**Issues and Earth Science: Rocks, Minerals, and Soil.**

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**Lesson 20: Identifying Rock Types**

**Time: 45 minutes-1hour**

**Hook:** Students will be given several rocks to see if they can predict which type they have.

**Challenge Question:** How well can you identify different rock types?

**Objective:** Students will be able to classify the rocks into three groups: Igneous, Metamorphic, or Sedimentary.

**Necessary Prior Knowledge/Experience:** None

**Procedure:**

1. Working with a partner, use the magnifying lends to examine a rock sample. (Make sure to ignore the spot of paint that will be used to identify the rock).
2. Compare the rock to the identifying characteristics shown in *Table 1: Rock Characteristics.*
3. Discuss with your partner which identifying characteristics the rock appears to have. You could compare the size of crystals in the rock. Use the figure on the left to compare crystal size.
4. Record your observations on student sheet 20.1, “Rock Data.” Focus solely on whether it is one of the 3 types: Igneous, Metamorphic, or Sedimentary.
5. Identify the rock as being Igneous, Metamorphic, or Sedimentary on student sheet 20.1
6. Repeat steps 1-5 until you have examined all eight rocks samples.

**Part B:**

1. Hand students a sample of the rock that was collected by the hikers.
2. Working with your partner, compare the rock with the identifying characteristics shown in Table 1. Unfortunately the hiker sample has garnets crystals so have the students mainly focus on the size of the crystals in the rest of the rock.
3. Record your observations of the hiker’ rocks on their student sheet 20.1.
4. Identify the hiker’s rock as being Identify the rock as being Igneous, Metamorphic, or Sedimentary.
5. With your partner, work on analysis questions 1-3 together and answer question 4 by yourself in your notebook.

**Extension:** Have students bring in rocks of their own to share with the class. Have them compare the rocks from the lab to their rocks to spot the similarities or differences. See if the students can identify how each rock was formed?