**Thumb Wresting – Scientific Method Lab:**

**Name: Period: Date:**

**Objective:**

*By the end of class students will be able to apply the parts of the Scientific Method*

**Materials:**

* Paper metric tape measure

**Hypothesis:**

*Read the entire lab and create a hypothesis or prediction for the results of the lab*

**Procedure:**

1. Select an independent variable (thumb length, circumference of thumb, width of hand) that you think will have an effect on the number of thumb wrestling wins.
2. Write your hypothesis for that variable in an “if-then” format.
3. Have someone near you help you find your measurements.
4. Measure the length of your thumb, circumference of your thumb, and width of hand using the paper ruler. Record this data in Figure 1.
5. Thumb wrestle ten other people and keep track of your wins.
6. The class will collect data and record it in Figure 2.
7. Graph the results of only your independent variable, with **selected measurement/independent variable** on the x-axis and wins on the y-axis in Figure 3.

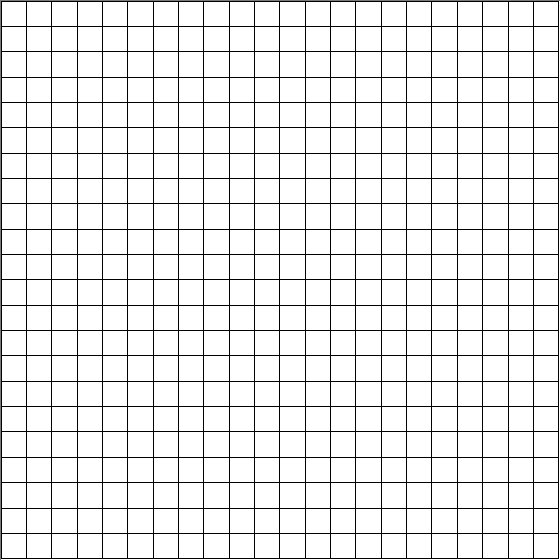
**Data:**

**Figure 1:** Thumb Measurements:

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| Length of Thumb (cm) |  |
| Circumference of Thumb (cm) |  |
| Width of Hand (cm) |  |

**Figure 2:** Results:

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name:** | Thumb  length | Thumb Circum | Hand  Width | Wins | **Name:** | Thumb length | Thumb Circum | Hand Width | Wins |
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**Figure 3:**

Wins

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**Analysis:**

What was the **problem**? What were you trying to investigate?

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What was your original **hypothesis**?

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What **variable** did you test? What changed or differed from person to person?

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Who had the longest thumb? What was its length? How many wins? Answer the same for thumb circumference and hand width.

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Based on your **data analysis**? Was your hypothesis correct? Why or why not?

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Was there a **control** or something that remained the same in this experiment?

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Based on your results and your hypothesis, write a **conclusion** to your experiment:

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