

Lab Reports

(Information which might be included)

- Experiment Title: (brief, descriptive)
- Experimenter's Name (include lab partners)
- Date: Place:
- Purpose: (Objectives, Anticipated results, 1-2 complete sentences)
- Experimental procedures and Equipment Set Up: (brief outline, sketches and diagrams, may include by reference, *another experimenter should be able to repeat your experiment from your report.*)
- Equipment: (name, type, number, accuracy, precision, limitations, etc.)
- Outside Data and References: (e.g. density or boiling points found in the Merck Index)
- Notes, Potential Problem areas, Reminders, Safety Cautions

- Ambient Conditions: IF RELEVANT (time start, time end, temperature, humidity, barometric pressure, changes in conditions during experiment.) Record on data sheet during experiment.

- Experimental data: (Prepare data tables in advance, if possible)

(Record in INK on data sheet during experiment)

-Observations, Notes: (Record in INK during the experiment, in detail!)

-Calculations: (may be done during or after experiment, pencil okay)

Discussion – (thoughtful explanation, analysis, discussion of results)

-Compare with theoretical/other experimental, expected, unanticipated)

-Sources of error, magnitudes of error, effects of error: (record during experiment)

-Conclusion, Recommendations: (quality of results, brief status of results and technique, recommendations for improvements/changes in experiment, future experiments suggested, applications.)

NOTES:

There are many ways to set up an experimental record. A record style should be appropriate for the specific experiment.

The reports should be brief, concise and complete—one/several word notes or descriptions are desirable.

Set up and do as much as you can before starting experimental work (i.e. before lab period). Especially in a crowded lab, completed pre-lab work is essential for safety, time.

Use ink for recording all data, sources of error, observations (pencil is okay for calculations). Immediately record all data directly on data sheet, NOT on scratch paper, paper towels or the palm of your hand!

Record data, observations, sources of error in duplicate (using recorded lab notebooks.) Always keep a copy for your records.

If a piece of data is recorded incorrectly, a single thin line (no erasure or obliterations) and a brief note describing the error may be used to delete such data. Do not throw away or destroy any data.

The experimental reports and-post experiment assignments are due at the beginning of your next lab meeting following the scheduled completion of the experiment.