



Chew on This!

Name: _____

Period: _____

Date: _____

Purpose: The purpose of this activity is to explore and demonstrate the steps of the scientific method. You will perform an experiment to determine how the mass of a piece of bubble gum will change after being chewed. You will also predict the reason for the change.

Materials:

1 piece of chewing gum (**keep the wrapper!**)

Digital scale

Graph paper

Data Table

Timer

Procedure:

1. State the problem in the form of a question. What are you trying to answer in this experiment?
2. State your hypothesis.

Test your hypothesis using the following steps.

1. Obtain a piece of gum from your teacher – **do not unwrap it!**
2. Measure its mass on a digital scale – **keep the gum wrapped!**

- Unwrap the gum and begin chewing – do not get rid of the wrapper!! Chew the gum for two minutes then weigh the gum and its wrapper again – record the mass in your data table. This will be done 5 times (a total of 10 minutes). Record the mass after every 2 minute trial.

Record the type of gum you are chewing here: _____

Time (in minutes) chewed	Mass (in grams)
0 minutes (before chewing)	
2 minutes	
4 minutes	
6 minutes	
8 minutes	
10 minutes	

- Analyze your results. Make a **line graph** of your data. Use the graph paper provided.
- Draw conclusions. What happened to the mass of the gum as you chewed it? Why do you think the mass changed the way it did? In this step, make sure you re-state your original hypothesis and whether your original prediction was correct or incorrect.
- What were the variables in this investigation? Which was the independent variable? Which was the dependent variable?
- Does the results of this experiment lead you to another question? Design an experiment to test your new question.

