

AP Physics Lab Requirements

An important aspect of science is being able to determine relationships between variables experimentally in the science lab. The information gathered in the lab needs to be properly logged so that the lab can be peer reviewed and duplicated. Additionally, the results need to be published in order for the body of science to keep growing. In physics lab, we will simulate this process by keeping a lab notebook to document our work and issuing a short report indicating our findings or conclusions. The lab notebook will be collected periodically and graded for completion. For each lab, you will submit a short report publishing your results.

Lab Notebook

The first few pages of your lab notebook should be reserved for your table of contents; remaining pages should be numbered sequentially. Pages should be numbered in pen but information can be entered in pencil.

For each lab, the following items should be kept in your lab notebook.

- Lab title, Date, and Group members
- Introduction: This is where you will describe the purpose of the lab, what relationship are you investigating, what are you trying to prove?
- Equipment and setup: Indicate what equipment you are using, if you know the manufacturer state that (example Vernier LabQuest and photogate). Draw a sketch of the setup indicating critical dimensions.
- Data: Provide data tables for all data taken. Include with each data table items held constant.
- Calculations: (or sample calculations for repetitive calculations)
- Graphs: Provide a sketch of your graphs showing the relationship between your variables.
- Conclusion: What did you find? Write the equation for the relationship if necessary.

Lab Write-up:

For each lab, you should turn in the following:

- Introduction describing the lab (what variables did you test, what was held constant, what relationship are you looking for, brief description of the procedure and how the data was analyzed.)
- Final graphs
- Conclusion, a short statement regarding the relationship that you discovered. Your conclusion must reference evidence of your conclusion. Graphs should be referenced by indicating "figure number" (example Fig. 1, Fig. 2) or by the graph's title. If applicable, you should discuss the accuracy of your results and include probable sources of error and their effect on the results.
- Quality not quantity counts. Written sections such as the introduction and conclusion should be typed. Graphs done on a computer should be copied and pasted into the lab document.