



Kool-Aid Dimensional Analysis Lab: Formal Lab Report Support Sheet



***WARNING:** This sheet is designed to help students avoid common mistakes and errors when writing the formal lab report for the Kool-Aid Dimensional Analysis Lab. You should use this in conjunction with the formal lab report packet (on the website) because this does not include all parts that should be in each section!

- **Title and Heading:**

-Your group members have last names... be sure to include them!

- **Introduction: (*THIS SECTION IS A LONGER SECTION)**

-Do RESEARCH and include the information in this section with **IN-TEXT citations**... this means any information or facts you get from a resource are cited at the end of the sentence (NOT the end of the paragraph) that uses this information using MLA format as follows:

- Example (Web, with author): The density of sugar is 1.59 g/mL (Smith).
- Example (Web, no author use "Title"): The density of sugar is 1.59 g/mL ("Density Basics").

-Topics to explore: Kool-Aid background, conversions background, REAL WORLD uses of dimensional analysis and conversions, ETC. (these are just some ideas to get you started)

-IF YOU ARE GIVING LOADS OF INFORMATION WE ALREADY KNOW IN GENERAL OR FROM CLASS, YOU ARE DOING THIS SECTION WRONG... YOU NEED TO RESEARCH NEW INFO AND INCLUDE IT!!

-Keep track of all sources used (cite IN-TEXT) and include them in the Works Cited

- **Objective:**

-Single sentence stating the purpose (do not use mine from the lab... put it in your own words)

- **Hypothesis:**

-Single sentence in IF / THEN format... use your determined amounts of each substance as your "IF"

- **Materials:**

-Copy these from the lab... be sure to add any other materials that you might have used (if needed)

-Use a bulleted list that is **SINGLE spaced**... this is the only part of the lab that is spaced like this!

- **Procedure:**

-Quick version of the steps used in this lab (do not copy word for word from the lab... use your own words)... be sure to include the exact steps that you used

-Number each step... no paragraphs!

-No "I," "We," or "You" or words like "First," "Next," or "Finally"

-Someone with no knowledge of this lab should be able to do the lab by reading your procedure

-No pictures needed for this particular lab

- **Data:**

- Include ALL of the calculated amounts from the Data Section in the lab in a nicely organized table (don't forget units and Sig Figs) using the Table feature
- DO NOT include the calculations in this section... just the amounts in the data table!
- The data table should have a **PROPER HEADING** as shown in the lab report packet... these are NOT the same headings that are given in the actual lab (example: **Table 1.** Table showing data obtained from...)
- If a table is on two different pages, you should hit "Enter" to get it all on the same page!

- **Analysis / Calculations: (*THIS SECTION IS A LONGER SECTION)**

- Explain WHY you had to convert, WHY certain conversions were needed, WHY you used certain instruments to measure in the lab, ETC.... LOTS OF STUFF TO EXPLORE AND EXPLAIN HERE!! Do NOT just repeat what you did or what the results were... that is NOT analysis!!!
- Basic rule of the Analysis section: ALL results (data tables, etc.) should be ANALYZED and EXPLAINED
- Discuss possible sources of error (do not say there were none because there definitely were... math / calculation mistakes or balance errors are NOT valid sources)
- Describe multiple ways to improve the lab and make it better ***INCLUDE THIS AND THE SOURCES OF ERROR IN THEIR OWN PARAGRAPH!!**
- Leave space after writing the analysis so you can type in the calculations for the powder, sugar, and water from the lab... be sure to label each and include units and sig figs

- **Conclusion:**

- State the results of the lab in one sentence... this is always the first sentence in this section!
- One sentence stating that the hypothesis was supported or rejected... this comes second in this section!
- Describe what was learned from the experiment (No "I")
- You would usually incorporate the post-lab questions into your conclusion BUT that does NOT really work for this lab (ignore them)... so you will need to summarize your thoughts / ideas from the lab and come to a nice "big picture" ending! Explore all ideas here and EXPAND your thoughts to get full credit!!

- **Works Cited:**

- List all sources used in **ALPHABETICAL** order
- Double spaced
- Proper MLA format
- Search Google for MLA citation examples if you need help... just be careful with citation generators!
- When citing a WEBSITE: Do not just put the word "Web" in the citation as shown in some MLA formatting sites... include the **ACTUAL ADDRESS** in its place!!

- ***General Errors to Avoid:**

- Each section should have a bolded heading except the Title section which gets a bolded title
- If JUST the section heading (no info from the section though) is at the bottom of a page, hit enter to get it on the same page as the section
- Entire lab report is DOUBLE SPACED except the Materials list
- Use 12 pt. Times New Roman font for the whole report with 1-inch margins
- No "I," "We," "You," ETC. throughout the entire lab report!