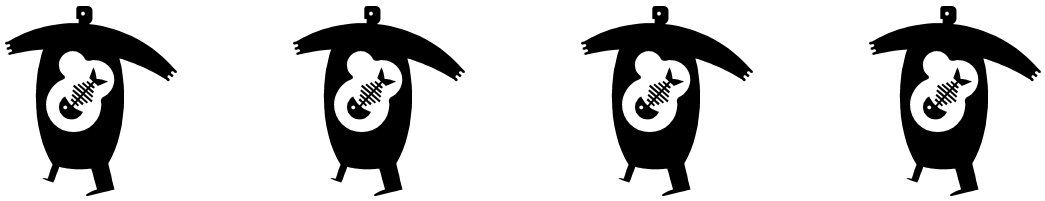

Mechanical vs. Chemical Digestion Lab

Purpose: How does mechanical digestion affect the rate of chemical digestion?

Background:

Mechanical Digestion:

Chemical Digestion:

Hypothesis:

If mechanical digestion affects the rate of chemical digestion then as the tablet is in smaller pieces

_____will happen because_____

Procedure:

1. Put your goggles on! Vinegar is an acid.
1. Transfer 10 ml from the beaker to the graduated cylinder.
2. Pour that 10 ml of vinegar into your "stomach" beaker. Set up 3 of these.
3. You will need 3 total tablets: 1 tablet-whole, 1 tablet cut into 4's, and 1 tablet completely crushed. Have your timer ready to record data data at specific intervals.
4. Add the antacid pieces to the vinegar. Observe what happens. Record your data in a data table, noting the time needed for the antacid to completely dissolve.
    a. *Note: You cannot stir the tablets to help them dissolve better! This is extra mechanical digestion!!*

Data:

Time (seconds)	Observations Whole Tablet	Observations 4 Tablet Pieces	Observations Crushed Tablet
30			
60			
90			
120			
150			
180			

Graph:

Conclusion:

Claims and Evidence: My hypothesis (re write) was _____because _____(use at least 2 pieces of data to support your reason!)

Use your ***data*** to write a paragraph explaining how mechanical digestion affects the rate of chemical digestion.

Make the antacid tablet real food, and describe how the rate is affected using real food items.