

Developed by Becka Jiménez

**Grade:** 3

**Subject Area:** Rocks and Minerals

**Standards:**

Scientific Inquiry

3.1.2 – Participate in different types of guided scientific investigations, such as observing objects and events and collecting specimens for analysis.

3.1.3 – Keep and report records of investigations and observations using tools, such as journals, charts, graphs, and computers.

Scientific Enterprise

3.1.5 – Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings

Classifying

3.4.2 – Explain that features used for grouping depend on the purpose of the grouping.

**Goals:**

Cognitive – Students will understand that rocks can be classified into different groups according to their features.

Affective – Students will work together effectively in groups to collect and classify rocks.

Psychomotor – Students will collect rocks from the neighborhood and record their findings on a chart showing two ways they have classified their rocks.

**Objective:**

Students will show their understanding of classification by collecting rocks and sorting them in two different ways into categories on a chart.

**Materials:** (per group)

- Plastic baggies labeled with numbers (#1, #2, etc.)
- Clipboard
- Blank Chart
- Pencil with eraser
- Hand Lens
- Optional- Pen Light

**Teacher Materials:**

- Book Let's Go Rock Collecting, by Roma Gans
- Chart Paper
- Several books about rocks (suggestions at the end of lesson plan)

**Activity:** (45-60 minutes)

Students will work in groups to collect rocks from the nearby park and surrounding areas. They will observe the rocks' features and classify them in two different ways on the provided chart. [This can be an introductory lesson to the Rocks and Minerals Unit.]

**Procedure:**

1. Ask the class to tell you what they already know about rocks, and record their answers on chart paper labeled "What We Know About Rocks".
2. Teacher Read Aloud: Let's Go Rock Collecting! by Roma Gans
3. Divide students into groups of 3-5 students each.
4. Introduce the topic by explaining that we will begin studying about different types of rocks by seeing what we kinds can find in our own neighborhood.
5. Walk the class to the park (or playground, etc.).
6. Explain that each group member needs to find a rock to bring back to the classroom. The groups should put one rock in each labeled bag.
7. When all rocks have been collected, each group should decide in which two ways they will sort their rocks (smooth vs. rough, black vs. white, etc.). This may be done outside or back in the classroom. Encourage them to use their senses of touch, smell, and sight. On the chart, students will write the two different ways they have chosen to classify and record which number rocks go with which category. Students should use the hand lens and penlight to make study and make observations.
8. After all rocks have been collected and sorted, groups share their findings with the class.
9. Each group records questions that they want to investigate based on today's activity.
10. Record students' questions on another chart paper labeled "What We Want to Know About Rocks", making sure that they are questions that the class will be able to investigate.
11. Give the class a few days to read from your selection of rocks books and their Science books. As anyone finds an answer to one of the questions on the class's chart, they should write the answer and their name on a post-it note and tack it onto the question.
12. When all of the questions have been answered, reward each student who answered a question with a treat, and make another class chart "What We Have Learned About Rocks". Display all three class charts for everyone to see.

**Bad Weather Option:** Use the rocks from the "Rocks and Minerals" Kit instead of having your students go outside to find them. Just select a variety, add them to your materials table, and allow them to choose!

**Assessment:**

Use rubric to assess group participation and chart completion. Post this rubric for the class to see.

| Assessment Rubric:         | <b>1</b>                   | <b>2</b>                    | <b>3</b>   |
|----------------------------|----------------------------|-----------------------------|--|
| <b>Group Participation</b> | Few members participate.   | Most members participate.   | All members participate.                                       |
| <b>Chart</b>               | 1 classification complete. | 2 classifications complete. | 2 classifications complete and at least one question recorded. |
|                            |                            |                             | <b>Total Points:</b> of 6                                      |

Group Members \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Our Rock Collection**

| <b>Categories</b> | <b>Rocks</b> |
|-------------------|--------------|
|                   |              |
|                   |              |

| <b>Categories</b> | <b>Rocks</b> |
|-------------------|--------------|
|                   |              |
|                   |              |

**Our questions about rocks:**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **Additional Resources**

- Earth Rocks! Igneous Rocks by Cefrey , Holly
- Earth Rocks! Metamorphic Rocks by Cefrey, Holly
- Earth Rocks! Sedimentary Rocks by Cefrey, Holly
- Explore the World of Rocks by Bargar, Boren, and Johnson
- The Question & Answer Book: Rocks and Minerals by Marcus, Elizabeth
- Simply Science: Rocks by Flanagan, Alice K.