

AP Physics Lab Notebook

- 1st page: Table of contents
- Each lab should be entered into the table of contents as they are reported.
- Pages should be numbered, and written in pen
- You should write on only the front pages, leaving a slash blank behind it—for ease of reading
- Mistakes should be neatly lined-out

Formal Lab Write-up:

I. Title

Name of lab, name of student, period, date, instructor.

II. Abstract

Summarize **each** section of the lab report in one sentence per section. Put these sentences together into a paragraph to form your abstract.

III. Introduction

Describe what concept the lab explores, the main objective of the lab, what actions you performed, and how those actions helped you achieve the lab objective. Also, describe your hypothesis and how you arrived at it using the scientific concepts described.

IV. Methods / Procedure

Document your experimental procedure in enough detail that someone else could repeat your work. This should include a list of all materials used, a diagram of the lab setup if appropriate, and the steps taken to accomplish the lab (paragraphs preferred, but organized, ordered lists of instructions are acceptable with list items in complete sentences.)

A. Materials

List all materials used.

B. Diagram of Lab Setup

Show schematic of experimental setup where necessary.

C. Steps Taken

Provide enough information that another student could easily replicate your work.

V. Results / Data

Put your data into tables and graphs. Review your tables and graphs to determine the key findings from the lab exercise. Write a paragraph explaining each table and graph including its key result and other salient details. Arrange the results section in an organized fashion.

A. Data Tables

Organized and labeled with units.

B. Graphs

Properly label all axes, provide appropriate title.

C. Explanations

The key relationship from each table or graph is described in a separate paragraph with appropriate supporting details.

VI. Discussion / Analysis

Explain whether results support the hypothesis, with supporting details referenced from the results section. Explain **why** results support or do not support the hypothesis. Discuss any problems encountered, uncertainty in measurements, comparison to others performing the lab, and possible improvement opportunities.

VII. Conclusions

What did you learn from this lab about the concept under study? Include appropriate supporting details. Did you learn anything else from the lab, such as use of lab equipment, procedures, analysis methods, etc.?

- **Use of scientific language will be considered in your grade.**
- **All writing should be objective and 3rd person.**
- **You are writing to an audience who has never seen your experiment. You should make clear descriptions; use writing to ‘put them in the room.’**

Notes to students:

- **AP notebooks are used to determine comparable college credit—you want them to show rigor, high standards for achievement, and authentic lab experience.**
- **You want them marked-up. You want them to show growth over time.**
- **You should not have matching labs with your group members.**
*Maybe your hypothesis, materials, procedure, and data will match, but your Introduction, purpose, conclusion, should be your *own*.*