



Judge's Scoring Guidelines & Worksheet for SCIENTIFIC & ENGINEERING RESEARCH PROJECTS

Award the Best ... Encourage the Rest

Project Number: _____ **Title/Key Words:** _____

Judge scoring is conducted using a 100-point scale, with points assigned to **Research Question, Design/Methodology, Data Collection-Analysis-Interpretation, Creativity, and Presentation (poster & interview)** for Scientific Projects OR **Research Problem, Design/Methodology, Construction & Testing, Creativity, and Presentation (poster & interview)** for Engineering Projects. Review the criteria carefully and use the one **most** appropriate (scientific project or engineering project) for each project you are judging. Team projects have a slightly different balance of points including points for **teamwork**. The following is a set of criteria that can assist you in interviewing and scoring your projects. A more thorough discussion of the criteria can be found in the Judging Guide.

GUIDELINES	NOTES <small><i>This form is NOT given back to exhibitors! Please use Project Feedback Form for comments you want to share with the student(s).</i></small>	MAXIMUM POINTS AVAILABLE	POINTS GIVEN
<p>I. RESEARCH QUESTION – SCIENTIFIC PROJECTS</p> <ul style="list-style-type: none"> • Clear and focused purpose • Identifies contribution to field of study • Testable using scientific methods <p>or</p> <p>RESEARCH PROBLEM – ENGINEERING PROJECTS</p> <ul style="list-style-type: none"> • Description of a practical need or problem to be solved • Definition of criteria for proposed solution • Explanation of problem constraints 		10 Points MAX	
<p>II. DESIGN & METHODOLOGY – SCIENTIFIC PROJECTS</p> <ul style="list-style-type: none"> • Well designed plan and data collection methods • Variables and controls defined, appropriate, and complete <p>or</p> <p>DESIGN & METHODOLOGY – ENGINEERING PROJECTS</p> <ul style="list-style-type: none"> • Exploration of alternatives to answer need or problem • Identification of a solution • Development of a prototype/model 		15 Points MAX	
<p>III. DATA COLLECTION & METHODOLOGY – SCIENTIFIC PROJECTS</p> <ul style="list-style-type: none"> • Systematic data collection & analysis • Reproducibility of results • Appropriate application of mathematical and statistical methods • Sufficient data collection to support conclusions <p>or</p> <p>CONSTRUCTION & TESTING – ENGINEERING PROJECTS</p> <ul style="list-style-type: none"> • Prototype demonstrates intended design • Prototype has been tested in multiple conditions/trials • Prototype demonstrates engineering skill & completeness 		20 Points MAX	

IV. CREATIVITY <ul style="list-style-type: none"> Project demonstrates creativity in one or more of the above criteria 		20 Points MAX	
V. PRESENTATION – DISPLAY BOARD/POSTER <ul style="list-style-type: none"> Logical organization of material Clarity of graphics and legends Supporting documentation displayed 		10 Points MAX	
VI. PRESENTATION - INTERVIEW <ul style="list-style-type: none"> Clear, concise, thoughtful responses to questions Understanding of basic science relevant to project Understanding of interpretation and limitations of results and conclusions Degree of independence in conducting project Recognition of potential impact on science, society, and/or economics Quality of ideas for further research TEAM PROJECTS – Contributions and understanding of project by ALL team members 		25 Points MAX	
TOTAL POINTS =		<u>100 points MAXIMUM</u>	

Keep this sheet with you and use it to take notes. Actual scores and comments are recorded on other forms.

PLEASE RETURN THIS FORM TO YOUR JUDGE CHAIR WHEN YOU HAVE COMPLETED THE JUDGING PROCESS AS IT IS SENSITIVE INFORMATION THAT IS SHREDDED AFTER THE COMPETITION.

ADDITIONAL NOTES...