

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
- ___ 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