

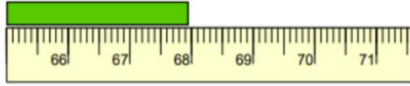


STEAM Mini: Bubble Science

Name _____

Part A: Measurement Review

Directions: Give the measurement for each green bar in centimeters and to the nearest tenth of a centimeters.

Discuss It: How can we ensure our measurements are accurate and reliable?

| | Nearest cm | Tenth of a cm |
|--|---------------|------------------|
|  | | |
|  | | |
|  | | |

Part B: Experiment

Directions: Listen to the lab directions provided by your teacher AND the safety rules BEFORE you begin. Record the diameter of your bubbles (nearest tenth of a centimeter).

Observations: Answer these questions after you finish your chart.

1. How would you describe the bubble solution?
2. What did you do to get better bubbles? What things caused smaller bubbles? Explain.

| Trial | Diameter |
|---------|----------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| Average | |

Analysis

1. Summarize your data from the lab. Compare your results to those of your tablemates.
2. What are three possible sources of error? Explain.

Part C: Bubble Basics

1. What is a bubble?
2. Are there different types of bubbles? Explain.
3. What materials would make the BEST bubbles?

4. What are the current world records for bubbles? Include your source so you can share your information with the class.

Part D: Giant Bubble Challenge - Which bubble solution creates bigger bubbles?

Directions: Follow the same lab directions AND the safety rules outlined in Part B. Add the name for each solution and then record the diameter of the bubbles (nearest tenth of a centimeter). Calculate the average for each solution and add observations.

| | | | |
|--------------|--|--|--|
| Brand → | | | |
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| Average | | | |
| Observations | | | |

Analysis:

1. Which brand had the highest overall average? _____
2. Which brand had the highest overall average for the class? _____
3. Answer the challenge question by summarizing your data and observations from all the labs.
4. Are your results accurate and reliable? Explain.