JUDGES' SCORING SHEET FOR PAPERS

Minnesota Academy of Science
JUDGES Score Sheet Paper Presentations

Name of Student: _____ Name of Judge: _____

Paper judging recognizes students for original research achievements in the sciences, technology, engineering or mathematics (STEM). The overall test is that students demonstrate valid investigation and experimentation aimed at discovery of knowledge. A total score of 30 points is assigned using the below scale. Rank each student's oral presentation using the following criteria and weights:

5 = Superior 4 = Excellent 3 = Good 2 = Satisfactory 1=Fair

Judging Criteria	Possible Points	Points Assigned
Statement and identification of research problem • Is the problem clearly stated? • Does the presenter demonstrate understanding of existing knowledge about the research problem?	1- 5 pts	
Scientific thought, creativity/originality • Process skills demonstrated by the student in the solution to the research problem and/or the research design • Student demonstrates his or her individual contributions to and understanding of the research problem • Level of effort	1- 5 pts	
Research design, procedures (materials & methods), results **1. Science** • Appropriateness of research design and procedures • Identification and control of variables • Reproducibility **2. Engineering, computer science, technology** • Workable solution that is acceptable to a potential user • Recognition of economic feasibility of solution • Recognition of relationship between design and end product • Tested for performance under conditions of use • Results offer an improvement over previous alternatives	1- 5 pts	
Discussion/Conclusions • Clarity in stating conclusion • Logical conclusion that is relevant to the research problem and the results of experimentation or testing • Recognizes limits and significance of results • Evidence of student's understanding of the scientific or technological principles • Theoretical or practical implications recognized • What was learned?	1- 5 pts	
Skill in communicating research results-- Oral Presentation and written report • Clarity in communicating research results to non-specialized audience and to judges • Definition of terms as necessary • Appropriate use of audio-visuals • Response to questions from audience and judges	1- 5 pts	
Acknowledgement of sources and major assistance received	0 to 5 pts	
	TOTAL SCORE	

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JUDGES' COMMENT SHEET FOR PAPERS

MINNESOTA ACADEMY OF SCIENCE

JUDGES' COMMENT FORM FOR PAPER PRESENTATIONS

*Note: This sheet **WILL** be returned to the students and will be the only written feedback they get from the judges. Please make at least one constructive comment in each section. Use the back of this sheet if necessary.*

Student Name: _____ Judge's Initials: _____

STATEMENT AND IDENTIFICATION OF RESEARCH PROBLEM: Is the problem clearly stated? • Does the presenter demonstrate understanding of existing knowledge about the research problem?

SCIENTIFIC THOUGHT, CREATIVITY/ORIGINALITY: Process skills demonstrated by the student in the solution to the research problem and/or the research design. Student demonstrates his or her individual contributions to and understanding of the research problem. Level of effort

RESEARCH DESIGN, PROCEDURES (MATERIALS & METHODS), RESULTS

1. **Science** - Appropriateness of research design and procedures. Identification and control of variables. Reproducibility
2. **Engineering**, computer science, technology - Workable solution that is acceptable to a potential user. Recognition of economic feasibility of solution. Recognition of relationship between design and end product. Tested for performance under conditions of use. Results offer an improvement over previous alternatives

DISCUSSION/CONCLUSIONS: Clarity in stating conclusion. Logical conclusion that is relevant to the research problem and the results of experimentation or testing. Recognizes limits and significance of results. Evidence of student's understanding of the scientific or technological principles. Theoretical or practical implications recognized. What was learned?

SKILL IN COMMUNICATING RESEARCH RESULTS- Clarity in communicating research results to non-specialized audience and to judges. Definition of terms as necessary. Appropriate use of audio-visuals. Response to questions from audience and judges

Revision date 2/26/12