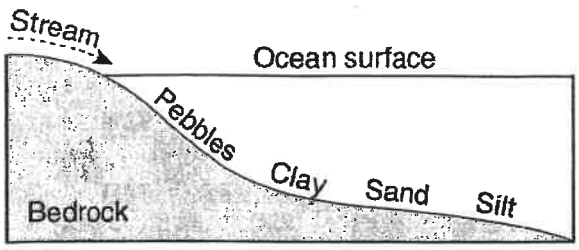
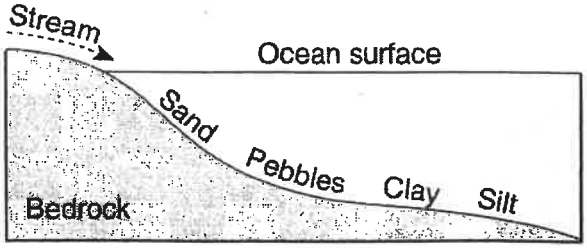
Deposition Practice

1. Which profile best shows the general depositional pattern that occurs when water from a stream enters the ocean?

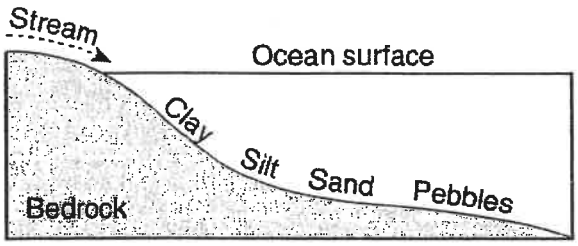
A)



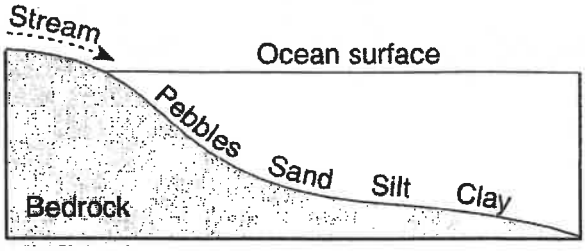
B)



C)



D)



2. Which property would best distinguish sediment deposited by a river from sediment deposited by a glacier?

A) mineral composition of the sediment
B) amount of sediment sorting
C) thickness of sediment layers
D) age of fossils found in the sediment

3. Which statement best describes sediments deposited by glaciers and rivers?

A) Glacial deposits and river deposits are both sorted.
B) Glacial deposits are sorted, and river deposits are unsorted.
C) Glacial deposits are unsorted, and river deposits are sorted.
D) Glacial deposits and river deposits are both unsorted.

4. The four particles shown in the table below are of equal volume and are dropped into a column filled with water.

Particle	Shape	Density
A	flat	2.5 g/cm^3
B	flat	3.0 g/cm^3
C	round	2.5 g/cm^3
D	round	3.0 g/cm^3

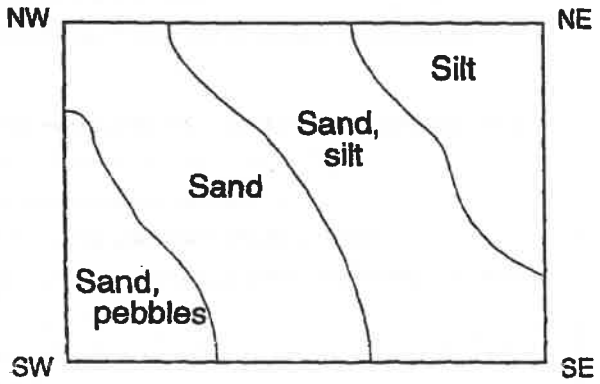
Which particle would usually settle most rapidly?

A) *A* B) *B* C) *C* D) *D*

5. Which size particle will remain suspended longest as a river enters the ocean?

A) pebble B) sand
C) silt D) clay

6. A stream entering a lake deposits sediments on the lake bottom in the pattern shown on the map below.



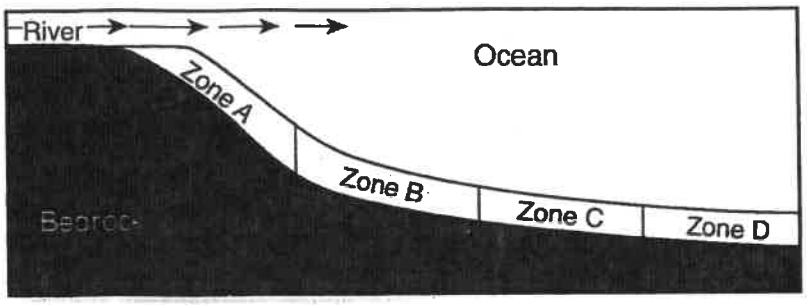
Which corner of the map is nearest to the point where the stream flows into the lake?

A) northeast (NE) B) northwest (NW)
C) southeast (SE) D) southwest (SW)

7. How are dissolved materials carried in a river?

A) in solution
B) in suspension
C) by precipitation
D) by bouncing and rolling

8. Base your answer to the following question on the cross section and data table shown below. The cross section shows a sediment-laden river flowing into the ocean. The arrows show the direction of river flow. Different zones of sorted sediments, A, B, C, and D, have been labeled. Sediments have been taken from these zones and measured. The data table shows the range of sediment sizes in each zone.



Data Table

Zone	Major Sediment Sizes
A	0.04 cm to 6 cm
B	0.006 cm to 0.1 cm
C	0.0004 cm to 0.006 cm
D	Less than 0.0004 cm

How is this pattern of horizontal sorting produced?

A) High-density materials generally settle more slowly.
B) Rounded sediments generally settle more slowly.
C) Dissolved minerals are generally deposited first.
D) Bigger particles are generally deposited first.

9. When small particles settle through water faster than large particles, the small particles are probably

A) lighter B) flatter
C) better sorted D) more dense

10. A river's velocity slows from 100 to 50 centimeters per second at a point in its channel. Which statement best describes the transport and deposition of particles at this point?

A) Clay, silt, sand, pebbles, and smaller cobbles stay in transport; some cobbles are deposited.
B) Clay, silt, sand, and smaller pebbles stay in transport; some pebbles are deposited.
C) Clay, silt, and smaller sand stay in transport; some sand is deposited.
D) Clay and smaller silt stay in transport; some silt is deposited.

11. Deposition within a meandering stream usually occurs on the inside of the curves because the

A) water velocity decreases
B) stream gradient increases
C) water is deeper
D) stream is narrower

12. The largest sediment particles that can be transported by a stream traveling at a velocity of 200 centimeters per second are

A) boulders B) cobbles
C) pebbles D) sand

13. A stream flowing at a velocity of 250 centimeters per second is transporting sediment particles ranging in size from clay to cobbles. Which transported particles will be deposited by the stream if its velocity decreases to 100 centimeters per second?

A) cobbles, only
B) cobbles and some pebbles, only
C) cobbles, pebbles, and some sand, only
D) cobbles, pebbles, sand, silt, and clay

14. The largest particles that a stream deposits as it enters a pond are 8 centimeters in diameter. The minimum velocity of the stream is approximately

A) 100 cm/sec B) 200 cm/sec
C) 300 cm/sec D) 400 cm/sec

15. A stream flowing at a velocity of 75 centimeters per second can transport

A) clay, only
B) pebbles, only
C) pebbles, sand, silt, and clay, only
D) boulders, cobbles, pebbles, sand, silt, and clay

16. What is the minimum water velocity needed in a stream to maintain the transportation of the smallest boulder?

A) 100 cm/sec B) 200 cm/sec
C) 300 cm/sec D) 500 cm/sec

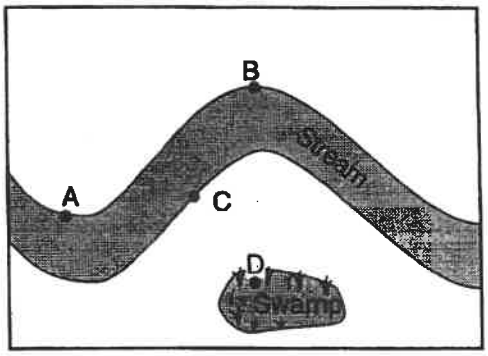
17. A stream with a velocity of 100 centimeters per second flows into a lake. Which sediment-size particles would the stream most likely deposit first as it enters the lake?

A) boulders B) cobbles
C) pebbles D) sand

18. Which change at a particular location in a stream usually causes more sediments to be deposited at that location?

A) decrease in stream velocity
B) decrease in stream width
C) increase in stream slope
D) increase in stream discharge

19. The map below shows the area surrounding a meandering stream.



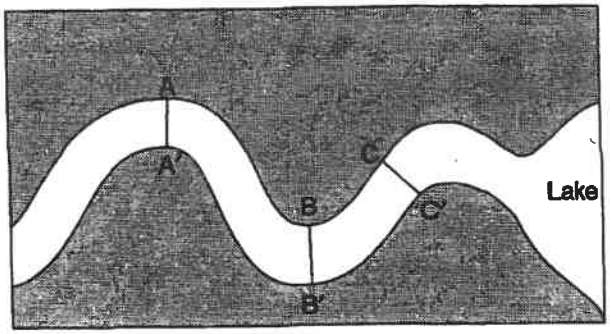
At which point is erosion greatest?

A) *A* B) *B* C) *C* D) *D*

20. An increase in the velocity of a stream is most likely due to

A) an increase in stream discharge
B) an increase in the width of the riverbed
C) a decrease in the slope of the stream channel
D) a decrease in the amount of material held in suspension

21. The map below represents a meandering stream flowing into a lake. A student measured water depths in the stream at three locations: *A–A′*, *B–B′*, and *C–C′*.



Which set of cross sections best represents the streambed at the three locations?

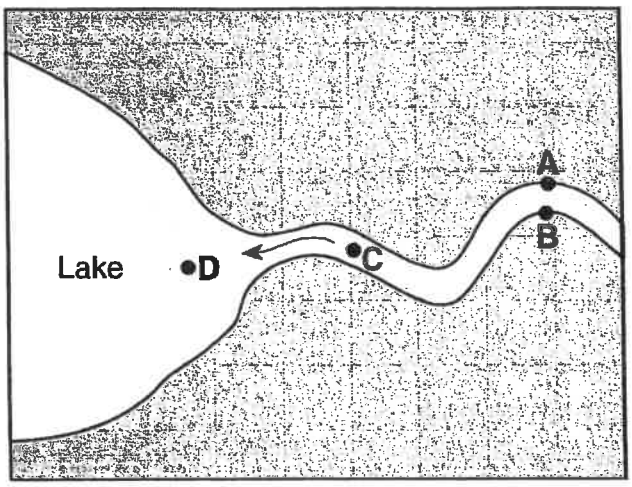
A) 

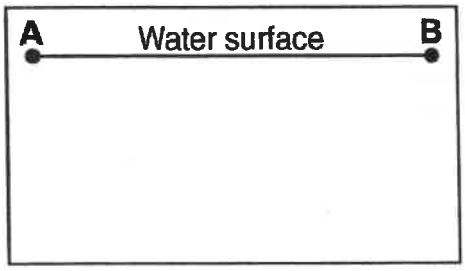
B) 

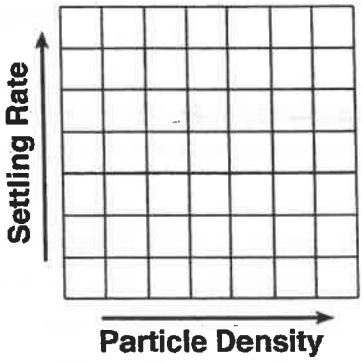
C) 

D) 

Base your answer to questions **22** through **25** on the map below, which shows a meandering stream as it enters a lake. Points *A* through *D* represent locations in the stream.







22. The stream velocity at point *C* is 100 centimeters per second and the stream velocity at point *D* is 40 centimeters per second. Identify *one* sediment particle most likely being deposited between points *C* and *D*.

23. Describe how the size and shape of most pebbles change when the pebbles are transported in a stream over a great distance.

24. State the relationship between stream velocity and the size of the sediment the stream can carry.

25. Deposition is affected by particle density. On the grid, draw a line to show the relationship between particle density and settling rate.