

# LABORATORY REPORT

Use this outline for writing a completed laboratory report. Using the notes and data that you have recorded in your laboratory notebook, you should be able to address and complete each section. If you are working as a laboratory team, each member of the team must complete his/her own report. Your report should list the following sections.

**YOUR NAME** \_\_\_\_\_ **LAB PARTNERS** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**TITLE OF THE LABORATORY INVESTIGATION:** \_\_\_\_\_

## **PROBLEM STATEMENT:**

This is where you identify the questions you planned to investigate. Sometimes the questions will be given to you by your teacher. Other times you may create your own questions to investigate. This is where you enter questions like, "How does the (independent variable) affect the (dependent variable)?" Another way to think of this is "How does the thing that I am changing (independent variable) affect something that I want to measure (dependent variable)?" Sometimes your teacher will provide the questions, and sometimes you will generate your own questions.

## **BACKGROUND KNOWLEDGE:**

This is information you collect from source books, Web sites, textbooks, previous laboratory notes, or things you experience in daily life. Sometimes your teacher will help you fill in this section. The important thing is to list what you think you already know about the topic under investigation.

## **HYPOTHESIS:**

Based on the information you have written above, and the description of the laboratory activity given by your teacher, what do you expect to see, and hope to prove with your data?

## **EXPERIMENT:**

List the steps that you followed to collect your data. Many times your teacher will give you a demonstration of the equipment and procedures that are used in the investigation. Take notes on the important information and apply them as you investigate and gather data.

## **DATA TABLE:**

This is a place to use a Big T chart. On the left side you can list your independent variable. On the right side you can list the dependent variable. Look at the question you are trying to answer and it will help you to understand which things to change and which things to measure.

For example: I want to know if changing the water temperature will change the amount of time it takes for a tablet to dissolve. Your independent variable is temperature and your dependent variable is seconds until the tablet is dissolved. Start your investigation and make notes. In this example, the water temperatures you try will be listed in the independent variable side, and the seconds that it took the tablet to dissolve at that temperature would be recorded as the dependent variable.

## **GRAPH:**

Sometimes your data can be represented in a graph. Decide what kind of graph best represents your information. Is it a bar graph, a line graph, a circle graph? Your teacher can help you decide how to represent your experimental data.

## **CONCLUSIONS:**

This is a summary of the results of your experiment. It should list several questions that you were able to answer by doing your investigation and collecting data.