

Science Inquiry Lab Report Rubric

Science Inquiry Lab Report Rubric		SCORING	
		Student	Teacher
PURPOSE			
1. WHAT IS THE QUESTION YOU ARE TRYING TO ANSWER? Write a problem statement that accurately defines the goal(s) of the investigation in the form of a question to be answered .			
2. WHAT IS YOUR INDEPENDENT VARIABLE? (Remember the “Does <u>IV</u> affect <u>DV</u> as <u>measured by DATA with UNITS?</u> ” trick!) What will you <i>manipulate</i> to cause a change in the dependent variable?			
3. WHAT IS YOUR DEPENDENT VARIABLE? What will you <i>measure</i> (DATA with UNITS) that is expected to change in response to the independent variable?			
4. WHAT IS YOUR HYPOTHESIS? Develop a hypothesis that addresses the problem statement, is testable , and predicts the effect of the independent variable on the dependent variable.			
Sub Total			
PROCEDURE / EXPERIMENTAL DESIGN		Student	Teacher
5. WRITE OUT A DETAILED EXPERIMENTAL PROCEDURE.			
The procedure is designed to solve the problem statement.			
Lab design is controlled (all variables, except independent variable, are held constant).			
The procedure is described in a numbered sequence .			
The procedure has enough information to be reliably repeated by another student.			
Sub Total			
DATA and DATA ANALYSIS – GRAPHS and TABLES		Student	Teacher
6. RECORD AND ANALYZE YOUR DATA.			
DATA with UNITS (what you measure) is presented in a neat and organized manner.			
Graph and Table of the data are completely, accurately, and informatively labeled and titled.			
Graph and Table of the data accurately match the experimental design.			
The information is reported accurately (graphs are to scale, data are in correct UNITS)			
Sub Total			
CONCLUSIONS and VALIDITY		Student	Teacher
7. DISCUSS YOUR DATA.			
Repeat the hypothesis and then discuss whether your data supports or refutes your hypothesis.			
Use specific examples from the DATA (with UNITS) to support the above response and discussion.			
Discuss sources of error and/or mistakes made during the experiment: Did anything go wrong? What tips would you offer other scientists to ensure proper execution of your experimental procedure?			
Discuss the validity of the experiment, including suggestions for modifications to improve and extend the investigation. What changes, if any, to your original procedure would you recommend? What additional experiments could be performed to further investigate your original question?			
Sub Total			
SCORING GUIDE			
3 = Report completely met indicator;			
2 = Report mostly met indicator, with few errors;			
1 = Report addressed indicator with major omissions;			
0 = Indicator was omitted.			
TOTAL		<u>48</u>	<u>48</u>