

Purpose: To model the processes of mechanical and chemical weathering.

Procedure.

Please refer to the procedure at your table for this lab.

Data Table 1

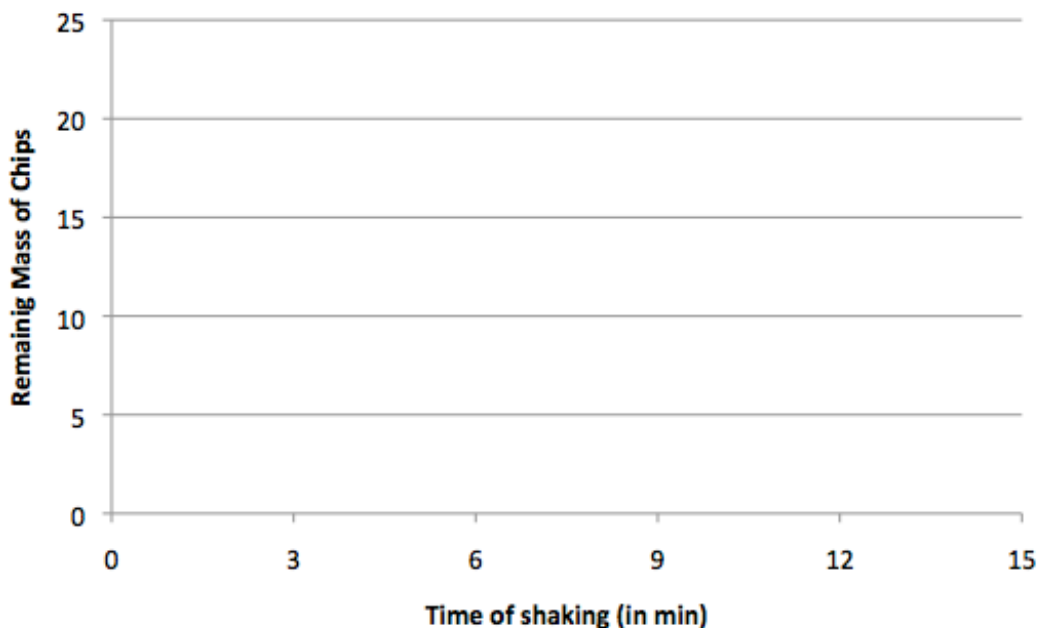
Complete the table as you mechanically weather the marble chips.

Weathering Time (in minutes)	Mass of marble chips (in grams)	Observations
0 (initial)		
3		
6		
9		
12		
15		

Graph 1

Use the table above to make a line graph below.

Mass of Chips over Time



Name _____

Period _____

Date _____

Data Table 2

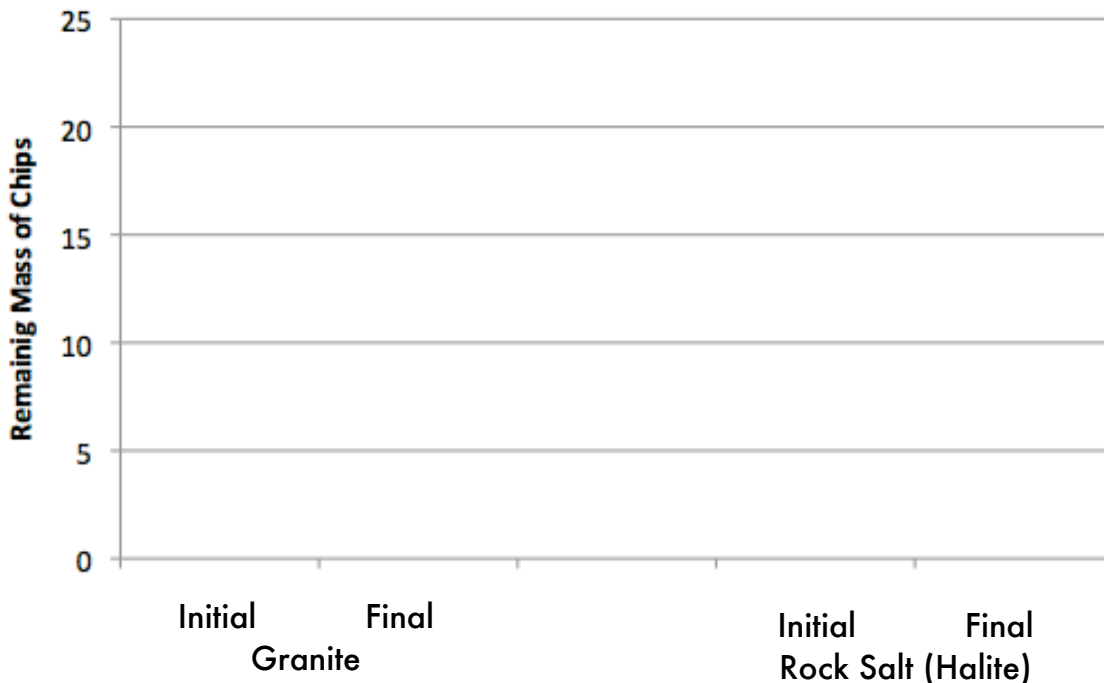
Complete the data table below as you weather the granite and rock salt.

Rock Type	Mass		Observations
	Initial Mass (g)	Final Mass (g)	
Granite			
Rock Salt (Halite)			

Graph 2

Use the table above to make a bar graph below.

Mass of Chips over Time



Questions

Use your data above to help you answer questions about weathering.

1. What type of mechanical weathering was this activity? Explain.

2. As time increases, what happens to the mass of the rock that is being weathered? _____

Name _____

Period _____

Date _____

3. What do you think would happen to the mass of the marble chips if you were to continue shaking them for 24 hours? _____

4. What happened to the edges of the marble chips in the first activity as you weathered the rock? _____

5. Which weathered more: the granite or the rock salt? _____
6. What can you conclude about a mineral's hardness and how quickly a rock weathers? (Use the granite vs. halite to help you!) _____

7. Where in nature would a similar type of weathering occur? _____

Data Table 3

Complete the table below as you make observations about different rocks in acid.

Time	Observations		
	Limestone	Granite	Chalk
At start			
20 minutes			
24 hours			

Questions

Use the data from data table 3 to help you answer these questions.

1. What changes did you observe in each sample? _____

2. Was this activity an example of mechanical or chemical weathering? Explain.

Name

Period

Date

3. What are some differences between mechanical and chemical weathering of rocks? _____

4. Why do the limestone and chalk react with the acid but granite does not?

5. How does mineral composition affect how a rock chemically weathers?

