Lab Report Directions

General Notes:

1. Your major lab reports are to be written in a composition notebook unless otherwise specified.
2. Your graphs should be created within the lab report. It is acceptable (and preferred) to create the diagram in excel and then paste in your notebook.
3. You will always keep your raw data (which is the hand-written sheets that you used during the experiment – messiness does not matter).
4. You should include a cover sheet that contains the following information:
    a. Name of Lab
    b. Date
    c. Your Name
    d. Partners Names
5. If the lab is to be typed, you need to use the following formatting rules:
    a. 1" margins on all sides
    b. 12 font size
    c. Times New Roman font
    d. Number pages
6. As you prepare your lab report, write it in the same order as the directions are given below. Make sure to underline and/or bold each section.

Report Format:

1. Purpose: this will be 1-2 sentences & will tell what you are doing in the lab – what's the point?
2. Background Information: what does the reader need to know about this experiment before they begin reading the lab report? This should include all of your research. Without this, you would not be able to formulate a hypothesis. This section should be *at least* one paragraph long.
3. Hypothesis: you will be determining this before you begin your laboratory experiment. Usually a hypothesis has an "if….then" statement, but that does not always need to be the case. You will be discussing how the independent variable will affect the dependent variable. This should be 1-2 sentences long. You will be making a statement at this point – do not be flippant – make a statement & stick to it. Your hypothesis may be proven wrong during your experiment – that's ok. Discuss that in your conclusion.
4. Materials: include everything you will need in order to perform this experiment. You do not need to include materials that are obvious (i.e. graduated cylinder, scale, pencil, etc). You need to include the number of things that you used as well as the amount of materials that you used (i.e. 5 cups; 5 3" test tubes, etc). Be specific. Tell the types of materials (i.e. clay)
5. Procedure: include a step-by-step account of what *you* did in the experiment. If you messed something up in the lab or you did a step differently than it was presented in your directions, that's ok, you just need to write it up accordingly. You will have time to discuss these problems later. The procedure needs to be written in a way that someone who has not done the experiment will be able to take your report and repeat it.
6. Data: in this section you are to create graphs / tables / charts that show your results. All of these will be computer generated (if you do not know how to create graphs, charts or tables using a Word document, see your instructor for help). If you had to use any math calculations to find an answer, you should show how your results were found here.
7. Data Analysis: This is the heart & soul of your report!! This is where you basically publish the results of your experiment for someone else who may be doing this experiment later or who may use your results to help them in their own experiment. (Usually you would write the following in one big paragraph. However, for grading purposes I would like for you to separate the parts & label them a-d).
    a. In this section you will discuss your results – what does it all mean? You should briefly restate your data and compare it to your background information.
    b. If you made any mistakes in your procedure that may have affected your results, discuss those here and tell, specifically, *how* those mistakes affected the results.
    c. What suggestions do you have for someone who may do this experiment in the future?
    d. If you have any questions that needed to be answered (post-lab questions), do so here. You do not need to re-write the questions. If you'd rather answer these questions in part a (use the questions to help you analyze your data), that's fine.
8. Conclusion: This section is actually fairly short. In this section you will be briefly restating your results from the experiment and will be comparing them to your hypothesis. If your hypothesis was incorrect, state that here and give a brief explanation of why it was incorrect.

Rubric for Lab Reports

Name: _____

Section Points			F	D	C	B	A	Section Scores
1		**Title**						
	1	Describes content concisely, adequately, appropriately						1.00
4		**Purpose**						
	4	Conveys sense of full report concisely, effectively						4.00
15		**Background Information (research)**						
	5	Background info helps reader know what the lab is about						5.00
	10	Ties into the purpose of the lab						10.00
7		**Hypothesis**						
	3	Effectively shows how the independent and dependent variables are related						3.00
	4	Predicts a reasonable outcome						4.00
5		**Materials**						
	5	Appropriate and sufficient materials given						5.00
15		**Procedure**						
	3	Gives procedure that is accurate for experiment						3.00
	5	Procedure is reasonable						5.00
	7	Gives details to allow for replication of procedure						7.00
15		**Data**						
	3	Results are presented, not discussed						3.00
	4	Sufficient data to evaluate hypothesis						4.00
	5	Appropriate statistics included (including graphs & equations)						5.00
	3	Original data is attached						3.00
25		**Data Analysis**						
	8	Explain data						8.00
	6	Backs up evaluation with references to research						6.00
	3	Mistakes that are made in the lab are discussed & corrected						3.00
	3	Suggestions are made for a future researcher						3.00
	5	Questions are answered from the experiment (if provided)						5.00
8		**Conclusion**						
	4	Results are briefly restated						4.00
	4	Correctly evaluates the hypothesis						4.00
5		**Formatting / Grammar**						
	2	Report is written in the 3rd person						2.00
	3	Report follows guidelines provided						3.00
		FINAL GRADE FOR GROUP						