1. **Title**

The title should be descriptive. Experiment 5 is not a descriptive title.

1. **Date**

This is the date (or dates) you performed the experiment.

1. **Purpose**

A brief statement of what you are attempting to do.

1. **Procedure**

A one- or two-sentence description of the method you are using. You may refer to the lab directions for specific instructions, but you should include a brief statement of the method. Do not include lengthy, detailed directions. A person who understands chemistry should be able to read this section and know what you are doing.

1. **Data**

Record all your data directly in a notebook or worksheet. Then when you are ready to complete your lab report, transfer all of your tables and charts into you lab report. Label all data very clearly. Use correct significant digits, and always include proper units. Underline, use capital letters, or use any device you choose to help organize this section well. Space things out – don’t try to cram everything on one page. Use tables where appropriate.

1. **Calculations and Graphs**

You must show how calculations are carried out. Give the equation used and show how your values are substituted into it. Give the calculated values. If graphs are included, make the graphs an appropriate size. Label all axes and give each graph a title. If the experiment is not quantitative, this section may be omitted.

1. **Conclusions**

Make a simple statement concerning what you can conclude from the experiment.

1. **Discussion of Theory**

In this section you should include such information as: What theory was demonstrated in this experiment? What do the calculations show? How was the purpose of the experiment fulfilled? Why does (or doesn’t) the experiment work? Refer back to the purpose of the lab to write this section.

1. **Experimental Sources of Error**

What are some specific sources of error, and how do they influence the data? Do they make the values obtained larger or smaller than they should be? Which measurement was the least precise? Instrumental error and human error exist in all experiments, and should not be mentioned as a source of error unless they cause a significant fault. Significant digits and mistakes in calculations are NOT a valid source of error. In writing this section it is sometimes helpful to ask yourself what you would do differently if you were to repeat the experiment and wanted to obtain a better precision. If you can calculate a percent error or percent deviation, do so and include it in this section.

1. **Questions**

Answer any questions included in the lab directions. This includes pre-lab questions. Answer in such a way that the meaning of the question is obvious from your answer. In other words, write your answer in such a way that the reader doesn’t need to see the original question to know what you are talking about.