

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

# Experimental Design Plan: *First Draft*

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Use the following outline to plan your investigation.

Materials **you will use**:

Now decide on the variables, question, and hypothesis you will investigate!

**Independent Variable:** \_\_\_\_\_

**Dependent Variable:** \_\_\_\_\_

**Scientific Question (Purpose):** \_\_\_\_\_

\_\_\_\_\_

**Hypothesis:** \_\_\_\_\_

\_\_\_\_\_

Group Members	Roles (Responsibilities during Lab)

## Protocol

Now create a numbered, step by step process of EXACTLY what you plan to do in order to test your hypothesis.  
*It should be so specific that someone NOT in your group can follow the steps and perform your experiment.*

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**Data Table:**

Design a data table that you will use to collect your observations/measurements during the experiment. Be sure to include the appropriate number of columns for the trials you plan to perform.

## Graph

What kind of graph would be the best choice for your data? \_\_\_\_\_

When you graph, don't forget DETAILS!! Draw a sketch of your graph below:

[illegible]

## Analysis and Conclusion

On a separate sheet of paper, analyze your graph (describe the trends in data). Based on the graph, write a conclusion statement that either supports or rejects your hypothesis. (It's OK if your hypothesis was incorrect!) Be sure to use data (actually numbers!) in your conclusion. What were the errors/ bias in your experiment? How could you have improved your experiment? *You should be answering your purpose question for the reader!*