

Report Guidelines

Top of EVERY Page (1 point)

Date
Experiment #
Experiment Name
Your Name
My Name

Purpose (2 points)

Why are we doing this experiment? What skills are we practicing (if any), can this be applied in the outside world? If so where and why would it be used? This should be around one page in length and your goal should be to accurately explain to a layman why you are doing this.

Theory (4 points)

All background information you have from your freshman chemistry and analytical chemistry. You may put as much information on the theory in here as you want, it can be from chemistry, physics, biology etc. This part should be 1-2 pages long (the more the better). Prove to me that you understand fundamentally what is going on in your experiment.

Procedure (1 point)

This should have all your steps that you took to perform the experiment. These should be in your own words and carbon copies of the procedure given to you. If they are purely copied you will receive a zero on this part. I want in your own words what happened in your experiment, include the mistakes you make! This is very important so if I see a mistake in your procedure documented here I won't count off as much on your data section. Be thorough!

Data (1 point)

This is the most important part. Graphs and tables should be here (properly labeled of course). Don't be shy to use statistics (in fact its expected), if you are unfamiliar with things like standard deviation or the normal distribution ask me or my assistant we will show you how you should do it. I expect this section to really shine. (The length of your data will vary depending on experiment but no less than two pages on any experiment please).

Error (1 point)

This is the part is perhaps the easiest and hardest section you will do. I want you to comment on the "common sense" errors of course. These include but not limited to human error, lack of skill with instrument or technique, poor quality of reagent and equipment. Those are fine but in any experiment there will be some error involved that occurs even under perfect conditions. The type of errors we are talking about here has to do with the fundamental limitations of measuring devices used. For example, the temperature of your solution that you just measured is only as accurate as the number of decimal places your thermometer can read. Most of the time, such errors are small and do not affect your results much. However, there are well establish procedures to estimate the cumulative.