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

**PENNY DROP LAB**

**Question:** How many drops of water and soapy water will a penny hold?

**Hypothesis**: I think a penny will hold \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ drops of water.

I think a penny will hold \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ drops of soapy water.

**Materials**: Penny, Eyedropper, Beaker of Water, Beaker of Soapy Water, Pipette

**Procedure:**

1. Put the penny on a flat surface.
2. Use the eye dropper to drop water on the penny, one drop at a time.
3. Count the number of drops until the water spills over the edge of the penny.
4. Record your data.
5. Repeat steps 1 -4 for a total of 4 trials.

**Data:**

|  |  |
| --- | --- |
| Number of drops of waterheld by a penny | |
| *Trial* | *Number of Drops* |
| **1** |  |
| **2** |  |
| **3** |  |
| **4** |  |
| **Average** |  |

|  |  |
| --- | --- |
| Number of drops of soapy waterheld by a penny | |
| *Trial* | *Number of Drops* |
| **1** |  |
| **2** |  |
| **3** |  |
| **4** |  |
| **Average** |  |

1. Add your average drops to the class data chart at the front of the room on the computer

**Data Analysis**:

1. Did you get the exact same data each time you performed the investigation? Why or why not? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Compare your results to the results of your classmates. Did everyone in the class get the same results? Why or why not? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What type of things might have been changed from group to group to cause the differences in data? (Experimental Error) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Did the penny hold more drops of plain water or soapy water? Why do you think this is?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For 5 & 6, think about what you would use to make a graph of your data. Remember the dependent variable is what you are ultimately trying to measure.

1. What was the independent variables? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What was the dependent variable? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What were the controlled variables? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_