

TD 2: Writing a Lab Report

1-Report writing

At the end of each lab session, a report is submitted to the teacher for correction and grading. A report should consist of the following sections:

1-1-Title:

The title of a lab report summarizes the experiment.

1-2-Introduction

The lab report is a written assignment. As such, it should be meticulously drafted and begin with an introduction.

The introduction gives background information on why your experiment is important and clearly states the issues that will be addressed in the rest of the report. Since it provides the structure for the entire report, it is a good idea to write the other sections of your report first, and then write the introduction.

Your introduction should include:

- _At least 2 paragraphs.
- _A clear statement of the specific question or issue addressed.
- _A logical argument as to why the question or issue was addressed.
- _Specific hypotheses and a rationale for those expectations.

1-3-Materials and Methods

Use the information you recorded in your lab notebook as a guide to write this section in paragraph format. Provide enough information so that the reader could repeat the experiment, but not so much that it distracts the reader from understanding the overall experiment.

-The methods section details the experimental procedure from the lab.

Typically in **paragraph format**, though some TAs may accept a bulleted list.

Should **not** copy directly from the lab manual.

Any **changes** to the lab procedure or deviations from the procedure in the manual made during the experiment **should be noted**.

Written in **passive past tense**. This removes the experimenter from the experiment and ensures the procedure reads as something that was already done, rather than something to be done.

Correct: “Acid was added to the test tube.”

Incorrect: “I added acid to the test tube,” or, “Next, add acid to the test tube.”

1-4- Results

In paragraph format, write exactly what you observed. Lead the reader to your figures and cite them within your text. Present your data in the form of tables, graphs, and pictures. Be sure to include a descriptive title and legend or caption for each figure you include in the paper.

Remember:

_Results are written in past tense.

-All general statements are supported with reference to data.

_Major results are presented in words, but meanings/implications are not discussed yet (saved for discussion section).

_Each figure or table has an informative caption or legend.

_Tables and figures are numbered in the same order as referred to in the paper.

1-5- Discussion

The “Discussion” section differs from the “Results” section, where you simply report what you saw. In the “Discussion” section, you interpret your results in order to explain why and how you obtained those results. State whether the results support your hypothesis. Then, make conclusions throughout your discussion, but always base your interpretation on evidence rather than feelings or guesses.

1-6- Conclusion

Not all Biology professors require a separate conclusion. However, if your professor does then try to answer these questions: What do you conclude from your experiment? Are your results reasonable? Did something crazy happen? (Ex. No bacterial growth happened when it should have.)

A lab report should be organized as follows

-The cover page should always be framed and include the following:

- The student's last name, first name, and group (these details should be written on the left and at the top of the cover page, in that order)
- The date (to be written on the right at the top of the cover page)

- The number and title of the lab should be placed in the middle of the cover page, below the contact information
- A table containing the grade and remarks for the lab should be drawn in the middle of the cover page.

-The sheets used for the lab work must also be bordered and completed on blank sheets without drawing on both sides.

-The drawings must be made only in black pencil.

-The drawings must be precise and faithful to the observation. They should be centered, occupying maximum space while allowing room for the legend.

-The legend must be noted accurately without spelling mistakes and placed on the same side. Additionally, the reference lines must be aligned vertically. The drawings should include titles and magnification.