

M O D E R N E A R T H S C I E N C E

Chapter 15

Glaciers and Erosion**Review**

Choose the best response. Write the letter of that choice in the space provided.

- _____ 1. Snow accumulates year after year in polar regions and
- a. in southern Canada. b. in the United States.
c. below the snowline. d. at high elevations.
- _____ 2. Glaciers formed in mountainous areas are called
- a. continental ice sheets. b. valley glaciers.
c. icebergs. d. ice shelves.
- _____ 3. Antarctica is covered by the earth's largest
- a. iceberg. b. valley glacier.
c. continental ice sheet. d. outlet glacier.
- _____ 4. A glacier will move by sliding when the base of the ice and rock are separated by a thin layer of
- a. water. b. snow. c. pebbles. d. drift.
- _____ 5. When a glacier moves by internal plastic flow,
- a. its center moves fastest.
b. its bottom moves fastest.
c. its edges move fastest.
d. the whole ice mass moves at the same speed.
- _____ 6. Glacial erosion may produce a bowl-shaped depression known as
- a. a moraine. b. an esker. c. a cirque. d. a horn.
- _____ 7. As a glacier moves through a valley, it carves out
- a. a U-shape. b. a V-shape. c. an esker. d. a moraine.
- _____ 8. Unsorted glacial deposits are called
- a. stratified drift. b. outwash plains. c. eskers. d. till.
- _____ 9. Long, winding ridges of gravel and sand deposited by a meltwater stream under the ice are called
- a. eskers. b. drumlins. c. outwash plains. d. medial moraines.

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Choose the best response. Write the letter of that choice in the space provided.

- _____ 10. A kettle is a
 - a. hill.
 - b. depression.
 - c. ridge.
 - d. mound.

- _____ 11. A deposit of stratified drift is called
 - a. a drumlin.
 - b. outwash.
 - c. a ground moraine.
 - d. a roche moutonnée.

- _____ 12. Many glacial lakes are formed in
 - a. outwash plains.
 - b. kettles.
 - c. eskers.
 - d. arêtes.

- _____ 13. During the last glacial period, the average temperature was about
 - a. 5°C lower than today.
 - b. 15°C lower than today.
 - c. 35°C lower than today.
 - d. 50°C lower than today.

- _____ 14. One component of the Milankovitch theory is
 - a. the circular motion of the earth's axis.
 - b. continental drift.
 - c. volcanic activity.
 - d. landslide activity.

- _____ 15. A proposed cause of the ice ages is decreased solar energy reaching the earth due to
 - a. a lunar eclipse.
 - b. blockage by volcanic dust.
 - c. sinking of the land.
 - d. increased storm activity.

Critical Thinking

Read each question or statement and answer it in the space provided.

- 1. Imagine that there is a village in Alaska located at the edge of a glaciated mountain range. During the year there is an unusually large amount of snowfall. How might this snowfall affect the valley glaciers? What danger might this pose for the inhabitants of the village?

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Read each question or statement and answer it in the space provided.

- 2. Why is it important for scientists to monitor and study the continental ice sheets that cover Greenland and Antarctica?

- 3. Antarctic explorers need special training to travel safely over the ice sheet. Besides the cold, what structural aspects of the glaciers might be dangerous?

- 4. In addition to decreasing temperature and increasing snowfall, what other phenomenon might signal an impending ice age?

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Application

Read each question or statement and answer it in the space provided.

- 1. List some features caused by glacial erosion and deposition that you might see on a car trip.

- 2. In what ways might past glacial action in New England and New York State affect tourism and recreation in those regions today?

- 3. A group of scientists is trying to find evidence to support Milankovitch’s theory of the earth’s ice ages. List some kinds of research they might need to do.

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