

Lab Write-Up Format

The below sections should be easily identifiable in your lab notebook for each experiment. All sections should be shown for all experiments (except for EXP. 1 and 2).

Neatness counts!! Your lab write-up in your notebook does not have to be typed. However, if we cannot read your writing you will not receive full credit for the write-up. All information must be entered into your notebook with an ink pen (**NO** pencils). You may paste in any portion of the protocols you feel fall under the below sections.

Any corrections or modifications to your write-up can be made by crossing out the original information and correcting it. **DO NOT USE** white out. As an alternative, you can type in any or all information into a word processing program then paste your write-up into your notebook. The instructors reserve the right to require this method should your handwriting prove illegible.

Experiment Number: Title of Experiment

- Purpose:** In paragraph form, describe the purpose of the experiment. Why are we doing this experiment? What do we hope to discover or learn?
- Partners:** List the **full name** of all partners in the space provided at the top of each page of your notebook for the experiment.
- Materials:** List all materials (chemicals, glassware, etc.) you **actually** used to perform the experiments. Do not list merely those that are listed in the lab manual. Changes to the experiment may have been made. Also, **do not** list the amount of each chemical you used here, but **do list** any molarity values. Amount information should be in your procedure section.
- Procedure:** In your own words, and in complete sentences, list the physical steps that you **actually performed** in the lab for each experiment. This section can be a numerical list. It should be detailed enough that someone else can look at your procedure and perform the experiment. Steps such as gathering or putting away equipment, entering data into a data table, calculating results and writing a report **should not be included** here.
- Data:** All data that you gather during the experiment should be included here in the form of one or more data tables. Anything that you measure or numbers that you are not calculating go here. Do not forget to include any units with these numbers. Calculated values do not go here unless they are differences in balance weights or volume reading, etc. Otherwise, calculated values go in a separate table in the "Results" section.
- Results:** This should be a separate section from your data section and show your calculated values and results in tabular form. Underneath the table, you must show an example of how you calculated these numbers including any formulas or equations you used.
- Graphs and Plots :** These should be shown within your "**Results**" section. If a graph is required, it should be prepared using a graphing program such as Excel and

pasted into your notebook. Do not hand-write it into your notebook. All graphs and plots should be clearly labeled with each axis having a title and units. The scale of the axis must be clearly shown. Clearly show all of the points on the graph and draw a line of **best fit**. **Do not** merely connect the points in a dot-to-dot fashion. **If you need assistance with EXCEL, ask your instructor.**

Discussion: This is the most important section of your report. Here, in paragraph form, you must explain your results. The conclusions that you reach should be based on the questions raised by the experimental purpose. Did your results support what you were trying to determine by performing the experiment? If so, how do they support the purpose of the experiment? If not, why not? This section is used to make sure that you understood why you did the experiment as much as how to do it. It will be closely graded. One sentence conclusions are not acceptable. This section is where most students lose points.

This section should also contain the answers for any questions posed in the experimental protocol not already addressed in your Discussion. Unless instructed otherwise, you must answer **all questions** posed in the protocols. I suggest reviewing the questions prior to leaving lab. If you have any questions ask before you leave.

Error: List any possible causes for error in your data or results here. If you know that you messed up during the procedure, you should include that information here. Chances are your instructor will know and will be looking for an explanation here.