

Choosing a Topic

Choosing a topic is the most important, but often most difficult, part of the science fair process. Don't be too picky, and don't pick a lame question to which you already know the answer. The success of your project depends on this one testable question!

1. ⁱLook at lists of **science categories**ⁱⁱ and pick a few that you are interested in.

<i>Category</i>	<i>Sub-category</i>	<i>Description</i>
*Astronomy		Study of stars, planets, and other objects in space
Biology		Study of living things
	*Anatomy	Study of structure of plants and animals
	*Behaviorism	Study of relationships between organism and environment
	Botany	Study of plants and plant life
	Ecology	Study of relationships of living things to other living things
	*Genetics	Study of the methods of inheritance in living things
	Microbiology	Study of microscopic organisms (fungi, bacteria, protista)
	Physiology	Study of life processes (respiration, circulation, metabolism)
	*Zoology	Study of animals, including their structure and growth
Earth science		Study of the earth
	*Geology	Study of the earth, including composition and history
	*Meteorology	Study of weather, climate, earth's atmosphere
	Oceanography	Study of oceans and marine organisms
Engineering		Application of scientific knowledge for practical purposes
Physical science		Study of matter and energy
	Chemistry	Study of chemicals and how they change and combine
	Physics	Study of forms of energy and laws of motion
	- electricity	Study of movement of electric charges
	- energy	The capacity to do work
	- gravity	The force that pulls an object towards the earth's center
	- machines	Devices that make work easier
	- magnetism	The attractive or repulsive forces between magnetic poles

NOTE: The categories marked with an asterisk (*) may be difficult because they either do not lend themselves easily to testable questions or because they involve the use of animals, which is highly regulated by Massachusetts science fair rules.

2. Use **your experiences** Remember a time you noticed something and thought "I wonder how that works?" or "I wonder what would happen if..." then turn that into a project.
3. Check the science section of the school **library**. Browse and look at book titles, then look inside the ones that look interesting to you. Also thumb through encyclopedias and magazines. Good magazines for ideas are: *National Geographic*, *Discover*, *Omni*, *Popular Science*, *Popular Mechanics*, *Mother Earth News*, *High Technology*, *Prevention*, and *Garbage*. Perhaps go to the Boston Public Library.

4. Think about **current events**. Look at the newspaper. People are hungry in Africa because of droughts - a project on growing plants without much rain, which types grow well with little water? Or the ozone hole over Antarctica - how can we reduce ozone? -a project on nonaerosol ways to spray things. Or oil spills. how can we clean them up? -a project on how to clean oil out of water.
5. Search the **web**. There are many sites sponsored by schools that list current and previous ideas. Be careful that you don't just steal a question from the list, but add a new element to it. Also, not every question listed here is a good one. Your teacher has the final say. You can visit the links on <http://www.mrkb.com>.

BRAINSTORMING WORKSHEET

Tear off and hand to your teacher

List three main topics you are interested in:

1.
2.
3.

List any other ideas you would like to explore, or specific questions you already chose:

NAME _____

ⁱ Modified from Yvonne Karsten's article on CyberFair, found at <http://www.isd77.k12.mn.us/resources/cf/ideas.html>

ⁱⁱ Taken from [Guide to the Best Science Fair Projects](#) by Janice Van Cleave: John Wiley 1977.