

S6E5. Obtain, evaluate, and communicate information to show how Earth's surface is formed.

d. Ask questions to identify types of weathering, agents of erosion and transportation, and environments of

deposition. (Clarification statement: Environments of deposition include deltas, barrier islands, beaches, marshes, and rivers.)

1. The _____ are more rounded and gently sloping and are covered with soil and plants and geologists infer that the mountains have been eroding for millions of years.

2. _____ is the process that breaks down rock and other substances at Earth's surface.

3. _____ is the removal of rock particles by wind, water, ice, or gravity.

4. _____ is the principle that states that the same processes that operate today operated in the past.

5. _____ weathering is when rock is physically broken into smaller pieces by processes such as freezing and thawing, release of pressure, plant growth, actions of animals, and abrasion.

6. The term _____ refers to the grinding way of rock by rock particles carried by water, ice, wind, or gravity.

7. In cool climates, the most important force of mechanical weathering is the freezing and thawing of water which is referred to as _____.

8. _____ is the process that breaks down rock through chemical changes, changing the mineral composition and caused by the action of water, oxygen, carbon dioxide, living organisms, and acid rain.

9. Rust makes rock soft and crumbly and gives it a red or brown color and is caused by the chemical weathering

by _____.

10. _____ dissolves in rainwater and in water that sinks through air pockets in soil

making carbonic acid which weathers rocks such as marble and limestone.

11. _____ produce weak acids that slowly dissolve rock around the roots that chemically

weather rock.

12. Acids from burning fuels mix with raindrops, fall as _____ and causes very rapid chemical weathering.

13. Two factors that determine the rate at which weathering occurs are the type of rock and the _____.

14. _____ means that a material is full of tiny, connected air spaces that allow water to seep through it and weathers chemically at a fast rate.

15. Chemical weathering occurs more quickly where the climate is both _____ and _____.

16. _____ is often used in cool climate areas as a building stone because it weathers very slowly in cool climates.

17. _____ is loose, weathered material on Earth's surface in which plants can grow.

18. _____ is the solid layer of rock beneath the soil and gradually weathers into smaller and smaller particles that are the basic material of soil.

19. _____ is a dark-colored substance that forms as plant and animal remains decay and makes soil fertile, or rich in nutrients that plants need to grow.

20. Soil that is made up of about equal parts of clay, sand, and silt is called _____ and is the best type of soil in which to grow plants in.

21. A _____ is a layer of soil that differs in color and texture from the layers above or below it.

22. _____ is a crumbly, dark brown soil that is a mixture of humus, clay, and other minerals.

23. _____ usually consists of clay and other particles washed down from above and has little humus.

24. _____ are the organisms like fungi, bacteria, and worms that break the remains of dead

organisms into smaller pieces and digest them with chemicals.

25. _____ is one of Earth's most valuable natural resources because everything that lives on land, including humans, depends directly or indirectly on soil.

26. Whenever soil is exposed, water and wind can quickly _____ it, but soil can be protected by plant

cover.

27. Plowing removed the grass from the Great Plains and exposed the soil and during times of drought the topsoil quickly dried out, turned to dust, and blew away creating the _____.

28. _____ is the management of soil to prevent its destruction and can be conserved through _____, _____, and _____.

29. Explain the following:

a. contour plowing –

b. conservation plowing –

c. crop rotation –

30. Illustrate the following Figures on notebook paper and attach it to this sheet:

Page 178-179 Figure 2 – Mechanical Weathering

Be sure to explain each type of mechanical weathering.

Page 188 Figure 8 – Soil Horizons

Be sure to explain each soil horizon.