LABS – Prelab, Report, Formal vs Informal – What you need to know

Pre-lab

Every lab we do will require a pre-lab report. You must do the following things:

1. Read the lab thoroughly, you will be tested on this during the pre-lab quiz
2. Research all reagents (chemicals) and record any/all safety precautions necessary for the lab we’re about to do.
3. Complete any data tables required for recording data/observations

Formal Report Format

DATE LAB NUMBER & TITLE NAME (& PARTENER), BLOCK

A.OBJECTIVE OR PURPOSE: a clear, concise description of what the experiment is intended to demonstrate. This could be in the form of a HYPOTHESIS.

B. APPARATUS & MATERIALS: A list, or where it could be found, of equipment required to do the experiment. – REFER TO TEXTBOOK

C. PROCEDURE: The steps or refer to where it could be found to effectively carry out the experiment. – REFER TO TEXTBOOK – LIST ALTERATIONS!

D. DATA & OBSERVATIONS:

- Please type up for formal reports and staple original to your report

- List all observations (qualitative and quantitative) and data from results

- Include properly labeled data tables, pictures, graphs, etc where relevant.

E. ANALYSIS (QUESTIONS & CALCULATIONS):

- Answer the assigned questions and/or calculations assigned (at the end of the lab)

- Analyze and discuss the results of the experiment.

- Please tabulate all of your data whenever possible (this include calculated results)

***F. DISCUSSION:***

A discussion of results is important for a comlpete lab experiment. This is the place where you will discuss any inconsistencies in your data. As well you can discuss how your data either confirmed or denied your expectations for this lab and your understanding of the subject you’re studying. Discuss YOUR data (and class data if applicable)

H. SOURCES OF ERROR/ EVALUATION:

Every experiment has sources of error. List 2-4 of the most important sources of error that you could NOT control and that may have contributed to your results. Explain why these errors are important and how they might have affected the results

***G. CONCLUSIONS:*** Summarize the main findings of the experiment ~ 1-3 sentences

Informal Reports (/?)

Informal reports will be assessed via a post lab quiz done either the day of the lab, or the following day.

Formal Report Rubric (/20)

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|  | Excellent (4) | Above average (3) | Below Average (2) | Poor (1) |
| Headings / Formatting | All headings included and formatted nicely, see lab handout for list of headings. | Most headings included, max 1 missing. Alterations not noted. Formatting is OK. | Formatting is a mess and no more than 2 headings missing. | Several headings missing and things are all over the place. |
| Data/ Observation | Great qualitative obs taken, and all quantitative data is within expected parameters.  | Some obs taken, but not very explicit. Good data that falls within range | No observations, data is sloppy, and not within expected range of results. | No observations, Data is all over the place,  |
| Analysis/ Questions/ Calculations | All questions are answered correctly, and all calculations have a sample given. | All questions are answered but with mistakes and/or calculation errors. | Most Q’s are answered but some missing, no sample calculations. | Missing questions and missing calculations. |
| Discussion/ Error/ Conclusion | Discussion, Errors and Conclusion very well written. Shows insights into concepts and draws on material from class. Discusses data discrepancies and expectations. | Good D/E/C, possibly a little brief, could use more information and try to utilize material learned in class. | Writing shows lack of depth of understanding or doesn’t get point across, possibly has some logic errors. | Some are missing completely and the D/E/C that are completed are of very low caliber.  |
| Appearance / Writing | All legible, word processed, writing is easy to understand, no errors in spelling or grammar. | Word processed but hard to understand some of the writing, grammar and/or spelling errors. | Lots of grammar/spelling errors, messy and hard to read. | Very messy, hard to read and hard to understand. |

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