

2017-18 Elementary School STEM Fair Project Judging Sheet

Engineering Design Judging Sheet

Name(s) _____ School _____

Project Title _____

I. Journal/Log (Engineering Design)	Comments	3	2	1
Title Page/Table of Contents: Title, name, school, date, and the table of contents (all must be included)				
Need: A need for the project is defined				
Research: Well-written notes, own words, comprehensive, contributes to the field of study				
Design Requirements: Definition of the criteria for the proposed solution and an explanation of the constraints				
Design and Methodology				
○ Exploration of alternative designs shown to answer the need; shows beginning and final designs, drawn and labeled to meet the criteria and constraints				
○ Identification of a solution with a final, labeled design for the development of a prototype				
○ Materials' list and step-by-step instructions clearly written				
Constructing and Testing of the Prototype				
○ Prototype demonstrates intended design requirements				
○ Prototype tested shows data gathered during the first testing. Data is analyzed and written out; graph(s) made				
○ Prototype redesigned and retested showing gathered data and a written analysis; graph(s) made				
○ Prototype demonstrates engineering skills and completeness				
Conclusion: Shows strong interpretations and conclusions; shows connections to real world ideas; strong evidence of student learning (4 points)	(worth 4 points)			
Bibliography: Three sources cited in the bibliography				

II. Display	Comments	5	3-4	1-2
○ Neat, edited, easy to follow, and physically sound				
○ Engineering design process displayed well, clarity of graphics and legends, and self- explanatory				
○ Supporting documentation sited or displayed (bibliography)				
○ Board design demonstrates significant creativity				

III. Interview	Comments	5	3-4	1-2
○ Student shows a basic knowledge of field studied relevant to the project				
○ Student is able to clearly explain the process and the results of the project and its potential impact in engineering				
○ Student understands the interpretation and limitations of the results and conclusions				
○ Student shows interest, enthusiasm, and a passion toward the project, and has quality ideas for further research				

IV. Project Design Follow Through

Comments

5

3-4

1-2

○ Significant creative and procedural approach with ingenious use of materials and equipment to solve the need				
○ Project shows in-depth thought and work to solve the need with excellent follow through				
○ Student shows a large degree of independence in developing and conducting the project.				
○ Results show a well, thought out, reasonable conclusion showing a useful connection to the world				

Total Score	/100
--------------------	-------------