

Unit 4: Rock Cycle and Geological Time
Rock Cycle Simulation Lab

Goal: To simulate the rock cycle using crayons to represent rocks.

Igneous rock: formed from the cooling and crystallization of magma and lava

Sedimentary rock: formed when sediments (small pieces of rock) are compacted and cemented together (lithified)

Metamorphic rock: formed when rocks undergo heat and pressure

Weathering: the wearing away or breaking down of rocks by wind, water, sand, and chemicals

Erosion: the movement of sediments produced after weathering, usually by wind, water, and gravity.

Deposition: when sediments are dropped off in a new location after erosion

Materials:

3 crayons

coin

hot plate

paper towels

aluminum foil

cold water

Making Sedimentary Rock-Part 1

1. In nature, rocks are broken down by the forces of nature. In this simulation the **crayons** represent rocks and the **coin** represents a weathering agent (wind, sun, ice, rain) that cause rocks to break down into smaller pieces.
2. Each partner needs to weather his/her rock. In other words, use a coin to shave your crayons into small pieces. Collect the shavings on a paper towel. Be as neat as you can.
3. Answer these questions about your weathered rocks:
 - a. What do the different colored crayons represent?
 - b. What happens to the rock when it is weathered?
 - c. Are the fragments all the same size or shape? Describe.