

Format for Physics Labs

In general, we will let you know what we expect for each individual lab report. At the beginning, we will try to give a lot of details, but we eventually assume that you will know what an appropriate lab report will look like. In general, your lab report will contain the following sections:

1) Abstract: This section will be just a few sentences where you will briefly summarize the lab. You will also summarize your major results — like, “We found that the arrow traveled 45 meters.” We realize that this is like spoiling the surprise, but that’s how scientists do it. We don’t like waiting till the end. This section is an introduction and a conclusion wrapped in one.

2) Theory: You will explain the scientific concepts that a reader would need to know in order to understand the lab. For example, if your lab is about acceleration, you should make sure to explain the concept of acceleration. This section should be written in sentence form and include equations when appropriate.

3) Experimental: This section will comprise the “meat” of the lab report. In particular, you will include your *procedure (with a sketch)*, *data*, and *calculations*. These components should not be separated, but rather, the lab should be described chronologically, with data and calculations inserted as appropriate.

Often, the procedure will be given to you, and I don’t want you to waste your time copying it over. You should be as brief as possible when explaining what you did.

Data should be organized into tables where appropriate, and your data, graphs, and calculations should be discussed with text, so that the reader knows what you have done.

In short, you’ll tell me what you did, what you measured, and what you figured out. Your Experimental section should be telling a story.

4) Discussion: Here, we will also generally give you specific questions to answer. You will also discuss ideas about the lab as a whole.

Other things to know:

- Labs are graded out of 20 points, and you lose 2 points for the first day late, plus 1 point for every day after that.
- Labs should be typewritten, except when it makes sense to construct diagrams and perform calculations by hand.
- This should be a document that would make your mother proud. So, it should be neat, written in complete sentences, and overall as enjoyable to read as possible.
- If something can’t be read, it is wrong.

It may seem that these reports will need to be lengthy. That’s not necessarily true. You should make it your goal to include everything required as concisely as possible.

There is no extra credit for a really long lab report!