Science Fair Project Guidelines

Step 1: Ask the Big Question.

What are you curious about? Make your question very specific.

Example:

☐ What is the effect of ____ on ______?
☐ How does the ____ affect _____?

There is no right answer to the Big Question. The purpose of the science fair project is to ask questions and perform experiments in an attempt to find answers.

Step 2: Once your big question is written you are ready to write your Hypothesis.

A hypothesis is an educated guess or prediction of what you think will happen. What makes this section so much fun is that there is no right or wrong solution to the problem. What you think is the answer to the question.

A good hypothesis takes the form of "If I do this, then that will happen." For example... I hypothesize that flower seeds fed an organic natural fertilizer will germinate faster than those that are fed a synthetic chemical fertilizer.

Even if your experiment produces different results from your hypothesis statement, do not change your statement.

Step 3: Preparation and Materials

Discuss with your parents and meet with your teacher. Bring your ideas. Here are some questions to discuss:

• Can my Experiment project be completed within the time allotted?
• Cost of completing the project: is it too expensive? Do you need special equipment?
• Is the design of the experiment effective?
• Are the effects measurable in an objective way?
• Does the project violate any state or federal laws pertaining to scientific research?

After your teacher approves your Experiment, and your parent approves, it is time to go shopping. Now is the time to write a shopping list on another piece of paper and purchase your science fair supplies. If you need to add to the list, do so in your science log and on your shopping list.
Step 4 Carry Out Experiment; Observe and Record Data
Here comes the fun stuff.
You finally get to do your experiment. Be sure to keep an Experiment Log --- you’ll need to write down your observations. Also, be sure to include photographs of your experiment in each part of the process, so you’ll need to keep your camera close. Write down the procedures (steps you took to do your experiment) in your Experiment Log.

Step 5: Interpret your data.
Look at all of the information you gathered. Organize it so that it makes sense. You may want to use charts or graphs, if needed. Report your results.

Step 6: What is great about doing a science fair experiment is that there is no right or wrong answer. All you do is observe then draw conclusions.
Look back at your hypothesis. Does the data you gathered prove or disprove your hypothesis? Why do you think you got the results that you did?

Step 7: Arrange Your Display
Your project should be presented on a tri-fold backboard, available at most office supply stores.
Headings that should be included on your display are: a title, your question, your hypothesis, preparations and materials, procedure, data and observations, and conclusion.
Place your project title and question in the center board in large letters. Your data may also be placed in the center board under your title. The data can be in the form of graphs, charts, pictures, or tables.
The hypothesis, materials, and procedure headings and information may be listed on the left section of your science project display board. To save space, the materials and procedure can be described under a single heading called experiment.
The observations and conclusion may be listed on the right section of the display board. Be sure to include your Science Log --- it may be attached to the display board or separate.