

Energy Science Fair Project Grading Rubric - Engineering

Teacher Name: _____

Student Name: _____

CATEGORY	4	3	2	1
Idea	Independently identified a design solution which was interesting to the student, relevant to the topic, and which could be tested.	Identified, with adult help, a design solution which was interesting to the student, relevant to the topic, and which could be tested.	Identified, with adult help, a design solution which could be tested.	Identified a design solution that could not be tested/investigated or one that did not merit investigation.
Information Gathering	Accurate information taken from several sources in a systematic manner.	Accurate information taken from a couple of sources in a systematic manner.	Accurate information taken from a couple of sources but not systematically.	Information taken from only one source and/or information not accurate.
Plan	Provided an accurate, easy-to-follow plan with clear measurements and labeling for all components.	Provided an accurate plan with clear measurements and labeling for most components.	Plan does not show measurements clearly or is otherwise inadequately labeled.	Did not provide a plan OR the plan was quite incomplete.
Construction - Materials	Appropriate materials were selected and creatively modified in ways that made them even better.	Appropriate materials were selected and there was an attempt at creative modification to make them even better.	Appropriate materials were selected.	Inappropriate materials were selected and contributed to a product that performed poorly.
Construction - Care Taken	Great care taken in construction process so that the structure is neat, attractive and follows plans accurately.	Construction was careful and accurate for the most part, but 1-2 details could have been refined for a more attractive product.	Construction accurately followed the plans, but 3-4 details could have been refined for a more attractive product.	Construction appears careless or haphazard. Many details need refinement for a strong or attractive product.
Modification/Testing	Clear evidence of troubleshooting, testing, and refinements based on data or scientific principles.	Clear evidence of troubleshooting, testing and refinements.	Some evidence of troubleshooting, testing and refinements.	Little evidence of troubleshooting, testing or refinement.
Function	Product or structure functions extraordinarily well, holding up under atypical stresses.	Product or structure functions well, holding up under typical stresses.	Product or structure functions pretty well, but deteriorates under typical stresses.	Fatal flaws in function with complete failure under typical stresses.
Display	Each element in the display had a function and clearly served to illustrate some aspect of the experiment. All items, plans, graphs etc. were neatly and correctly labeled.	Each element had a function and clearly served to illustrate some aspect of the experiment. Most items, plans, graphs etc. were neatly and correctly labeled.	Each element had a function and clearly served to illustrate some aspect of the experiment. Most items, plans, graphs etc. were correctly labeled.	The display seemed incomplete or chaotic with no clear plan. Many labels were missing or incorrect.
Conclusion/Summary	Student provided a detailed discussion of results clearly based on the product function, testing data and related to previous research findings.	Student provided a somewhat detailed discussion of results clearly based on the product function and previous research findings.	Student provided a discussion of results with some reference product function.	No discussion was apparent OR important details were overlooked.