Judging Criteria

A. Knowledge Achieved (Consider student's age and grade level)

1. Has there been a correct use of scientific terms? Does he/she understand these terms?

2. Is there evidence of an acquisition of knowledge (depth) though the research or has he/she merely acquired a manipulative technique?

3. Does he/she show evidence of knowing what the underlying principles(s) is (are)?

4. In brief, has he/she actually learning something through his/her study and research above and beyond his level of classroom work?

B Effective Use of the Scientific Method

1. Does the student have a clear-cut idea of the purpose of his/her project, or is it something thrown together and manipulated? While the mere assembly of a "kit" is frowned upon, there can be a definite research approach wherein there may be an effective use of the scientific method. However, it should not be the principal element of the display.

2. Is he/she aware of the other approaches or theories related to his/her problem or project?

3. Is there evidence of literary and/or experimental research?

4. Has he/she observed any basic phenomena?

5. Has he/she experimented sufficiently to have collected any data?

6. Has he/she analyzed his/her observations in logical manner and drawn valid conclusions?

7. Has he/she used an adequate sample to make generalizations?

C. Clarity of Expression

1. Can he/she orally explain his/her project and answer questions well? Discount a "glib tongue" but try to weigh evidence of nervousness. Watch out, however, for a memorized speech with little understanding of the principles.

2. Has the participant expressed himself or herself well in all written material, such as the abstract and research components? Consider that this material might have been copied or written by another person.

3. Is the physical display neat and sufficiently definitive?

4. Beware of misspelled words.

5. Does the research report include a literature review, experimental data, statistics, results, and conclusions? Does it follow an accepted form of technical reporting?

D. Originality and Creativity

1. Is the problem or the approach to the problem developed in a particularly significant or unique manner? It is true that the approach may not be new to the judge, but does the student show an enthusiasm that one less versed in the subject of phenomena might think it was “brand new”?

2. Has he/she a new approach to an old subject?

3, Has he/she a unique presentation or organization of materials?

4. The assembly of a "kit” may not be original or creative but again, it may be a new and unique approach to a problem and may economize on time and effort.

5. Is there evidence of initiative? Place a premium on the ingenious uses of available materials and handmade elements. Collections and manufactured apparatus can be creative if they are assembled and used to achieve, show, or prove a stated purpose.