

## **Experimental Design**

### **Purpose**

What is the goal of your experiment?

State the idea you are testing or the question you are trying to answer.

### **Hypothesis**

A hypothesis is a testable “educated guess” about the outcome of an experiment which is stated in measurable terms.

### **Method**

Write a detailed explanation of how you will conduct your experiment. Clearly state the variables and controls in your design, and how you will measure the results to support or reject your hypothesis. Describe the exact steps you will take to conduct the experiment so another investigator, not familiar with your work, can correctly perform the experiment by using your procedure as a guide.

#### **A. Step 1**

Description

#### **B. Step 2**

Description

#### **C. Step 3**

Description

#### **D. Step 4**

Description

#### **E. Step 5**

Description

### **Materials**

List necessary materials and equipment.

**A.**

**B.**

**C.**

**D.**

**E.**

**Data****A. Analysis**

Consider how to analyze the data once you gather it.

**B. Conclusion**

Write your conclusion as an opinion or judgment reached after consideration of your experimental outcomes or data. Your conclusion should answer your hypothesis.