

## Experiment # - Title of Experiment

### **OBJECTIVE (Also, QUESTION or PROBLEM)**

Write the question or problem you seek an answer for.

State the purpose of the experiment. For example:

- **OBJECTIVE:** Learn the proper use of a microscope; Observe the differences between plant and animal cells.
- **OBJECTIVE:** Determine if different types of food affect the types of microorganisms that thrive best in a culture.
- **OBJECTIVE:** Determine if sunblock offers protection from the sun's UV rays; Determine if different sunblock products with the same SPF offer the same amount of protection.

### **HYPOTHESIS**

Using what you know, write down an answer to the question (problem).

Make a prediction you can test.

### **MATERIALS**

List the materials needed for the experiment. Include exact amounts and sizes of items.

### **PROCEDURE**

Write all the steps necessary to perform the experiment. Other scientists must be able to understand the procedure and follow the steps to perform this exact experiment. Ideally, these scientists should obtain results similar to those you obtain.

The setups in a controlled experiment are identical in all ways except one. The one difference is the variable.

### **OBSERVATIONS**

State or illustrate observations.

Observations can be made with any of the senses – sight, hearing, touch, taste, and/or smell.

Write notes on anything you feel is important to remember.

### **DATA**

Table of measurements.

This is information you measure. NO CALCULATED RESULTS!

### **CALCULATIONS**

Show calculations.

Present graphs or tables with calculated results.

### **DISCUSSION**

Summarize the experiment.

Discuss expected or unexpected findings.

Mention accidents in performing the experiment. Discuss how they affected the outcome/results of the experiment.

Discuss anything else noteworthy to you or informative for other scientists when they read your report or duplicate your experiment.

### **CONCLUSIONS**

Write an answer to the question supported by the results of the experiment. It should involve the hypothesis you made.