Science Fair Information

Blountstown High School Science/Agriscience Fair

Goals and Objectives:

- Provide students with an opportunity to use the scientific process
- Reinforce skills and principles learned in science courses
- Provide an opportunity for students to design and conduct experiments and display projects

General Information

All students taking science classes will be required to participate in the science fair. The project should be an experiment testing one variable pertaining to a content-related question or problem (Choose a question/problem from your content area – Earth/Space, Biology, Agriscience, Chemistry, Physics, Anatomy, etc.).

Steps to Starting your Project:

1. Pick a subject area (one aspect of your science course)
2. Narrow the scope
3. Pinpoint a problem

Plagiarism

The project must be the result of the student/students own effort and ability. Students may use direct quotes or phrases, specific dates, figures, or other materials, as long as that information is cited correctly (use of quotation marks in manuscripts and identified in the Reference section of the written report). Non-compliance represents plagiarism and will automatically result in a zero (0) for the assignments involved.

Students MAY NOT:

- In any way falsify the paper or display
- Use another person's results or thoughts as their own, even with the permission of this person. This includes work done by a family member or mentor.
- Use information or data obtained from the Internet or any other source without proper citation

Science Fair Components

There are four components to the science fair: written paper, log book, display, and interview. The interview Students may work alone or with one partner to complete this project.

Written Paper

All papers must be saved as .doc and submitted electronically on BHS computers. You must save the paper with your teachers' names (English and science) and your name. Everyone must use the same naming convention, and must submit their own paper even if two people worked on the project together. For example, Jane Smith and John Doe are working together on their paper. Jane has Mr. Nichols for science and Mrs. Baldwin for English. John has Mrs. Everett for science and Mrs. Betts for English. Jane would save her paper as: Nichols_Baldwin_Smith_Jane.doc. John would save his as Everett_Betts_Doe_John.doc.

The paper should be printed on 8.5 x 11 paper. The paper must have 1" margins. Font size must be 12 using Times New Roman font. The APA style recognized citation system should be used throughout the report. The paper should have the following sections:

Title Page: Your title page should be a precise description of the work performed. The title page should include the title of your project, your name, grade, science class, and teacher name. This should be all that appears on this page. The title itself should be no more than three lines with a 15 word maximum. All numbers, chemical elements, and compounds should be spelled out. All words should be capitalized except for articles, prepositions, and conjunctions unless they are the first word of the title.

Abstract: An abstract is a brief summary of your paper, which concisely describes your purpose, methods, results, and conclusion. Do not include the title in the abstract. Your abstract may include potential research applications or future research. The abstract should not contain cited references. It should be 150 to 250 words and in paragraph form. Arrange your points 1) Purpose 2) Procedure 3) Conclusion.

Introduction: The introduction answers the question "Why was the work done?" Provide background on your subject in several paragraphs. All of your research is included in this section. The introduction should clearly state the problem that justifies conducting the research, the purpose of the research, the findings of earlier work, and the general approach and objectives. You must cite sources for statements that are not common knowledge. The last paragraph of the introduction includes your hypothesis and the goals of your project.

Materials and Methods: A well-written materials and method section will enable others to reproduce your results by duplicating your study. Write in past tense,

third person, encompassing all of the materials required and explaining the technical and experimental procedures employed. Include any statistical procedures employed. Also, explain where and under what conditions your experiment was conducted (outside, inside, refrigerated, room temperature, etc.).

Results: This section should be a summary of the results your project has produced, even if they were not what you expected. Do not include discussion or conclusions about the data (no opinions, just facts). Tell the reader exactly what you discovered and what the patterns, trends, or relationships were observed. Decide on the most meaningful way to present your data (figures, tables, graphs) and include them in your paper.

Discussion and Conclusion: In this section, draw conclusions from the results of your study and relate them to the original hypothesis. It is helpful to briefly recap the results and use them as a foundation for your conclusions. If you results were not what you expected, take this opportunity to explain why. Give details about your results and observations be elaborating on the mechanisms behind what happened. Tie your results in with your research, but do not hesitate to offer sound reasoning of your own. Finally, give suggestions about how you would modify or extend the project in the future.

References: Only significant, published, and relevant sources accessible through a library or an information system should be included (no wiki, facebook, blogs, etc.). All citations in the text must be included in the reference section. When you use information or facts that are not common knowledge, you must give credit to the source of that information by citing a reference. You should use the APA style recognized citations system throughout your report.

Acknowledgements: Acknowledge anyone who helped in any aspect of your project in this section, and include how they helped.

Logbook

Your logbook is one of the most important pieces of your project. It will contain accurate and detailed notes of a well-planned, implemented project. Your notes should be a consistent and thorough record of your project. These notes will be your greatest aid when writing your paper. A template will be provided.

Display

The display should be a condensed version of the formal report. See the display board rubric for details and grading criteria.