

Unit 3 Formative Assessment – Rocks, Minerals, & Soil

Chapter 2: Minerals

1. What do all types of rock have in common?
2. Mineral properties depend on composition and _____.
a. structure b. luster c. cleavage d. streak
3. What are the **five (5)** characteristics of a mineral?
4. What is the most common mineral in Earth’s crust?
a. Silicate b. halite c. oxide d. sulfate
5. Minerals are classified by _____.
a. Color b. composition c. size d. density

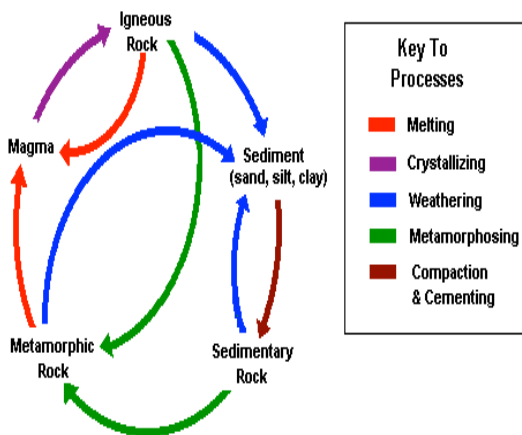
Chapter 3: Rocks & Rock Cycle

6. Where is the energy source found that drives the processes that form igneous and metamorphic rocks?
a. the sun b. the wind c. earth’s interior d. moving water
7. Where is the energy source found that drives the processes that form sedimentary rocks?
a. the sun b. the wind c. earth’s interior d. moving water
8. **Describe** the **three (3)** types of rock (include how they form and their distinguishing unique characteristics):

A)

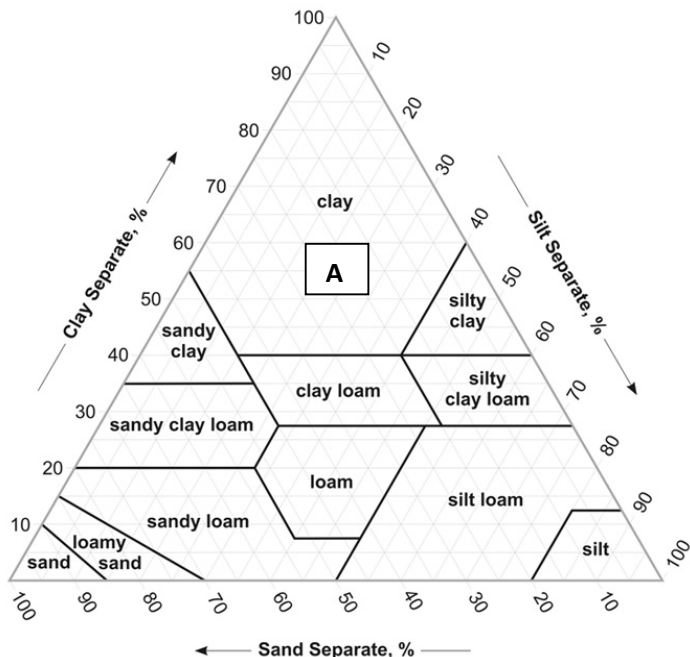
B)

C)



9. In the following diagram, **LABEL** each arrow describing the process from one point in the rock cycle to

**** Use the soil texture diagram below to answer the following questions:**



23. Type of soil texture consisting of 10% clay, 60% silt, and 30% sand:

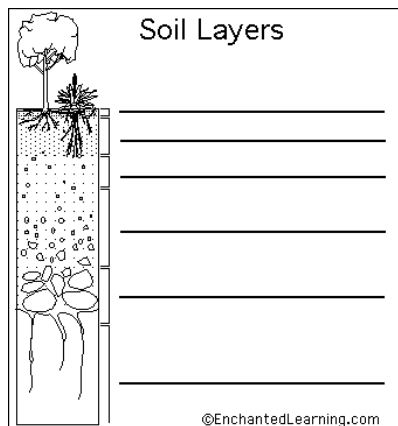
24. Point "A" in the diagram consists of:

clay = _____%

silt = _____%

sand = _____%

25. Label the soil horizons shown in the diagram below using some of the following words: *partially weathered parent material, clay, topsoil, subsoil, loose and partly decayed organic matter, unweathered parent material, mineral matter mixed with organic material, bedrock*



26. Compared to the past, rates of soil erosion are _____.
 a. about the same b. faster c. slower d. more unpredictable

27. Which of the following human activities has caused an increase in soil erosion?
 a. clear-cut logging c. plowing land for farming
 b. clearing land for construction d. all of the above

28. What is the force behind mass movements?
 a. the sun's energy b. flowing water c. gravity d. moving ice

29. What factor commonly triggers mass movements?
 a. saturation of surface materials with water c. removal of vegetation
 b. earthquakes d. all of the above

30. When a block of material moves downslope along a curved surface, this mass movement is called _____.
- a. rockfall b. rockslide c. a slump d. creep
31. What is the slowest type of mass movement?
- a. slump b. creep c. mudflow d. earthquake
32. What kind of soil is best for water holding capacity?

**** Old Man's Loss Felt in New Hampshire**

FRANCONIA, N.H. — Crowds of visitors were drawn to Franconia Notch on Sunday to mourn the loss of New Hampshire's well-known symbol — the Old Man of the Mountain granite profile. The 700-ton natural formation was just a pile of rocks after breaking loose from its 1,200-foot-high mountainside perch. It was unclear when the outcropping fell because clouds had obscured the area Thursday and Friday; a state park trail crew discovered the collapse Saturday morning. The famous mountain's history dates millions of years. Over time, nature carved out a 40-foot-tall profile resembling an old man's face, and it eventually became New Hampshire's most recognizable symbol.

The Buffalo News, May 5, 2003



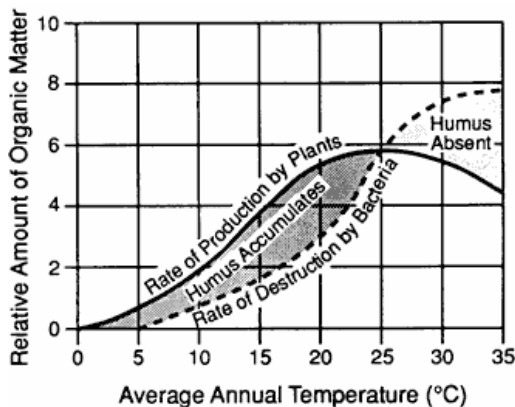
Associated Press

Granite profile of the Old Man of the Mountain is shown before the collapse, and after

33. Which agent of erosion is most likely responsible for the collapse of the granite profile?

- a. running water
b. glacial ice
c. wave action
d. mass movement

** The graph below shows how environmental temperatures affect the amount of organic material (humus) added to and removed from soils in humid regions:



34. The graph supports the conclusion that soils in regions with average annual temperatures about 25°C have _____.

- a. little humus present
b. highest production of humus
c. low breakdown of humus
d. same amount of humus as soils in cooler regions