

Erosion and Deposition • *Guided Reading and Study*

Glaciers (pp. 291–295)

This section describes huge ice masses, called glaciers. The section also describes the ice ages, a time when glaciers covered much of Earth. In addition, the section explains how glaciers form and move and how they cause erosion and deposition.

Use Target Reading Skills

Complete the first column in the chart by previewing the red headings and asking a what, how, or where question for each. As you read the section, complete the second column with the answers.

Glaciers	
Question	Answer
What kinds of glaciers are there?	

How Glaciers Form and Move (pp. 292–293)

1. Any large mass of ice that moves slowly over land is a(n) _____.
2. Circle the letter of each sentence that is true about continental glaciers.
 - a. They are larger than valley glaciers.
 - b. They spread out over wide areas.
 - c. They are found only in Antarctica.
 - d. They cover 2 percent of Earth's land.
3. What are ice ages?

4. Is the following sentence true or false? The most recent ice age ended about 10,000 years ago. _____
5. Is the following sentence true or false? All of North America was covered by a continental glacier in the last ice age. _____

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6. Circle the letter of each sentence that is true about valley glaciers.

- a. They are generally long, narrow glaciers.
- b. They are found on many high mountains.
- c. They are larger than continental glaciers.
- d. They usually move down valleys.

7. Where can glaciers form?

8. When does gravity begin to pull a glacier downhill?

9. Complete the table to show how the different types of glaciers move.

How Glaciers Move	
Type of Glacier	How It Moves
a.	Flows in all directions
b.	Flows in a surge

c. Relate the movement of continental glaciers to why they cover Antarctica and most of Greenland.

How Glaciers Shape the Land (pp. 293–295)

10. List two processes by which glaciers erode the land.

- a. _____
- b. _____

11. Is the following sentence true or false? Plucking can move only small stones. _____

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Glaciers *(continued)*

12. Describe abrasion and how it affects bedrock.

13. When does a glacier deposit the sediment it is carrying?

Match each type of glacial landform with its description.

Type of Landform	Description
___ 14. till	a. Small depression formed by a chunk of ice when it melts
___ 15. moraine	b. Mixture of sediments a glacier deposits on the surface
___ 16. terminal moraine	c. Ridge formed at the edge of a glacier
___ 17. drumlin	d. Long mound of till that is smoothed in the direction of the glacier's flow
___ 18. kettle	e. Ridge at the farthest point reached by a glacier
___ 19. cirque	f. Sharp ridge separating two cirques
___ 20. arête	g. Bowl-shaped hollow eroded by a glacier
___ 21. fiord	h. Sea-filled valley cut by a glacier in a coastal region

22. Explain the difference between glacial erosion and glacial deposition.

