

## Experimental Data

Make a chart to record your data *as you collect it!*

Fill the data in while you are doing your experiment.

Don't change the data later. (Use pen!)

It's a good idea to make a copy of your data chart on the computer too.

*For example:*

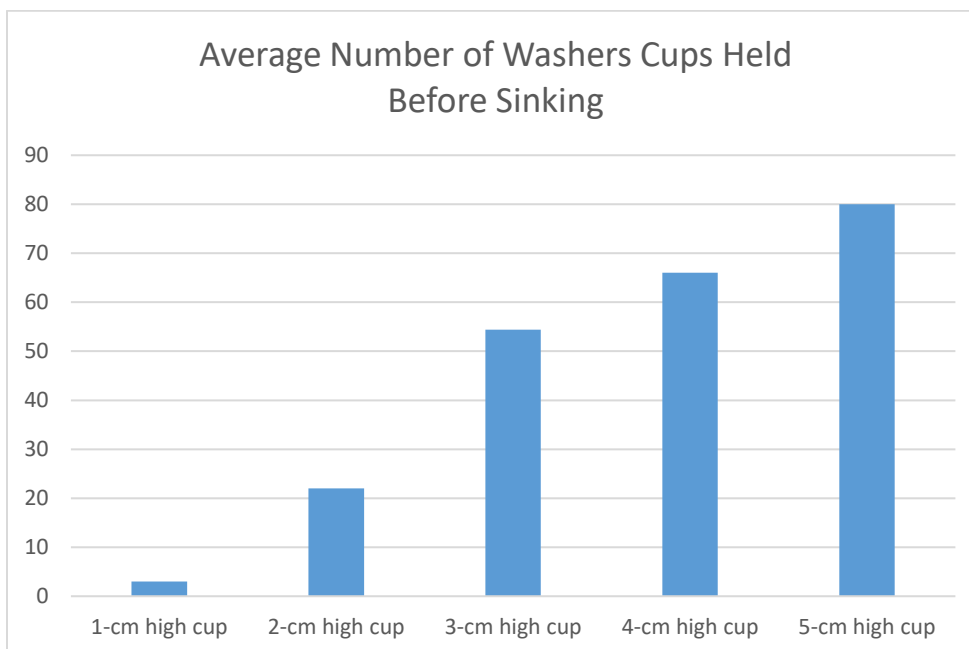
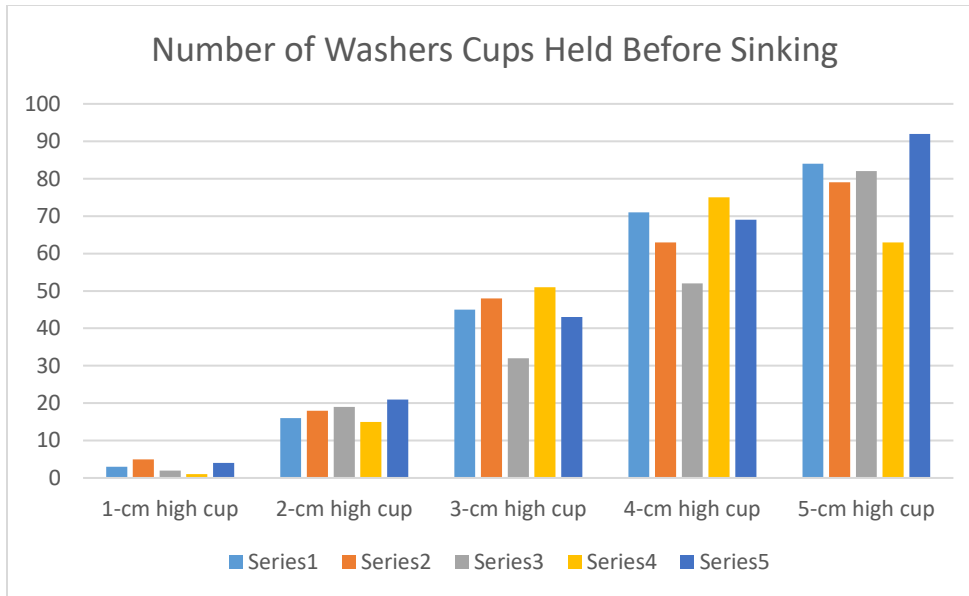
<b>Number of washers held before sinking</b>	<b>first try</b>	<b>second try</b>	<b>third try</b>	<b>fourth try</b>	<b>fifth try</b>	<b>average</b>
<b>1-cm high cup</b>	3	5	2	1	4	<b>3</b>
<b>2-cm high cup</b>	16	18	19	15	21	<b>22</b>
<b>3-cm high cup</b>	45	48	32	51	43	<b>54.4</b>
<b>4-cm high cup</b>	71	63	52	75	69	<b>66</b>
<b>5-cm high cup</b>	84	79	82	63	92	<b>80</b>

## Graph of Data

Use Excel to make one graph to show the 5 data points for each variable.

Use Excel to make one graph to show the averages for the data.

*For example:*



## Analysis of Results

Write your final draft summary of your investigation. Remember, when you write paragraphs on the computer, you use the tab to indent each one at the beginning one half-inch.

- Write a paragraph about what you observed.
- Write a paragraph about your data. What do your tables/graphs/diagrams show?
- Write a paragraph about any problems you had.
- Write a paragraph about how you could improve your experiment

## CONCLUSION

Write one paragraph including the following points:

- State whether your hypothesis was correct or incorrect.
- Explain how your data proves or disproves your hypothesis, citing *both high and low* data points.
- Add an “overall” statement.
- Add reasoning to explain *why* the results happened the way they did.

*For example:*

My hypothesis was correct. The higher the sides of the paper cup boats, the more “passengers” they held before they sank. On average, my 1-cm high cup could hold only 3 washers before sinking. In contrast, on average, the 5-cm cup could hold 80 washers before sinking. Overall, the 5-cm cup could hold more than 25 times as many washers! The 5-cm cup could hold a lot more water than the 1-cm cup. It had a greater capacity. It makes sense it could support more washers before sinking.

Write one paragraph including the following points:

- Explain what you learned from doing your experiment.
- Explain why your experiment is important.
- Explain how it relates to real life.

Write one paragraph about any further questions you have. Suggest any possible extensions to your experiment.