Sample Science Fair Report

Title of project

Name (first and last)

Grade

Science Teacher

A picture (that describes the project) may be placed on this page.

NOTE: You may use any type of font and size on this page ONLY!

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TO THE STUDENT RESEARCHER

This paper should reflect the information that has been researched. The research paper will be stated in your own words.

DO NOT use words that you do not understand.

DO NOT copy sentences from your research unless it is a quotation.

All quotations need to be correctly cited.

STYLE REMINDERS

- ** This needs to be typed and double spaced.
- ** Use 13 point font and Times New Roman. (do not type your paper in all capital letters)
- ** Print in black ink.

ABSTRACT

One whole paragraph:

- Sentence 1: This experiment was designed to test...(tell about your independent and dependent variables).
- Sentence 2: (#) materials were used, including (list materials).
- Sentence 3: (Results statement- what happened, describe the data)
- Sentence 4: The hypothesis that (state your hypothesis) was (accepted or rejected).
 - Sentence 5: (Discussion statement-summary of any issues)

PROBLEM

- State and explain the purpose. What are you trying to find out?
- Why did you choose this topic?
- State the real life applications.

RESEARCH

- 1. The purpose of research is to find out something you don't already know about a topic. This paper is to include all the information that was found through research of the topic prior to the experiment.
- 2. Research your topic in the library. One or more days will be provided.
 - Use least 3 different sources. (internet, books, encyclopedias, magazines, etc.) All sources must be correctly cited on a Works Cited page.
 - Write down all information for Works Cited page.
 - Find references: READ, decide on important facts, THINK and WRITE using your own words. DO NOT CUT AND PASTE OFF THE INTERNET! DO NOT PLAGARIZE!
- 3. Organize material and write a rough draft.
- 4. The research section needs to be a minimum of 3/4 page which includes at least three paragraphs on the research.

HYPOTHESIS

Use an if/then statement to write a hypothesis. This should explain the independent and dependent variable. The "if" should identify the independent variable and the "then" should identify the dependent variable.

LISTS OF MATERIALS

- Make a list that includes ALL of the materials you are using for this project and include the quantities needed. Be specific. (Example: If you are using bread, make sure you list the brand and number of slices.)
- ALL MEASUREMENTS have to be METRIC

PROCEDURES

- Make a list that includes all of the steps you intend to follow during the experiment. Be specific enough that someone can read this and reproduce the experiment.
- All measurements have to be metric.
- Use photos or drawings to show how the experiment will be done. (Make sure the photos do not include yourself.)
- List the constants, independent variables, dependent variables, and controls (if applicable) on this page.
- Number of trials attempted.
- The procedures should be written as directions not as though you are speaking to an individual.

DATA TABLES AND GRAPHS

In order to be able to display information for your science experiment on a data table and graph, you must use QUANTITATIVE DATA.

Example: If the height of the ramp is higher, then the toy car will travel farther.

<u>Independent Variable</u> (I.V.) - Height of Ramp in centimeters (cm)

Changes in I.V. - 5cm, 10cm, 15cm.

Dependent Variable (D.V.): Distance car travels (cm)

Measurement: cm

GIVE THE DATA TABLE A TITLE Example:

Effect of Ramp Height on Distance Car Travels

	Distance Car Travels (cm)			
Height of Ramp (cm)	Trial 1	Trial 2	Trial 3	Average
5	56	60	55	57
10	72	69	75	72
15	98	90	95	94

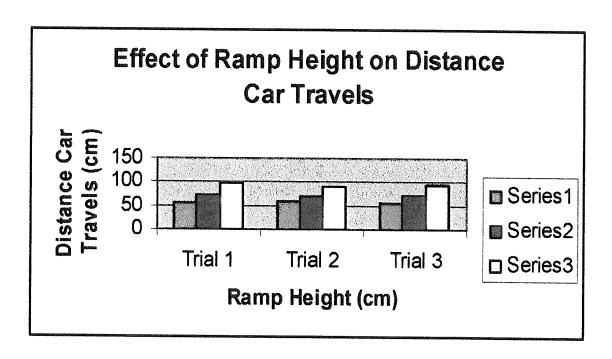
Choose the correct type of graph to represent the data. Graphs: Bar, Line, Circle

GIVE THE GRAPH A TITLE! ALWAYS LABEL YOUR X-AXIS and Y-AXIS!

I.V. (X-axis): Ramp Height (cm)

D.V. (Y-axis): Distance Car Travels (cm)

Example:



ANALYSIS/DISCUSSION

- Any pictures, data, charts, graphs, etc. should be included here. A data chart and at least one graph are required!
- Results should be written in one or more paragraphs.
- Explain the results and what the results mean.
- All measurements should be in metric units, label x and y axis' and give all graphs and charts a title.
- If the experiment did not turn out the way it should have try to explain why or what went wrong.

Questions to Consider when writing your results:

- 1. What did you observe during your experiment? What happened?
- 2. What do you notice about your data? Are there any numbers that stick out or form a pattern? Describe in COMPLETE sentences what the numbers tell you.
- 3. Are there any numbers that seem out of place? What are those numbers and why do you think they are out of place?

CONCLUSION

A conclusion needs to be written in one or more paragraphs.

Things to include in the conclusion:

- * explain the answer to the problem
- * state whether or not your hypothesis is correct
- * discuss the meaning of your results (briefly)
- * note any significant findings
- * note anything that did not go as planned
- * explain what you learned

REFLECTION

If you improved your experiment what would you do differently? Your future research is a paragraph that gives other ideas that may take your project in a different direction. The ideas may also advance, improve, or expand on this project. You may also include any questions that you may still have about this project.

BIBLIOGRAPHY

There should be a minimum of three resources.

This must be in alphabetical order.

Works Cited

Fredericks, Anthony D. and Isaac Asimov. <u>Science Fair Handbook: The Complete Guide for Teachers and Parents</u>. Tucson: Good Year Books, 2001.

National Research Council (NRC). <u>National Science Education Standards</u>. Washington: D.C.: National Academy Press, 1996.