Science Project Worksheet

Overall presentation (research paper and board display) should be neat, clean, organized!

Name ____ Date ______________ Block ______

Title*:

Title should be short, "catchy," and creative!

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Abstract*:

This is a concise summary that gives the reader a snapshot of your complete project.
http://www.sciencebuddies.org/science-fair-projects/project_abstract.shtml

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Statement of Problem/Question*:

The problem should be in question form; ask questions that begin with "why", "what", "which," and "how."

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Hypothesis*:

This, "If…then…because…." statement, is an "educated guess" that predicts how you think your experiment will turn out.
If (what you will do); then (what you predict will happen); because (your rationale or why you think it will happen).
Reminder: Do not use "I", use third person only!
Should reflect ONLY one variable.
Ex: You may not attempt to determine how temperature AND light affect ______ since this shows two (2) variables, both temperature and light. Remember: You are already comparing your data to a CONTROL

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Background Research:

Narrative; 750 words (minimum) to 1000 words (maximum) submitted on Turnitin.com by midnight on May 17th.
Written in third person with correct spelling and grammar.
When typed in Times New Roman using a 12-point font, 1 page will be equivalent to 250 words.
Submit only the background research on turnitin.com. See web page for password.

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Materials List*:

List ALL materials including quantities; use metric units. Ex. 1 cup = 250 ml (stack the list on separate lines as you would in a recipe) Do not number the list.

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Procedure/Experimentation*:

Write steps (in order) of everything that you did.
Don't forget to set up a control.
The instructions should be explicit enough for anyone else to follow yet short and concise
Key to success: Walk through steps after you write them down to make sure procedure is complete.
Procedure must be numbered step by step with one step per number.
Procedure must begin (first word) with a verb. For example: assemble, toss, measure, dry, tape, remove, pour, moisten, obtain, open, tear, drain, drop, drain, collect, move, gather, use, stir, etc.

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Data*:

Charts, graphs (line, bar, pie) and records to show how the experiment progressed. Make sure you follow the rules on which type of graph should be used. Ex: Line graphs indicate change over time, etc.
Data collected must be quantitative not merely qualitative. In other words, you must MEASURE something using an instrument (ruler, balance, scale, kitchen utensil, or by counting, etc.) during the course of your experiment. Examples of qualitative statements include: sample was "very" dirty, container was "almost full," it was "about" 5 inches long, there were "a lot" of worms in the sample, etc. You must collect specific measurements using an instrument. The instrument must be identified in the materials list. How the instrument is utilized will be in the procedure.

Data Analysis*:

Written as narrative; analyze and explain the information presented in the graph.

Conclusion*:

Did you prove or disprove your hypothesis? Why or why not? Conclusion does not have to agree with hypothesis; experiment may disprove (prove initial hypothesis wrong) hypothesis.

You asked a question, you did an experiment, and you did the experiment a second time. You recorded your results. Now it is time to write your conclusion. The conclusion, plain and simple, answers your question. It should be clear, concise and to the point. Do not "jump to conclusions."

* If you were to do your experiment again, would you get the same results?
* Can there be differences? Why?
* Ask yourself what happened when you tested your hypothesis.
* What have you learned?

Bibliography*:

Use 5 (minimum) to 10 sources. List all books, periodicals, websites, people (interviews are acceptable, if applicable), etc. that you used to gather information. Use MLA style of citation. Citationmachine.com is a good resource.

Acknowledgements*:

Thank the people who helped (and how) you with your project; may include parents, teachers, librarians, college lab professors, etc.

Recommendations*:

What suggestions would you make for improvement for someone who might attempt this project in the future? What would you change if you did this experiment again?

Display Board and Research Paper:

Font size will likely vary on Display Board but style should be Times New Roman
Spelling and Grammar must be correct

Do not bring a hard copy of the paper to class!
Submit Research Paper online by midnight, Sunday May 17th and the Display Board in class on Monday, May 18th.

Tri-fold Display Board* should be aesthetically pleasing to the eye and also include:

- Title (centered)
- Statement of Purpose
- Hypothesis
- Materials
- Abstract
- Materials and Procedure
- Conclusion
- Data
- Bibliography
- Acknowledgements