Special Circumstance Projects

One of the goals we have for our students with their research projects is to share what they have accomplished at the district STEM fair. Because our district is affiliated with the International Science and Engineering Fair, we have some stringent but necessary guidelines to follow and forms to fill out. The following are some guidelines you need to be aware of before you choose your topic/experiment:

Projects Involving Bacteria:

If your project involves bacteria you MUST have official lab space in which to keep your samples. It is best to purchase specific cultures of bacteria rather than collect samples from the environment. If you do collect bacteria from the environment it is considered pathogenic and safe processes must be used when handling the cultures. A microbiologist (or someone knowledgeable on the safe handling of bacteria samples) MUST be used as a mentor. Any project involving bacteria must get PRIOR approval by the Scientific Review Committee, SRC. You CANNOT start a bacteria experiment until this committee approves your project. These are difficult projects!!

Projects Involving Human Subjects:

If your project involves human subjects - even if you are just going to ask survey questions - you need PRIOR approval from the Institutional Review Board, IRB. In order to get approval from the IRB you will need a mentor who has experience in human behavior such as a psychologist, sociologist... For human projects a minimum number to test is 200 people. (see pages 19-20)

Projects Involving Chemicals:

If your project involves using any chemicals you will need a copy of the “Material Safety Data Sheet” for each chemical used.

Projects Involving Firearms:

If your project involves firearms your mentor needs to be someone who is gun safety certified.

Projects Involving Animals:

Projects involving animals (anything “higher up” than insects) are not allowed by our school district. If your project involves insects you will be required to include steps for disposal of the insects when you are finished with the project. So, think of a sciencey way to say “smoosh the insects”.