



Directed Reading A

Section: Water Underground

Write the letter of the correct answer in the space provided.

- _____ 1. The water located within the rocks below Earth's surface is called
- a. the water table.
 - b. the zone of aeration.
 - c. groundwater.
 - d. the zone of saturation.

THE LOCATION OF GROUNDWATER

- _____ 2. Surface water seeps underground through an upper zone called the
- a. zone of aeration.
 - b. zone of saturation.
 - c. floodplain.
 - d. groundwater.
- _____ 3. Surface water seeps underground and collects in the
- a. groundwater.
 - b. water table.
 - c. zone of aeration.
 - d. zone of saturation.
- _____ 4. The boundary between the zone of aeration and the zone of saturation is called the
- a. groundwater.
 - b. water table.
 - c. floodplain.
 - d. levee

5. Describe how the water table changes during wet and dry seasons.

6. Describe the water table level in wet regions and in a desert or other dry region.

AQUIFERS

Write the letter of the correct answer in the space provided.

- _____ 7. A body of rock or sediment that stores groundwater and allows the flow of groundwater is called
- a. deposition.
 - b. an aquifer.
 - c. impermeable.
 - d. a recharge zone.

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- _____ 8. What is a name for the percentage of the total volume of a rock or sediment that consists of open spaces?
a. permeability **c.** porosity
b. gradient **d.** recharge zone
- _____ 9. What do we call the ability of a rock or sediment to let fluids pass through its open spaces, or pores?
a. deposition **c.** porosity
b. gradient **d.** permeability
- _____ 10. Rock that is able to stop the flow of water is called
a. impermeable. **c.** recharged.
b. permeable. **d.** an aquifer.
- _____ 11. What is the name of a force that causes moving objects to slow down?
a. permeability **c.** porosity
b. friction **d.** deposition
- _____ 12. An area in which water travels downward to become part of an aquifer is the
a. recharge zone. **c.** rehydration zone.
b. relief zone. **d.** refresh zone.
13. Why does a rock layer with many particles of different sizes have low porosity?

14. Why does a rock layer containing same-sized particles have high porosity?

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15. Why do large particles in a rock layer cause less friction than small particles?

16. How does a layer of impermeable rock or a building affect a recharge zone?

SPRINGS AND WELLS

Write the letter of the correct answer in the space provided.

_____ **17.** The tendency to move downslope, toward lower elevations, is a characteristic of

- | | |
|------------------|-------------------|
| a. zones. | c. tables. |
| b. water. | d. plains. |

_____ **18.** If the water table reaches the Earth's surface, water flows up from the ground, forming a

- | | |
|------------------|-------------------|
| a. river. | c. lake. |
| b. plain. | d. spring. |

_____ **19.** What body of groundwater will form in a place where the water table is higher than the Earth's surface?

- | | |
|-------------------|--------------------|
| a. a lake | c. a spring |
| b. a river | d. a well |

20. A sloping layer of permeable rock between two layers of impermeable rock is

a(n) _____.

21. A crack in the cap rock of the aquifer allows the water to

flow from a(n) _____.

22. Why do some springs have hot water?

23. A human-made hole deeper than the level of the water table is a

_____.

24. What happens to the water table if too many wells are built and groundwater is removed too rapidly?

Directed Reading A *continued*

25. How does groundwater cause erosion?

UNDERGROUND EROSION AND DEPOSITION

26. Describe how caves are formed.

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

- | | |
|--|----------------------------|
| _____ 27. sharp, icicle-shaped feature formed by calcium carbonate on cave ceilings | a. stalagmite |
| _____ 28. cone-shaped feature formed when water drips to a cave's floor | b. dripstone column |
| _____ 29. a stalagmite and stalactite that have joined together | c. sinkhole |
| _____ 30. a circular depression that results when the roof of a cave collapses | d. stalactite |

31. Describe the process by which a sinkhole is formed.
