



Growing More Food Technical Writing and the Round-Up Ready Trials

Guidelines for writing a technical paper

1. Always write in third person, past tense.
2. Technical writing ONLY includes facts. Your opinion may only be stated in the discussion section of the paper.
3. The resources that you use must be factual, relevant, and reliable.
4. Each section of your paper should have a heading in bold and underlined.
5. The order of pages in the report are as follows:
 1. Title page
 2. Abstract
 3. Table of Contents
 4. Review of Literature
 5. Materials and Methods
 6. Variable study
 7. Experimental results
 8. Discussion
 9. Conclusion
 10. Works Cited
 11. Works Consulted
 12. Acknowledgements

Title Page

Title of Project

Date

Prepared by:
Student's Name
Grade

High School
High School Address
High School City, State, Zip Code



Abstract

- The abstract is a 250 word summary of your entire project.
- This is best written after you have completed your entire project/experiment/conclusions.
- Include in your abstract:
 1. Problem Statement
 2. Importance of the experiment, relevance to society, purpose
 3. Hypothesis
 4. 3-4 sentences summarizing your materials and methods
 5. 2-3 sentences summarizing the data/conclusions

Table of Contents

Review of Literature	Page 1
Materials and Methods	Page ____
Variable Study	Page ____
Experimental Results, tables, and graphs	Page ____
Discussion	Page ____
Conclusion	Page ____

Review of Literature

- The first paragraph should include the following: problem, hypothesis, and purpose statements.
- Remember to write in 3rd person, past tense.
- Following the first paragraph, your review of literature should be split into subheadings. (For example, if you are doing a project about fertilizer on plants, you might have subheadings called plant growth, photosynthesis, organic fertilizer, inorganic fertilizer, fertilizer in plant growth.)
- The review of literature should discuss scientific concepts related to the problem statement, as well as previous experiments and literature similar to your study.
- Internal citations in MLA or APA format should be used. Everything should be cited in this part of the paper.
- Your sources must be credible. Do NOT use websites that end in .com or .org unless you receive instructor permission. Watch your sources carefully.



Materials and Methods

- Your materials and methods must be very detailed. The steps should be very descriptive. A person that has no idea what you are doing should be able to follow your instructions and replicate your experiment without any problems.

Materials and Methods

Problem:

Purpose:

Materials List:

- 1.
- 2.
- 3.

Steps of Procedure:

- 1.
- 2.
- 3.
- 4.

etc....

Sample Data Table:

The Effect of Various Fertilizers on Soybean Plant Growth						
Date	Plant #1 Height (cm)	Plant #2 Height (cm)	Plant #3 Height (cm)	Plant #4 Height (cm)	Plant #5 Height (cm)	Plant #6 Height (cm)



Variable Study

- This should be one paragraph, written in 3rd person past tense.
- Include:
 1. Control (what everything is compared to, the “norm”)
 2. Independent variable (what is changed)
 3. Dependent variable (results/what you are measuring)
 4. Which variables were kept constant (temperature, weather, lighting, etc. for example)

Experimental Results, Data Tables, and Data Graphs

Data Tables

- All data, measurements, and information recorded during the experiment should be included here.
- All columns should be labeled with metric units.
- Each table should have a descriptive title (“The Effect of Fertilizer on Soybean Plant Growth” instead of “Plant Growth”)
- See sample data table above for an example.

Graphs

- Summarize the data into a graph. Choose from a bar graph, pie graph, or line graph.
- Graphs should include: descriptive title, x axis title with units of measure, y axis title with units of measure, legend

Discussion

- This is a written summary of the results of your experimental data, tables, and graphs.
- State whether the hypothesis was supported or not supported.
- Again, it should be written in 3rd person, past tense.
- Include what was not well controlled, or what could have affected the results.
- Include future research ideas.

Conclusion

- State whether the hypothesis was supported or not supported.
- Include the main conclusions drawn from the data.



Works Cited

- Include only the sources that were cited in the Review of Literature.
- Use MLA or APA format.

Works Consulted

- Include the sources that you used, read, etc. which gave you insight into your paper but were not cited.
- Use MLA or APA format.

Acknowledgements

- Optional
- Bulleted list of those that helped you in any way with your project (name and title/brief description)

Technical Display

- Include the following components:
 1. Title of project
 2. Problem
 3. Hypothesis
 4. Purpose
 5. Materials and methods (may use photos, flow charts, etc.)
 6. Graph(s)
 7. Conclusion
 8. Abstract
 9. Photos of your experiment (must give credit to the source or person that took the photos)