

Project #	Judges Initials:
Project Title:	

Abstract To what degree does the abstract describe the project? (Maximum of 250 words)	0=No abstract. 1=Poorly written and does not describe the project. 2=Poorly written and does not describe all components of the project. 3=Well-written but does not describe all components of the project. 4=Well-written and completely describes the project.	<i>Points</i>
Problem/Question To what degree is the problem statement new and/or different for a student at this grade level and was it written well?	0=No Problem Statement. 1=Poorly written Problem Statement/Question (not in question form). 2=Problem is simplistic and perhaps taken directly from a source. 3=Complete well written Problem/Question in the form of a question and has a unique approach (a variable may have been changed) 4=Above expectations-detailed, well written and innovative.	
Background Research- Research should show that the student has acquired new knowledge about the nature of the problem and what others have done on similar problems.	0=No evidence of investigation or research. 1=Minimal evidence of research. 2=Some research with evidence of reading about the problem but lacking depth, (minimal sources cited or information used to guide work). 3=Good background research, however student does not fully apply found knowledge to his or her project (multiple sources are used). 4=Good research and evidence that student has used new knowledge as the foundation to move in a new direction (multiple sources used).	
Hypothesis To what degree is this a testable prediction? (Shows cause and effect). “If, then” statement.	0=No hypothesis. 1=Incomplete hypothesis. 2=Complete hypothesis but not aligned to appropriate dependent and independent variable. 3=Hypothesis is well written identifies the appropriate dependent and independent variable. 4=Hypothesis is detailed, based on key relevant information well written, testable.	
Materials All materials are listed in; column form, with unit of measure (consistently).	0=No materials identified or used. 1=Materials not specifically identified (e.g. water) 2=Materials specifically identified (e.g. a type of water) 3=Materials listed specifically including quantities (e.g. 50 ml of water at room temp.) 4=Materials listed and complete and unit of measure is consistent and includes enough detail for all trials conducted (e.g. 50 ml of water at 21°C)	
Procedure Procedure is sequential (numbered), replicable, and sentences begin with verbs.	0=Overall procedures are missing or not appropriate to support work on the board. 1=Partial procedures listed but those that are listed are detailed and appropriate 2=Complete procedures listed with some issues with writing or formatting 3=Well-written procedures with sequential steps but may not mention number of trials or repeatability. 4=Well-written as above and detailed including trials and repeatability.	
Variables Test (independent) Outcome (dependent) Control (comparison) Constant (conditions are the same)	0=No variables or constants are recognized. 1=Some variables or some constants are recognized. 2=All variables are recognized but not all controls (or visa versa). 3=All variables and controls are recognized but not labeled on board or in notebook. 4=All variables & controls are clearly and appropriately recognized and written on the board and in the notebook.	
	<i>Subtotal front</i>	

<p>Data Is there both qualitative and quantitative data, are they labeled correctly and summarized</p>	<p>0=No data has been included. 1=Partial data included (may be missing qualitative or quantitative) or minimal info to support in notebook. 2=Inclusion of both types of data, may not be labeled or organized clearly. 3=Inclusion of both data types and labeling aides in communication, but not summarized for content. 4=All types of data included, labeled correctly and summarized for content</p>	
<p>Results/Data Analysis To what degree have the results been interpreted, averaged, the variables been addressed, and include sources of error?</p>	<p>0=No written narrative interpretation of data or no processing of data. 2=Partial written narrative interpretation of data or limited processing of data. 4=Correct written narrative interpretation of data and limited processing. 6=Correct written narrative and appropriate processing of some data. 8=Comprehensive and significant interpretation of data and addresses all variables.</p>	
<p>Conclusion To what degree are the conclusions recognized and interpreted? Including the purpose, hypothesis, unresolved questions or further tests.</p>	<p>0=No claim or interpretation of data used to address stated hypothesis 2=claim is unclear or no use of data to support or refute the hypothesis. 4=claim is clear in conclusion and partial use of data used to support or refute hypothesis. 6=Well-written conclusion and data is used to support the claim that is tied to supporting or refuting the hypothesis. Reasoning may not be clear or complete. 8= Well-written conclusion and data is used to support the claim that is tied to supporting or refuting the hypothesis. Reasoning is clear and complete.</p>	
<p>Display Attributes Attractive, clear, legible and in appropriate order.</p>	<p>0=Unsatisfactory display – attributes missing. 1=Poor quality of display with little attention to detail. 2=Average quality but board organization hinders communication. 3=Good quality – but the addition of more components would improve communication or layout hinders communication. 4=Superior display – layout and organization facilitates communication.</p>	
<p>Notebook The development of problem/question and the hypothesis, explains what variables and controls are included and the number of trials to be done, there is an on-going record of the experiment and shows analysis and reflection</p>	<p>0=Little evidence of recording information as it was completed. Or analysis on the board has no support in the notebook 2=Some evidence of recording information as it was completed. Some evidence of analysis is included, but not all calculations/analysis are shown in notebook. 4=Daily work was recorded as it happened. The data is recorded in raw format in an organized manner. All trials are recorded and relate to the board. 6= Daily work was recorded as it happened. The data is recorded in raw format in an organized manner. All trials are recorded and relate to the board. Both raw data and written observations are recorded. Evidence of multiple trials is clearly evident. 8=Detailed, well written, and organized, includes all of the above and in-depth analysis and reflection of the project.</p>	
<p>Overall Quality To what degree does this project relate to broader scientific principles and real world applications, is original or has an innovative approach to the topic or shows a high degree of complexity.</p>	<p>0=Very little degree of originality and or just repeating of something they found. 2=Some relevance to real world application but low degree of originality or complexity. 4=Some originality (changing a variable or two), or complexity, may relate to real world yet not identified by the student. 6=A degree of originality, complexity, and has real world application to broader scientific principles and innovative. 8=Very innovative and original. Complexity and application to broader scientific principles is high.</p>	
	<p>Subtotal back</p>	
	<p>TOTAL POINTS _____ / 68</p>	