

Modeling Erosion

Summary

Students will make a small-scale model of a mountain and "erode" it using a spray bottle.

Time Frame

1 class periods of 70 minutes each

Group Size

Small Groups

Materials

per group:

rocks, gravel, sand, clay, dirt

1 cake pan (or plastic baking dish or tote tray) (11 x 16)

paper or plastic drinking cups

ice cube

blow dryer (optional, students can blow on the sediments also)

medium sized spray bottle

timer or clock with seconds hand

- [student sheet](#)

Background for Teachers

The speed of erosion depends on several factors. The size of the sediments being moved, slope that they are on, type of erosion (wind, water, ice or gravity) and the duration of the erosion all affect the speed at which it can occur. In this activity, it is important that students be allowed to design their own procedures to test one of these variables.

Instructional Procedures

Gather the materials. The clay may be found in an art department or, depending on your location, a stream bank or backyard. Sand and gravel are often available locally.

Divide class into groups of 4.

Read the student sheet introduction and go over the directions with students. Ask them to write procedures that test only one variable. You may wish for them to write their hypothesis on the board to make sure they are not all testing the same variable.

As the class works to write their procedures, walk around and make sure they are writing clear, complete directions. The place for the teacher signature should help them make sure they do this before starting the activity.

Describe the clean-up procedures.

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)