

GRADES 6-12

Judging Criteria

Engineering



Academy of Science -
St. Louis Science Fair
Sponsored by Monsanto Fund
and MEMC

Sequence Number: _____
Row: _____ Position: _____

Project Elements	Description of Criteria	Possible Score	Score
DISPLAY BOARD			
SCIENTIFIC PROCESS:			
Title & Description	Title of project and overview of project	5	
Problem & Hypothesis	Problem: Clearly state the need for an engineered item that will perform or accomplish a specified function. Define engineering problem to be solved. Hypothesis: Statement clearly predicts how the engineered device will operate to perform a specific function.	5	
Background	History – highlights important people or discovery Significance – explain importance of this project Facts-tells what is known about the topic and explains major terms & definitions Method-tells how this topic has been studied before (steps, equipment, measurement) Bibliography-Includes at least 3 sources	10	
Trials	At least 3 trials are indicated	5	
Procedure & Conditions	Describe design for device. Includes step-by-step description of construction including listing of all materials, quantities needed and any modifications. Developed the solution refining and improving it during the construction of a prototype. Includes when, where and how of study. High score would indicate that the project can be repeated after reading.	15	
Data and identification	<ul style="list-style-type: none"> Use photos/illustrations/graphs to show device. All data should be clearly labeled and identify the device. Describe how the device operates to specification. Graphs should contain title, x and y axis labeled and intervals are equal. High score shows steps in the process of device and is clearly labeled. <p><i>(Note to student: Items that are valuable or valued by the student are not to be displayed – use photos/illustrations instead)</i></p>	15	
Conclusion & Reflection	Reflects what the student has learned. Were there any surprises? What would you do differently or to continue the project. Statement describing how the device performed to successfully complete the designed task compared to the hypothesis and design specifications OR indicate if flaw in product design was discovered. Describe the impact this topic may have on society or the environment.	10	
LOGBOOK:			
Signed Safety Form & guidelines	All projects are required to have a signed safety form (placed on the inside cover of log book). Students should also provide detailed descriptions on how they followed the safety guidelines in their logbook.	10	
Dated Entries	High score indicates that student has written process, observations and data in log book during experiment. Clearly written with dates and comments.	15	
OVERALL CREATIVITY/INNOVATION/ENGAGEMENT:			
Creativity/Innovation/Engagement	Student demonstrates an understanding of the subject matter or innovative/creative way of approaching their project.	10	
Total Possible Score		100	
TOTAL SCORE: _____			