

# Exploring Creation With Chemistry

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## Lab Report Template

### A. Title

A concise, descriptive title

### B. Purpose

What are you trying to learn/find out by doing this experiment?

### C. Hypothesis

Write an educated guess as a possible solution to the problem. This should be a complete sentence (using if \_\_\_\_\_ then \_\_\_\_\_). The statement should be testable.

### D. Materials

A simple list of all items needed for this lab. Include safety equipment.

### E. Procedure

List (or write in paragraph form) **ALL** the steps you did in this lab. Remember, the steps need to be written so anyone could repeat the lab.

### F. Results

Includes both observations (qualitative results: what was seen, smelled, felt, etc) and data. Data are measured (quantitative) observations. This includes any measurement actually read on a piece of lab equipment.

### G. Calculations/Analysis

The data and observations are examined in the calculations/analysis section. For each calculation, identify the quantity being calculated, show the set-up for the calculations, and write the final result with the proper units and significant digits. For all calculations, the equation must be expressed in words first before numbers are used in the equation. For repetitive problems, provide one sample calculation (with appropriate units) for each type of calculation.

### H. Conclusion

What did the lab teach you? Accept or reject your hypothesis WITH a brief explanation. Help the reader understand your results by including a concise summary of your data. Discuss any unusual observations, any impact they might have had on the experiment as well as any unintended/unexpected results. How does what you learned apply to a real-life situation?

## I. Reflective Questions

These will be provided in class and should be answered in complete sentences. The questions are optional but will count as extra credit if satisfactorily completed.

## Lab Report

The lab report will be completed in three stages:

- Prelab-this should be prepared as part of your homework before class. The prelab consists of the **title, purpose, hypothesis, materials, procedure, and blank data and observation tables.**
- Collection of Data and Observations-this will be done as the lab is performed.
- Analysis, Calculations, and Conclusions.

## Lab Notebook

The use of a marbled composition notebook is preferred. The notebook should be neat and organized. It should be written in a scientific manner (the writing is objective and uses past tense). All entries should be hand written. A running table of contents with page numbers and experiment titles will be kept beginning on the first page of your notebook. Leave several pages at the beginning for the table of contents. Number each page of the notebook before using it. Mistakes happen-*draw a **SINGLE line through a mistake*** and record the new value next to it. **LAB NOTEBOOKS WILL BE COLLECTED 4 TIMES THROUGHOUT THE YEAR FOR GRADING!**