

Science Fair Due Dates 2023-2024 School Year

NFC Science Resource Website: www.NFC-science.org

1. Topic Proposal (“Getting Started”) **Steps 1, 2, and 3 due Wednesday, August 30, 2023**

2. Problem/Purpose

- What is your goal?
- What idea are you trying to test?
- What is the scientific question you are trying to answer?

3. Background Research and Bibliography

Bibliography (2-3 sources including the ISEF website to start, more sources due later)

Research Plan Rough Draft (handwritten) due September 13 (go over 1A instructions)

4. Hypothesis

Steps 4, 5, and 6 due Wednesday, September 20

- Make a prediction regarding the outcome of your experiment.
- State the results you are predicting in an “If / Then / Because” statement.
- State the results you are predicting in measurable terms.

5. Project Procedures and Materials

- Give a detailed explanation of how you will conduct the experiment to test your hypothesis.
- List all the materials and equipment you will use in the experiment.
- Be clear about the independent variable (element of the experiment that changes to test your hypothesis) and your controls (element of the experiment that you do not change.)
- Be very specific about how you will measure the results of experiment. Include a regular timetable for measuring results or observing the projects (for example: every day / every 6 hours / every week.) **All measurements must be in metric form.**
- Your procedure should be like a recipe so that another person would be able to perform your experiment following all procedures.
- Safety procedures and Material Safety Data Sheet Information (MSDS) must be strictly followed and included with your research if working with any product or equipment that carries a warning label or specific instructions on use of the equipment or product. (For example: fertilizer, bleach, oil, paint, welding equipment, etc.)

6. Research Plan and Parent Approval– Forms 1, 1A (including R. Plan), 1B (all typed)

- Use **blue ink** for signatures (1B). (This is to identify an original form from a copy.)
- **Also, turn in any additional forms your adult sponsor (teacher) has requested at this time.**

7. State Forms for Project Approval

Step 7 due Wednesday, September 27

- **Students may not begin any project until it has been approved by their science teacher.**
- Students are required to fill out all required state forms as related to their project.
- Science teachers will help all students fill out the basic required forms. Students whose project may require additional forms will be guided on how to get this done.
- Students doing projects on humans or vertebrate animals must obtain the help of a qualified scientist, ie. doctor, veterinarian, psychologists. This scientist must approve the project, fill out and sign the appropriate forms, and mentor the student. (The ISEF has very strict guidelines when it comes to experimenting on/with humans and animals.)

**** (Any additional required Forms such as form 2, 3, 4, etc.)**

8. Observations / Data / Results (Working Log) Step 8 to be completed before going to steps 9-11

The Working Log and 1 page Research Paper should be completed. This will be turned in with your final Project Notebook (please see Steps 9-11 below). Please let your teacher review the working log at the end of October 21. The next 10 days should be used to prepare a project display and organizing the presentation materials in your final notebook due at the beginning of November

*This is **THE WORKING LOG**:*

- Keep a detailed record of your observations, data, and results in your working logbook. (hand-written notes) Your log should contain all measurements (**quantitative data**) and **written notes** about what you picked up with your senses (**qualitative data - descriptions**) in your experiment. The working log **IS NOT** your final notebook (see below). The conclusions to your log will be typed up (Charts/Graphs) and included in the final notebook. But you must also turn in the handwritten log to prove your work.
- Any Photographs of the results from your project should be placed in a Ziploc bag and stapled into the back of the final notebook.
- Please avoid having any pictures of people in your photographs including yourself.
- Please see the ISEF rules on photographs) www.NFC-science.org/formsrules.html
- **Complete appropriate graphs and place them in your science project folder to represent your quantitative data. Charts can be done to represent the qualitative data**
- **A one page research paper should be included in your notebook. This is researching on the topic and a short paper explaining the experiment.**

9. Conclusion

Steps 9-11 due at final turn in listed below

- Answer your problem/purpose statement.
- What does it all mean? What is the value of your project?
- Explain your observations, data, and results. This is a summary of what your data has led you to discover.
- Was your hypothesis correct? Did your experiment prove or disprove your hypothesis?
- Why did the results occur? What did your experiment prove?
- What further study do you recommend given the results of your experiment? What is the next question to ask?
- If you repeated the project, what would you change?

10. Abstract

- An abstract is a brief, written explanation (about 250 words) of your research project, consisting of a description of the project's purpose, the procedures followed, the data collected, and the conclusions reached.

11. ***Display Board / Class Presentation/Notebook (with working log) Nov 7, 2023**

- Students will prepare a tri-fold board that is a representation of the research conducted over the past several weeks/months. The Notebook will be a binder of the items that are on display. Please see the detailed instructions covered in class on our science resource center website. Click on the tabs for "Notebooks" or "Displays" located at the top of the home page.
- Students will give a 2-3 minute verbal presentation to the class explaining their project.
- After all presentations have been made, teachers will grade the projects and notify those who will compete at the school fair.

- ❖ Steps 1, 2, 3*** 4, 5, 6** 7 will count as Quiz grades.
- ❖ Steps 8-11 count as 2 Test grades. (Final Display, Notebook, and Working Log.
- ❖ Participation in the NFCS science fair can count as an additional test grade.

❖ NFCS Science Fair – TBA (November) Week of Nov 13

❖ Capital Regional Competition (FSU) (TBA)

Note: Please use the following websites for reference

❖ **Capital Regional Science & Engineering Fair**

○ <http://www.crsef.org/>

❖ **MLA Format:**

○ <http://owl.english.purdue.edu/owl/resource/557/01>

❖ **NFC Science Fair Resource Center website** www.NFC-science.org