
The Laboratory Notebook

A laboratory notebook should be used to explain laboratory procedures, record all laboratory data, and show how calculations are made. A record of laboratory work is an important document which will show the quality of the laboratory work you have done. You may need to show your notebook and your laboratory reports to the Chemistry Department at a college or university in order to obtain credit for the laboratory part of your Advanced Placement Chemistry course. As you record information in your notebook, keep in mind that someone who is unfamiliar with your work may be using this notebook to evaluate your laboratory experience in chemistry.

You will be required to maintain 2 hard-back composition notebooks as your laboratory notebooks. DO NOT use spiral bound or 3-ring binders as your laboratory notebooks.

Procedures:

- Write your name, class name, and class period (B1, B2, B3, or B4).
- Skip the first one or two pages. You will fill this out at the end of the year as a table of contents.
- When working in the laboratory notebook, never erase or scribble through errors. Draw ONE LINE through the error and continue. This includes the Formal Lab Report.

Data Collecting Pages

- ALL of your original data will be recorded in the data collecting pages. **You should NEVER write original data in the laboratory manual.**
- It is a good idea to write at the top of the page "Data" or "Data Collecting." This will help you avoid any confusion on what is the data collecting pages and what is the formal lab report.
- You will write any data/information/observations/etc. on the data collecting pages. These may or may not be organized very well.
- You will write any information given to you about the pre- and post-lab questions on the data collecting pages.

Formal Lab Report

- The Formal Lab Report is to be written separately from the data collecting pages.
- Once you have finished collecting data and reviewed pre- and post-lab questions, you will start the Formal Lab Report on the next clean page.
- The Formal Lab Report is for organizing the purpose, pre-lab questions, all of the data that was collected in the lab, calculations associated with the lab, and questions/analysis of the lab. Basically, you are reorganizing/rewriting neatly the information you wrote in the data collecting pages. The Formal Lab Report should be able to stand alone from the data collecting pages.



- The following information will be included in the Formal Lab Report unless otherwise instructed.
 - **Title** – The title must be descriptive of the actual lab. Experiment 5 is not a descriptive title.
 - **Purpose** – A brief, concise statement of what you are attempting to do.
 - **Procedures** – A one- or two-sentence description of the method you are using. Do not include lengthy, detailed directions. A person who understands chemistry should be able to read this section and know what you are doing.
 - **Pre-Lab Questions** – Questions should be answered in a way that the question itself does not have to be written. For example, if the question is “Define chemistry.” Your answer should be written as “The definition of chemistry is ...” If the question is “Calculate the number of moles of copper (II) chloride and of aluminum that reacted.” Your answer should be written as “The number of moles of copper (II) chloride reacted are as follows: (then show calculations).”
 - **Data** – Organize your data in a neat, orderly form. Label all data very clearly. Include proper significant figures and units. Tables are a great way to organize data but are not required.
 - **Post Lab Calculations & Analysis** – All post-lab questions and calculations will be shown in this section. All work for every calculation should be shown neatly and organized. Answers to questions should be written in the same manner as the Pre-Lab Questions.
 - **Conclusions** – Write a simple statement concerning what you can conclude from the experiment.
 - **Real World Application** – Discuss a real world application to the health science field for the laboratory. This should be no more than a paragraph.

