

# How to Write a Lab Report

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"An experiment is only as good as the lab report that describes it."

Lab reports are an essential part of all college laboratory courses and usually a significant part of your grade. A lab report is how you explain what you did in experiment, what you learned, and what the results meant. In CP Chemistry, you will submit your lab reports via Moodle, available at <http://www.kentschools.net/moodle/>, within two days of completing the lab activity in class.

Every lab report should have each of the following:

## Header and Title (2 pts)

At the top of each lab report, you must list the following information:

- Your name and the names of any lab partners
- Your teacher's name
- The date and time the lab was performed
- The title of the experiment.

## Purpose (1 pt, as needed)

Normally, a scientist would write several paragraphs or even pages explaining why they are putting forth the effort to perform the experiment. However, you only need to write one sentence explaining the reason we're doing the lab.

## Prediction (1 pt)

Science is a predictive enterprise; in other words, the fact that we can make predictions and test them sets science apart from other academic endeavors. Include the prediction you wrote down before you started the lab, whether or not it ended up being correct.

## Data / Observations / Calculations (varies)

Numerical data obtained from your procedure usually is presented as a table. Data encompasses what you recorded when you conducted the experiment. This section should just include the facts, not any interpretation of what they mean.

## Calculations (varies)

This is where you will perform any calculations based on your data and/or observations. Calculations worth more than one point usually require more than one step.

## Questions (6 pts)

This section is straightforward: answer the questions listed at the end of the lab activity. You should write at least two sentences per answer in order to receive full credit.

## Errors (2 pts)

This is where you discuss any mistakes (at least two) you might have made while conducting the experiment and describe the ways you might avoid those errors in future experiments.

## Conclusion (4 pts)

Your conclusion should consist of at least two paragraphs that sum up what happened in the experiment, whether your prediction was correct or incorrect, and what your data and results mean. Your interpretation of the experiment and its results is the most important part of your lab report!

*Modified from "How to Write a Lab Report: Lab Reports Describe Your Experiment" by Anne Marie Helmenstine, Ph.D., About.com (<http://chemistry.about.com/od/chemistrylabexperiments/a/labreports.htm>)*