

1. Which of the following statements is true?

- ☐ A. Bones, teeth, and shells teach us about things which lived long ago.
- ☐ B. Teeth and shells are the only way to learn about things that lived long ago.
- ☐ C. Only bones can teach us about things which lived long ago.
- ☐ D. We can not learn anything by studying shells.

2. In which type of rock would you be most likely to find layers?

- ☐ A. colored
- ☐ B. sedimentary
- ☐ C. volcanic
- ☐ D. igneous

3. Minerals can be identified by their physical properties such as color, hardness, and luster (how they shine). Use the following table to answer the question.

Mineral	Properties			
	Hardness (scratch test)	Color	Luster	Special Properties
Feldspar	6 scratches glass	pink or white	dull/pearly	--
Gypsum	2 scratched by fingernail	white/gray	dull	--
Mica	2 scratched by fingernail	black/gray	shiny	splits into thin sheets
Talc	1 easily scratched by fingernail	white	dull	--
Calcite	3 scratched by nail	white	dull/glassy	bubbles with acid

Allison is looking at three different rocks that her teacher gave her for science lab. Her favorite rock is shiny and black, and she can peel layers of it off in thin sheets. According to the table, what mineral is this rock most likely made of?

- ☐ A. feldspar
- ☐ B. calcite
- ☐ C. mica
- ☐ D. gypsum

Science Study Questions:
Rocks, Soil, Minerals, & Fossils

Name _____

4. The picture shows a fossil made by a leaf. The leaf made a mold in mud, then rotted away. Minerals and mud then filled in the mold and made the fossil.

The leaf fossil is a _____.

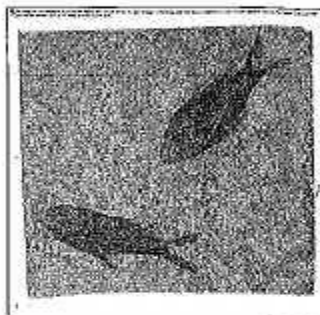
- ☐ A. bone
- ☐ B. preserved part
- ☐ C. cast
- ☐ D. cavity



5. Look at the fossil.

What living thing does the fossil show?

- ☐ A. plant
- ☐ B. fish
- ☐ C. dinosaur
- ☐ D. insect



6. Scientists can use the _____ of minerals to tell them apart.

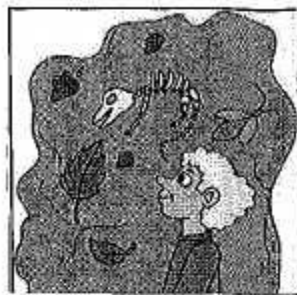
- | | |
|--------------------------------|---------------------------------|
| <input type="radio"/> A. color | <input type="radio"/> C. sound |
| <input type="radio"/> B. size | <input type="radio"/> D. length |

7. Which of the following contributes to the formation of soil?

- ☐ A. breakdown of dead plant material
- ☐ B. weathering of rock into small pieces
- ☐ C. breakdown of dead animal remains
- ☐ D. all of these

8. The piece of rock in the picture is a fossil that was found in the desert. What detail about the fossil would show that the desert used to be a forest?

- ☐ A. The fossil is brown, rounded, and 6 feet tall.
- ☐ B. Andrew spent all afternoon looking at the fossil.
- ☐ C. There are leaves in the fossil that are from an oak tree.
- ☐ D. The animal in the fossil is a lizard that lives in the desert.



9. What usually has to happen for a fossil to form?

- ☐ A. An animal must stay alive for many years.
- ☐ B. An animal must die and float in the ocean.
- ☐ C. An animal must die and be buried by mud, sand, or clay.
- ☐ D. An animal must die and stay above ground.

10. Which of the following can become fossils?

- ☐ A. remains of animals
- ☐ B. footprints of animals
- ☐ C. remains of plants
- ☐ D. all of these

11. All rocks are made of

- ☐ A. fossils.
- ☐ B. clay.
- ☐ C. dirt.
- ☐ D. minerals.

12. Which type of rock would be the most likely to contain a fossil?

- | | |
|------------------------------------|-----------------------------------|
| <input type="radio"/> A. pumice | <input type="radio"/> C. obsidian |
| <input type="radio"/> B. sandstone | <input type="radio"/> D. quartz |
-

16. Which of the following is composed of weathered rocks and decomposed organic material from dead plants and animals?

- ☐ A. soil
☐ B. volcanoes
☐ C. igneous rocks
☐ D. mantle
-

17. The hardness of a mineral has to do with

- ☐ A. how easy it is to break the mineral.
☐ B. how easy it is to melt the mineral.
☐ C. how easy it is to scratch the mineral.
☐ D. how easy it is to flatten the mineral.
-

18. Which component of soil has very small grains and is sticky when it is wet?

- ☐ A. clay
☐ B. sand
☐ C. humus
☐ D. silt
-

19. Use the table below to answer the question.

Soil Component	Grain Size	Texture	Color
Sand	large	rough	light
Humus	medium	medium	dark
Clay	small	smooth	red to grey

Caleb took a walk and found soil that was light colored, rough, and had large grains. Based on the table, Caleb's soil probably contained a large amount of

- ☐ A. clay.
☐ B. not enough information
☐ C. sand.
☐ D. humus.
-

20. Look at the fossil.

What living thing does the fossil show?

- ☐ A. bear
☐ B. dinosaur
☐ C. insect
☐ D. plant



21. A student observes two rocks that look alike. The only difference the student notices between the two rock samples is that one of the rocks breaks apart a little when scraped with a fingernail, and the other rock does not break.

Which property is the most helpful in telling the two rocks apart?

- ☐ A. color
 - ☐ B. hardness
 - ☐ C. weight
 - ☐ D. texture
-

22. The picture shows a rock that has a cavity or space that is shaped like an animal that used to be alive.

The cavity in the rock is a kind of fossil called a _____.

- ☐ A. cast
 - ☐ B. mold
 - ☐ C. decomposer
 - ☐ D. preserved part
-



23. The above picture is a close-up of a piece of marble. What might this rock be used for?

- ☐ A. as a stone in jewelry
 - ☐ B. building roads
 - ☐ C. carving statues
 - ☐ D. gravel on a playground
-



24. Gravel is a type of rock that is often placed at the bottom of man-made ponds. What purpose does the gravel serve?

- ☐ A. It helps add oxygen to the water.
 - ☐ B. It keeps the pond from drying up.
 - ☐ C. It filters water as the water soaks into the ground.
 - ☐ D. It provides food for fish.
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25. Which property is most useful for identifying the above rock?

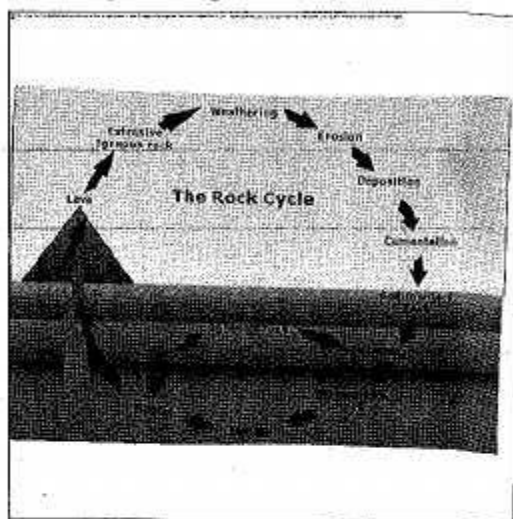
- ☐ A. its wavy banding
 - ☐ B. its large size
 - ☐ C. its earthy smell
 - ☐ D. its blocky shape
-



26. What kind of fossil is made when bones, shells, or teeth turn to stone?

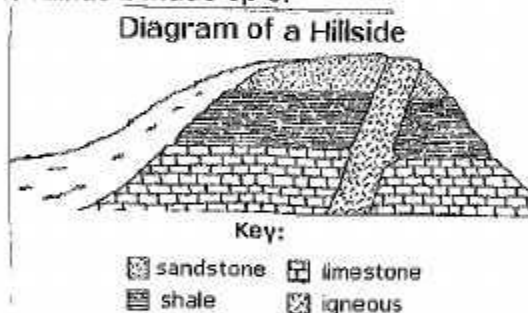
- ☐ A. seed fossil
- ☐ B. cast fossil
- ☐ C. preserved part fossil
- ☐ D. trace fossil

27. Sediments that are that are eroded and deposited must go through _____ before becoming sedimentary rock.



- ☐ A. metamorphism
- ☐ B. melting
- ☐ C. cementation
- ☐ D. weathering

28. The diagram shows a cross section of a hillside. The top layer in the hillside is made up of mostly



- ☐ A. limestone.
- ☐ B. sandstone.
- ☐ C. igneous.
- ☐ D. shale.

29. What are the four basic materials that soil can be made from?

- ☐ A. loam, silt, talc, and humus
- ☐ B. sand, clay, silt, and humus
- ☐ C. topsoil, clay, talc, and silt
- ☐ D. talc, humus, potting soil, and clay

30. Which of the following can soil be made up of?

- ☐ A. plant material
- ☐ B. pieces of rock
- ☐ C. bacteria, fungi, and worms
- ☐ D. all of the above