

DR 11-1**Section: The Active River****RIVERS: AGENTS OF EROSION**

1. How long ago was the area now known as the Grand Canyon nearly flat?

2. Wind, water, ice, or gravity transports soil and sediment from one location to another through a process called _____.
3. What has caused the Grand Canyon to be 1.6 km deep and 446 km long?

THE WATER CYCLE

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

- | | |
|---|--------------------|
| _____ 4. water from the oceans and the Earth's surface changes into water vapor | a. evaporation |
| _____ 5. precipitation that flows over land into streams, rivers, and later enters the ocean | b. percolation |
| _____ 6. rain, snow, sleet, or hail that falls from clouds | c. condensation |
| _____ 7. the continuous movement of water from the ocean to the atmosphere, from the atmosphere to the land, and then back to the ocean | d. precipitation |
| _____ 8. water vapor cools and changes into water droplets, forming clouds | e. runoff |
| _____ 9. the downward movement of water through spaces in soil due to gravity | f. the water cycle |

RIVER SYSTEM

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

- _____ 10. A network of streams and rivers that drains an area of its runoff is called
- | | |
|-----------------|--------------------|
| a. a divide. | c. a water cycle. |
| b. a tributary. | d. a river system. |

11. A stream that flows into a lake or larger stream is
a _____.
12. The area of land that is drained by a water system is called a
_____, or drainage basin.
13. What watershed covers more than one-third of the United States?

14. The boundary between drainage areas that have streams that flow in opposite
directions is a _____.

STREAM EROSION

15. A path that a stream follows is a(n) _____.
16. When streams become longer and wider, they are called
_____.

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

- | | |
|--|--------------|
| _____ 17. the materials carried by a stream | a. discharge |
| _____ 18. the measure of the change in elevation over
a certain distance | b. load |
| _____ 19. the amount of water a stream or river carries
in a given amount of time | c. gradient |
20. What effect does the gradient of a stream have on the amount of energy it has
for eroding soil and rock?

21. When a stream's discharge increases, what happens to its erosive energy?

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22. What effect does the speed a stream flows have on the size of the particles it is able to carry?

23. What effect does the size of the particles that make up a stream's load have on its erosive energy?

24. What is the difference between a bed load and a dissolved load?

25. What is a suspended load?

THE STAGES OF A RIVER

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

_____ 26. In the early 1900s, William Morris Davis developed a model for
a. measuring the gradients of rivers.
b. the folly of youth.
c. the wisdom of old age.
d. the stages of river development.

_____ 27. What do the terms used in Davis's model describe?
a. the rate of river erosion
b. the gradient of a river
c. a river's general features
d. a river's actual age

_____ 28. A quickly flowing river with a narrow channel that tumbles over many rocks and has few tributaries is
a. a youthful river.
b. a mature river.
c. an old river.
d. a rejuvenated river.

_____ 29. A river that has a wide channel and few falls and rapids and is fed by many tributaries is
a. a youthful river.
b. a mature river.
c. an old river.
d. a rejuvenated river.

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- _____ 30. Why does a mature river have more discharge than a youthful river?
- a. because a mature river is longer
 - b. because a mature river is shorter
 - c. because of its poor drainage
 - d. because of its good drainage
- _____ 31. A river with a low gradient, a wide, flat floodplain, and many bends is called
- a. a youthful river.
 - b. a mature river.
 - c. an old river.
 - d. a rejuvenated river.
- _____ 32. A river that is found where the land is raised by tectonic activity is
- a. a youthful river.
 - b. a mature river.
 - c. and old river.
 - d. a rejuvenated river.
- _____ 33. The step like formations that often form on both sides of a stream valley as a result of rejuvenation are called
- a. meanders.
 - b. terraces.
 - c. stages.
 - d. youths.

34. What is the difference between a youthful river and a mature river?

35. What is the result of an old river not having much erosive energy?

36. How does tectonic activity help make a rejuvenated river?
