

Name _____



Bigger Better Bubbles

Background Information: Chewing gum has a long history. Evidence of gum chewing dates back to prehistoric men and women who chewed on tree resin. Other ancient cultures around the world also are documented gum chewers.

The main ingredients in gum are sugar, gum base, corn syrup, softeners, flavoring and coloring. Gum base is mostly plastic and rubber but it also might have latex which is a natural ingredient. Natural latex, such as chicle, is the sap from trees in the rain forest. Gum manufacturers like to keep their exact recipes secret. The reason gum doesn't dissolve in your mouth is because you are chewing on a chunk of rubber and/or latex with a bit of flavoring.

If you chew all the sugar out of your gum until it loses its flavor, you may have a shot at getting the record of the biggest bubble, because sugar does not stretch and will pop your bubble.

Every type and brand of gum has a specific formula. For sugarless gum, sorbitol, manitol, xylitol or other sweeteners are used instead of sugar.

You will be given three types of bubble gum: Double Bubble, Super Bubble, and Extra Sugarless gum. Each brand has a different formula. The ingredients in each type of gum and their relative amounts are listed on the package.

Your task is to find out which brand of gum makes the best bubbles.

Define what you mean by best:

Write a **research question** using the word *affect*:

Identify the independent variable in your question: _____

Identify the dependent variable in your question: _____

Write a hypothesis using an *If, Then* statement:

Materials:

Super Bubble Gum	Double Bubble Gum	Extra Sugar Less

Procedure:

1. Design an investigation to test your hypothesis. Write the steps of the procedure in order:

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____
- h. _____
- i. _____
- j. _____
- k. _____

Design a data table to record your observations:

Analyze your data by graphing it and describing any patterns or relationships.



