

Name: _____

Date: _____

Geology Unit 2 Study Guide

S6E5B: Minerals

1. Identify the criteria that define a mineral.

Are minerals organic or **inorganic**?

Are they **solid**, liquid, or gas?

Are they man made, or do they **occur in nature**?

Does each mineral have a unique crystal structure? **Yes definite crystalline structure**

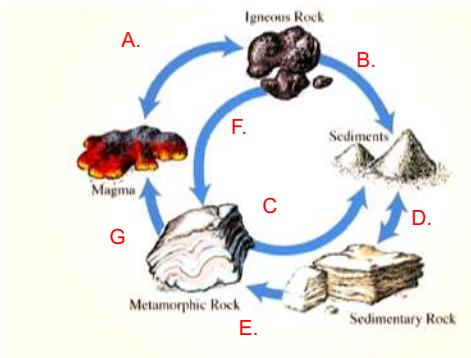
2. What are rocks composed of? **Minerals, sediments, rock particles, organic matter.**

3. Abbey and Catherine found several rocks on their trip to South America. After they returned home, they took their hand lens and began observing the different types of rocks unearthed. One rock was limestone, another was pumice, and lastly was marble. Catherine and Abbey noticed that all the rocks they found had tiny bits of shiny mica in them. Based on this observation, what can we conclude about mica?

Mica is a mineral

S6E5 C & D: Rocks & Rock Cycle

1. How are rocks classified? By their process of formation
2. How are igneous rocks formed? magma or lava that cools and hardens.
3. How are sedimentary rocks formed? Sediment that is compacted and cemented together.
4. How are metamorphic rocks formed? A changed rock by heat & pressure.
5. What type of rock is being described?
igneous A. This rock is formed by cooling magma.
sedimentary B. This is formed underwater. It is made up of bits of shells and skeletons of sea animals cemented together.
metamorphic C. This rock is formed by Limestone that has been exposed to lots of heat and pressure becomes this type of rock.
sedimentary D. This rock is formed when tiny grains of sand become cemented together.
igneous E. This rock is formed by quickly cooled lava.
6. Rocks exposed to water break down, or weathering.
7. Rocks change from one type of rock to another because of the rock cycle
8. According to the rock cycle, what processes are missing?



A. cooled, crystallize, and harden/ melting

B. weathering

C. weathering

D. compaction and cementation

E. heat and pressure

F. heat and pressure

G. melting

S6E5 D-Weathering and Erosion

1. The breaking down of rocks into smaller pieces is called Weathering. The transport or movement of sediment or weathered material is called erosion.
2. What is the difference between mechanical and chemical weathering?

Mechanical breaks downs rock by physical means and changes rocks size and shape, chemical breaks down rock by changing the rock composition.

3. What agent of erosion created the Grand Canyon?
water
4. What agent of erosion created the Great Lakes?
ice
5. What agent of erosion creates sand dunes? wind
6. What agent of erosion creates rock slides? gravity

7. Write M for Mechanical Weathering or a C for Chemical Weathering for the examples below.

M Freezing & Thawing: Water freezes causing the crack to get bigger

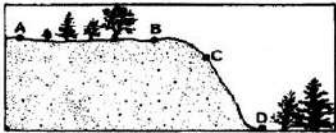
C Oxygen + Water + Iron = Rust-This process is Oxidation

M Animals Burrowing/Digging in the Soil

M Water dissolving rocks

C Acid rain

M Root Action



8. Based on the illustration below, where would most erosion occur, and why?

S6E5I,J Soil and Soil conservation

1. What is soil composed of? Rock particles, humus, sand, silt, clay, minerals
2. What is the decomposing organic material that mixes in with topsoil called? humus
3. Identify the layers/horizons below. Be sure to label the topsoil, bedrock, partially weathered bedrock, subsoil, and humus.



What type of soil conservation is being described?

Terracing Carving flat steps in the side of a hill/mountain for crops

Crop rotation Alternating different crops planted in a field

Windbreaks Trees planted around a field

Contour plowing Plowing along the natural curves of the land

S6E6 B: Natural Resources

1. Any material that comes from Earth that is used by living things is called Natural resources
2. What are resources that can be reused or replaced called? Renewable resources
3. What are resources that are not easily replaced by nature called? nonrenewable resources

4. Identify the following resources as "R" for Renewable and "N" for Nonrenewable.

R Solar Energy

R Hydroelectric

N Fossil Fuels

R Biomass

N Coal

R Soil

R Geothermal

N Oil

R Wind

N Nuclear

N Natural Gas