

Long Branch Public Schools

Guidelines for Writing Scientific Laboratory Reports

The study of science is an attempt to make sense of our natural world. Science includes both the process of scientific inquiry through which knowledge is attained and the knowledge which results from the inquiry. The most effective vehicle by which the process of inquiry can be learned is in the laboratory or field settings where students gain firsthand experience of the inquiry process.

In addition to your lab activities, it is important that you learn how to write a proper scientific lab report. ***It is not the same as writing an essay.*** Your reports will be organized and written in the form of a classic scientific paper. Reports should be written in a factual manor in the third person form. (no “I” or “we”)

Order of lab:

Title Page

Abstract

Procedure Each section should be labeled with the heading placed in the left hand margin (except for the title page).

Results

Data

1) Title Page: Be descriptive and don't worry if the title seems a little lengthy. One word titles, often appropriate for essays, are seldom adequate for lab reports. Place the title at the top middle of the first page. The title page should also include your name and the names of those in your lab group, your class period, your teacher's name, and the date of the lab.

2) Abstract: The abstract is the most important part of the report. It is a SUMMARY and analysis of your results in about one page. First explain the purpose of the lab, referring to any hypotheses or theories being tested and include the key parameters (procedures) of the experiment. Second, summarize the results and what the results mean or could imply. Finally, describe possible sources of error in lab that might have influenced the results. Include what could possibly be done to improve your results the next time. **DO NOT** put comments about how much fun you had in the lab, however meaningful the lab was to your development as a person, etc. **WRITE LAST**, but put first after title

3) Procedure: You should summarize the procedure in PAST TENSE creating a step by step description in your own words of what you did in the lab. It should begin on the **SECOND** page of your lab report after abstract. Do not copy entire procedure and only include key details.

4) Results and Conclusion: Results are your WRITTEN description of the outcome of the experiments performed. If the results include data, you should present them in a data

table, and a possibly a graph, which is attached to end of report. Results should refer specifically to each of the diagrams/tables/graphs. Finally, results should culminate in a conclusion about the hypothesis.

5) Data: All diagrams, tables and graphs should be numbered in the order in which they appear in the report. Data tables should be clear and concise and be numbered and titled. Graphs should have appropriate titles and axis labels and should be done neatly and clearly on graph paper. All diagrams should have figure captions which should clearly explain the diagram; the figure caption should contain magnification and a classification of the organism (if applicable). The diagram should also be completely labeled. Diagrams completed in the lab should be included in your report. Make your diagrams as you perform the lab. Diagrams should be done in pencil. Attach data to end of report.

Grading: A formal lab report is worth 25 Points graded on rubric which will be multiplied by 4 to get 100%. Lab reports in which the student has plagiarized from an outside source, or from fellow students automatically earns ZERO POINTS for the plagiarized section(s)! Students are expected to work in groups in the lab, but **do their own thinking and writing on their lab reports!** Do not present the argument, “But we worked on it together” if confronted with cheating. If students submit lab reports with identical abstracts, you will receive no credit for the work. The instructor will not make a distinction regarding who did the original writing and who did the copying. In instances of copying, all students involved lose credit. **DO NOT ALLOW OTHER STUDENTS TO COPY YOUR WORK**