Conclusion Writing

Points to keep in mind while writing the conclusion:

- ☆ The conclusion should be written in complete, stand-alone sentences.
- ☆ Answer the questions proposed in the Problem, Purpose, or Hypothesis
- ☆ Base your conclusions on your results – what can you conclude about the original question(s) based on your Results and Analysis.
- ☆ Explain how experimental errors affected your results.
- ☆ Use specific supporting data from the lab.
- ☆ What new questions might be answered by follow up investigations, based on what you learned in this lab?

- ☆ The conclusion is supposed to address (draw conclusions from) the results & analysis. Don't include comments like: "The lab was fun." "It was a success." The lab was boring."

Remember: Be neat. The lab notebook is a document that someone else should be able to read and understand exactly what went on during the lab, and what conclusions you made. If I can't read it, it's as good as having not done the lab.

Sample conclusions

Excellent

The lab was a reaction between zinc acetate and sodium phosphate. The final product, which was isolated from the solution, was zinc phosphate. The theoretical yield of zinc phosphate that we predicted was 1.03 g, but the actual yield was 1.29 g. This means that a yield of 125 % was achieved. It is not usually possible to achieve more than 100 % yield, therefore there must have been errors that resulted in the extra 0.26 g of zinc phosphate apparently produced.

One possible source of error is that 2.0 g of sodium phosphate was used, although only 1.7 g was required. Since we had more of this reactant, we may have produced more of the reaction product. Another possibility is that, since not all of either reactant completely dissolved, these unreacted solids could have been trapped in the filter with the zinc phosphate, adding to the total mass, which was assumed to be all zinc phosphate. A follow up experiment to this one might be to make sure that the reactants fully disolve before the reaction, to allow for complete reaction.

Poor

Everything worked out well. There weren't very many sources of error and the experiment was a success.