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| **Category** | **Exemplary (4 pts)** | **Proficient (3 pts)** | **Developing (2 pts)** | **Needs Revision (1 pt)** |
| **Problem / Question** | * Problem is correctly identified. * No spelling/ grammar (s/g) errors. | * Problem is sufficiently identified. * Few s/g errors. | * Question is partially identified. * Some spelling/grammar errors. | * Question is incorrectly identified. * Many errors. |
| **Introduction** | * State the goals and objectives of lab * Describes what data will be collected * Briefly summarizes experiment * Describe how that data will be used to arrive at conclusions at the completion of the laboratory. | One key element is missing:   * State the goals and objectives of lab * Describes what data will be collected * Briefly summarizes experiment * Describe how that data will be used to arrive at conclusions at the completion of the laboratory. | Two key elements are missing:   * State the goals and objectives of lab * Describes what data will be collected * Briefly summarizes experiment * Describe how that data will be used to arrive at conclusions at the completion of the laboratory. | A confusing of misleading introduction missing more than 2 elements:   * State the goals and objectives of lab * Describes what data will be collected * Briefly summarizes experiment * Describe how that data will be used to arrive at conclusions at the completion of the laboratory. |
| **Variables** | * Independent var. * Dependent var. * controlled variable. | One variable is missing:   * Independent var. * Dependent var. * controlled variable. | Two variables are missing:   * Independent var. * Dependent var. * controlled variable. | * All variables are missing. |
| **Hypothesis** | * Link between problem and predicted results direct and relevant. * Use if-then-because * Ind & Dependent variable featured * No s/g errors | * Reasonable link between problem and predicted results. * Use if-then-because * Ind./Dep var featured * Few s/g errors | * Weak link between problem and predicted results. * Missing if-then-because * Missing ind./dep. var. * Some s/g errors. | * Unreasonable link between problem and predicted results. * Missing if-then-because * Missing ind/dep var. * Many s/g errors |
| **Materials and Procedure** | * Includes list of all materials in bullets. * Procedure written in past tense * Does not use I, you, or we * Procedure in paragraph form using transition words * Specific * Refer to glassware instruments used * Includes any measurements * No s/g errors. | * Includes list of most materials in bullets. * Procedure written in past tense * Does not use I, you, or we * Procedure in paragraph form w/ transition words * Missing some specifics * Refer to glassware instruments used * Includes any measurements * Few s/g errors. | * Includes list of some materials in bullets. * Procedure written mostly in past tense * Uses I, you, or we sometimes * Procedure in paragraph form w/ missing transition words * Missing specifics—not in order * Refer to glassware instruments used * Includes any measurements * Some s/g errors. | * Includes list of a few materials in bullets. * Procedure not written in past tense * Uses I, you, or we * Not paragraph form/ missing transition words * Missing specifics—not in order * Does not refer to glassware/ instruments * Includes little measurements * Many s/g errors. |
| Observations and Data Analysis/ Calculations | * Observations are plentiful and specific for each experiment * Charts and graphs are recorded where necessary. * Data is properly recorded in a coherent table * Proper calculations are carried out. * Proper units are used. | Missing one of the following:   * Observations are plentiful and specific for each experiment * Charts and graphs are recorded where necessary. * Data is properly recorded in a coherent table * Proper calculations are carried out. * Proper units are used | Missing two of the following:   * Observations are plentiful and specific for each experiment * Charts and graphs are recorded where necessary. * Data is properly recorded in a coherent table * Proper calculations are carried out. * Proper units are used | * No data table present. * Observations are vague and unclear. * Calculations unclear or incorrect. |

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| **Discussion and Conclusion** | * Restates hypothesis * States hypothesis is incorrect/correct * Data is analyzed thoroughly and correctly. It’s used to support valid conclusions * 2 Sources of error in experiment explained * 2 ways to improve the experiment is explained * Asks a new question * Makes a connection to how experiment could be used in real life. | One key element of conclusion is missing or not fully expanded upon:   * Restates hypothesis * States hypothesis is incorrect/correct * Data is analyzed thoroughly and correctly. It’s used to support valid conclusions * 2 Sources of error in experiment explained * 2 ways to improve the experiment is explained * Asks a new question * Makes connection of how experiment could be used in life | Two key elements of conclusion are missing:   * Restates hypothesis * States hypothesis is incorrect/correct * Data is analyzed thoroughly and correctly. It’s used to support valid conclusions * 2 Sources of error in experiment explained * 2 ways to improve the experiment is explained * Asks a new question * Makes a connection to how experiment could be used in life | * Paraphrases manual with little data analysis * Conclusions may be wrong or data misinterpreted. * More than two key elements missing from conclusion. |

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| Student’s **transitions** are… | … varied and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. | … varied and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts. | … appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts. | … inappropriate and ineffective transitions in attempt to create cohesion and clarify the relationship between ideas. |
| Student’s **word choices** show… | …precise language, science-specific vocabulary to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the experiment’s context as well as to the level of knowledge of likely readers. | …precise language and science-specific vocabulary to manage the complexity of the experiment’s context as well as to the level of knowledge of likely readers. | …precise language and age-appropriate vocabulary to inform about or explain the experiment completed. | …imprecise language and age-appropriate vocabulary to inform the reader about the experiment. |
| Student’s **tone**… | …is formal, objective, and established early and maintained throughout the lab report. | …is formal and/or objective, and may occasionally become information/subjective without hindering the overall integrity. | …is provides for a formal style and objective reading. | …is established but is neither formal nor objective. |
| Student’s **illustration** | Drawing goes beyond in a significant way, e.g. drawing is particularly  clear, colorful | Drawing is neat, easy–to–read, and completely labeled. | Drawing is missing key labels; is sloppy; is misleading. | Drawing missing, illegible, or not included. |
| Student’s **presentation** | Extremely neat, organized, and presentable. | Looks OK | A really rushed job | Completely illegible |

**TOTAL SCORE ON REFLECTION: \_\_\_\_\_\_\_\_\_/48 + 2 points for heading**

**SCORE = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**