

STEM Fair Judging Rubric

Science Projects	Engineering Projects (may be applied to projects in mathematics and computer science)
1. Research Question (10 pts.) <ul style="list-style-type: none"> • Clear and focused purpose • Identifies contribution to field of study • Testable using scientific method 	1. Research Problem (10 pts.) <ul style="list-style-type: none"> • Description of a practical need or problem to be solved • Definition of criteria for proposed solution • Explanation of constraints
2. Design and Methodology (15 pts.) <ul style="list-style-type: none"> • Well-designed plan and data collection methods • Variables and controls defined, appropriate and complete 	2. Design & Methodology (15 pts.) <ul style="list-style-type: none"> • Exploration of alternatives to answer need or problem • Identification of a solution • Development of a prototype/model
3. Execution: Data collection, Analysis, & Interpretations (20 pts.) <ul style="list-style-type: none"> • Systematic data collection and analysis • Reproducibility of results • Sufficient data collected to support interpretation and conclusions 	3. Execution: Construction & Testing (20 pts.) <ul style="list-style-type: none"> • Prototype demonstrates intended design • Prototype had been tested in multiple conditions/trials • Prototype demonstrates engineering skill and completeness
4. Creativity (20 pts.) <ul style="list-style-type: none"> • Project demonstrates significant creativity/originality/inventiveness in one or more of the above criteria 	
5. Presentation (35 pts.) <p><u>Tri-fold Poster</u> (10 pts.)</p> <ul style="list-style-type: none"> • Logical organization • Clarity of graphics and legends • Supporting documentation well selected and displayed <p><u>Interview</u> (25 pts.)</p> <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 in science, society and/or economics • Quality of ideas for further research • For team projects, contributions to and understanding of project by all members 	

*This is the rubric used by the International Science and Engineering Fair. It will be difficult for students K-5 to complete all these areas, but it is a good model for them to work towards.