Laboratory Notebook Guidelines

"A laboratory notebook is a record of both physical and mental activity"[1]. Someone looking at your notebook should be able to know why an experiment was done, how the experiment was done, and what data and observations were made. You should write in your notebook as you are doing the experiments. Don't wait until after class to try to remember what you did. Don't limit yourself to only text, often a sketch or diagram can explain things better than text or clarify the text.

Lab notebooks contain the raw material that you will use for your lab reports.

Key points:

We will be looking for these elements in your lab notebook during our notebook checks each class.

- Date every page of the notebook.
- State the aim of the experiment. Why is it being done? What is the hypothesis? What are the predicted results?
- Record the experimental details. Write down what you did at each step in detail, don't simply write "done as described in the protocol". Details are important. You may find yourself recording what you did in more detail than a general written protocol. Make sure to note what materials you are using as you go. If you make a mistake, record it!!! For example, "added 3 ml of growth medium instead of 5 ml, repeated with new samples using 5 ml".
- Record your observations as you go along. Observations include comments like "colony was sticky when I picked it with the loop".
- Record the raw data from your experiment whether that be numbers of colonies, a sketch of cells viewed with the microscope, or a description of different colony types in a streak.
- Analyze your data and record the results. Print out any tables, graphs, or pictures as needed.
- Write a brief summary of your conclusions.

[1]Guidelines for Scientific Record Keeping in the Intramural Research Program at the NIH, 2008, National Institutes of Health, Office of the Director, http://sourcebook.od.nih.gov/ethic-conduct/RECORDKEEPING.pdf.