

Science Fair Final Report Format

Format:

- ❑ 8.5 X 11 paper
- ❑ Font: Times New Roman-12
- ❑ Text is to be double spaced, but figures and tables may be single spaced.
- ❑ Page #'s must go on the bottom of each page and be centered within the page.
- ❑ Make sure all sections are labeled and begin on a new page.
- ❑ Use only scientific notation and metric units.
- ❑ All titles should be:
 - **16 font, centered, in capital letters, and bold**
- ❑ All Subtitles should be:
 - **14 font, centered, and bold italics**

- ❑ **Title page.**
 - Project Title (**16 font, centered and Bold**)
 - Name
 - School
 - Grade
 - Teacher
 - Date
 - *Name, school, grade, teacher, and date should be in 14 font centered and bold)*

- ❑ **Abstract.** An abstract is an abbreviated version of your final report. Your abstract should briefly summarize your purpose, hypothesis, procedure, data and conclusion. The abstract is written in the past tense. You cannot write your abstract until your project is complete and all data has been analyzed. Most scientists use a three-paragraph format:
 1. Tell what you were trying to do.
 2. Describe how you did it.
 3. Briefly summarize what your conclusions were.
 - Type, edit and SAVE the content of your abstract as a Word Document.
 - Suggested length for your abstract is around 200 words (250 maximum).

****YOU MUST COPY/PASTE YOUR ABSTRACT ONTO THE OFFICIAL FLORIDA STATE ABSTRACT FORM!****

A copy of the completed official abstract form must be included in your final written report, AND ALSO be attached to the lower, left-hand corner of your display board.

❑ TABLE OF CONTENTS

❑ INTRODUCTION

- Question
- Variables
 - **Independent-** *The variable you are testing.” What are you changing”*
 - **Dependent-** *What are you measuring?*
 - **Constants-** *variables that need to be controlled or hold constant so that they do not affect the outcome of your experiment.*
 - **Control** (if there is one) - *what is being used for comparison?*
- Hypothesis.- This statement predicts what you think will be the result of the experiment. It must be a testable statement. It may be stated “If..... then.....,” You should be able to tell exactly what the independent and dependent variables are from your hypothesis.
 - **You MUST be specific about the outcome:**
 - X Not specific: “Music will affect the growth of plants”
 - ☺ Specific: “If classical music affects the growth of tomato plants, then tomatoes that are exposed to classical music for 3 hours a day for 3 weeks will grow taller and have more leaves than those plants that are not exposed to classical music.”

❑ BACKGROUND RESEARCH.

- This is the Research paper you wrote before you started your experiment.

❑ MATERIALS & EXPERIMENTAL PROCEDURES

- Materials. (remember that materials must be bulleted)
 - Exact kinds and amounts MUST be specified.
- Experimental procedure. (remember that procedure must be numbered)

❑ Data Analysis and Discussion.

- This section includes:
 - Charts
 - Remember to use SI/metric units (meters, grams, liters) for all measurements.
 - All data tables and all columns and rows of all data tables should be clearly labeled.

o **Graphs**

▪ Make sure :

- The graph has a title and clearly describes what the data is about
- The independent variable is on the x-axis and the dependent variable is on the y-axis
- The axes are properly labeled and include units of measurement
- Include a clearly labeled key for all graphs and charts.

o **Results**-This is the written out section that explains what your charts, data tables, pictures, photos, and graphs show, but does not necessarily discuss WHY you data turned out this way. State what your graphs, charts, and observations tell in terms of trends or relationships. Explain it as if the person reading your report cannot read the graphs and charts for themselves.

- Summarize/state the results of your data analysis.
- Point out and thoroughly explain any patterns or trends in your data.
- This section needs to be written in the form of a paragraph or using bullets.

□ **CONCLUSION**-*This is what the judges will read to see if you UNDERSTAND what you observed in your lab. This is a very important part as it shows that you understand the data.*

- Explain what your results mean. Talk about “why” and “how come.” Why do you think you got these results?
- Re-state (you may paraphrase) your hypothesis. State whether your experimental results supports your hypothesis or not.
 - o Refer directly to your data to support or refute your hypothesis.
- Indicate and explain how your data may support or rule out other possible cause/effect relationships.
 - o You may be able to make some significant additional inferences based on your data, even if those inferences are not between the independent and dependent variables!
- Discuss any SIGNIFICANT sources of error and how they may have affected your experiment.
 - o Talk about what you might have done wrong in the experiment. In other words, describe any major issues with procedures, control of variables, data collection, or measurements; explain how these problems might have affected your results.

- **Recommendations** – Choose one of the 2 choices:

1. Explain how you could improve the design your experiment. This section can be especially important if your results were inconclusive or if there were major flaws in your experimental design. If you were going to test this question again, what would you change or do differently?
 - o You might mention conditions that you did not anticipate and did not control that might have affected the outcome of your experiment. Suggest how you would change your procedure to eliminate these additional variables.
 - o You might suggest testing fewer variables, using different procedures, using different measuring devices, and/or changing the number of trials in order to improve the quantity or quality of your data.
 2. Discuss additional research and/or experimentation related to your experiment, and how this additional research could clarify or add to the understanding of the original goal/purpose/problem being investigated.
 - o What other variables could you test that were not tested?
 - o Based on the results of this experiment, what new questions now need to be investigated?
- **Application** – *Describe what can be learned from the experiment and its results.* Discuss the real-world importance of your experiment. Why is your project significant? How could someone use these results in “real life”? Some people call this the “So what?” section. ☺
 - **Acknowledgements**.(optional)
 - o This is your opportunity to thank anyone who helped you with your science fair project, from a single individual to a company or government agency.

BIBLIOGRAPHY. -This is a list of all of the sources of information that you used to write your report and complete your experiment. All of your bibliography information should have been recorded in your **LOGBOOK** at the time you did your research as well as part of your Background Research Paper

You must use MLA format!

Bibliography Examples Using MLA Format

BOOK

Author (last name, first name). Title of book.City, State of Publisher:
name of publisher, year of publication.

MAGAZINE OR NEWS ARTICLE

Author (last name, first name). "Title of article". Title of magazine or paper (underlined). 9 June 1976 (the date of magazine): 27-34 (the pages you read).

PERSONAL INTERVIEW

Name of person interviewed (Last name first). Personal interview. Date of the interview.

ENCYCLOPEDIA

"Title of article." Title of Encyclopedia. City, State of Publication: Publisher, Year of edition.

INTERNET WEB SITE

Name of page. Name of institution/organization affiliated with the site. Author(s) or Editor of the page (if available). Date you looked at the website <web address>

*****NOTE: FORMAT PARAGRAPH INDENTATION AS "HANGING"**

Go to:

www.sciencebuddies.com

–"Project guide"- for instructions to complete each section.

Also, use the rubric as a checklist to ensure that you get the highest grade possible.