Name _____ Class _____ Date _____

Skills Worksheet

Directed Reading

Section: Soil

1. The layer of weathered rock fragments that covers much of Earth's surface is called _____.
2. The solid, unweathered rock that lies beneath the top layer is called _____.
3. A loose mixture of rock fragments and organic material that can support the growth of vegetation is called _____.

SOIL CHARACTERISTICS

4. What is a soil's parent rock?

_____

5. Soil that forms and stays directly over its parent rock is called

_____.

6. Describe transported soil.

_____

_____

7. What does parent rock that is rich in feldspar or other minerals that contain aluminum weather to form?

_____

8. What kinds of rocks weather to form sandy soils?

_____

9. What is the color of soil related to?

_____

10. Give two examples of soil colors, and tell what each means.

_____

_____

11. Describe the three main sizes of rock material in soil.

_____

_____

_____

SOIL PROFILE

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

_____ 12. soil profile

_____ 13. horizon

_____ 14. the A horizon

_____ 15. humus

_____ 16. the B horizon

_____ 17. the C horizon

a. a mixture of organic materials and small rock particles where most organisms that inhabit soil live

b. a vertical section of soil that shows the layers, or horizons

c. a layer that consists of partially weathered bedrock, where the first mechanical and chemical changes happen

d. a horizontal layer of soil that can be distinguished from the layers above and below it

e. a layer that contains the minerals leached from the topsoil, clay, and, sometimes, humus

f. dark, organic material made from the decayed remains of organisms

SOIL AND CLIMATE

_____ 18. What is one of the most important factors that influences soil formation?
a. plants
b. climate
c. erosion
d. leaching

_____ 19. Heavy rainfall and high temperatures in tropical climates promote chemical weathering, creating thick, tropical soil called
a. clay.
b. laterites.
c. silt.
d. sand.

_____ 20. What happens to tropical topsoil as a result of heavy rains?
a. The soil in the A horizon grows thick.
b. Minerals are quickly broken down to enrich the soil.
c. The topsoil washes into the ocean.
d. Leaching of the topsoil keeps the A horizon thin.

_____ 21. In tropical climates, a thin layer of humus usually covers the B horizon because
a. organic material is continuously added to the soil.
b. thin soils develop rapidly.
c. minerals are broken down by weathering.
d. farming continuously takes place in the tropics.

_____ 22. In temperate zones, where temperatures range between cool and warm, which soil horizon is the thickest?
a. horizon A
b. horizon B
c. horizon C
d. all horizons

_____ 23. What soil type forms in temperate climates that receive more than 65 cm of rain per year and contains clay, quartz, and iron compounds?
a. pedalfer
b. laterites
c. regolith
d. pedocal

_____ 24. What fertile soil type containing large amounts of calcium carbonate forms in temperate climates that receive less than 65 cm of rain per year?
a. pedalfer soil
b. laterite soil
c. regolith
d. pedocal soil

_____ 25. The soil that forms in desert and arctic climates, where mechanical and chemical weathering occurs slowly,
a. is thick and fertile.
b. contains large amounts of clay and calcium carbonate.
c. is thin and has little humus.
d. contains large amounts of quartz and iron.

SOIL AND TOPOGRAPHY

26. Explain how the topography of a slope affects its soil.

27. Why is soil on the sides of mountains generally of poor quality?

28. Describe the soil composition of lowlands that retain water.

29. What area provides the best surface for formation of thick, fertile layers of residual soil?