

Science Fair Project Rubric

PROJECT#	Excellent/ Expert	Good/ Proficient	Needs Improvement/ Emergent	Not Present/ Novice
Research Question	<ul style="list-style-type: none"> - Clear & focused purpose - Identifies contribution to field of study - Testable using scientific methods 	<ul style="list-style-type: none"> -Research question has minor clarity and focus issues -Research question is not fully testable 	<ul style="list-style-type: none"> -Research question is not answerable or does not fit with the actual experiment performed 	<ul style="list-style-type: none"> -No attempt to define a research question
Design & Methodology	<ul style="list-style-type: none"> - Well designed plan and data collection methods - Variables and controls defined, appropriate, and complete 	<ul style="list-style-type: none"> -Method had minor flaws, but an attempt for control or comparison was made 	<ul style="list-style-type: none"> -Method was inappropriate, but an attempt for control or comparison was made 	<ul style="list-style-type: none"> -Experimentation was not performed (i.e. demonstration or exhibit). -No control group present
Execution: Data Collection, Analysis, & Interpretation	<ul style="list-style-type: none"> - Systematic data collection and analysis -Reproducibility of results -Appropriate application of mathematical and statistical methods - Sufficient data collected to support interpretation and conclusions 	<ul style="list-style-type: none"> -Minor errors or flaws in technique(s) - Measurements mostly accurate and precise. 	<ul style="list-style-type: none"> - Major errors or flaw in technique(s) - Little attention paid to accuracy and/or precision. -Too few trials or sample size too small 	<ul style="list-style-type: none"> - No techniques reported. - No accuracy or precision in measurements.
Creativity	<ul style="list-style-type: none"> -Project demonstrates significant creativity and originality in two or more of the above criteria 	<ul style="list-style-type: none"> -Project demonstrates creativity in the one of the above criteria 	<ul style="list-style-type: none"> -Project demonstrates some creativity – a new twist on an old experiment 	<ul style="list-style-type: none"> -Project lacks creativity: experiment copied exactly from a published source
Presentation: Poster	<ul style="list-style-type: none"> - Logical organization of material -Clarity of graphics and legends -Supporting documentation displayed 	<ul style="list-style-type: none"> -Information and results displayed somewhat organized, some difficulty in following. -Minor errors in graphics or legend -Some background information given. 	<ul style="list-style-type: none"> - Information and results could be more organized, major difficulty in following. -Major errors in graphics or legends - Little or irrelevant background information given. 	<ul style="list-style-type: none"> -Unorganized poster -Graphics or data tables missing -No supporting documentation of research provided

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Presentation: Interview	<ul style="list-style-type: none"> -Clear, concise, thoughtful responses to questions - Understanding of basic science relevant to project -Understanding 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 	<ul style="list-style-type: none"> - Clear, concise, thoughtful responses to almost all of the questions -Student has some misconceptions about the science related to the project -Student can answer most questions posed, but had not really given ideas much thought prior to interviews 	<ul style="list-style-type: none"> - Student cannot answer some questions clearly, but generally understands his/her project -Student can answer a few questions posed to some extent, but had not really given ideas much thought prior to interviews 	<ul style="list-style-type: none"> -Student unable to explain their project -Students unable to explain the science related to their project. -Student did not conduct this project independently – parent did all of the work -Students can not communicate any ideas for future research

Judges Comments: