

Name: \_\_\_\_\_



## Modeling Weathering

**Purpose:** To investigate the processes of one type of mechanical weathering.

**Question:** What is the effect of amount abrasion on the amount mass of a substance?  
*Circle the independent variable and underline the dependent variable in this question.*

**Background information:** Weathering is the breaking down of rock into smaller pieces. Rocks may be weathered in many ways. One way rocks are worn down is by **abrasion**. Abrasion is a type of *mechanical weathering*. Abrasion occurs when sand and other rock particles, such as sediment, are carried by wind, water, or ice over an exposed rock surface. This causes friction, and wears or rubs away the rock like sandpaper on wood.

Draw a diagram to illustrate abrasion below.

**Hypothesis:**

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### Materials:

Triple beam balance	4 sugar cubes	Paper towel	Plastic jar with lid
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### Procedure:

1. Make qualitative observations of the sugar cubes. This may be a diagram. Record.
2. Use the triple beam balance to find the mass of your paper towel. Record.
3. Place your sugar cubes on the paper towel and find the mass of the sugar cubes plus the paper. Record.
4. Subtract the mass of the paper towel to find the mass of the sugar cubes.
5. Put the sugar cubes in the plastic jar and close the lid.
6. Shake the jar 10 times.
7. Pour the sugar cubes on the paper towel and find the mass of just the sugar cubes.
8. Record your qualitative observations.
9. Repeat steps 6- 8 for a total of 100 shakes. (Shake the jar 10 times each time)

Data:

Mass of Sugar Cube (g)				Qualitative Observations
Number of shakes	Mass of paper towel	Mass of paper towel + sugar	Mass of sugar	
0				
10				
20				
30				
40				
50				
60				
70				
80				
90				
100				

Graph your data using a line graph. Why is a line graph appropriate for this data?

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