Name: Date:

Rock Shake Lab

Problem: Which rock is the most resistant to weathering?

Hypothesis:

Background Information:

Materials:
3 pieces of basalt
3 pieces of sandstone
3 pieces of schist
1 hand lens for each student
1 metal coffee can
1 stopwatch
1 electronic balance
1 piece of white paper
1 pair of safety goggles for each student
calculator

Procedure:

1. Examine the 3 types of rock with a hand lens. Record your observations in Data Table #1.
2. Write a hypothesis based on your observations in step 1.
3. Carefully weigh the 3 pieces of basalt together. Record their weight in column A of Data Table #2.
4. Put the 3 pieces of rock in the coffee can and put on the plastic cover.
5. Shake the can vigorously for 3 minutes, being sure to hold the plastic lid as you shake.
6. Pour the rock pieces onto a piece of white paper.
7. Pick up any rock pieces larger than this '**.**' and put them on the scale and weigh them. Record the weight in column B of Data Table #2.
8. Complete the rest of the Data Table for basalt by subtracting column B from column A and recording it in column C. Divide column C by column A then multiply by 100 and record it in column D.
9. Carefully clean out the coffee can with a paper towel over the trash can.

10. Repeat the entire procedure again with the samples of sandstone and schist.

DATA TABLE #1

Observations

BASALT	SANDSTONE	SCHIST

DATA TABLE #2

Rock Type	A Initial Weight	B Weight of Large Pieces	C Weight Lost (A – B)	**D** **Percent of Weathering (C/A x 100)**
Basalt				
Sandstone				
Schist				

Make a bar graph of your data. Include the graph in the Data section of your lab report.

A) Title: The Effects of Mechanical Weathering on Different Rocks
B) Label the x-axis (horizontal), "Type of Rock".
C) Label the y-axis (vertical), "Percentage of Rock Lost to Weathering".
D) Make a bar for each type of rock using Column D in Data Table #2.

Conclusion:

1. What sample was the most resistant to weathering? Why?
2. What sample was the least resistant to weathering? Why?
3. Using examples from the data tables, what conclusions can you make about the durability of each rock type?
4. The State of Connecticut has recently decided make a dirt road in Tolland into a gravel road. Which type would you recommend? Why?

Summary:

Improvements: