

Scientific Method Rubric

	Level 4	Level 3	Level 2	Level 1
Problem	Purpose of performing the experiment is clearly stated and problem written in the form of a question	purpose of performing the experiment is clearly stated but problem is not stated	purpose of performing the experiment is implied	purpose of performing the experiment is incorrect
Hypothesis	hypothesis is clearly stated as an explanation to the answer of the problem with an if and then statement and a reason provided	hypothesis is stated as a guess as an if....or then statement but no explanation given	hypothesis is somewhat related to the problem and is written in a form of a statement	Hypothesis not related to the problem
variables	all 3 variables clearly stated with more than 3 control variables.	all 3 variables clearly stated with 3 or less control variables.	Attempted to identify variable or the controls	neither the variable or the controls are clearly identified
List of material	Included a complete list with units, numbers and measurements	Complete list included but some units/numbers are missing	Lists includes some materials	List includes a few materials
Procedure	procedure includes all 4 of the following:1) steps are numbered, 2)it is in chronological order, 3)includes clear instructions on what to measure and where to record,4) includes a sketch/ diagram ONLY if needed	Procedure includes 3 of the following 4: 1) steps are numbered, 2)it is in chronological order, 3)includes clear instructions on what to measure and where to record,4) includes a sketch/ diagram ONLY if needed	Procedure includes 2 of the 4: 1) steps are numbered, 2)it is in chronological order, 3)includes clear instructions on what to measure and where to record,4) includes a sketch/ diagram ONLY if needed	Procedure includes 1 of the 4: 1) steps are numbered, 2)it is in chronological order, 3)includes clear instructions on what to measure and where to record,4) includes a sketch/ diagram ONLY if needed

result /data /observation	calculations with more than two trials is completed and result clearly represented eg., table,graph, sketch, diagram	Calculations with two trial each is performed and results are not clearly represented	calculations were completed, but incomplete or incorrect data representation	Neither calculation nor representation was complete
analysis	Thorough analysis using theory and test results clearly stating reasons for occurrence	analysis using theory and test results stating reasons for occurrence	Analysis using only theory or test results	Analysis using neither theory nor test results
conclusion	Conclusion includes all 3: summary of problem, hypothesis accepted or rejected and result summarized	Conclusion includes 2 of the 3: summary of problem, hypothesis accepted or rejected and result summarized	Conclusion includes 1 of the 3: summary of problem, hypothesis accepted or rejected and result summarized	Conclusion is there but does not include any of the following: summary of problem, hypothesis accepted or rejected and result summarized