

Lab Notebook Guidelines

Write your name on the front of the notebook clearly in marker. Cut off the margins of this page and paste this page on the inside of the cover of your lab notebook. The first page of your lab notebook is a title page that you are to decorate in some way that makes the lab notebook uniquely yours. The following three pages should be left blank for table of contents (three columns: a large one for lab name, a small one for page numbers the lab is on, and a third for the lab grade). This means that your first lab starts on page 5.

Lab Write-Ups should contain the following:

- The title of the lab centered on the first line. The name of your lab partner in the upper left. The date of the lab in the upper right.
- The purpose of the lab. You are always given this by the teacher.
- ALL materials that you use during the lab.
- The procedure—what you did in the lab, paragraph form.
- A diagram **and** a photograph of your lab set-up with the materials labeled!
- The data or measurements taken during the lab. You may cut and paste data tables only.
- The graphs made from your data tables.
- The calculations made during the lab. The calculations should be done in problem-solution format where your measured quantities are the givens and your final calculated quantity is the result.
- The derivations of new equations or formulas that are made in the lab.
- An error analysis, focusing on two specific systematic errors that could have taken place in the lab.
- An outside application detailing two specific application of the driving physics concept(s) used in the lab, finding the concepts in action.
- Two specific extensions, which are different ways that the lab could be carried out while still expressing the same physics concept(s).
- Conclusion sentence(s). The conclusion fulfills the purpose of the lab, so your conclusion sentence should always “answer” the purpose of the lab.

Note: Not all labs have data tables, graphs, calculations, or derivations. Use the lab handout to determine which sections you should include in each lab write-up.

Writing a good procedure: Your procedure should be written elaborately enough so that another AP Physics student who hasn't done the lab could do the whole lab just by reading your procedure and seeing your diagram. Here are some hints:

- Don't waste time describing the lab setup—that's what the diagram is for.
- Talk about what you **did**. State what you did with each piece of lab equipment, what things you measured, and how you measured them (or what you used to measure).
- Make sure you write your procedure in order—the first thing you did is first, the last thing you did is last.
- Make a new paragraph when you move on to a new “block” of the procedure. If the lab has two parts to it, each part is its own paragraph in the procedure.

If the lab procedure says...	Your conclusion should have...
“Establish a relationship”	An equation stating the relationship.
“Measure” something	A statement of the amount you measured with units
Make something happen	A description of your results—did you make it happen?