How We Use Rocks: Part 1

Summary

Students are introduced to rocks and their physical properties.

Main Core Tie

Science - 2nd Grade
Standard 2 Objective 1

Time Frame

1 class periods of 30 minutes each

Group Size

Small Groups

Life Skills

Thinking & Reasoning, Communication, Social & Civic Responsibility

Materials

- *Everybody Needs A Rock*
  by Byrd Baylor
  Rock Interview worksheet (attached below)
  Paper bags--one for each small group
  Rock Uses worksheet (attached below)
  Small rock for each child
  Various art materials, such as paint, markers, scraps of fabric, fake fur, glue-on eyes, sequins, etc.

Background for Teachers

We use rock and mineral products everyday. In fact, each person in the United States uses an average of 10 tons of rock and mineral products every year. They are used in agriculture, science and technology, communications, transportation, construction, medicine, manufacturing and arts. From metals, building materials, and fertilizer, to baby powder and the graphite in our pencils, rocks and minerals provide us with many essentials in our modern everyday life.

Intended Learning Outcomes

Share ideas using communication skills.
Apply prior knowledge and processes to construct new knowledge.

Instructional Procedures

1. To the class, read *Everybody Needs a Rock* by Byrd Baylor. Show the class your very own special rock.
2. Explain to the children that they are going outside to find their very own special rocks. Remind them that it shouldn't be too big (pocket-size). Take the students outside to the schoolyard and allow them time to find their rocks.
3. Review with the children that all rocks are made from minerals. Have the students carefully observe their rock. (Jeweler's loupes are a great tool for looking carefully at rocks.) Have the students

get to know their rocks even better by interviewing them, completing the Rock Interview worksheet (attached below).

4. Divide the class into small groups (4 to 5 students). Give each small group a paper bag. Have students place their rocks in the bag. In turn, each child reaches in the bag, feels the rocks, and tries to choose his/her own rock.

5. Have the students use their special rock to create a pet rock or a "pebble person." Provide extra rocks for those who don't want to decorate their special rocks. Make a variety of craft and art supplies available for them to use. Encourage creativity. Students can also name their rocks.

6. As an assignment (could be a family homework assignment), have the students try to find five uses for their rocks. Encourage them to be creative; the rock's uses are limited only by their creativity. Use the Creative Uses For My Rock worksheet, attached below.

Strategies for Diverse Learners

Encourage children to take a walk around their neighborhoods with an adult family member. Invite them to look for a building that is made out of rocks and ask them to draw it. How else are rocks used in their neighborhood?

Extensions

Sit in a circle on the floor with each student holding a rock. With masking tape or string, mark off some areas within the circle. As a class, put the rocks into groups. Students may classify rocks as shiny or dull, smooth or rough, hard or soft, multicolored or plain. Some rocks may fit into more than one group. If so, adjust the areas to overlap (like a Venn diagram). Challenge the students to return to their seats and make an illustration of their rock that shows two of its characteristics.

The book *Using Rocks* by Jacob Fink, National Geographic, features many common uses of rocks. The book relates properties of specific kinds of rocks to their uses (e.g., bowls building, columns, cutting boards, statues, slate, roofs, plant holders walls etc.). It has the traditional high quality photographs for which National Geographic is so famous.

Construct a small box as a home for the students' special rocks.

Assessment Plan

Review each child's completed worksheets to check concept mastery.

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