

Science Fair—Things to DO and NOT TO DO

The science fair projects that do not score too well.

- 1. Projects that measure things like “which brand of bullets shoot better”; “which brand of arrow penetrates deepest”.**
- 2. Projects that test the “bounciness”, or “goodness” of items like baseballs, golf balls, basketballs, etc.**
- 3. Some “canned” projects.**

Most of these products have been tested thousands of times by the manufacturer.

The science fair projects that score better.

- 1. Projects that require the acquisition of original data. These could include :**
 - A) Projects that require growing something under controlled conditions. There should be a control group and an experimental group. Data are taken at regular intervals. The data are then used for statistical analysis.**

B) Projects that compare different physical or chemical factors, such as soils, or nutrients.

C) Projects that deal with environmental factors, such as water, air, dust, soils, etc.

2. Engineering projects are often not too well received at the middle school level. Why?

Engineering projects are usually well received at the regional level.

A) These projects often need the construction of special equipment.

B) These projects usually test the design of something (which requires original thinking).

3. What to be prepared for at the Regional level.

A) Be prepared for oral questions like:

**i) “Where did you get the idea for this project?”
Your own ideas score better than canned ideas.**

ii) Might get ideas from newsworthy newspaper articles, magazines, science news, etc.

B) Explain the procedure. What did you do? How did you conduct this experiment?

i) This may be an oral question, and it should also be explained in the write up.

ii) The project should be based on some scientific principle.

4. Do the statistics, so that you can justify whether your experiment is valid or not.

A) Bar and line graphs are ok, but an additional statistical parameter makes the project even better.

B) Consider additional statistical parameters such as Chi square analysis, or Pearson r. Most of these are now common programs, and data is loaded onto a spreadsheet. The science advisor might help with this aspect.

5. Be sure to have the proper paperwork completed.

A) This includes the release statement and the forms furnished to the science advisor.

6. Be sure the project is entered into the correct category at the regional level.

A) If not, the project may be disqualified, or not rated like it should.

7. A place for ideas.

A) <http://www.ed.gov/free> A lot of free stuff for the classroom.

8. Remember, you want to design a project that has application to new innovation; can lead to new discoveries; or for the betterment of society.