* Not Skip First Page "Table of Contents"

AP CHEMISTRY
GENERAL LABORATORY PROCEDURE**

It is very important to attend each chemistry laboratory period well prepared. This well increase the efficiency of the laboratory time allotted, reduce the number of careless experimental mistakes, and improve overall safety.

Prepare carefully for each laboratory period. First, read about the entire experiment (general background, objectives, prelab questions, laboratory procedure, etc.) Second, review unfamiliar concepts in your (any) chemistry text. Finally, prepare a brief lab write-up in your notebook on the experiment (see below). Except for taped in graph paper or data tables, everything in the laboratory notebook should be handwritten in ink (not red ink). The lab write-up should include in order:

I. Title of the experiment.

II. Objectives of the experiment. Two to four statements of what is to be accomplished in the experiment is required. It is true that one of the purposes of the lab is to learn, but it is inappropriate to include that as a written objective in the lab notebook.

III. Procedure. A brief outline of the experimental procedure which should be complete enough that you could do the entire experiment without the given lab instructions, even if the lab were to be done a year later. To accomplish this, first read the instructions over a few times to get an idea what is to be done in the lab. Then, write the procedure in your own words with enough detail for you to accomplish the task without having to refer to any other source. Be sure to double check the written instructions for specific details, for example, amounts of substances to be used, and correct your write-up if there are errors.

IV. Prelab questions and answers. Write the question or a brief sense of the question. Then answer the question using the appropriate source. Don't copy each other's work ! The question should be answered in complete sentences and all work to derive a numerical answer should be shown. Be aware of significant figures and units in your answer. You may be graded on how clearly you show your work. THESE QUESTIONS AND ANSWERS MUST BE TURNED IN BEFORE YOU WILL BE ALLOWED TO ENTER THE LAB!

V. Data Tables. As with the previous four items, the necessary data tables for recording measurements and observations should be set up in the notebook before lab. The data tables should be comprehensive enough that you can write everything into those tables without scratch paper. Record all measurements and observations directly into your tables during the experiment. It is very important to record the units of measurement.

VI. Calculations. The calculations can be determined after the laboratory time period. However, enough calculations must be done before leaving the lab to complete the report. All numbers which are used in the report which were not read directly from a measuring tool MUST BE SUPPORTED BY VISIBLE CALCULATIONS IN THE REPORT. Calculations should be clearly labeled with units and also easily matched to the numbers from the data tables. If you cannot follow the logic of your derivation, neither can the instructor!

VII. Summary Questions. Answer the post lab questions which are given in the lab instructions. Write in complete sentences and be sure to support or explain all answers.

VIII. Conclusions. The conclusion is a discussion of the results in the lab, whether the results were as you expected or not. If your results seem to be entirely misleading, there should be some type of reasonable explanation offered for the data you obtained. The conclusion should include any difficulties that you encountered, a discussion of possible experimental error, and a conclusion on whether or not you were successful in meeting the objectives within the confines of reasonable error. Review the objectives you wrote in Section II, and respond to them in the conclusion. While it does make for interesting reading on the part of the grader, please do not include a discussion about the lack of intelligence of your lab partner, or the "fun" you had while doing the lab.