30S Chemistry

Writing Laboratory Reports

Introduction

When working in the lab, you should carefully record all data in a laboratory report. An analysis of data is easier if all data are recorded in an organized, logical manner. Table and graphs are often used to enhance laboratory reports by depicting observed results in an easily understood way.

Use the following format when preparing your Lab Reports:

Purpose: Clearly state the reason for performing the experiment.

Hypothesis: Write a statement to express your expectations of the results with respect to the purpose/problem statement. Be specific.

Background Information: Use point or paragraph form to exhaustively list all relevant information necessary to assist your understanding of the topic of study.

Apparatus: List laboratory equipment and other materials used in the experiment. Include a clearly labeled diagram of the assembled apparatus.

Procedure: Number the steps used to complete the experiment. Someone else should be able to use these as instructions to complete the experiment. List any changes to the procedure as part of this section.

Analysis: Answers to questions pertaining to the lab. Answer in complete sentences, incorporating the question into the answer.

General Observations:

Qualitative: Use words to describe what you observed with your senses (sight, sound, touch, smell, taste).

Quantitative: Construct charts or tables to record all number values from the lab. Include graphs where required.

Conclusion: State whether or not your hypothesis was correct. Refer specifically to observations that support your hypothesis. If your hypothesis was not correct suggest reasons why. Your conclusion should include a synopsis of your collected data. State reasons for any errors or inaccuracies in your results (human error, equipment, spilling, etc.) and the potential effect of each error on the observed results as part of your conclusion.