

DISCOVERY BOX

Standard III

Students will understand the basic properties of rocks, the processes involved in the formation of soils, and the needs of plants provided by soil.

Objective 1

Identify basic properties of minerals and rocks and sort rocks by appearance.

Guided Inquiry Lesson Student-Initiated Inquiry

Instructional Procedure

Materials

- A collection of sedimentary, igneous, and metamorphic rocks
- Three hand lenses
- Reference books on rocks
- 12" x 18" white construction paper
- Markers
- Science journals, pencils, crayons

Engagement

Make sure there are two or three students at this Discovery Box.

There are many ways you can classify things to be grouped: color, size, shape, texture, time, location, design, etc.

1. Separately, in your journal, write down things that could be grouped using these ideas. Examples: color---apples; shape—blocks; size—books
Share your ideas with each other.
2. Write in your journal why classifying things are so important.
Share your ideas with each other.

Exploration

With this activity, you will be using knowledge you already have about classification to investigate rocks. In the box are some rocks and hand lenses.

1. Spread the rocks out on the table. Look for relationships among the rocks. Write down in your journal three different ways you could classify these rocks. (Get ideas from above.)
2. Write down the way you are going to classify the rocks as a title in your journal.
3. On the 12" x 18" paper:
 - a. Put the rocks into groups by the classification method you have chosen.
 - b. Assign a name to each group and write the name on the paper by each group.

5. Record in your journal the different names of the groups as headings you have chosen for your groups.
6. Using describing words, write under each group heading the characteristics of each group.

Elaboration or Extension

1. Using your reference books, try to find the rocks in the books that are in the Discovery Box. Write the name of the book you are using in your journal.
2. Discover the way geologists use to classify rocks. Write the method geologists use to classify rocks in your journal.
3. Try classifying the rocks again by the way geologists use.