Investigating Minerals
3rd Grade

Concepts
- Scientists use observations to begin investigation.

Objectives
- Students will become familiar with collections in the museum as source for investigation.
- Students will describe minerals through text and illustration.
- Students will create questions for their own investigation of a specimen.

Outline
1. During a visit to the Museum, introduce the concept and the activity, and ask students to complete the worksheet.

2. Back in the classroom, have students share observations and questions with each other. Begin research project and practice observation using new vocabulary.

Duration
Visit: 30 minutes
Post-Visit: 20-30 minutes

Location
Gem & Mineral Hall

Supplies
- Worksheet
- Pencil
- Clipboards (optional)

Standards
Science 3.5.e

Vocabulary
Adjective
Geologist
Luster
Metallic/Non-metallic
Vitreous
Greasy
Waxy

Student Work

SECTION CLOSED
Visit

Show students where the specimens for observation are, along the Systematic Mineralogy wall and the Mineral Cases in the middle of the room. Instruct the students to work in pairs or small groups to walk quietly through the exhibit and find 2 minerals that they find interesting and have them use those two specimens to complete the worksheet.

You may choose to walk students through an example:

Torbernite

Bigger than a brick, sea green on top and has pieces of rock colored stone, prickly parts, sharp, shiny, sparkles, looks like a jewel could be made out of it.

Reminds me of a rock in the ocean.

- Why is the mineral pointy in places and smooth in others?
- Why is the mineral two colors?
- Was this mineral bigger?
- How big can it get?
- What is it used for?
- How did it get its’ colors?
- What is it made of?

Post-Visit

Back in the classroom, first as a whole group then individually, have the students work with their descriptions to create meaningful questions for further investigation.

If time allows, ask students to research one mineral to try and find the answer to one or more of their questions.

Variations & Extensions

- Have students create a poster or write a report about their mineral.

- Do a class research project on some popular questions or similarly themed questions (for example, what gives a mineral its color?).
Mineral Observation

Find two minerals that look interesting to you and complete the worksheet below for each.

**Mineral #1:**

Adjectives describing this are...

This mineral reminds me of...

Questions I have about this mineral are...

1.

2.

3.

4.

5.
Mineral Observation

Find 2 minerals that look interesting to you and complete the worksheet below for each.

Mineral #2:

Questions I have about this mineral are...

1. ______________________________________________________________________
2. ______________________________________________________________________
3. ______________________________________________________________________
4. ______________________________________________________________________
5. ______________________________________________________________________

Adjectives describing this are...

1. ______________________________________________________________________
2. ______________________________________________________________________
3. ______________________________________________________________________
4. ______________________________________________________________________
5. ______________________________________________________________________

This mineral reminds me of...

1. ______________________________________________________________________
2. ______________________________________________________________________
3. ______________________________________________________________________
4. ______________________________________________________________________
5. ______________________________________________________________________