## **Science Fair Final Report**

1. **PAGE 1: Title Page**
The cover includes name, date, period, title of lab activity, and a picture of the set-up of the lab (equipment). Must be on unlined paper and in ink or color!
2. **PAGE 2: Table of Contents**

List what the reader will find of each page with the page numbers

1. **PAGE 3: Introduction/Abstract**

**INTRODUCTION/ABSTRACT**

(**1ST Paragraph**)

**INTRODUCE BACKGROUND INFORMATION**

1. Include any background information that will help the reader understand the science concepts that will be important for this experiment/design.
2. You need to **briefly** describe the equipment or the way the materials were set-up in order to explain how the lab was done or how the hypothesis was tested.
3. STATE THE PROBLEM OR OBJECTIVE or NEED
* What were we trying to find out? What were you trying to design?
* **STATE YOUR HYPOTHESIS** (in an essay this would be your *thesis* statement)
	+ This is the final sentence of the first introductory paragraph.
1. **PAGE 4: Lab Report: (See your Lab Report 1st Half sheet)**
	1. Purpose/Problem/Question/(\*Engineering: Need)
	2. Hypothesis/ (\* Engineering: Possible Solutions and Final Solution)
	3. Materials
	4. Procedure
	5. Data: Table and Graphs
	6. ***Analysis and Conclusion and Redesign***
		* Directions are on Next page
2. **PAGE 5+: Research Paper:** Include your Annotated Bibliography here.
3. **PAGE 6: Acknowledgements:** This is a separate page that thanks everyone who helped you complete your science fair project with a brief description of what they did.

Acknowled-gements

6

Annotated Bibliography

5

(Should take more than 1 page)

Lab Report

4

(Should take more than 1 page)

Introduction/

Abstract

3

Table of Contents

2

Title Page

1

**ANALYSIS SECTION**

State and explain the results

1. STATE ALL THE RESULTS OF THE EXPERIMENT
* For each result state a supporting fact(s) from the data.

***For example:*** *All coke cans with sugar sank in water. Classic Coke and Caffeine-Free coke have sugar and they sank. All cans with Nutra-sweet floated. Diet coke and Caffeine-free diet coke have nutra-sweet and they floated. Caffeine made no difference in whether cokes sank or floated. Caffeine-free coke sank, but Diet Caffeine-free coke floated.*

1. ANALYZE OR EXPLAIN EACH RESULT (may be 3RD or 3rd & 4th paragraphs)
* Write one paragraph for each main result you explain

***For example:*** *All cokes with sugar sank because their density was greater than 1.0 g/ml. All cokes with nutra-sweet floated because their density was less than 1.0 g/ml. There is a greater mass of sugar needed to sweeten cokes than the mass of nutra-sweet. Therefore cokes with sugar had a greater mass in the same amount of volume as the cokes with nutra-sweet. More mass in the same volume results in a greater density. Since the density of water is 1.0 g/ml and all cokes with sugar had a density greater than 1.0 g/ml they sank in water.*

***(continue with additional paragraph to explain why caffeine had no effect)***

**CONCLUSION SECTION**

(Last paragraph: What did you Learn? What could you do to learn more?)

# SUMMARIZE WHAT YOU LEARNED

* **Restate in a few sentences** the main results and your explanation of the results.
* **Explain any errors in your data**. If there were any errors hypothesize about what might have caused them.
* **Hypothesis correct or not?** A simple statement of fact.
	+ - (“My hypothesis was supported by my data….Explain” OR “My hypothesis was not supported by my data…. Explain…”)
* **What did you learn from this lab or what additional question would you want to investigate further?** Make a statement about what you discovered or what additional experiment would you like to do to answer a related question.
* Relate the subject of this lab to a personal experience in your life. How does what you learned from this lab help explain that experience?

**Note to students**: *An “****analysis and conclusion****” section of a lab write-up is used to communicate the results of a science experiment in a way that is clear and understandable. It clearly* ***states all the results of the lab and attempts to explain the results****. Finally,* ***a concluding statement is made*** *that summarizes the main results of the lab and states whether the experimental hypothesis was correct or not. This section of the lab write-up is very similar to the structure that is used to write a 5-paragraph essay in your writing class.* ***Like an essay, an “analysis and conclusion” includes a main body, and a conclusion.***

**THE DISPLAY BOARD**



Independent

Dependent

Controlled

**Procedure**

**Variables**

1.

2.

3.

4.

5.

**Materials**

**Analysis & Conclusion**

**Here’s how the information is organized on the display shown above:**

**(All of this Information comes from your LAB REPORT!)**

• **Top Left** This section provides basic background information and introduces the purpose and hypothesis of the project.

• **Bottom Left** This section briefly explains the Materials used during your experiment

• **Right-hand Panel** Brief written summaries of the data with tables and graphs and the analysis and conclusions are located on this panel. The research is displayed so that it is obvious that the data support the conclusions.

• **Center** The middle panel contains the title of the project and the name, grade, and school of the researcher. The Procedure (a numbered list) and Variables are listed here. Also Charts, photographs, and other illustrations are displayed here.

• **Keep It Simple** The display touches on all aspects of the project, but keeps the information general. The details of the project belong in the written report.

**Designing Your Display**

* **Back to the Drawing Board**
	+ Before you construct a display, sketch some ideas of how you want your display to look. Sketching it out on paper lets you easily choose colors, borders, sizes, lettering, and even arrangement of items in your display.
* **Materials**
	+ Most students will use cardboard, cork board, or foam core to construct their display. You can recycle by calling a local appliance store to get a large, corrugated box from a refrigerator, washing machine, or TV. Observe appropriate safety precautions and make sure that an adult helps you cut the cardboard to regulation size.
* **Remember—Neatness Counts!**
	+ There may be requirements about the lettering for the display. If you write the information for your display by hand, make sure the writing is neat and easy to read. Your main title and major subtitles should be readable from a distance, and any other information can be smaller. If you use paper or plastic lettering or stencils, use a ruler to apply them in a straight line.
* **Creative, Yet Clear**
	+ While you want your display to be as interesting as possible, the design should not distract from the content. Be creative with borders, font, and layout, but make sure that a judge would find it easy to read the information contained in the display. Illustrations should be informative, not just decorative. In your display, you want to impress the judges with the project’s seriousness yet be unique and have some fun.

PLAN YOUR DISPLAY BOARD HERE