Louis?
18. What is the wettest season of the year in St. Louis?
19. Classify the climate of St. Louis using the Köppen climate classification system.



Using Graphs

Choose the letter that best answers the question or completes the statement.

20. Earth's temperatures were similar to the temperatures on our planet today
 - a. about 150,000 years ago.
 - b. about 135,000 years ago.
 - c. about 50,000 years ago.
 - d. about 25,000 years ago.
21. When do you think Earth was covered with more ice than is on our planet today?
 - a. between 150,000 and 140,000 years ago
 - b. between 140,000 and 120,000 years ago
 - c. between 135,000 and 20,000 years ago
 - d. between 20,000 and 10,000 years ago

