

Demonstrate the Rock cycle using Crayons.

(This exercise modified from Donald L Birdd, Color Me Metamorphic, *The Science Teacher*, April 1990, p. 20 – 25)

Equipment needed for this exercise:

1. Safety goggles
2. Vise (one that clamps to the table top is best)
3. 2 – 2.54 cm x 12.5 cm x 20 cm pieces of boards (plywood or solid wood) for each vise in use.
4. Hot plate, must have a flat surface, (one hot plate per 4 students)
5. 2 – pair of Tongs per group
6. Pocket pencil sharpener (one per student)
7. Petri plates or finger bowls (one per group of 4 students)

Materials

1. Wax crayons, red, green blue, yellow ( 4 to 6 of the same color crayon per student)
2. Aluminum foil, heavy duty, (one – 45 cm x 45 cm square per group and one piece to cover the hot plate)
3. Aluminum disposable pie plates, the smaller pie plates about 10 cm in diameter work best)
4. Wax paper
5. 4 – Envelopes per group
6. Newspaper – enough to cover the lab table tops, have lots on hand)

Part 1: Weathering

Cover all desk tops with newspaper. Each student should have a sheet of wax paper, a pocket pencil sharpener, and 4 crayons of the same color. Each student in each group of 4 people should have a different color of crayons.

**Answer Questions A on the worksheet.**

Each student should carefully shave each of the crayons with the pencil sharpener, keeping all of the fragments in a small pile.

As you are “weathering” the crayons onto the wax paper, look at the fragments you are making.

**Answer Questions B on the worksheet.**

When the weathering is complete, Place the fragments on their wax paper and place them in the center of the table.

Part 2: Erosion and sedimentation

Once rock fragments have been created, they are usually moved by some natural force.

**Answer Questions C on the worksheet.**