

Science Fair Project – Display Piece, Composition Book/Journal, and Binder. Due November 18 (A) or November 19th (B).

Order and Explanation of Binder and Display Piece

(See Additional Handout for the location or order of Items listed below for the Display Board or PowerPoint)

Title: “The Effects of Differing Plant Foods on Plant Growth.”

A title page should be included in your binder and should be the first page viewed. It should include your name(s), due date, teacher’s name, and class period. This should also be the first slide if you have chosen a PowerPoint.

Table of Contents: Provides the Order and Organization of the Binder and PowerPoint

(Include only in Binder and PowerPoint)

Abstract: A summary of your project that should be a paragraph (1/2) page in length, approximately 250 words. In your abstract you should include: A) Purpose of your experiment, B) Procedures used, C) Data, and D) Conclusion. Any possible research applications can also be included in this section.

Problem or Purpose: A brief statement or a question as to what you are trying to do. Ex.: “Will a painted model rocket have less drag than a rough, unfinished model rocket?”

Identification of the Independent and Dependent Variables

Hypothesis: This is your “Educated Guess” as to the results of your test / experiment. Ex.: “If a painted model rocket and a rough unfinished model rocket are launched at the same time, then the painted model rocket will reach a higher altitude because it will have less drag.” <Your hypothesis must include the words, “if, then” and “because.”

Safety: Procedures and materials that were used for

Materials: What supplies you used in performing the experiment, listed in a vertical column.

Procedure: Create an organized list of the steps taken in performing your experiment. You should be able to conduct the experiment if read.

Results/Data Analysis:

- A. Data Table(s) – Record all data in a neat, orderly way. Label all data clearly, space things out, don’t try to cram everything into one small space. Give all data tables a title.
- B. Charts/Graphs. Make them an appropriate size, label all axes and give each graph a title.
- C. Photos/Video: If you are using a PowerPoint then video can be used in addition to or in place of photos.
- D. Calculations. Present calculations made in a neatly typed format, with title.

Analysis: Analyze and explain data gathered. Outline relationships between variables tested

Discussion: Where you compare your results with your background research and what results you expected to achieve. Also include any possible errors or challenges that needed to be overcome in order to do the project. Explain how the data varied from one trial to the next and explain if the results obtained were similar between trials or different and explain why the results varied between trials if they did. Explain what you would do differently if you repeated this experiment again and also include what other experiments that could be conducted to follow up on your experiment.

Conclusions: Restate hypothesis. Cite your experimental data in accepting or refuting your hypothesis. Discuss real world applications for your experimental results and discuss why you chose your project.

Journal/Composition Book: Frequent data entries are made and all data collected is included. All calculations, rough drafts of graphs and tables are also included in the journal. Rough drafts of Discussion and conclusion should also be written here first and then perfected. Individual notes of any problems issues and solutions reached and reflections should also be present. (Binder Only and should be secured with your name on the front and inside as to not become misplaced)

Bibliography: Formal method of crediting sources (for format see handout given with research notes. Is neatly typed along with the old bibliography that was attached to the research plan and any necessary corrections have been made. (Binder and PowerPoint: should be the last slide that includes acknowledgements below)

Research Plan and Background Research: To be placed in the back of the binder after the acknowledgments. (Binder Only)

All approval paperwork and human subject forms that was required should also be included in the binder

Rubric should be included in the binder (5 point deduction will be applied if not included)