

Name:

Date:

Class:

Scientific Method Lab

1. The purpose of this lab is to use the Scientific Method to solve a problem.

- A) Observe and ask questions that lead to a problem
- B) Form a hypothesis
- C) Test the hypothesis with a controlled experiment by making observations and gathering data.
- D) Analyze gathered data
- E) Reject or Accept your hypothesis
- F) Form a conclusion

2. Materials

- 2 small pieces of wax paper
- 1 meter long piece of string
- 1 meter stick
- 2 different pieces of bubble gum labeled A and B

3. **READ directions carefully before starting the lab.** Each group will need one piece of gum labeled A and one labeled B. Make 3 observations about each brand of gum.

Observations

Gum A

Gum B

1. _____

1. _____

2. _____

2. _____

3. _____

3. _____

Problem: State a problem that you could solve through experimentation.

Hypothesis: Predict which piece of gum will blow the biggest bubble and why.

Procedure:

1. The person with brand A will chew their piece of gum for **1 minute**. The person with brand B **does not begin chewing** until all the tests on brand A are completed.

2. Relate to problem: _____

3. Explain method of measurement: _____

4. Record the measurement in a data table for gum brand A & B.

Data Table: Design a data collection table to fit the data you will be investigating

Conclusion: Forming a theory

What brand of gum is the best at blowing bubbles and why? Support your answer with observations and your data.

PART 2

Combine with another group to complete this part of the lab.

Problem: How does gum stretchability relate to bubble size?

Hypothesis: Make an educated guess that would answer the above question.

Conclusion:

How does gum stretchability relate to bubble size?

With your lab partner, list 5 variables that may affect the outcome of this experiment.

1.

2.

3.

4.

5.

Explain how the data you collected can be described as both qualitative and quantitative

Were SI units used in this lab? Explain.

List any questions you still have about the scientific method.

