**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Period\_\_\_\_\_**

**Comparing Bubble Solutions - Lab #2**

**Question: Which bubble solution will produces on average the largest bubble.**

**Objective: Students will be introduced to variables, measuring, and graphing results.**

**Procedures**

1. Students will write the name of the four types of bubbles solutions on index cards
2. Tape them evenly spread out on desk
3. Gently pour small amount of solution onto desk to form 18” circle
4. Students blow a bubble by dipping straw into solution
5. Once the bubble pops, students will measure the diameter in cm and record on next page
6. Complete 4 measurements for each bubble solution
7. Class will calculate a grand average
8. Teacher and students will create a bar chart using graph paper and class averages
9. Using same graph paper, students will create a bar chart for their results

**Definitions (Complete after lab with Teacher)**

**Independent / Manipulated Variable:**

**Dependent / Responding Variable:**

**Controlled Experiment**

**Data**

**Diameter Of Bubbles – Measured in cm**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Soap Brand** | **Bubble #1**  | **Bubble #3** | **Bubble #3** | **Bubble #4** | **Average Bubble** | **Class Avg. Bubble** |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**Graph Data per teachers instructions on separate piece of paper**.

**Questions:**

**1) Drawing Conclusions: According to your data, rank the bubble solutions bubble making ability from largest to smallest?**

**2) According to the class average, rank the bubble solutions bubble making ability from largest to smallest**

**3) Why did your results vary from the class AND each time you made a new bubble?**

**4) Explain if this was a fair test. (Were all bubble solutions tested the same way?) Was the same amount of bubble solution used each time? Was there anything else that might have affected the results?**