

## Which Type of Project?

The judging of scientific thought requires special attention. One important consideration is the existence of different types of projects. The most common types of science fair projects are Experiments, Studies and Innovations. Many projects will contain elements of two or three project types. Projects of each type are equally capable of winning top awards at the Fair, providing they meet the necessary criteria.

### An Experiment or Investigation

Projects of this type should involve an original scientific experiment to test a specific hypothesis in which the student recognizes and controls all significant competing variables and demonstrates excellent collection, analysis, and presentation of data. The judge should also realize that it is not essential that the project produce a significant positive finding. It is the design rather than the results that is most important.

Example question: How does \_\_\_\_\_ affect \_\_\_\_\_?

**Example:** Determining whether or not a cereal contains the amount of iron per serving listed on the box.

### A Study or Research

This type of project involves the collection and analysis of data from other sources to reveal evidence of a fact, situation or pattern of scientific interest. This could include a study of cause and effect relationships or theoretical investigations of scientific data. The data may be obtained from other sources rather than being collected by the student.

Projects in this area must be able to demonstrate that the methods originally used to obtain the data are based on sound scientific techniques and controls, and demonstrate insightful analysis.

Example question: What type of relationship exists between \_\_\_\_\_ and \_\_\_\_\_?

An example would be polling people to ask about their belief [in global warming](#), then drawing conclusions about what the results mean for policy and research.

### Model

This type of science project involves building a model to illustrate a concept or principle.

**Example:** Yes, one example of a model is the Volcano and baking soda, but you can have an incredible high school or college project by building a model of a new design or a prototype for an invention. In its best form, a project with a model illustrates a new concept.

### An Innovation

A project of this type would involve the development and evaluation of new devices, models, techniques or approaches in fields such as technology, engineering or computers (both software and hardware).

2020  
Quinte Regional Science and Technology Fair  
Expo-sciences régionale de Quinte



Projects should integrate several technologies, inventions or designs and construct an original innovative technological system that will have commercial application and/or human benefit. It must demonstrate how the innovation was designed or developed on the basis of a sound understanding of the scientific, engineering or technological principles involved.

Example question: In what way could \_\_\_\_\_ improve the performance of \_\_\_\_\_?

### Collection

This science project often displays a collection to illustrate your understanding of a concept or topic.

**Example:** As with the demonstration, model, and research project, a collection has the potential to be a poor or an exceptional project. Certainly, you could show off your butterfly collection, but that alone wouldn't win you any prizes. Rather, use the butterfly collection to observe how wing lengths of the insects differed from year to year and look into possible explanations for the phenomenon. For instance, discovering a correlation with pesticide use or temperature or precipitation with butterfly populations could have important (scientific) implications.

Many or these types of science fair projects can be combined or overlap each other.

Reference and quotes: <https://www.thoughtco.com/types-of-science-fair-projects-609083>