**How to use this document:**

1. **Keep the text in black as it is**
2. **Text in blue should be removed and replaced with your own words**
3. **This is a TEMPLATE. Make a COPY and rename it: “Your Name” Science Fair Written Report**

***DELETE THIS PAGE FROM YOUR FINAL REPORT***

Descriptive and Interesting Title

Name

Class

Acknowledgements

Explain who you would like to thank for helping you throughout the Science Fair process

Purpose and Hypothesis

 Purpose

 State the precise question you are investigating

 Hypothesis

 State your hypothesis in an “If...then…” format, explaining the expected outcome of your experiment.

 Background Research

**Format:** Paragraphs **Content:** Explain, in a minimum of 3 paragraphs, the background information you have researched pertaining to your experiment. All work should be cited in your Reference List (Bibliography) at the end of your paper. Do not use first person, or directly discuss your experiment. Only discuss background research from reliable websites, books, articles, etc... Refer to your Background Research Outline.

 Paragraph 1: Introduction - Explain the big idea, or main focus of your research. Provide insight into the additional details you will discuss in the body paragraphs.

 Paragraph 2 (optional to add more): Body - Explain the key concepts that you learned through background research. Evidence from reliable sources should be paraphrased and/or quoted. If you have more than one body paragraph, they should be organized logically, according to topic.

 Paragraph 3: Conclusion - Restate the main focus of your research. Wrap up any important ideas and state how this information is useful and/or important in people’s lives.

Materials and Procedure

 Materials

* **Format:** Bulleted list
* **Content:** specific materials needed to conduct experiment and record data

 Procedure

1. **Format**: Numbered list
2. **Content:** Specific steps to follow in order to accurately conduct experiment
3. Include details on controlling variables
4. Include multiple trials/situations

Results and Discussion

Data Table(s)

**Format**: A grid to present your numerical results. The table(s) must have a title. Rows and columns must be labeled correctly. Units must be included in the title and/or row and/or column labels. See the examples below (Note: the data is made up, and the averages are approximate). **Content:** You MUST report your raw data for ALL of your trials. Calculate and present averages or trends in a separate table. Use only SI (metric) units.

Height of Bottle Rocket in Meters

|  |  |  |  |
| --- | --- | --- | --- |
| Trial |  6 Ounce Bottle |  12 Ounce Bottle |  32 Ounce Bottle |
| 1 | 2.1 | 5.7 | 8.4 |
| 2 | 3.2 | 4.8 | 9.0 |
| 3 | 3.4 | 6.2 | 9.6 |

Average Height of Bottle Rocket in Meters

|  |  |  |
| --- | --- | --- |
|  6 Ounce Bottle |  12 Ounce Bottle |  32 Ounce Bottle |
| 2.7 | 5.6 | 9.0 |

 Graph(s)

**Format**: Generally it is better to graph the trends or averages rather than the raw data. Do NOT use pie charts unless you measured parts of a whole that add up to 100%; there are almost no instances in which pie charts would be appropriate for these research reports. Use **line** graphs or **bar** graphs. If time is one of your variables, always put it along the X (horizontal) axis. Graphs should have a meaningful title. X and Y axes and data series should be labeled. Only SI (metric) units should be used and they should be clearly shown on the graph. Use color if at all possible. **Content:** Averaged data or raw data with trend lines to make results more easily seen.



 Data Analysis and Discussion

 **Format**: Double Spaced Paragraph. **Content:** Describe your results from your tables and graphs in words. Do not include long lists of numbers, readers will refer to your data tables for that. Describe the differences between trials in terms of percent or size of the change (“Trial 1’s result was 50% larger than Trial 2’s, but 25% smaller than Trial 3’s.”). Discussion should include your evaluation and interpretation of the data and/or results of your investigation, and compare your data to what others have found.

 Error Analysis

**Format:** Double Spaced Paragraph. **Content**: Discuss experimental and/or measurement error affecting the conclusion. Ways in which error was/could have been avoided should be addressed.

Conclusion

**Format**: Double Spaced Paragraph **Content:** Summarize the results of the experiment. Refer to the stated purpose and hypothesis. Compare your results to your hypothesis and state whether or not your hypothesis was supported. Explain why the results turned out the way they did, referring to your research, materials, and procedures. Describe how you would improve the project if you were to do it again. Make suggestions for how your research could be extended. Explain any mistakes you think you made and how they could be avoided if you were to do the project again.

Reference List

List of all published work referenced in your Background Research

APA format

**On its own page**