

## Your Science Fair Project Question

The question that you select for your science fair project is the cornerstone of your work. All science fair projects revolve around asking and answering a question. Once you ask the question, the research and experiment you will be conducting all revolve around finding an answer to the question you are asking. It is important to select a question that is going to be interesting to work on for at least a month or two. Your question must be specific enough to allow you to find the answer with a simple experiment. A good experiment does not need to be fancy and difficult. A scientific question usually starts with: Who, What, When, Where, Which, Why, or How.

Here are some characteristics of a good science fair project question:

- The question should be interesting enough to read about in books or the internet, AND work on for the next couple months.
- There should be at least 3 sources of written information on the subject. You will want to be able to include books, the internet, and other sources.
- The experiment should measure changes to a single factor called variables. You will need to measure the difference of something or the factor that is present or not present (your variable). For example, lights ON in one trial, then lights OFF in another trial, or USE fertilizer in one trial, then DON'T USE fertilizer in another trial. If you can't measure the results of your experiment, you're not doing science!
- You must be able to control other factors that might influence your experiment, so that you can do a fair test. A "fair test" occurs when you change only one factor (variable) and keep all other conditions the same.
- Is your experiment safe to perform?
- Do you have all the materials and equipment you need for your science fair project, or will you be able to obtain them quickly and/or for a very low cost?
- Do you have enough time to do your experiment before the science fair? For example, most plants take weeks to grow. If you want to do a project on plants, you need to start very early! For most experiments you will want to allow enough time to do a practice run in order to work out any problems in your procedures.
- Does your science fair project meet all the rules and requirements for your science fair?
- Have you avoided the bad science fair projects listed in the table below?

These are examples of good science fair project questions:

How does water purity affect surface tension?

When is the best time to plant soy-beans?

Which material is the best insulator?

How does arch curvature affect load-carrying strength?

How do different foundations stand up to earthquakes?

What sugars do yeast use?