

Writing a Laboratory Report

When scientists perform experiments, they make observations, collect and analyze data, and formulate generalizations about the data. When you work in the laboratory, you will need to record all your data in a laboratory report so you know what exactly you did and so you can communicate your work to others (like the instructor). An analysis of data is easier if all data are recorded in an organized, logical manner. Tables and graphs are often used for this purpose.

The parts to include in a laboratory report include:

Title: The title should clearly describe the topic of the report.

Hypothesis: Write a statement (complete sentence) to express your expectations of the results and as an answer to the problem statement.

Materials: List all laboratory equipment and other materials needed to perform the experiment. (Will be a list of items)

Method: Describe the purpose of the experiment. Describe each step of the procedure you used in the experiment so that someone else could perform the experiment following your directions. (Complete sentences in paragraph form)

Results: Present the raw data from the experiment (usually in the form of a table), any calculations you performed on your data, graphs summarizing data, sketches of observations or results, and any other information gained from the experiment. (This will generally be in the form of tables, graphs, and sketches but may include a paragraph about what was observed)

Conclusions: Record your conclusions (the answer to the question you investigated) in a paragraph at the end of your report. Your conclusions should be an analysis of your collected data. List the results and explain what the results mean. What was learned from the experiment? This section should also include a statement about any errors that were made during the experiment that may have affected the results and what would be done in additional experiments to get better results. If the data do not confirm the hypothesis, discuss why not.