

Polaris K-12: Science Lab/Inquiry Investigation Write Up Rubric

Student Name _____

Overall Lab Components: Mastery		Developing	Some Progress	Needs Improvement
Components of the Report 2pts	All required elements are present and additional elements that add to the report (e.g., thoughtful comments, graphics) have been added.	All required elements are present.	One required element is missing, but additional elements that add to the report (e.g., thoughtful comments, graphics) have been added.	Several required elements are missing.
Appearance & Organization 2pts	Lab report is typed and uses underlined headings to visually organize the material.	Lab report is neatly handwritten and uses underlined headings to visually organize the material.	Lab report is neatly written or typed, but formatting does not help visually organize the material, is not consistent or the formatting is correct but the writing is difficult to read.	Lab report is handwritten, sloppy with cross-outs, multiple erasures and/or tears and creases. Formatting is not used to visually organize the write up, or the components are out of order.
Conventions: Spelling, Punctuation, Grammar, Voice 2pts	One or two errors in spelling, punctuation and grammar in the report. Report is written in a scientific voice.	Three or four errors in spelling, punctuation and grammar in the report. Report is mostly written in a scientific voice.	Five or Six errors in spelling, punctuation and grammar in the report. Report is not written in a scientific voice.	More than six errors in spelling, punctuation and grammar in the report. Report is not written in a scientific voice and is distracting from the purpose.
Participation 2pts	Used time well in lab and focused attention on the experiment.	Used time pretty well. Stayed focused on the experiment most of the time.	Did the lab but did not appear very interested. Focus was lost on several occasions	Participation was minimal OR student was hostile about participating.

Question:		Mastery	Developing	Some Progress	Needs Improvement
Question / Purpose 2pts	The purpose of the lab or the question to be answered during the lab is clearly identified and stated.	The purpose of the lab or the question to be answered during the lab is identified, but is stated in a somewhat unclear manner.	The purpose of the lab or the question to be answered during the lab is partially identified, and is stated in a somewhat unclear manner.	The purpose of the lab or the question to be answered during the lab is erroneous or irrelevant.	
Hypothesis:					
Hypothesis 2pts	Hypothesized relationship between the variables and the predicted results is clear and reasonable based on what has been studied.	Hypothesized relationship between the variables and the predicted results is reasonable based on general knowledge and observations	Hypothesized relationship between the variables and the predicted results has been stated, but appears to be based on flawed logic or an explanation is not included.	No hypothesis has been stated.	

Materials:		Mastery	Developing	Some Progress	Needs Improvement
Materials / Setup 2pts	All materials and setup used in the experiment are clearly and accurately described.	Almost all materials and the setup used in the experiment are clearly and accurately described.	Most of the materials and the setup used in the experiment are accurately described.	Many materials are described inaccurately OR are not described at all.	
Variables 2pts	Variables are clearly identified and set up using standardized & systematic procedures to compare against a control	Variables are clearly identified and set up to compare against a control	Variables are not clearly identified or compared against the control	Variables are not identified or compared against the control	
Procedures:					
Procedures 2pts	Procedures are listed in clear steps. Each step is numbered and is a complete sentence.	Procedures are listed in a logical order, but steps are not numbered and/or are not in complete sentences.	Procedures are listed but are not in a logical order or are difficult to follow.	Procedures do not accurately list the steps of the experiment.	

Data:		Mastery	Developing	Some Progress	Needs Improvement
Data 2pts	Professional looking and accurate representation of the data in tables and/or graphs. Graphs and tables are labeled and titled. Table is complete and addresses qualitative and quantitative observations.	Accurate data in tables and/or graphs. Graphs and tables are labeled and titled. Table is mostly complete addressing both qualitative and quantitative observations.	Accurate data in written form, but no graphs or tables are presented. Table is not complete addressing only some of the qualitative and quantitative observations.	Data are not shown OR are incomplete or inaccurate.	
Photos, Drawings & Diagrams 2 pts	Clear, accurate visuals are included and make the experiment easier to understand. Visuals are labeled, cited if necessary neatly and accurately.	Visuals are included and are labeled neatly and accurately.	Visuals are included and are labeled.	Needed visuals are missing OR are missing important labels.	

Analysis & Conclusions		Mastery	Developing	Some Progress	Needs Improvement
Variables 2 pts	The relationship between the variables is discussed and trends/patterns logically analyzed. Predictions are made about what might happen if part of the lab were changed or how the experimental design could be changed.	The relationship between the variables is discussed and trends/patterns logically analyzed.	The relationship between the variables is discussed but no patterns, trends or predictions are made based on the data.	The relationship between the variables is not discussed.	
Conclusion 4 pts	Conclusion includes whether the findings supported the hypothesis, possible sources of error, and what was learned from the experiment.	Conclusion includes whether the findings supported the hypothesis and what was learned from the experiment.	Conclusion includes what was learned from the experiment.	No conclusion was included in the report OR shows little effort and reflection.	