

Judging Criteria for Science Projects

I. Research Question (10 pts)

- ___ clear and focused purpose
- ___ identifies contribution to field of study
- ___ testable using scientific methods

II. Design and Methodology (15 pts)

- ___ well designed plan and data collection methods
- ___ variables and controls defined, appropriate and complete

III. Execution: Data Collection, Analysis and Interpretation (20 pts)

- ___ systematic data collection and analysis
- ___ reproducibility of results
- ___ appropriate application of mathematical and statistical methods
- ___ sufficient data collected to support interpretation and conclusions

IV. Creativity (20 pts)

- ___ project demonstrates significant creativity in one or more of the above criteria

V. Presentation (35 pts)

- a. Poster (10 pts)
 - ___ logical organization of material
 - ___ clarity of graphics and legends
 - ___ supporting documentation displayed
- b. Interview (25 pts)
 - ___ clear, concise, thoughtful responses to questions
 - ___ understanding of basic science relevant to project
 - ___ understanding interpretation and limitations of results and conclusions
 - ___ degree of independence in conducting project
 - ___ recognition of potential impact in science, society and/or economics
 - ___ quality of ideas for further research
 - ___ for team projects, contributions to and understanding of project by all members

Judging Criteria for Engineering Projects

I. Research Problem (10 pts)

- ___ description of a practical need or problem to be solved
- ___ definition of criteria for proposed solution
- ___ explanation of constraints

II. Design and Methodology (15 pts)

- ___ exploration of alternatives to answer need or problem
- ___ identification of a solution
- ___ development of a prototype/model

III. Execution: Construction and Testing (20 pts)

- ___ prototype demonstrates intended design
- ___ prototype has been tested in multiple conditions/trials
- ___ prototype demonstrates engineering skill and completeness

IV. Creativity (20 pts)

- ___ project demonstrates significant creativity in one or more of the above criteria

V. Presentation (35 pts)

- a. Poster (10 pts)
 - ___ logical organization of material
 - ___ clarity of graphics and legends
 - ___ supporting documentation displayed
- b. Interview (25 pts)
 - ___ clear, concise, thoughtful responses to questions
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 - ___ quality of ideas for further research
 - ___ for team projects, contributions to and understanding of project by all members