Name/s		
Block		**Date:**

SCIENCE EXPERIMENT MARKING RUBRIC

Scientific Thought	Extending	Proficient	Developing	Emerging
Question/ Hypothesis	States a clear, testable question Hypothesis uses "if…then…because" statement with strong reasoning provided	States a clear, testable question Hypothesis uses "if…then…because" statement but no reasoning is provided	States a question that is testable but does not include an "if…then…because" statement and no reasoning is provided	States a question that is confusing or untestable.
Background Research	-Research is thorough and clearly stated. -Clear link between background research and project focus. -All sources clearly cited in proper format	-Research is adequate to give enough background information. -Clear link between background research and project -All sources clearly cited in proper format	-Some research is evident but is incomplete. -Link between research and project is adequate. -Some sources are cited or is not in MLA format	-Very little or no background evidence. -Research has little relevance to project. -Sources are not cited or not in MLA format.
Variables	–Independent and dependent variables clearly and correctly identified. -3 or more controlled variables are listed	-Independent and dependent variables are clearly and correctly identified. -2 controlled variables are listed	-Independent and dependent variables are clearly and correctly identified. -Controlled variables are missing	-Independent and dependent variables are incorrectly identified, reversed, or absent. -2 or fewer controlled variables are listed.
Trials/Sample Size	-Sample size/number of trials is 5 or more.	Sample size/number of trials is 4.	Sample size/number of trials is 3.	Sample size/number of trials is 2 to none.
Materials	All materials are listed clearly with exact quantities	Most materials listed clearly with exact quantities	All materials listed but exact quantities missing or unclear	Most materials listed but quantities missing or unclear
Procedural Summary	-Procedure is well explained in the past tense. -Experiment could be replicated easily based on provided procedure. -Procedure ensures variables are controlled	-Procedure is complete but missing some detail. -Experiment could be replicated but would require some additional explanation.	-Procedure is missing 1 or 2 important steps. -Experiment would be difficult to replicate without asking multiple questions.	-Procedure does not completely match the actual experiment. -Procedure is missing many steps. -Experiment could not be replicated using information provided
Data Summary & Analysis (tables, photos, graphs, etc.)	-Summarizes data using graphs, charts, etc. -Graphs/charts are accurate, easily understood, and complete (titles, labels, variables, correct SI units) -Data shown in graphs/charts is clearly interpreted, patterns identified and explained	-Data is clear and complete. -Clear explanation and interpretation of data is present but lacking detail OR Explanation and interpretation is clear and detailed, but Data is missing 1 (title, label, unit etc.)	-Data is clear and complete. -Minimal/simple explanation and interpretation given.	-Data is shown but is very minimal/incomplete. -No explanation or interpretation given.
Discussion	-Detailed explanation for each of the following: A) Scientific meaning and relevance (to society, the world, etc.) is discussed. B) Sources of error and suggestions for improvement are included C)Suggestions/ideas for possible further research are given	--All 3 sections for discussion are present but depth and/or breadth could be improved upon	-All 3 sections for discussion are present but lacking detail/explanation OR -One key section is missing but other 2 are clearly explained.	-Discussion is minimal -May be missing important sections or detail and explanation
Conclusion	-Conclusion directly addresses the question and hypothesis -Experimental results support the conclusion (data is consistent)	-Conclusion addresses the question and hypothesis -Experimental generally support the conclusion though some data is inconsistent	-Conclusion addresses the question but is not well supported by experimental results	-Conclusion does not directly address the question and hypothesis

COMMENTS