

### Rocks and Minerals Study Guide

Know some of the effects mining has on the environment and understand what it means when minerals are said to be a "non-renewable" resource.

Describe the physical properties that are used to identify minerals (color, streak, hardness, crystal form, luster). Put a STAR next to the property that is **not** useful in identifying an unknown mineral.

Why do rocks break along fracture planes (think about the crystalline structure)?

What determines the crystalline structure of minerals?

Using the Mohs Scale of Hardness answer the following questions:

Mohs Scale of Hardness		
Mineral	Scale Number	Common Objects
Talc	1	
Gypsum	2	
Calcite	3	Fingernail Copper Penny
Fluorite	4	
Apatite	5	Steel Nail Glass Plate
Orthoclase	6	
Quartz	7	
Topaz	8	Streak Plate
Corundum	9	
Diamond	10	

Which minerals can scratch glass?

Which mineral is the "hardest?"

A mineral can easily scratch a copper penny but cannot scratch a glass plate, which minerals might it be?

Define a Mineral...

Define crystallization...

What is the relationship between minerals and rocks? How is the size of the crystals within the rock useful in determining how the rock was formed?

What are the 3 different groups of rocks?

How are igneous rocks formed?

What is the difference between intrusive and extrusive?

What type of characteristics does magma that cools quickly on Earth's surface have? What type of rock do you know of that is an example of an extrusive igneous rock?

What type of characteristics does a rock have that cools slowly within the Earth? What type of rock do you know of that is an example of an intrusive igneous rock?

If a rock reaches the Earth's surface it is said to be\_\_\_\_\_.

How are sedimentary rocks formed?

What are 3 examples of rocks made from sediments?

Weathering is the \_\_\_\_\_ of sediments.

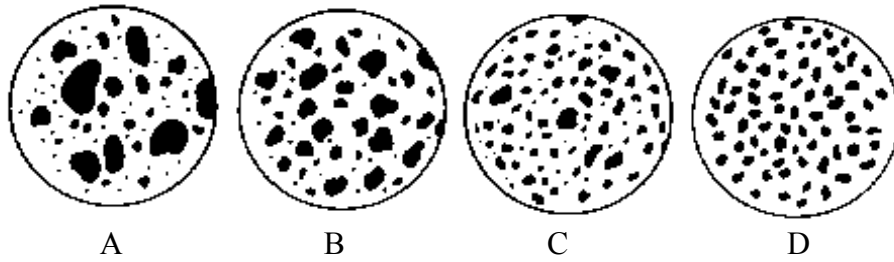
What are the 2 types of weathering:

1.

2.

Erosion is the \_\_\_\_\_ of sediments (wind, water, ice can move particles downhill, or downstream)

In the above diagram circle the rocks that have been transported a far distance. Explain why you chose those rocks.



The above diagram is representing the different sizes of rock particles in sedimentary rocks. Based on the diagram which sample represents grains that are "well-sorted."

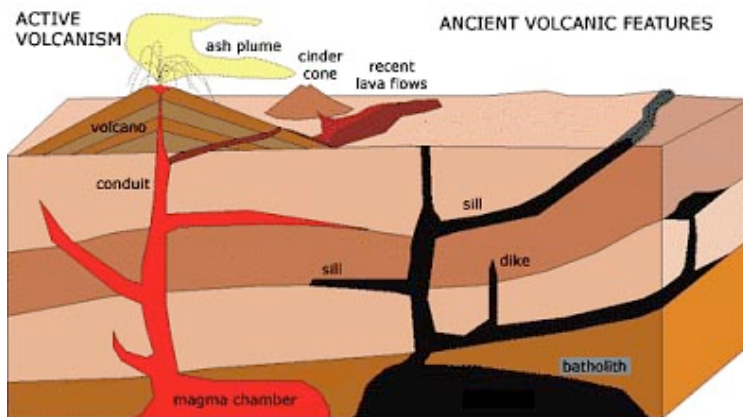
If the grains are well rounded and well-sorted how far did the sediment travel (long distance, short distance, or did not travel) and for how long (long time, short time).

Rocks that are altered by heat and pressure beneath the Earth's surface are called:

Limestone is a sedimentary rock, which turns into \_\_\_\_\_ when subjected to heat and pressure.

Define Pluton:

Label the Intrusive Igneous Bodies in the diagram below.



Fill in the diagram for the Rock Cycle.

Understand how one type of rock can be transformed into another type

