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## Short Form Memo-Style Lab Reports

**TO:** Reader's name & job title

**FROM:** Your name, job title

**LAB PARTNER:** His or her name

**DATE:** Due date or date turned in

**SUBJECT:** Topic of the lab - think of this as a title

**Hypothesis:** What is your hypothesis? What is the experiment designed to prove or disprove?

**Summary of experimental findings:** One or two sentences that tell me whether you achieved your goal of proving or disproving the hypothesis. You can cite your most important results here very briefly. Note that it's harder to be concise than to ramble on, so this will take some effort.

**Procedures:** Summarize how you did the experiment in one or more paragraphs. Do **not** use a list or bullet format. Remember that you are writing a brief summary report for a client, and NOT writing a long and detailed lab manual. Be concise and think about what you'd need to tell an experienced chemist or one of last year's students to allow them to do the same type of experiment. The trick is to be both concise and precise. Ask yourself whether the size of the beaker was critically important? Was the temperature critically important? What were the "tricks" to getting the experiment to work?

**Results:** This is the meat of the report and often the longest section. Present all results, both yours and your lab partner's, using tables and graphs. Tables and graphs should have titles, should be well organized and clearly labeled. Be sure to add a 2-3 sentence WRITTEN summary of results presented in tables and graphs that would explain the "story" told by the numbers. Think about how you'd tell the story to someone who couldn't see your tables and graphs. Note that results do NOT include raw data, but only calculated results, averages, standard deviations, etc. Raw data should be included as an attachment. I'll review the attached data tables if your results are odd or unexpected

**Discussion:** Here is your chance to "spin" your results, influence the reader's opinion and explain unexpected or erroneous results. Some questions to consider when writing this section follow here. Were your results similar to those of other groups? Where results what you expected? Why or why not? Think about errors that were beyond your control and think about how you could have improved the experiment or your performance.

**Attachments:** Note that all attachments should be clearly labeled, concise, and should refer to related sections of the memo.

- (1) **Raw data** presented in tables – all data must be presented
- (2) **Sample calculations** – only one example of each type of calculation