

JUDGING RUBRIC FOR ALL SCIENCES(AP)(BE)(CH)(EA), HEALTH AND WELLNESS(HW), & PHYSICS, ASTRONOMY, AND MATHEMATICS(PM) EXHIBITS

1. RESEARCH QUESTION (10 points): clear and focused purpose, identifies contribution to field of study, testable using scientific method

Less Competitive / 1-2	Fair / 3-4	Good / 5-6	Very Good / 7-8	Superior / 9	Maximum Points 10	Points Earned

2. DESIGN AND METHODOLOGY (15 points): well-designed plan and data collection methods, variables and controls defined, appropriate and complete

Less Competitive / 1-3	Fair / 4-6	Good / 7-9	Very Good / 10-12	Superior / 13-14	Maximum Points 15	Points Earned

3. EXECUTION: DATA COLLECTION, ANALYSIS AND INTERPRETATION (20 points): systematic data collection and analysis, reproducibility of results, appropriate application of mathematical and statistical methods, sufficient data collected to support interpretation and conclusions

Less Competitive / 1-4	Fair / 5-8	Good / 9-12	Very Good / 13-16	Superior / 17-19	Maximum Points 20	Points Earned

4. CREATIVITY (20 points): project demonstrates significant creativity in one or more of the above criteria

Less Competitive / 1-4	Fair / 5-8	Good / 9-12	Very Good / 13-16	Superior / 17-19	Maximum Points 20	Points Earned

5. PRESENTATION/POSTER (10 points): logical organization of material, clarity of graphics and legends, supporting documentation displayed

Less Competitive / 1-2	Fair / 3-4	Good / 5-6	Very Good / 7-8	Superior / 9	Max Points 10	Points Earned

6. PRESENTATION/INTERVIEW (25 points): 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 and understanding of project by all members.

Less Competitive / 1-5	Fair / 6-10	Good / 11-15	Very Good / 16-20	Superior / 21-24	Maximum Points 25	Points Earned

TOTAL POINTS EARNED (100 maximum) >>>

JUDGING RUBRIC FOR ENGINEERING, ROBOTICS & COMPUTER SCIENCES(ER) & ENERGY AND ENVIRONMENTAL ENGINEERING(EE) EXHIBITS

1. RESEARCH PROBLEM (10 points): description of a practical need or problem to be solved, definition of criteria for proposed solution, explanation of constraints

Less Competitive / 1-2	Fair / 3-4	Good / 5-6	Very Good / 7-8	Superior / 9	Maximum Points 10	Points Earned

2. DESIGN AND METHODOLOGY (15 points): exploration of alternatives to answer need or problem, identification of a solution, development of a prototype/model

Less Competitive / 1-3	Fair / 4-6	Good / 7-9	Very Good / 10-12	Superior / 13-14	Maximum Points 15	Points Earned

3. EXECUTION: CONSTRUCTION AND TESTING (20 points): prototype demonstrates intended design, prototype has been tested in multiple conditions/trials, prototype demonstrates engineering skill and completeness

Less Competitive / 1-4	Fair / 5-8	Good / 9-12	Very Good / 13-16	Superior / 17-19	Maximum Points 20	Points Earned

4. CREATIVITY (20 points): project demonstrates significant creativity in one or more of the above criteria

Less Competitive / 1-4	Fair / 5-8	Good / 9-12	Very Good / 13-16	Superior / 17-19	Maximum Points 20	Points Earned

5. PRESENTATION/POSTER (10 points): logical organization of material, clarity of graphics and legends, supporting documentation displayed

Less Competitive / 1-2	Fair / 3-4	Good / 5-6	Very Good / 7-8	Superior / 9	Max Points 10	Points Earned

6. PRESENTATION/INTERVIEW (25 points): 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 and understanding of project by all members.

Less Competitive / 1-5	Fair / 6-10	Good / 11-15	Very Good / 16-20	Superior / 21-24	Maximum Points 25	Points Earned

TOTAL POINTS EARNED (100 maximum) >>>

