

JUDGING CRITERIA & NOTES

The information provided below is offered as guidance in the judging process. The first summary, "What Are We Judging?" is a narrative prepared by ISEF.

WHAT ARE WE JUDGING?

We are judging the following:

- The quality of the work done on a project in science, engineering, or mathematics by a student, and how well that student understands the project and the area in which he or she has been working. Only secondarily are we evaluating the physical display.
- A project that involves laboratory, field, or theoretical work, not just library research or gadgeteering.
- A student's work, and not that of a Ph.D. candidate or a professional. Sometimes, judges tend to overreact, either by giving them far more credit than they deserve or by acting as though the work done was worthless because it was not of Nobel Prize caliber.
- A project as compared with the other projects in the same category; not with projects seen elsewhere under other circumstances.

CRITERIA & SUGGESTED WEIGHING OF CRITERIA

Exhibits are judged on the following basis:

	<u>Individual</u>	<u>Team</u>
Creative Ability	30 points	25 points
Scientific Thought/Engineering Goals	30 points	25 points
Thoroughness	15 points	12 points
Skill	15 points	12 points
Clarity	10 points	10 points
Teamwork	-----	16 points

Creative Ability

Does the project show creative ability and originality in

- the questions asked?
- the approach to solving the problem?
- the analysis of the data?
- the interpretation of the data?
- the use of equipment?
- the construction or design of new equipment?

Obviously, no project will be creative and original in all aspects. Keep in mind that we are dealing with middle and high school students. It is important to try to ascertain the nature and extent of assistance the student may have received.

A student should not be penalized for having help from others. As professionals, we all receive help to some degree. Credit for creative ability and originality should be in regard to what the student has contributed and not for what others have done for him.

Scientific Thought

Does the project show

- the illustration and/or application of scientific principles and methods?
- accurate recording of valid observations?
- understanding of synthesis of scientific information?
- understanding and use of principles of experimental design (interaction of identified variables), methods, and results?

Skill

Does the student have the skills required to do the work necessary to obtain the project data? Laboratory skills? Computational skills? Observational skills? Design skills?

Where was the project done? Home? School laboratory? University or research laboratory? What assistance was received from parents, teachers, scientists, or engineers?

Was the project carried out under the supervision of an adult, or did the student work for the most part independently?

Where did the equipment used in the project come from? Did the student build it? Was it obtained on loan? Was the equipment part of an established laboratory?

Clarity

How clearly is the student able to discuss the project? Is the student able to explain its purpose, procedure, and conclusions in a clear and concise manner?

Has the student expressed the project clearly in the written material?

How well does the project display explain itself?

Are the important phases of the project presented in an orderly manner?

How clearly is the statistical data presented?

OTHER NOTES

Interviewing

Please interview each student assigned to you, even if you know the project may not merit special recognition. The judging process should encompass mentoring and counseling, as well as selecting award winners.

Judges' Conduct

When interviewing, judges should remember that the Fair is not only a competition but also an educational and motivating experience. The manner in which questions are asked, suggestions offered, and constructive criticism made, should be tactful and delivered in a way that provides encouragement for continued effort. It is always best to credit the student for having put forth the effort necessary to prepare and present a project that received recognition at his or her school fair.