

Year: 20__ __

The OHIO ACADEMY of SCIENCE

Science Day Judging Card – ENGINEERING DESIGN

INDIVIDUAL

Event: _____

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JUDGES: Please indicate your evaluation of each subsection by placing a checkmark or a point score in the appropriate box and then add subsection scores to find total section points. (max. 10 points each section)				
SECTION #1: ORAL, WRITTEN, AND VISUAL COMMUNICATION:				
Tell me about your project? May I see your report? <i>In keeping with the open access mission of the Academy. Judges are encouraged to distribute the weighting of the 10 pts for this category based on student abilities.</i>		Superior (Exceeds)	Excellent (Meets)	Good
<u>Written:</u> Well documented design engineering notebook (sketches, photos, iterations, testing data, results and references) with clear statement of technical problem and criteria for success AND Written Report (includes unambiguous title, organization, results, conclusions, reflections, correct grammar and spelling). Both documents are present.				
<u>Oral:</u> Correct and concise explanation of project, design and analysis reflecting clear understanding of the design process. Responses are clear, complete and correct.				
<u>Visual:</u> Logical organization of material, neatly displayed, graphics and legends appropriate to project, easy to read and understand. Photos and graphics cited. Follows display rules.				
Comments /Feedback(Required):		Points Earned: _____ /10		
		SUPERIOR 9-10 EXCELLENT 6-7-8 GOOD 4-5 SATISFACTORY 0-3		
SECTION #2: ORIGINALITY: Where did you get the idea for your project and prototype? Did you modify any designs that you found and if so, how?				
New idea, concept, principle, design, or non-obvious approach and/or a novel association or relationship of previous designs or knowledge. Suggested max points =5		Superior (Exceeds)	Excellent (Meets)	Good
Design effectively addresses problem or need creatively and is design-based rather than a summary of knowledge. Suggested max points =5				
Comments /Feedback(Required):		Points Earned: _____ /10		
		SUPERIOR 9-10 EXCELLENT 6-7-8 GOOD 4-5 SATISFACTORY 0-3		

SECTION #3: ENGINEERING DESIGN: <i>What design problem are you trying to address and how did you decide to go about addressing it?</i>	Superior (Exceeds)	Excellent (Meets)	Good
Project addresses a clear, focused engineering design problem or need; criteria for success are identified; preliminary designs prepared; prototype is created and tested with results clearly communicated. Suggested max points =2			
Well-documented design engineering notebook. Student identifies and applies established engineering principles in their design. Suggested max points =2			
Student used materials and processes effectively to correctly build prototype or model. Suggested max points =2			
Sufficient testing of prototype or model is completed; data is properly measured, presented and analyzed. Suggested max points =2			
Prototype successfully meets criteria that were established for the project. Suggested max points =2			
Comments/Feedback (Required):	Points Earned: _____ /10		
SUPERIOR 9-10 EXCELLENT 6-7-8 GOOD 4-5 SATISFACTORY 0-3			
SECTION #4: DEPTH OF UNDERSTANDING: <i>What did you learn about the engineering and previous designs for your project before and during the process.</i>	Superior (Exceeds)	Excellent (Meets)	Good
Adequate age appropriate background research and/or basic engineering research relevant to the project which provides basis for project. Suggested max points =3			
Supplements answers with relevant information reflecting knowledge gained during the project. Suggested max points =3			
Age appropriate use of terms and principles. Suggested max points =2			
Adequate depth of knowledge and skills in technology systems involved Suggested max points =2			
Comments/Feedback (Required):	Points Earned: _____ /10		
SUPERIOR 9-10 EXCELLENT 6-7-8 GOOD 4-5 SATISFACTORY 0-3			
Total Points Earned (completed by judges)	Overall Rank (CIRCLE)		
Section 1: _____ / 10 Section 2: _____ / 10 Section 3: _____ / 10 Section 4: _____ / 10 Total: _____ / 40	Superior (36 - 40) Excellent (24-35) Good (12-23) *Satisfactory (0-11) <i>*Satisfactory rank is not used at State Science Day. Use is optional at Local and District Science Days at the discretion of event administrators.</i>		

JUDGE'S Printed Name _____ Signature _____