Name_____ Class _____ Date _____

Skills Worksheet

Directed Reading

Section: Stream Deposition

1. When can a stream carry the greatest total load?

_____

_____

2. What decreases a stream's ability to carry its load?

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_____

3. What happens when the speed of water in a stream decreases?

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_____

DELTAS AND ALLUVIAL FANS

_____ 4. Where can a stream deposit sediment?
   a. only in water
   b. only on land
   c. on land or in water
   d. only in the ocean

_____ 5. The load carried by a stream may be deposited when
   a. the stream reaches an ocean or lake.
   b. the stream's banks erode.
   c. the stream is "captured."
   d. the stream dries up.

_____ 6. What happens when a stream empties into a large body of water?
   a. The stream comes to a sudden stop.
   b. The stream's speed can increase or decrease.
   c. The stream's speed increases sharply.
   d. The stream's speed decreases sharply.

_____ 7. In what shape is a stream's load usually deposited at its mouth?
   a. rectangle
   b. square
   c. triangle
   d. circle

_____ 8. What is a delta?
a. a triangular-shaped deposit of sediment formed at the bends of rivers
b. a triangular-shaped deposit of sediment where the mouth of a stream enters a larger body of water
c. a deposit of sediment with multiple channels in a braided stream
d. a pyramid-shaped deposit of sediment that may form at any point in a stream

_____ 9. How are the exact shape and size of a delta determined?
a. by waves, tides, offshore depths, and a stream's sediment load
b. by the amount of sediment carried by a stream
c. by winds, rainfall, climate zone, and a stream's sediment load
d. by construction of human structures on a stream's banks

_____ 10. Which of the following results in a decrease in a stream's speed?
a. when a stream leaves a plateau and descends a steep slope
b. when a stream descends a steep slope and reaches a flat plain
c. when a stream moves from a slope into rocky terrain
d. when a stream ascends a steep slope and reaches a plateau

_____ 11. What results when a stream descends a slope and enters a flat plain?
a. The stream cuts a new channel higher on the slope.
b. The stream deposits its load on the side of the slope.
c. The stream forms a meander at the base of the slope.
d. The stream deposits some of its load at the base of the slope.

12. Describe an alluvial fan.

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13. In which direction does an alluvial fan's tip point?

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14. Where do alluvial fans commonly form?

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15. What kinds of streams commonly form alluvial fans?

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16. How do alluvial fans differ from deltas?

_____

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FLOODPLAINS

Use terms from the list below to complete the sentences that follow. Each term may be used only once. Some terms may not be used.

floodplain	banks	delta
flood	channel	natural levee
speed	rainfall	

17. The volume of water in nearly all streams varies depending on the amount of _____ and snowmelt in the watershed.

18. When the volume of water in a stream increases dramatically, it can overflow its _____ and wash over the valley floor.

19. The area along a river that forms from sediments deposited when a river floods is called a _____.

20. A stream loses _____ when it overflows its banks and spreads out over its floodplain.

21. When a stream overflows, it deposits its coarser sediments along the banks of the channel, which eventually produces a _____.

22. Why does all the load deposited by a stream in a flood not form levees?

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23. What is the effect of a series of floods on a stream's floodplain?

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24. Why are swampy areas common on floodplains?

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25. Why do people choose to live in floodplains, despite the risk of flooding and the sometimes swampy soil?

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HUMAN IMPACTS ON FLOODING

_____ 26. Which of the following contributes to the size and number of floods in many areas?
   a. sunspot activity
   b. human activity
   c. cloud cover
   d. animal activity

_____ 27. How does vegetation protect the ground surface from erosion?
   a. It takes up water that would otherwise run off.
   b. It changes the direction that water flows.
   c. It prevents water from reaching the ground.
   d. It dries the soil quickly so it can hold more water.

_____ 28. What happens when people remove much of the ground cover in an area?
   a. Water evaporates more slowly, and the likelihood of flooding increases.
   b. Water is absorbed more quickly, and the likelihood of flooding decreases.
   c. Water flows more slowly across the surface, and the likelihood of flooding decreases.
   d. Water flows more freely across the surface, and the likelihood of flooding increases.

_____ 29. What are two examples of human activities that can increase the volume and speed of runoff?
a. logging and building dams
b. clearing land and planting trees
c. logging and clearing land
d. digging shipping channels and harbors

_____ 30. What kind of natural event can increase the likelihood of flooding?
a. a forest fire, which removes vegetation
b. a population explosion among one kind of animal
c. an increased growth of plants
d. a tornado, which can uproot trees

FLOOD CONTROL

In the space provided, write the letter of the description that best matches the term or phrase.

_____ 31. forest and soil conservation

_____ 32. dams

_____ 33. artificial levees

_____ 34. floodways

a. flood-control method that requires protection against erosion
b. indirect methods of flood control that prevent excess runoff during heavy rainfall
c. structures behind which artificial lakes act as reservoirs for excess runoff
d. permanent overflow channels that carry away excess water

35. What can the stored water behind a dam be used for?

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36. What is one concern with artificial levees?

_____

_____

37. What can happen if an artificial levee breaks?

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38. How do floodways help prevent flooding?

_____

_____

THE LIFE CYCLE OF LAKES

_____ 39. When a stream flows into a depression in the land instead of flowing to the ocean,
a. a delta forms.
b. a lake forms.
c. a new stream forms.
d. a braided stream forms.

_____ 40. Where are most lakes found?
a. at high latitudes and in mountainous areas
b. at sea level throughout the world
c. below sea level throughout the world
d. in river valleys

_____ 41. Most of the water in lakes comes from
a. dams built by humans.
b. canals built by humans.
c. precipitation and melting ice and snow.
d. precipitation and fog.

_____ 42. Other sources of water in lakes are
a. springs, rivers, and runoff coming from the land.
b. icebergs and glaciers.
c. pumping stations along rivers.
d. seasonal monsoons.

_____ 43. In geologic terms, how long do most lakes exist?
a. a long time
b. a short time
c. an unknown amount of time
d. a human lifetime

_____ 44. Many lakes eventually disappear because
a. people drain away the lake's water for agriculture.
b. amounts of precipitation suddenly fall.
c. the rivers or streams that feed into them dry up.
d. too much of the lake's water drains away or evaporates.

_____ 45. What commonly causes a lake's water to drain away?
a. Animals drink too much of it.
b. People dig a canal below the level of the lake basin.
c. An outflowing stream forms above the level of the lake basin.
d. An outflowing stream erodes its bed below the level of the lake basin.

_____ 46. What is another way a lake can lose water?
a. The climate becomes drier, and evaporation exceeds precipitation.
b. People use the lake's water, and water use exceeds precipitation.
c. Vegetation grows around the lake, and not enough runoff enters the lake.
d. The climate becomes wetter, and too much precipitation causes the lake to overflow.

_____ 47. How else might a lake basin disappear?
a. It can turn into a river.
b. Rainfall can suddenly stop altogether.
c. It can freeze solid.
d. It can fill with sediment.

_____ 48. Sediments that build up in a lake come from
a. streams that feed the lake and sediments that are dumped into the lake by people.
b. people who dump them and from plants.
c. streams that feed the lake and from water that runs off the land directly into the lake.
d. streams that feed the lake and are trapped by dams.

_____ 49. What happens as sediments build up in a lake over time?
a. Large banks develop on the sides of the lake, new water cannot enter the lake, and the lake dries up.
b. New shorelines are created by the sediments, and the sediments gradually fill the lake.
c. New shorelines are created by the sediments, blocking streams from entering the lake.
d. New shorelines develop, the lake becomes narrower, and it eventually turns into a river.

_____ 50. What effect can vegetation have in a shallow lake?
a. Organic deposits can pollute the lake's water.
b. Vegetation can use up all the water.
c. Organic deposits may accumulate in the bottom.
d. Vegetation can block the streams feeding the lake.

_____ 51. As organic deposits from vegetation grow denser on the bottom of a shallow lake, what can happen?
a. More vegetation grows.
b. Water can no longer enter the lake.
c. Coal forms.
d. A bog or swamp may form.