

Regional Science Consortium

Rocks and Minerals

Background

There are over 3,000 types of minerals found worldwide, and many have similar appearances. Using several easy to assess characteristics, geologists are able to quickly and accurately determine the type of minerals contained in an unknown sample.

Objective

Students will identify minerals by following a flow chart of characteristics in the same way a field geologist would determine the identity of a sample.

Materials

- Mineral sample bags #1-6
- Mineral Identification Flow Chart
- Glass plate
- Magnifying glass
- Magnet

Instructions

1. Each student will begin by selecting one mineral sample to start with. They can remove one mineral from that bag and take it to their workspace for identification, as well as a mineral identification flow chart, glass plate, magnet, and magnifying glass.
 - a. Be careful not to mix up the samples from their designated number bags!
2. Each student will then begin identifying their chosen mineral sample by following the flow chart starting from the left box labeled "Start Here".
3. Students will fill in Table 1 on the Student Worksheet with the mineral's characteristics as they work through the flow chart.
 - a. If not starting with mineral sample #1, ensure the correct row of the table is being filled in!
 - b. Not all columns will be filled for all minerals.
4. Once an identification has been made, record the ID and place that mineral back into the correct mineral sample bag. Then, select a different mineral sample to identify.
5. Repeat the process until all minerals have been identified. Then, answer all remaining questions on the Student Worksheet.