

20. Rocks and Minerals

Classroom Activity: By examining different kinds of rocks and minerals, students will become familiar with their characteristics and properties.

Grade: 4

Strand(s): Understanding Earth and Space Systems

This task addresses the following overall expectations:

- investigate, test, and compare the physical properties of rocks and minerals;
- demonstrate an understanding of the physical properties of rocks and minerals.

and the following specific expectations:

- use a variety of tests to identify the physical properties of minerals;
- use appropriate science and technology vocabulary, including hardness, colour, lustre, and texture, in oral and written communication;
- use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes;
- describe the difference between rocks (composed of two or more minerals) and minerals (composed of the same substance throughout), and explain how these differences determine how they are used.

Assessment Categories:

- Knowledge and Understanding
- Application

Cross-discipline connections: Social Studies

Type of Activity: Classroom, possibly field trip

Preparation: (approx. 20 minutes)

Assemble materials

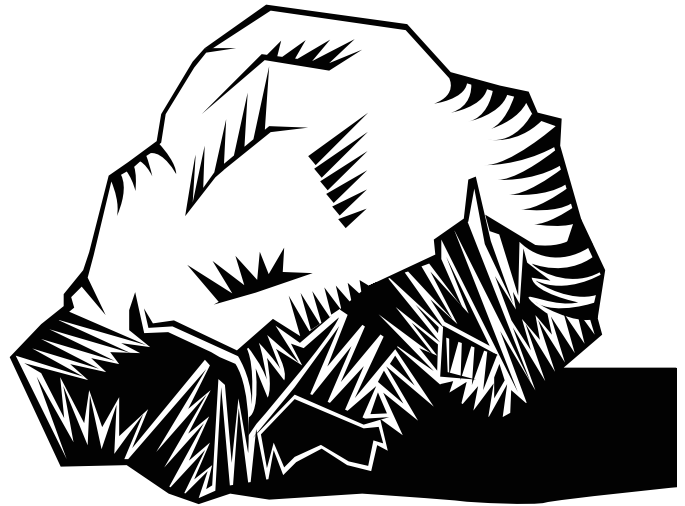
Time needed to complete the task: 80 minutes

Materials/Resources for teachers:

samples of various rocks and minerals

sand

gravel



water

containers (shallow and lidded)

piece of coloured paper

Materials/Resources for students:

no additional resources required

Activity Description:

Explain what rocks and minerals are and how they differ?

Hand out samples to the students to examine.

Explain the concept of erosion.

Demonstrate the effects of erosion:

- Pour water onto a shallow container of sand and allow the students see the sand being washed away.
- Rub and grind bits of gravel together to produce dust. Place some gravel into a clean, lidded container. Shake vigorously, grinding the stones together. Pour the contents onto a contrasting colour of paper to reveal the dust that is produced.

As a class, discuss the effects of wind, water and ice on a landscape.