Pre-AP Formal Lab Report Requirements

Title of Lab
Date (lab was performed)
<u>Your name</u>, Lab partner(s) name(s)

← This is your header! It should be at the beginning of every lab report. [*5 pts*]

Due date and time: _____

<u>Objectives</u> (10 pts): ***In your own words***, describe the purpose of the lab. This section should be **2 – 4 sentences** in length: use complete sentences. You should answer two questions here:

- What was the goal of the lab?
- What experimental method did you use to accomplish this goal? (i.e. how did you accomplish the goal?) Be brief! Details of your procedure should only show up in the conclusion.

<u>Data</u> (5 pts): This should be in the form of a typed data table.

<u>Calculations</u> (5 pts): You do NOT need to show your actual math/calculations; however, please include the final result of each calculation (with correct units and sig figs). This should be in the form of a typed table.

<u>Analysis</u> (15 pts): Answer the analysis questions in complete sentences; <u>number each question</u> so they are easy to locate and **DO NOT copy the question** into your lab report before answering it! (The system will flag you for "copying" someone else's work.)

<u>Error Analysis</u> (5 pts): Answer the analysis questions in complete sentences; <u>number each question</u> so they are easy to locate and **DO NOT copy the question** into your lab report before answering it! (The system will flag you for "copying" someone else's work.)

<u>Conclusion</u> (40 pts): This section is the most important part of your lab report, and should include ALL of the following:

- Thesis statement: intro to your paragraph that reminds the reader about the goal of the lab. (Hint: if you're stuck, you can choose to summarize your objectives here.) [*3 pts*]
- Brief recap of lab procedure and data collection method. (DO NOT explain how to math. Just explain lab procedures.) NOT step-by-step: summarize in 2-4 sentences. [*6 pts*]
- Explanation of your results. (Be specific: include data! But not all data. Summarize the highlights.) **Be sure to identify if you achieved the objectives you outlined in section 1.** [*10 pts*]
- Identify how your results compare to the accepted value and briefly discuss why you think that error occurred. [*5 pts*]
- Reflection: identify what you learned from this lab, and how it connects to pre-AP chemistry content. How was the content you learned <u>in this unit</u> essential for understanding the lab? [*10 pts*]
- Concluding statement: wrap up your conclusion! This is **<u>different</u>** from your reflection. Tie it back to your introductory sentence or thesis statement. [*2 pts*]

<u>Grading Hints</u>:

- Include the full heading (as shown at the top).
- Label all sections (objectives, analysis, etc).
- Write the **objectives** and **conclusions** sections in <u>complete sentences</u>.
- Use <u>paragraphs</u> (aka more than one) for the **conclusion** section.
- Do not capitalize chemicals names – they are NOT proper nouns (i.e. write "copper" not "Copper").
- Use subscripts and superscripts when needed (i.e. write "$Cr_2O_7^{2-}$" not "Cr2O7 2-")
- Do not double-space: 1.5 or 1.15 spacing!

Helpful Sentence Starters (use if desired!)

Objective:

- *The purpose of this lab was to…*
- *We accomplished the goal of this lab by…*

Procedure:

- *We accomplished this goal by …*

Results:

- *We found that …*
- *Our value was … than the accepted value.*

Error Analysis:

- *This lab error possibly occurred because …*
- *As a result of this lab error, my final results would be different because…*

Reflection:

- *In order to complete this lab, it was necessary to understand that …*
- *This information was essential for understanding the lab because …*

Concluding Thoughts:

- *In conclusion, in this lab we …*

Warning about Plagiarizing

Just because you worked in the same lab group as someone else DOES NOT mean you are allowed to have identical (or similarly-worded) sections of your lab report. The ONLY sections that can be the same across a lab group are data/calculations tables. **YOU WILL RECEIVE A ZERO FOR YOUR LAB REPORT IF YOUR REPORT COMES UP AS A SUSPICIOUSLY HIGH MATCH WITH ANOTHER STUDENT (even if you completed the lab first).** Any work that is truly your own will show up as statistically different from all other students!