

## RUBRIC FOR CHEMISTRY PROJECT

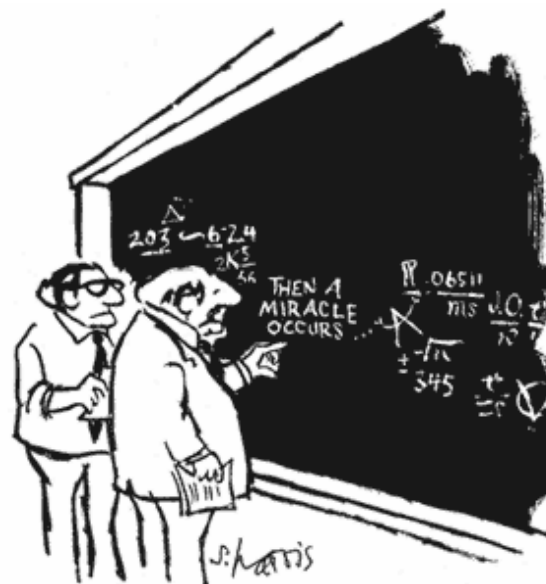
	<b>5 – Stellar</b>	<b>4 – Well Done</b>	<b>3 – Moderate</b>	<b>2 – Limited</b>	<b>1 – Clueless</b>
<b>Research Question and Hypothesis</b>	Question is new, meaningful, well researched. Hypothesis is clearly stated in the “IF... THEN” format.	Question is meaningful, and well researched. Hypothesis is clearly stated.	Question is addressed and researched. Hypothesis is stated.	Question is somewhat addressed and somewhat researched. Hypothesis is unclear.	Question is not stated and research is unclear. Hypothesis is not stated.
<b>Background Research</b>	Research is thorough, specific, has many examples. All ideas are clearly explained. History, chemistry, and pros and cons are fully addressed.	Research has many specifics and some examples. Most ideas are explained. Student mostly addresses the history, chemistry, and pros and cons.	Research has some specifics and a couple examples. Few ideas are explained. Student doesn't address all areas: history, chemistry, and pros and cons.	Research has little specifics and one example. Two or less ideas are explained. Student doesn't address all areas: history, chemistry, and pros and cons.	Research has no specifics and one example. No ideas are explained. Student doesn't address all areas: history, chemistry, and pros and cons.
<b>Experimental Design/ Materials/ Procedure</b>	Procedure is detailed, appropriate, thorough. Steps of procedure are listed and sequential, all materials are listed. Safety issues have been addressed.	Procedure is appropriate, thorough. Steps of procedure are listed and mostly sequential, most materials are listed. Safety issues may have been addressed.	Procedure is appropriate. Steps of procedure are mostly listed. Most materials are listed. Safety issues were not addressed.	Procedure is inadequate. Steps of procedure are mostly listed. Few materials are listed. Safety issues were not addressed.	Procedure is inadequate. A few steps of procedure are listed. No materials are listed. Safety issues were not addressed.
<b>Variables/Controls/ Sample Size</b>	Variables have been identified, controls are appropriate, in place, and explained. Sample size is appropriate and explained.	Variables have been identified, controls are appropriate and in place. Sample size is appropriate.	Variables have been somewhat identified, controls are somewhat known. Sample size is not appropriate.	Missing one variable or control. Sample size is not considered.	Missing two or more of the variables or the controls. Sample size is not considered.

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<b>Data Collection</b>	Proper use of the Metric System. Adequate number of trials/sample size. Appropriate use of photos/charts/graphs to display data.	Use of the Metric System. Adequate number of trials/sample size. Some use of photos/charts/graphs to display data.	Use of the Metric System. Adequate number of trials/sample size. Fair use of photos/charts/graphs to display data.	Use of the English System. Poor number of trials/sample size. Poor use of photos/charts/graphs to display data.	Use of the English System. Poor number of trials/sample size. No use of photos/charts/graphs to display data.
<b>Analysis</b>	Conclusions are supported by the data. Sources of error have been considered. Explanation is made for how or why the hypothesis was supported or rejected. Experimental meaning is conveyed and reflection of what was learned and how it could be made better is made.	Conclusions are supported by the data. Some sources of error have been considered. Explanation is made for how or why the hypothesis was supported or rejected. Reflection of what was learned and how it could be made better is made.	Conclusions are not clearly supported by the data. Some sources of error have been considered. Explanation is attempted for how or why the hypothesis was supported or rejected. Reflection of what was learned and how it could be made better is made.	Conclusions are not supported by the data. A few sources of error have been considered. Explanation is attempted for how or why the hypothesis was supported or rejected. Reflection of what was learned and how it could be made better is poor.	Conclusions are not supported by the data. No sources of error have been considered. Explanation is not attempted for how or why the hypothesis was supported or rejected. Reflection of what was learned and how it could be made better is not made.
<b>Visual Display PowerPoint®</b>	PowerPoint is clear, complete and uses bullets to make short statements. Graphics are used in an appropriate manner.	PowerPoint is clear, complete and uses bullets to make short statements. Graphics are used in a good manner.	PowerPoint is clear, mostly complete but may contain moderately long statements. Graphics are used in a good manner.	PowerPoint is unclear, incomplete, and uses long statements. Graphics are used in a fair manner.	PowerPoint is unclear, woefully incomplete, and uses statements. Graphics are not used.
<b>Presentation</b>	Student speaks loudly and clearly, using appropriate grammar and is able to present background knowledge in a succinct manner.	Student speaks clearly, using good grammar and is able to present background knowledge in a clear manner.	Student speaks clearly, using good grammar and is able to present background knowledge in a somewhat clear manner.	Student speaks using moderate grammar and is able to present background knowledge in a somewhat clear manner.	Student speaks using poor grammar and is unable to present background in a clear manner.

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Level of Difficulty/ Creativity	Problem is conceptually intricate/requires extra effort and involves a creative approach.	Problem requires extra effort and involves a creative approach.	Problem requires effort and involves a less-than-creative approach.	Problem requires little effort and involves a less-than-creative approach.	Problem requires little effort and does not involve a creative approach.
Works Cited	At least four references are cited and referenced	Three references are cited and referenced	Two references are cited and referenced	One reference is cited and referenced	No references are cited or referenced



*"I'm on the verge of a major breakthrough, but I'm also at that point where chemistry leaves off and physics begins, so I'll have to drop the whole thing."*



*"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."*