



# Science Fair Guide

## Grades 6–7

---



### TYPES OF PROJECTS

**Experiment:** An investigation undertaken to test a specific hypothesis.

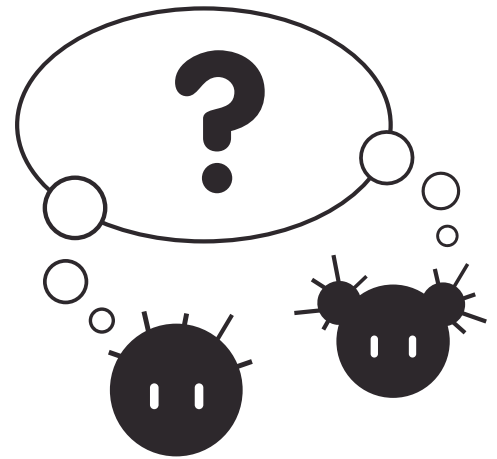
**Innovation / Invention:** The development and evaluation of innovative devices, models, techniques or approaches in technology, engineering, or computers.

**Study:** A collection and analysis of data to reveal evidence of a fact, situation or pattern of scientific interest. It could include a study of cause and effect relationships or theoretical investigations of scientific data.



### HOW TO DO A SCIENCE PROJECT

1. Select a topic that interests you
2. Collect all the materials you need
3. Design a flowchart showing how you will do the project and have it approved by your teacher
4. Do the experiment/invention/study
5. Collect the data and organize them into a table, graph, etc.
6. Write your conclusion
7. Design and assemble the backboard
8. Prepare a written report
9. Prepare a presentation



### MORE DETAILS ABOUT THE PROCESS

**Research your Topic:** Read books from the library; observe related events; gather existing information; look for unexplained or unexpected results. Talk to professionals; write to companies; and obtain or construct needed equipment.

**Organize and Theorize:** Organize your research. Narrow down your hypothesis by focusing on a particular idea.

**Plan your Experiment, Innovation or Study:** Draw a flowchart to explain how you will do your experiment.

**Consult your Teacher/Supervisor:** Discuss your work and timetable with your teacher on an ongoing basis.

**Conduct Your Experiments, Study or Innovation:** Keep detailed notes of every experiment, measurement, and observation. Change only one variable at a time when experimenting. Include control experiments in which none of the variables are changed. Include sufficient numbers of test subjects in both control and experimental groups.



**Examine Your Results:** When you complete your experiments, examine and organize your findings. Did your experiment give you the expected results? Was your experiment performed with the exact same steps each time? Are there other causes that you had not considered or observed? Were there errors in your observations? If possible, analyze your data statistically.

**Draw Conclusions:** Which variables are important? Did you collect enough data? Do you need to conduct more experimentation?

### THE SCIENCE FAIR

The First Annual  School Science Fair will take place on , . From  to  you will present your project to students, VIPs, teachers, parents and other family members. The award ceremony will then take place from  to .

### Dates to Remember

- Project Management Timetable Meetings
- Science Celebration. VIP interviews, Public Viewing, Awards Ceremony, Written Report Due