



This year in science we will complete science fair projects. You will be designing your own project using the scientific method. Every so often parts of the project will be due (please see science fair calendar with due dates). You will be required to complete a science experiment using the scientific method and then display your findings on a display board for the entire school and parents to see. The following pages explain in detail what will be required of you to complete this project and what days certain items of the project are due. I do not want you waiting until the last minute to complete your project. I am giving due dates for certain parts of the experiment to make sure you complete your project on time. Also if you finish a part early and need feedback on it, turn it in before the deadline.

Science Fair Calendar:

- 1) State your purpose of your experiment. The purpose of an experiment is stated in the form of a research question. To accomplish this you will need to fill out the Student Proposal Slip to be approved by Mrs. Summerford. **(Due October 2 – A day, October 3 – B day)**
- 2) Do background research to find out what is already known about your topic. You need to have at least two books and two internet sites where you received information. You need to have your research typed in the form of a double spaced 1 typed page using font size 12 with some font that is easily read. To help you organize your notes please use the Background Research Page. You also need to include the references for where you found your information. For examples of how to do your references see <http://owl.english.purdue.edu/owl/resource/560/01/> . **(Due December 4 – A day, December 5 – B day)**
- 3) State your hypothesis, your best educated guess about what your results will be. This should be in the form of an If, Then, statement. Example: **If** the plant is exposed to more light, **then** its growth will increase at a faster rate. When you turn this in, you also need to include your question with it and it should be typed. **(Due December 4 – A day, December 5 – B day)**
- 4) Design a detailed procedure for your experiment. Be sure to understand and control all of the possible variables. In your procedures, it needs to be complete, numbered, step-by-step outline of the events involved in your experiment. Also be sure to include your materials either in a separate section or in the procedures. This needs to be typed, double spaced using font size 12 with again font that is easily read. (**Due December 10 – A day, December 11 – B Day**)
- 5) Carry out the experiment and collect data. You need to make sure that you write out your observations in paragraph form along with titled graphs, tables, and diagrams when appropriate.
- 6) Record the results of your experiment. Your results may be presented in picture, chart or graph form.
- 7) Draw conclusions from your results. Do the results prove your hypothesis?
- 8) Steps 5-7 are due **January 29 – A day, and January 30 – B day**. You need to have the results and conclusions typed.
- 9) Write down all the steps of your project and produce your display board and **booklet**.
- 10) Rehearse your presentation and then share with the school and parents. **Due February 23 – A day and February 24 – B day**

How to choose the right topic

The first thing you need to do is to think of a problem to be explored. When you're thinking about what topic to pick, keep in mind that you want to explore something that interests you. Just by looking around you at school, home, or even in your community might give you an idea of what you want to explore. Some other places to help you search for topics are the following: newspapers, internet, friends, and books on science fair projects, television, and even your science textbook.

Booklet

1) Title Page	title, name, grade, teacher's name, school name (1 page)
2) Table of contents	List all the contents of the booklet and the page number (1 page)
3) Purpose/Problem	Tell the reader what problem or question you are trying to answer (1/2 - 1 page)
4) Background Research	Information that you used to help conduct your experiment and that was relevant to your topic (1 page)
5) Hypothesis	State your hypothesis (1-2 sentences)
6) Materials	List all the materials used in experiment (1/2-1page).
7) Procedures	Step-by-step outline of how to complete the experiment (1/2 – 3 pages or more)
8) Results	Show results either in tables, charts, pictures, or it may be explained in paragraph form (1/2 – 3 pages or more)
9) Conclusion	From what you have seen in your results and your own thinking, tell what you have found and if your hypothesis was proven or disproven (1/2-2 pages)
10) References	Using APA format reference all research materials used in this project
11) Acknowledgements	Thank you to anyone who helped.

Background Research Information

Collect the following from the source that you gather your information. You will need this information to complete your Reference Page in your science booklet and your research page.

- Title of Book:
- Author:
- Page Number or Web Address:
- Year of Publication:
- Publication Location:
- Publisher:
- Notes:

Student Proposal Slip

Name: _____

Date: _____

I would like to do an experiment on

Rubric for Science Project

- 1) State your purpose of your experiment. **(6 points)**
 - a. Did you state the purpose of your experiment in the form of a research question? (2 points)
 - b. Did you fill out the Student proposal slip? (2 points)
- 2) Did you have it approved by your Mrs. Summerford on or before the due date. (2 points)
- 3) Background research **(28 points)**
 - a. Did you receive information from at least one book? (4 points)
 - b. Did you receive information from at least two internet sites? (4 points)
 - c. Have you typed your information? (2 point)
 - i. It is double spaced? (1 point)
 - ii. Is it at least 1 page? (1point)
 - iii. Is it in an easy to read font? (1 point)
 - iv. Did you use font size 12? (1 point)
 - d. Did you include your four references on another sheet of paper? (4 points)
 - i. Is your references typed? (4 point)
 - e. Did you use APA format? (4 point)
- 4) Did you turn in your research on or before (2 points)
- 5) State your hypothesis **(5 points)**
 - a. Did you use an If, Then statement? (2 points)
 - b. Is it typed? (1 point)
- 6) Did you turn it in before or on due date (2 points)
- 7) Procedures for experiment **(10 points)**
 - a. Did you include how you were to control all variables? (1 point)
 - b. Is it numbered? (1 point)
 - c. Is it a step-by-step outline of events? (1 point)
 - d. Is your materials listed? (1 point)
 - e. Is it typed? (1 point)
 - i. Is it double spaced? (1 point)
 - ii. Did you use font size 12? (1 point)
 - iii. Is it easy to read? (1 point)
- 8) Did you turn it in before or on the due date. (2 points)
- 9) Carry out the experiment and collect data. **(3 points)**
 - a. Did you write out your observations in paragraph form? (2 point)
 - b. Did you include graphs, tables, or diagrams? (1 point)
- 10) Record the results of your experiment. **(4 points)**
 - a. Did you write out your results in paragraph form (2 point)
 - b. Did you include a picture, chart or graph? (1 point)
 - c. Your results may be presented in picture, chart or graph form. (1 point)
- 11) Draw conclusions from your results. **(11 points)**
 - a. Did you write out your conclusions in paragraph form? (2 point)
 - b. Did you state whether your hypothesis was proven or disproven? (1 point)
 - c. Did you turn 5-7 in before or on the due date. (2 point)
 - d. Are steps 5-7 typed? (6 points)
- 12) Write down all the steps of your project and produce your display board and **booklet. (27 points)**
 - a. Did you include all steps (7 points)
 - i. Is it typed? (1 point)
 - ii. Is it double spaced? (1 point)
 - iii. Is it readable? (1 point)
 - b. Do you have your display board? (1 point)
 - i. Do you have all parts on your display board? (14 points)
 - C. Did you turn it in on or before February 23 – A day, and February 24 – B day? (2 points)
- 13) Present to the class and then share with the school and parents. **(6 points)**
 - a. Is your board on display for parents and the school? (6 points)

This is 100 points total.

Please email me @ psummerford@charlestonmathscience.org with any questions or concerns. I am more than happy to help with part of the science fair project.

I am available for help between 7:30-7:55 unless I have a meeting that morning.
