

**Project FOCUS
Best Lessons
THIRD GRADE**

Title of Lesson: Identifying Minerals

Theme: Earth/Space Science

Unit Number: **Unit Title:** Rocks, Minerals, Soil and Fossils

Performance Standard(s) Covered (enter code):

S3E1. Students will investigate the physical attributes of rocks and soils.

a. Explain the difference between a rock and a mineral.

b. Recognize the physical attributes of rocks and minerals using observation (shape, color, texture), measurement, and simple tests (hardness).

Enduring Standards (objectives of activity):

Habits of Mind

- Asks questions
- Uses numbers to quantify
- Works in a group
- Uses tools to measure and view
- Looks at how parts of things are needed
- Describes and compares using physical attributes
- Observes using senses
- Draws and describes observations

Content (key terms and topics covered):

Minerals
Property
Hardness

Learning Activity (Description in Steps)

Abstract (limit 100 characters): Students will learn how to differentiate between minerals by testing for hardness.

Details:

Divide the students into groups according to how many sets of minerals you have (see tip below). Remind the students that a harder mineral scratches a softer mineral. Then instruct them to try to scratch each of the minerals with Sample A. The students should record which minerals Sample A scratches.

Remind the students that a softer mineral is scratched by a harder mineral. Then instruct them to scratch Sample A with each of the other minerals. The students should record which minerals scratch Sample A.

Let the students repeat these steps with the rest of the mineral samples. When the students are done scratching all of the minerals, instruct them to use the information on their charts to order the minerals from softest to hardest. At this point, you can reveal the types/names of minerals to the students.

Materials Needed (Type and Quantity):

- 5 to 7 different minerals labeled A,B,C, etc. - 1 per group of students

Notes and Tips (suggested changes, alternative methods, cautions):

- **Tip:** If you do not have enough mineral sets to go around, and would have groups larger than 3 or 4, consider doing this activity with smaller groups while your teacher leads another activity.

- **Tip:** For class discussion's sake, it is best that each set consists of the same minerals. You should also know the proper name and a little information for each mineral.

- **Tip:** You may provide as few as 3 minerals if you have less time, and even more minerals if you have more time.

- **Tip:** Provide the students with a chart to record their observations in.

ex: **Mineral to Test** **Minerals it Scratches** **Minerals that Scratch It**
 Sample A
 Sample B
 Sample C (etc.)

Sources/References:

1) Originally submitted by Amanda Eanes, edited by Jessica Valle (2010)

2)

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