

## Chem Lab Guidelines CHEMISTRY I HONORS

BEFORE LAB	DURING LAB	AFTER LAB
Watch a video about concept	Collect RAW Data---->	Discussion Questions (complete sentences)
<u>Write:</u> Title & Theory	Quantitative or qualitative	Conclusion (including error analysis)
<u>Write:</u> Purpose & answered Prelab Q		References

### Lab Guidelines:

1. To participate in lab, you must have your prelab/lab writeup in class. Most lab activities are posted on [www.molelady.com](http://www.molelady.com) and you'll print them out for lab. When you glue sections from your print-out, trim them and put them in neatly. Pictures are sometimes needed and you can use your phone or the kindle-fires.
2. Write in a clear, concise manner with data from observations made by you and your group.
3. Write with *BLUE/ BLACK ballpoint ink*. Erasures can be made, but sparingly, please. You may draw a single line through your mistake/material you want deleted.
4. You will work actively participate in the lab by being part of a lab team.
5. You will submit your lab report electronically through [www.turnitin.com](http://www.turnitin.com) or app.seesaw.me account.
6. Lab quizzes are given from labs.



### BEFORE THE LAB,

**I. Title:** Should be centered at the top of the page; It can consist of the problem

**II. Theory:** List any principles, concepts, or laws. If a chemical or math formula is used, write it in this section.

After reading the lab material, write a BQ (beginning question) that can be measured.

Example: What is the relationship between the length of copper wire and its conductivity?

Non-example: What color is my product?

**III. Purpose:** Identify the intent of this investigation. (ex. The purpose of this experiment is to compare the pressure and volume of an enclosed gas while the temperature remains constant by using a syringe and gas collecting device.

**IV. Prelab/Procedure/ Experimental Design:** How will you solve your problem? When given a procedure, cut it out from your printout from the instructions, glue in, read the procedure, and summarize what you are going to do in the experiment. If you aren't given a procedure, then you'll need to formulate an experimental design with your lab team. What tests will I conduct or what procedure will I follow? List the major safety concerns for the experiment you are about to do. Will you need gloves, safety goggles, or fume hood? Will there be waste?

### DURING THE LAB,

**V. Data:** Be as detailed as possible. Data must be recorded during the lab experiment. Data tables will be made with a ruler and labeled with headings. If units are used with a measurement, indicate them with each measurement. Use care in equipment readings and use significant digits when taking measurements. Do not hide or eliminate suspected faulty data, but present it. Graphs, with a title, and axis' labeled, are included. Each graph must be drawn on graph paper and each one must occupy an entire sheet. (no quadrants)

### AFTER LAB,

**VI. Calculations:** *All answers must contain the correct sig figs and units of measurement.* Do all "scratch work" here and include in lab report.

**VII. Discussion:** Answer any discussion questions in complete sentences.

**VIII. Conclusion:** THIS IS THE MOST IMPORTANT PART OF YOUR LAB REPORT. Conclusions should "tie into" the purpose or problem of the experiment. What connections did you make between the lab and the chemistry concepts? Interpretations of any trends that you observe from your Data should be discussed in this section **Explain experimental errors that appear in the error analysis here.**

**VIII. References: (2 are usually needed)** When you obtain information to answer your discussion questions, you will usually get it from your chem book .Use easybib.com for help in citing resources.