

## What is a Science Project?

A science project is an investigation using the scientific method to discover the answer to a scientific problem. Before starting a project, students need to understand the scientific method because it is the “tool” that scientists use to find answers to questions. It is the process of thinking through the possible solutions to a problem and testing each possibility to find the best solution. The scientific method involves the following steps:

- Identifying the Problem
- Collecting Information About the Problem
- Stating a Hypothesis
- Conducting an Experiment
- Recording and Analyzing the Data
- Reaching a Conclusion

**A Completed Science Fair Project  
Consists of Three Major Parts:**

**A Project Notebook  
A Research Logbook  
A 3-Sided Display Board**

## Seven Steps to a Science Fair Project

### 1. **Select a Topic:**

Choose something you are interested in and that you want to learn more about. Talk to teachers, parents, or librarians about ideas. Don't forget to look through science books, magazines, visit zoos, or museums. A hobby might lead to a good topic.

Establish a purpose for your project. The purpose is a description of what you plan to do. You must also explain why you want to do this or explain how the results of the experiment will help our society.

### 2. **Research your topic:**

After the topic has been selected and approved by your teacher, start the research process. Encyclopedias will provide an overview of your topic, but go beyond that and collect information from books and magazines. Contact experts that might be able to supply additional information. Keep notes with reference sources for use in your research paper.

### 3. **Make a hypothesis:**

The hypothesis is an educated explanation as to what you think will happen AND why. Use “If... then... because...” to explain your hypothesis. Do not use “I think...”

### 4. **Experiment:**

Plan, organize, and conduct an experiment. Perform the experiment under controlled conditions. Keep careful records in a special notebook that is used only for this project.

Use a composition book to keep a research log of everything you do for the project. Don't forget to record dates and times. Record everything using an ink pen.

### 5. **Research Paper/Review of Literature:**

This report will provide interested readers with a comprehensive look at your topic and research. It includes information about the topic that was collected during your research.

This information will be included in your Project Notebook along with a description of your experiment, data, and conclusions.

### 6. **Exhibit/Three Sided Display:**

This is a neat and organized visual presentation of your project so prepare it carefully. Use graphs, charts, pictures and clear bold lettering to highlight this display.

### 7. **Judging:**

Plan how you will explain your project to the judges. Look neat and speak clearly.