<table>
<thead>
<tr>
<th>PROJECT#</th>
<th>Excellent/Expert</th>
<th>Good/Proficient</th>
<th>Needs Improvement/Emergent</th>
<th>Not Present/Novice</th>
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| Research Question | - Clear & focused purpose  
- Identifies contribution to field of study  
- Testable using scientific methods | -Research question has minor clarity and focus issues  
-Research question is not fully testable | -Research question is not answerable or does not fit with the actual experiment performed | -No attempt to define a research question |
| Design & Methodology | - Well designed plan and data collection methods  
- Variables and controls defined, appropriate, and complete | -Method had minor flaws, but an attempt for control or comparison was made | -Method was inappropriate, but an attempt for control or comparison was made | -Experimentation was not performed (i.e. demonstration or exhibit).  
-No control group present |
| Execution: Data Collection, Analysis, & Interpretation | - Systematic data collection and analysis  
-Reproducibility of results  
-Appropriate application of mathematical and statistical methods  
-Sufficient data collected to support interpretation and conclusions | -Minor errors or flaws in technique(s)  
-Measurements mostly accurate and precise. | - Major errors or flaw in technique(s)  
-Little attention paid to accuracy and/or precision.  
-Too few trials or sample size too small | - No techniques reported.  
- No accuracy or precision in measurements. |
| Creativity | -Project demonstrates significant creativity and originality in two or more of the above criteria | -Project demonstrates creativity in the one of the above criteria | -Project demonstrates some creativity – a new twist on an old experiment | -Project lacks creativity: experiment copied exactly from a published source |
| Presentation: Poster | - Logical organization of material  
-Clarity of graphics and legends  
-Supporting documentation displayed | -Information and results displayed somewhat organized, some difficulty in following.  
-Minor errors in graphics or legend  
-Some background information given. | - Information and results could be more organized, major difficulty in following.  
-Major errors in graphics or legends  
-Little or irrelevant background information given. | -Unorganized poster  
-Graphics or data tables missing  
-No supporting documentation of research provided |
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| **Presentation: Interview** | - 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 | - 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 | - 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 | - 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 cannot communicate any ideas for future research |

**Judges Comments:**