

Format for Laboratory Reports

Unless specifically stated otherwise, use this format for all lab write-ups

Your Name

Date of Experiment

Title of Experiment (be creative!)

Purpose: Write 2-3 sentences explaining the purpose or objective of the lab. Your purpose is never to “prove” something as this is not possible in our lab.

Partners: List all lab partners here. Do not list partners in the heading with your name.

Materials used: List here whatever materials you used to perform the experiment.

Procedure: *In your own words and in complete sentences*, list the steps you took to perform the experiment. It should be detailed enough so that anyone reading it may **exactly** duplicate the experiment. Include labeled diagrams when needed. **Be thorough!** Gathering or putting away equipment, entering numbers in a table, calculating results and writing a report are *not* lab procedures.

Data: Include here all *data* in table form. Anything you measure or any numbers you aren't calculating go here. Don't forget units! **Calculated values do not go here.** These should be in a separate table from the calculations.

Results &

Calculations: These should be calculated from your data. Show your calculated values and results. Any equations used **must** be shown here.

Conclusions: *Write out* here what you have shown from your data and calculations. Use the purpose of the lab to guide you here, **the conclusion is based on the purpose**. Use the purpose to guide your sentences. You must use your data and results to back up any claims made. Lack of numerical support for claims will lower your grade.

Questions: If there are additional questions, write them out here with appropriate answers.

Error Analysis: **Most important.** Science is not exact! List here possible causes for error in your data or results. No experiment performed by *any* physicist was perfect, and here is your chance to pass the error to something other than yourself. If you list something, back it up with evidence, do not just provide a list. “Human Error” or “My Lab Partner’s Fault” or “The equipment was broken” will **NOT** work here. You must be as explicit as possible. It must be something out of your control that anyone repeating the experiment should be aware of. This should be specific to the materials and methods used in each lab.

Note: If a graph is needed, it should be on a separate, *full* sheet of graph paper, or printed from a computer's graphing program (like Graphical Analysis or Excel). Each axis must be labeled and the scale and units plainly shown. Clearly show all points on the graph and draw a line of best fit or a curve of best fit. DO NOT connect the points in a dot-to-dot fashion, unless instructed to do so.

Neatness counts! Lab reports (ALL parts except diagrams, graphs and such) must be typed!
Lab reports with ANY parts handwritten in are not acceptable and will result in point deductions.

Plagiarism is strictly forbidden. Working together is encouraged, but any lab reports with “word-for-word” copied explanations or data shared between lab groups will result in severe penalties for all parties involved. Please listen for any special instructions.