The Rock Cycle Objectives

- Describe two ways rocks have been used by humans.
- Describe four processes that shape Earth's features.
- Describe how each type of rock changes into another type as it moves through the rock cycle.
- List two characteristics of rock that are used to help classify it.

I. The Value of Rock

A. What Is Rock? Scientists define rock as a naturally occurring solid mixture of crystals of one or more minerals.

B. Why Is Rock Important? Rock has been an important natural resource for as long as humans have existed. Early humans used rock to make tools. Ancient and modern civilizations have used rock as a construction material.

II. Processes That Shape the Earth

- A. Weathering, Erosion, and Deposition Weathering, erosion, and deposition are all processes that shape the surface of the Earth.
 - Erosion: process in which wind, water, ice, or gravity moves soil and sediment from one location to another.
 Deposition: the process in which material is laid down
- **B. Heat and Pressure** Sedimentary rock can form when buried sediment is squeezed by the weight of overlying layers of sediment. If the temperature and pressure are high enough, the rock can change into metamorphic rock.
- **C. How the Cycle Continues** Buried rock is exposed at the Earth's surface by a combination of uplift and erosion. This continues the rock cycle.

III. The Rock Cycle

Illustrating the Rock Cycle

A. The Flow of Rock The rock cycle is the continual process by which new rock forms from old rock material.

Round and Round It Goes

 Rolling Stones The sequence of events in the rock cycle depends on processes, such as weathering, erosion, deposition, pressure, and heat, that change the rock material.



Critical Thinking Time!

Many important substances on Earth follow cycles. List as many cycles as you can think of.



B. The Rock Cycle



http://www.learner.org/interactives/rockcycle/ index.html

http://youtu.be/53IMdHzvGCQ

B. The Rock Cycle

Critical Thinking Time!

If a rock is buried deep inside the Earth, which geological process cannot change the rock? Explain your answer.

IV. Rock Classification

- A. Composition The composition of a rock is determined by the minerals that make up the rock.
- **B. Texture** The texture of a rock is determined by the size, shape, and positions of the grains that make up the rock.



Types of Metamorphic Rock

We will ROCK you! We will we will rock you! we will we will rock you!

Volcanoes erupt with lava so hot it cools and hardens and its igneous rock cuz rocks can change...all over this place... they weather, and melt, and get rearranged!

We will we will rock you! we will we will rock you!

Rock gets weathered into tiny tiny rocks layers and layers get piled on top it gets compacted, its elementary this rock will become sedimentary

we will we will rock you we will we will rock you!

Any type of rock under heat and pressure becomes metamorphic and that's for sure cuz rocks can change, all over this place.. they weather, and melt and get rearranged

we will we will rock you we will we will rock you!

