

Science Project *Suggested* Time Line and Directions

Final Copy is DUE November 30th
MANDATORY BACKBOARDS ARE DUE November 30th

There are NO GROUP PROJECTS. Each student must make their own individual project.

Ongoing

Science Journal/Project Log:

This is a hand written journal that you keep detailed notes in.

(Ex: dates, materials, procedures, measurements, observations, data, conclusions etc.)

You use this journal to type your final copy.

Project Log Requirements

1. Obtain a composition or spiral notebook to be used as a Project Log. This is where you will record your progress. Everything you do should be recorded in your own hand writing in rough draft to show evidence and proof of your process. Valuable organizational tool.
2. The front of the project log should have your full name and the title of the project.
3. The project log must contain rough drafts of your experimental design.
4. The project log must contain rough drafts of data table and data recorded at the time of the experiment.
5. At least 5 observations must be recorded while performing experiment.
6. The experimental set-up must be documented in the project log with a sketch signed by an adult who observed the experiment or by photographs of you doing the project.

Question, Plan, and Hypothesis: (10 points)

October 12th

- What question do you want to answer?

“What effect does _____ (independent variable) have on _____’s _____? (dependent variable)”

- How do you plan to answer the question?
- Hypothesis shows cause and effect.

“If _____ (independent variable) changes, then _____ (dependent variable) will _____ (type of change such as increase, decrease, or stay the same).”

Research Log: (15 points)

October 19th

Must have a bibliography (you can use www.easybib.com for help) with at least 3 references and 1 page of research pertaining to the topic OR at least 25 background facts from 3 different sources including the website www.societyforscience.org/ISEF/.

Procedure and Materials: (15 points)

October 26th

Detailed steps of the procedure are written and can be easily replicated.
(Number and list every step necessary to complete your experiment.)
Detailed list of materials and amounts used (Metric)

Controls and Variables: (10 points)

October 26th

Identify the following:

Constants (The parts of the experiment that stayed the same.)

Ex: amount of soil, water, sunlight, seeds etc.)

Dependent (Outcome) Variable and **Independent (Test) Variable**

Control Group (The group that was not manipulated.)

Safety Procedures (These are written procedures to ensure that this experiment was conducted in a safe manner. ex: gloves, goggles, parental supervision.)

Experimentation/Data and Results: (20 points)

November 16th

Data tables and graphs are in metric units and relate to hypothesis (Minimum of 5 Trials)
Explain your data and justify your results

Conclusion: (15 points)

November 16th

Analyze your data and use it to draw conclusions

Defend why your results supported or did not support your hypothesis

Relate your project to the real world

Did you have any problems with experimentation? (Sources of error?)

Abstract: (15 points)

November 16th

This is a summary (250 words or less) of your project and must include:

Purpose

Procedures

Data (no graphs)

Conclusion

Final Copy: (100 Points--total from all parts above) November 30th

This is a final and typed copy of all above components.

BACKBOARD IS WORTH 200 Points

***See attached sheet with backboard instructions.**

November 30th

Completed Board, Research Log, and Science Journal:

Board must display at least these key components:

(Question, Plan, Hypothesis, Experimentation, Procedures, Data, Results,
Conclusion, Abstract)

It must be neat, organized, spelled correctly, and grammatically correct.

Research Log

Science Journal

***** THE ENTIRE SCIENCE FAIR PROJECT IS WORTH 300 POINTS. See above breakdown of points.**

*All forms and rules can be accessed at: www.societyforscience.org/ISEF/

***Additional Information for Consideration for Science Fair
MANDATORY Backboards are due November 30th***

Refer to Intel Science Fair website for forms and guidelines:

www.societyforscience.org/isef

Abstract Guidelines

1. An abstract is a brief summary of your entire project. This is one of the most important things the judges will use to understand your project. Do not begin writing the abstract until your experiment is complete and you know your results and conclusions.
2. The abstract should be a **one-page typed description of the project** (less than 250 words).
3. Must include a final draft three paragraph summary:
 - a. 1st paragraph – tell **what you did and why** in your own words (this is a summary of your problem, purpose and hypothesis)
 - b. 2nd paragraph – brief narrative description of **how you did your experiment** (paragraph explanation of basic procedures)
 - c. 3rd paragraph – description of **what happened in the experiment, why it happened, how it related to your hypothesis, and what you learned** (summary of your results, data, and conclusions)
4. Abstract must be written in the correct format with the following information in the top left corner:
 - a. TITLE (name of your experiment written in all capital letters)
 - b. Name: your last name, first name, and middle initial (if you worked with a partner list name on next line)
 - c. School: River Ridge Middle School

Science Fair Entry Requirements

(must be completed if you want to be considered for science fair)

1. Include final copy of all parts of project, experimental design, and research (including the bibliography.)
2. Include Project log/journal with all rough draft research, data, and observations
3. Backboard Display:
 - a. Create a colorful, neat, and well-organized three-sided display. This is the first thing the judges will see and it will have a huge impact on the impression your project makes. You may make a backboard, buy one at a local store, buy one from school for \$5.00, or borrow a used one to recycle.
 - b. Display **MUST HAVE ABSTRACT MOUNTED IN BOTTOM LEFT CORNER.**
 - c. Display should include: Problem, Purpose, Hypothesis, Materials, Procedures, Results (final draft graph), Conclusion, Extension and photographs or sketches showing results.
 - d. Display may be decorated with designs or pictures that enhance your project theme.
 - e. Display should be eye catching and professional looking.
 - f. No living tissue, bacteria, or chemicals may be on display.
 - g. Models may be displayed if needed to explain procedures or results.

If your project is selected, the school Science Fair is Thursday, December 6th.