Bubbles!!!

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_ Core:\_\_\_\_\_\_\_\_\_

**A. Question:** Given the supplies you have, which brand of dish washing liquid will make the biggest bubble?

2. Research (Prior Knowledge):

3. Hypothesis:

4. Materials (list): soap solution, dropper, paper towels, metric ruler, straw, safety glasses

**B. Procedures**

1. Obtain your materials, clear off your desk, and **read the entire experiment** before you begin. Then, create your soap solution: 50mL water + ~5 drops soap in a beaker.

2. Put 5-10 drops of soap solution on your desk.

3. Place the end of the straw under the surface of the bubble. Blow gently in the other end to create a bubble on the surface of the desk.

4. As soon as the bubble bursts, measure the diameter of the bubble’s footprint. Wipe the surface dry and repeat from step # 2.

5. **Practice this several times until you are good at it**. Once you are good at blowing bubbles, record the diameter of the next 5 bubbles you blow in the chart on the back of this sheet. (*Remember, it’s the next 5 bubbles you blow, you can’t pick and choose the bubbles you want*.) **ALSO** include observations of descriptions and characteristics of the bubbles (colors, how easily they pop, etc).

6. Find the average diameter for those 5 bubbles and record it. Repeat this process for each brand of dish soap and record the results in the table on the back of this sheet.

7. Clean up.

**C. Conclusion**: In your own words, answer the following questions.

1. What is the independent variable in this experiment?

2. What is the dependent variable in this experiment?

3. What are some possible sources of error in this experiment? *A source of error is a thing outside of your control that might have had an impact on the results of your experiment.*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Brand:  \_\_\_\_\_\_\_\_\_\_\_ | Brand:  \_\_\_\_\_\_\_\_\_\_\_\_ | Brand:  \_\_\_\_\_\_\_\_\_\_\_\_ |
| Bubble 1 |  |  |  |
| Bubble 2 |  |  |  |
| Bubble 3 |  |  |  |
| Bubble 4 |  | **Average diameter of the bubble (cm)** |  |
| Bubble 5 |  |  |  |
| **AVERAGE** |  |  |  |
| **Observations** |  |  |  |

**Which Soap Brand Creates the Biggest Bubble?**

**Soap Brand**