

Energy Science Fair Project Grading Rubric - Experiment

Teacher Name: _____

Student Name: _____

CATEGORY	4	3	2	1
Idea	Independently identified a question which was interesting to the student, relevant to the topic, and which could be investigated.	Identified, with adult help, a question which was interesting to the student, relevant to the topic, and which could be investigated.	Identified, with adult help, a question which could be investigated.	Identified a question that could not be tested/investigated or one that did not merit investigation.
Hypothesis Development	Independently developed an hypothesis well-substantiated by a literature review and observation of similar phenomena.	Independently developed an hypothesis somewhat substantiated by a literature review and observation of similar phenomena.	Independently developed an hypothesis somewhat substantiated by a literature review or observation of similar phenomena.	Needed adult assistance to develop an hypothesis or to do a basic literature review.
Description of Procedure	Procedures were outlined in a step-by-step fashion that could be followed by anyone without additional explanations. No adult help was needed to accomplish this.	Procedures were outlined in a step-by-step fashion that could be followed by anyone without additional explanations. Some adult help was needed to accomplish this.	Procedures were outlined in a step-by-step fashion, but had 1 or 2 gaps that require explanation even after adult feedback had been given.	Procedures that were outlined were seriously incomplete or not sequential, even after adult feedback had been given.
Variables	Independently identified and clearly defined which variables were going to be changed (independent variables) and which were going to be measured (dependent variables).	Independently identified which variables were going to be changed (independent variables) and which were going to be measured (dependent variables). Some feedback was needed to clearly define the variables.	With adult help, identified and clearly defined which variables were going to be changed (independent variables) and which were going to be measured (dependent variables).	Adult help needed to identify and define almost all the variables.
Data Collection	Data was collected several times. It was summarized, independently, in a way that clearly describes what was discovered.	Data was collected more than one time. It was summarized, independently, in a way that clearly describes what was discovered.	Data was collected more than one time. Adult assistance was needed to clearly summarize what was discovered.	Data was collected only once and adult assistance was needed to clearly summarize what was discovered.
Display	Each element in the display had a function and clearly served to illustrate some aspect of the experiment. All items, graphs etc. were neatly and correctly labeled.	Each element had a function and clearly served to illustrate some aspect of the experiment. Most items, graphs etc. were neatly and correctly labeled.	Each element had a function and clearly served to illustrate some aspect of the experiment. Most items, 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 conclusion clearly based on the data and related to previous research findings and the hypothesis statement(s).	Student provided a somewhat detailed conclusion clearly based on the data and related to the hypothesis statement(s).	Student provided a conclusion with some reference to the data and the hypothesis statement(s).	No conclusion was apparent OR important details were overlooked.