

Directed Reading A 10.1

Section: Weathering

1. What is the process of weathering?

MECHANICAL WEATHERING

_____ 2. Mechanical weathering is the breakdown of rock into smaller pieces by

- a. warm weather.
- b. cold weather.
- c. chemical processes.
- d. physical means.

_____ 3. Ice, wind, water, gravity, plants, and animals can all be agents of

- a. mechanical weathering.
- b. chemical weathering.
- c. chemical processes.
- d. abrasion.

_____ 4. The alternate freezing and thawing of soil and rock is called

- a. frost action.
- b. abrasion.
- c. oxidation.
- d. chemical processes.

_____ 5. Ice wedging occurs when water filling a crack in a rock

- a. flows out and then freezes.
- b. freezes and contracts.
- c. freezes and expands.
- d. flows out and causes abrasion.

6. The grinding and wearing away of rock surfaces through the mechanical action of other rocks or sand particles is called _____.

7. Rocks that have been shaped by blowing sand are called _____.

Directed Reading A *continued*

Match the correct description with the correct term. Write the letter in the space provided.

- | | |
|---|------------|
| _____ 8. one rock falling against another rock | a. wind |
| _____ 9. pebbles bumping against each other in a stream | b. gravity |
| _____ 10. wind blowing sand against rock | c. water |

11. Explain how a plant can break a rock.

12. In what way can an animal cause mechanical weathering?

CHEMICAL WEATHERING

- _____ 13. The process by which rocks break down as a result of chemical reactions is called
- a. abrasion.
 - b. mechanical weathering.
 - c. chemical weathering.
 - d. acid precipitation.
- _____ 14. Rain, sleet, or snow that contains a high concentration of acids is called
- a. mechanical weathering.
 - b. acid precipitation.
 - c. chemical weathering.
 - d. abrasion.
- _____ 15. Compounds formed by the burning of fossil fuels combine with water in the atmosphere to form
- a. phosphoric acids.
 - b. acetic acids.
 - c. carbon monoxide.
 - d. weak acids.

Directed Reading A *continued*

_____ **16.** Acid precipitation can result from

- a. ventifacts.
- b. abrasion.
- c. burning of fossil fuels.
- d. mechanical weathering.

17. Over a long period of time, acids in the groundwater can cause chemical weathering of limestone. This weathering can form a cavern, which is a type of _____.

18. Explain how lichens cause chemical weathering.

19. The chemical reaction in which an element, such as iron, combines with oxygen to form an oxide is called _____.

20. When oxygen in the air reacts with metal, oxidation occurs and causes the metal to _____.