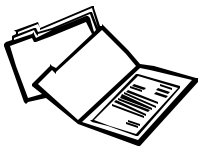


Science Lab Report Instructions



7th – 8th Grade

General Instructions:

- 1.) Scientists use a standard report format to present the results and conclusions of their experiments. This permits easy reference and ensures the report is complete. The objective in writing laboratory reports is to communicate your methods and conclusions as clearly and directly as possible. Follow these instructions. You will be graded on the content of your report **and** on your ability to follow the directions.
- 2.) Make sure you read, listen, and follow all directions for a lab carefully. Take notes as you go along and go back later to write your report. Your notes should include your hypothesis. Attach your notes at the back of your final report.
- 3.) The report itself will be in sections. Do not place any information outside of its specified section. For example, do not place any data at the end of the report, after the conclusion. Follow this format.
- 4.) Spelling and grammar count, as well as neatness.
- 5.) See me if you have any questions or need clarification, before you turn in the report.

Report Sections and Guidelines

Heading: Name
Date
Table number

Title of Lab: This is often given to you either in the book or on the instruction sheet. If you write your own, make it brief but descriptive.

Research: Sometimes a research section will be included in your report. Refer to the individual assignment to see if it is required for the lab you are doing. In this section you briefly state what you already know about the subject the lab and report are covering. More information will be on the assignment page.

Purpose: This is where you state the objectives of the lab, what question(s) you are trying to answer. Some guideline questions to ask before you write this are: What are we studying? What do we want to know? What do we need clarified? You may need more than one sentence. Include any preliminary observations or background information about the subject.

Hypothesis: A statement of what you predict will happen. (Do not use “I think” or “I know”) This is an educated guess, a possible solution to the problem. You should think about what you already know when writing your hypothesis. The hypothesis must relate to the purpose of the lab. It will be proven or disproved by the lab and resulting data. ***This must be written before you***

begin! (*I should find the hypothesis in your lab notes*) Make sure you write a complete sentence, and be sure your hypothesis is testable. Use the **If.....Then** format. For example: **If** leaf color is related to temperature, **then** exposing plants to low temperatures will result in changes in leaf color. Notice there are two variables: the manipulated and the responding variable.

Materials: List (not in a paragraph form) the materials you actually used. Do not just copy a list from the book or handout if you didn't use those items. Any items you add should be mentioned as well. This needs to be precise; items should be specific and measurements accurate.

Procedure: You may make a numbered **list** or **outline** for the steps you followed as you did the lab, or you may write this in paragraph form. Once again, be precise, specific and complete. Do not say, "set up the equipment", state exactly what was done. Do not write it down if you didn't do it. (Even if it was in the book or handout), but make sure that you **DO** include all the steps that you took. Include any conditions present during the experiment that may have influenced results. Your procedure should be written so that anyone else could repeat the experiment.

Results and Analysis:

This is an important section that contains the results of your lab.

A.) Observations: What did we notice as the experiment proceeded? What was interesting and / or notable? There are many types of observations, use as many as possible. Write down your observations as you go through the experiment in your lab notes. Do not try to go back later and remember what you observed! Clearly indicate the date and time of your observations.

B.) Data: In addition to your observations include specific results of your experiment. Often charts or graphs will show your data well. Take notes and organize the data into the graph or chart later. Put any calculations that may have been done in this section. Make diagrams and /or drawings when appropriate Always label your charts, graphs, sketches and diagrams, and use colored pencils when appropriate.

C.) Analysis Questions : Sometimes the lab will include analysis questions. When this happens the questions should go in this portion of the lab report.

Conclusion:

Spend some time thinking about this part of the lab. Accept or reject your hypothesis. **EXPLAIN** why you accepted or rejected your hypothesis using data from the lab. You should include a summary of your data to help the reader understand the your results and conclusions, but do not just restate results. Discuss the purpose and goals of the experiment in relation to the outcome. Discuss possible errors that could have occurred. Evaluate the lab and explain how it can be improved. Discuss what was learned from the lab and how it further explains the subject matter being studied. Does this lab lead to any new questions? Were you surprised by anything?

Conclusion Don'ts

- **Don't** say that the purpose was accomplished and then say nothing substantially more. You must include data from the lab results to demonstrate that the purpose was accomplished.
- **Don't** give the procedure again. **Don't** list the data again. It was already listed in the Data section. Remember, you are supposed to **DISCUSS** the data.
- **Don't** forget to break up your ideas with paragraphs. The conclusion should be in essay form.

