Science Research Paper Requirements (REQUIRED PORTION) – 100 points

RESEARCH PAPER COMPONENTS: This is your written formal report about the project. (12 pt Arial or Times New Roman font, black ink, double spaced, I inch margins)

Use a 3-prong folder (no sheet protectors) and put the following information on the front (if your report cover is clear, this information will be on the title page):

* + Center the project title (The title is often best if it is in the form of a question – example: Is there a difference in \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_?)
  + At the bottom right:
    - Name
    - Name of school
    - Grade level
    - Name of teacher

Page 1: **Title page**. Same information as the front cover

Page 2: **Table of contents**. Each section should be numbered when you are finished writing and included in the table of contents

Page 3: **Introduction**

* + Statement of problem – identify the question or topic/problem
  + Purpose – explain what prompted your research and what you hoped to achieve
  + Hypothesis – this is your educated guess as to what will be the results of your experiment

Pages 4-5: **Research findings**. Information you obtained from sources which support the hypothesis you have made.

Pages 6-7: **Experiment information**

* Materials needed – List and describe or use photos or drawings. Include precise descriptions of the samples.
* Experimental procedure – Describe what you did, how you collected data, detail steps…don’t just list.
* Results - Use numbers not words like most, few, etc. Summarize data in narrative form.

Page 8: **Conclusion**. Briefly summarize results. Accept or reject hypothesis. Do not generalize; be specific and thorough. Discuss possible errors. How did data vary between repeated observations or similar events? What would you do differently if you repeated this project? If necessary, compare your results with theories, data, values, and commonly held beliefs and/or expected results.

Page 9: **Acknowledgments**. Recognize and thank those who helped you

Page 10: **References**. Bibliography listed using APA style.

* http://citationmachine.net
* https://owl.english.purdue.edu/owl/resource/560/01/

80% for the Paper

20% for the Bibliography (must have at least 5 resources)

Grading Rubric for Research Paper

\_\_\_\_\_ -5 for OBVIOUS Content errors

\_\_\_\_\_ -5 for grammar errors (5 or more)

\_\_\_\_\_ -5 for spelling errors (5 or more)

\_\_\_\_\_ -5 for punctuation errors (5 or more)

\_\_\_\_\_ -5 for each missing required component

Title page, table of contents

Introduction – statement of problem, purpose, hypothesis

Research findings

Experiment information – materials, procedure, results, discussion

Conclusion

Acknowledgments

Science Fair Project Participation (OPTIONAL) – additional 100 points

A science project includes 4 parts:

1. A project notebook called a log book
2. An abstract – summary
3. Visual display to include the tri-board
4. The research paper which is your written report about the project (this was the required part)

I. PROJECT LOG BOOK – 50 points

1. This is your most important work – it contains EVERYTHING
2. It must be written in black ink only. If you make a mistake, just draw a line through it. Do NOT tear out pages.
3. The log book should be a composition book.

Project logbook rubric:

5 pts title page 5 pts all experiment info

5 pts table of contents 5 pts conclusion

5 pts pages numbered 5 pts acknowledgments

5 pts all introduction info 5 pts black ink/comp book

5 pts all research/biblio info 5 pts neat

1. Record the following types of information in your log book:
   * Dates and amount of time you worked on the project
   * With whom did you work?
   * Who gave you assistance?
   * Explain what you did.
   * When you do the experiment, record your results in the log book.

II. ABSTRACT – 10 points

1. An abstract is a summary of your project. This is written last.
2. Maximum of 250 words
3. Include the following in your abstract:
   * Title

Abstract rubric:

1 pt title 1 pt 250 word requirement

1 pt problem

1 pt purpose 1 pt no grammar errors

1 pt hypothesis 1 pt no punctuation errors

1 pt procedure 1 pt no spelling errors

1 pt conclusion

* + Problem statement
  + Purpose
  + Hypothesis
  + Procedure
  + Conclusion

III. VISUAL DISPLAY – 40 points

* + Raw data
  + Additional graphs/tables if necessary
  + Copies of surveys (if you used them)
  + Diagrams of special equipment (if you used any)
  + You want to attract and inform those who view your project
  + Take photographs, be organized, be neat, select an eye-catching title, use graphs and charts (small label giving credit to person(s) taking pictures for project)
  + Use tri-board type display unit
  + Abstract should be displayed vertically (for example in an acrylic sign holder)

Visual display rubric:

4 pts title 4 pts procedure

4 pts purpose 4 pts data/charts/pictures

4 pts hypothesis 4 pts results

4 pts research 4 pts discussion/conclusion

4 pts materials 4 pts neat and on standard

size triboard



