

## Heritage Family Educators STEAM Fair Rubric for High School Students

Students Name: \_\_\_\_\_ Title of Project: \_\_\_\_\_ Date: \_\_\_\_\_

Introduction, Research, and Question			Total Category Score: _____		
	4 - The introduction thoroughly explains the topic studied and identifies all aspects of the project including any supporting research.	3 - The introduction thoroughly explains the topic studied and identifies most aspects of the project including any supporting research.	2 - The introduction explains the topic studied and identifies some aspects of the project including any supporting research.	1 - The introduction doesn't explain the topic studied well and doesn't identify all aspects of the project or research.	0 - There is no introduction.
Insert preferred formatting here.	4 - All references are cited and in preferred formatting.	3 - The references are all cited but not all are in the preferred formatting.	2 - There is at least one reference not cited.	1 - There is more than one reference not cited.	0 - No references were noted and should have been. **If no references were needed, award full points for this category (4).
	4 - The question that will be answered in this experiment is clearly presented and it relates strongly to the research.	3 - The question that will be answered in this experiment is presented and it relates to the research.	2 - The question that will be answered in this experiment is present but poorly worded and it relates loosely to the research.	1 - The question that will be answered in this experiment is presented but it doesn't relate to the research.	0 - There is no question.
Hypothesis			Total Category Score: _____		
	4 - The hypothesis is based on the question that will be answered and is testable.	3 - The hypothesis is somewhat based on the question that will be answered and is testable.	2 - The hypothesis is somewhat based on the question but it is not clearly testable.	1 - The hypothesis is not based on the question but it is not clearly testable.	0 - There is no hypothesis.
	4 - Clear predictions are made from the hypothesis and they have both an independent variable (something you change) and a dependent variable (something you observe or measure).	3 - Predictions are made from the hypothesis and they have both an independent variable and a dependent variable, but the most obvious prediction is not made.	2 - Predictions are made from the hypothesis, but they either are missing the independent variable but don't clearly state the dependent variable.	1 - Predictions are made from the hypothesis, but they have neither an independent variable nor a dependent variable.	0 - There are no predictions.

Materials and Equipment			Total Category Score: _____		
	4 - The "Materials and Equipment Used" list is complete, samples of the materials are provided, and the equipment is present.	3 - The "Materials and Equipment Used" list is complete, samples of the materials are provided, and the equipment is present.	2 - The "Materials and Equipment Used" list is complete, samples of the materials are provided, and the equipment is present.	1 - The "Materials and Equipment Used" list is complete, samples of the materials are provided, and the equipment is present.	0 - There is no list but should have been. **If no list was needed because there were no materials or equipment used, then the student should be awarded full points for this category (4).
Testing Process			Total Category Score: _____		
	4 - The testing process is clearly identified, has no missing steps, and is reproducible.	3 - The testing process is identified but could be clearer, there are no missing steps, and the tests are reproducible.	2 - The testing process is identified but not clear, there are missing steps, but may still be reproducible.	1 - The testing process is not clear, there are missing steps, and cannot be reproduced.	0 - The testing process is not stated and therefore cannot be reproduced.
	4 - The controlled, independent, and dependent variables are clearly defined in easy to measure terms.	3 - At least 1 variable is missing.	2 - At least 2 variables are missing	1 - At least 3 variables are missing	0 - There are more than 3 variables missing..
	4 - All possible experimental errors have been identified and accounted for.	3 - Most experimental errors have been identified and accounted for.	2 - Some experimental errors have been identified and/or some are not accounted for.	1 - Some experimental errors have been identified but have not been accounted for.	0 - Experimental errors have not been identified.
Data/Observations			Total Category Score: _____		
	4 - All data collected is logically organized into a chart or graph and is understandable.	3 - All data collected is organized into a chart or graph and is mostly understandable.	2 - Data is organized into a chart or graph, it is mostly understandable, but some data is missing and it.	1 - Data is present, but the chart or graph is not easy to understand and data is missing.	0 - No data was presented.
	4 - Data provided is presented in the correct kind of units.	3 - Most of the data provided is presented in the correct kind of units.	2 - Some of data provided is presented in the correct kind of units.	1 - Most of the data provided is not presented in the correct kind of units.	0 - Data is not accurate or not provided.
	4 - Visual observations are presented in a photo or video, are presented in an understandable way (labeled, captioned, explained), and provide more than enough information to form a conclusion.	3 - Visual observations are presented in a photo or video, are presented in an understandable way (labeled, captioned, explained), and provide enough information to form a conclusion.	2 - Visual observations are presented in a photo or video, could be presented with more or clearer labeled/captioning/explanation, and provide enough information to form a conclusion.	1 - There are not enough visual observations presented, and/or the ones presented do not provide enough information to form a conclusion.	0 - Observations are not recorded in a photo or video. **If visual observations were not needed for this experiment, then give the student full points for this category (4).

Results/Conclusion			Total Category Score: _____		
	4 - The hypothesis was supported and the student has explained why, tying together the hypothesis, the data/observations collected, and the results clearly and accurately.	3 - The hypothesis was supported and the student has explained why, but could have done a better job tying together the hypothesis, the data/observations collected, and the results.	2 - The hypothesis was not supported and the student has explained why the hypothesis or testing was insufficient, tying together the hypothesis, the data/observations collected, and the results clearly and accurately.	1 - The hypothesis was not supported and the student could have done a better job explained why the hypothesis or testing was insufficient.	0 - There are no results or conclusions presented.
	4 - All calculations are accurate, written in the correct unit, and are explained.	3 - All calculations are accurate, written in the correct unit, but could be explained better.	2 - All calculations are accurate, written in the correct unit, but are not explained.	1 - All calculations not accurate, and/or not written in the correct unit.	0 - There are no calculations provided but should have been. **If calculations were not needed for this experiment, award full points for this category.
Attractiveness & Organization			Total Category Score: _____		
Display board should be visually organized with the title, hypothesis, and results/conclusion in the center, the materials/equipment lists and testing process on the left, and the Data and observations on the right.	4 - The information is presented on a tri fold display board and is organized as instructed.	3 - The tri fold display board is organized as instructed, but there is one component missing or out of place.	2 - The tri fold display board is organized as instructed, but there are two components missing or out of place.	1 - The display board is not a tri fold board, and/or is not organized as instructed, and/or is missing 4 or more components or out of place.	0 - The display is not at all organized in the way instructed or there is no display board.
	4 - All graphics have been printed, only drawn/colored if a photo/video was impossible. All components are matted. Colors are complementary and pleasing to the eye.	3 - All graphics have been printed, only drawn/colored if a photo/video was impossible. Most components are matted. Most colors are complementary and pleasing to the eye.	2 - All graphics have been printed, only drawn/colored if a photo/video was impossible. Some components are matted. Some colors are complementary and pleasing to the eye.	1 - Not all graphics that should have present are.	0 - No graphics were provided and should have been. **If no component of this project needed to be presented in this way, award the student full points for this category (4).
	4 - All text is typed – no handwritten text. All spelling, punctuation, and grammar is accurate.	3 - All text is typed – no handwritten text. There are a couple of spelling, punctuation, and/or grammar errors.	2 - All text is typed – no handwritten text. There are several spelling, punctuation, and/or grammar errors.	1 - Not all text is typed and/or the there are many spelling, punctuation, and/or grammar errors.	0 - No text is typed.

Oral Presentation			Total Category Score: _____		
	4 - Student has clear and deep understanding of the topic and demonstrated that by explaining their project thoroughly and was able to answer all questions with confidence.	3 - Student has a good understanding of the topic and demonstrated that by explaining their project thoroughly and was able to answer most questions with confidence.	2 - Student has a fair understanding of the topic and demonstrated that by explaining their project and was able to answer some questions.	1 - Student does not appear to have a fair understanding of the topic and demonstrated that by explaining their project and was not able to answer most questions.	0 - The student did not present an oral presentation.
	4 - Student was neat in appearance, spoke in a volume that could be heard, and spoke with confidence.	3 - Student did not meet 1 of the requirements of this category.	2 - Student did not meet 2 of the requirements of this category.	1 - Student did not meet 3 of the requirements of this category.	0 - The student did not present an oral presentation.

Introduction, Research, and Question	Total Category Score: _____
Hypothesis	Total Category Score: _____
Materials and Equipment	Total Category Score: _____
Testing Process	Total Category Score: _____
Data/Observations	Total Category Score: _____
Results/Conclusion	Total Category Score: _____
Attractiveness & Organization	Total Category Score: _____
Oral Presentation	Total Category Score: _____
	Total Project Score: _____

Placement: 1st: 76 – 58, 2nd: 57 – 39, 3rd: 38 – 20, Participation: 19 >

JUDGE'S COMMENTS: