# QSR Level 5 Science Rubric: Formal Lab Report

| Proficiency | | | | |
|---|---|---|---|---|
| ❑ Proficient<br>❑ Not proficient | Name | | | |
| Student must meet proficiency in all categories | | | | |
| | Assignment Title | | | |
| | Date | | Subject | |
| Teachers: Circle proficient or not proficient for each category and underline or highlight the not proficient indicators in each category | | | Teacher | |

| Introduction and Purpose | | Supplies, Equipment, and Procedure | | Observations, Data, and Calculations | |
|---|---|---|---|---|---|
| **Proficient** | **Not Proficient** | **Proficient** | **Not Proficient** | **Proficient** | **Not Proficient** |
| • States a complete purpose and/or hypothesis with explanation<br>• Provides background information for all key concepts and processes involved | | • Includes a complete list of equipment and supplies including measuring tools, if used<br>• Identifies variables (controlled, responding and manipulated) when appropriate<br>• Includes appropriate bullets, numbers, headers and paragraphs<br>• Procedure is written correctly:<br><br>a. Summarizes the procedure when replicating a Teacher-Designed experiment<br>**or**<br>b. Clearly explains the steps in a Student-Designed experiment so that the experiment can be replicated | | **Observations and Data:**<br>• Displays observations and data appropriately in charts and graphs<br>• Records measurements with correct precision<br>• Labels all measurements with correct units<br>• Provides adequate detail in diagrams or sketches of observations<br><br>**Calculations (Physical: required, Life: when appropriate):**<br>• Uses correct equations<br>• Calculates accurately<br>• Shows each step of a calculation or algebraic manipulation with correct units | |

| Conclusion | | Analysis | | Presentation | |
|---|---|---|---|---|---|
| **Proficient** | **Not Proficient** | **Proficient** | **Not Proficient** | **Proficient** | **Not Proficient** |
| • Correctly interprets and summarizes all observations, data, and calculations included in the lab<br>• Links conclusions directly to the purpose and/or hypothesis<br>• Cites data and/or calculations to justify conclusions | | • Discusses potential sources of error and how they may have influenced the results<br>• When appropriate, mathematical models are used to accurately evaluate validity of results (e.g. % yield, % error, or % difference)<br>• Addresses number of trials and how it affects validity of results<br>• Analyzes experimental design and offers suggestions for improvement when appropriate<br>• Identifies unanswered questions and offers suggestions for future research, when appropriate | | • This presentation (spelling, punctuation, capitalization, correct grammar and usage, and appropriate sentence structure) does not distract from the communication of the ideas.<br>• Logical paragraphing<br>• Appropriate voice<br>• Appropriately displays scientific symbols, expressions and equations<br>• Includes a title and appropriate headings | |

**Teacher Comments:**

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| | **Proficiency**<br>❑ Proficient<br>❑ Not Proficient |

 May 2007