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|  | **Beginning** | **Developing** | **Accomplished** | **Exemplary** |
| **Pre-Lab****Basics** | o Lab report ***has not*** demonstrated clear communication, objectives and hazardous materials assessment. | o Lab report with ***somewhat*** clear communication, objectives and hazardous materials assessment. | o Organized lab report with ***mostly*** clear communication, objectives and hazardous materials assessment. | o Organized and professional lab report with clear communication, definitive objectives and thorough hazardous materials assessment. |
| **Procedure****/Flowchart** | o Lab could ***not*** be reproduced if procedure repeated by an outside party. | o Lab could be ***somewhat*** reproduced if procedure repeated by an outside party. | o Lab could be ***mostly*** reproduced if procedure repeated by an outside party. | o Lab would be reproduced if procedure repeated by an outside party. |
| **Data** | o Data is incomplete. | o Data is ***somewhat*** complete. | o Data is ***mostly*** complete. | o Data is complete.  |
| **Calculations** | o Calculations ***have not*** communicated understanding of the concepts covered in this lab. | o Calculations ***somewhat*** communicates understanding of the concepts covered in the lab. | o Calculations ***mostly*** communicates understanding of the concepts covered in this lab. | o Calculations ***clearly*** communicates understanding of the concepts covered in this lab. |
| **Graphs** | o ***Does not*** demonstrate the relationship between variables. | o ***Somewhat*** demonstrates the relationship between variables. | o ***Mostly*** demonstrates the relationship between variables. | o ***Clearly*** demonstrates the relationship between variables. |
| **Discussion** | o Discussion questions are ***not*** answered completely and do not connect concepts explored in lab to theory. | o Discussion questions ***somewhat*** answered completely and connect concepts explored in lab to theory | o Discussion questions are ***mostly*** answered completely and connect concepts explored in lab to theory. | o Discussion questions are answered completely and connect concepts explored in lab to theory |
| **Conclusion** | o Conclusion is incomplete and/or does not demonstrate an understanding of the concepts covered in this lab. | o Conclusion is complete and demonstrates ***some*** understanding of the concepts covered in this lab. | o Conclusion is ***mostly*** thorough, demonstrating an understanding of the concepts covered in this lab. | o Conclusion is thorough, demonstrating a strong understanding of the concepts covered in this lab. |

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| **Pre-Lab**: * includes all of the following: Subject, Unit, Name, Partner’s Name, Date of Lab completion
* title that reflects the purpose of the lab
* purpose that clearly identifies objectives of the lab
* all materials are listed and all Hazardous Materials are listed in HEM

**Procedure/Flowchart**: * excellent organization
* clear and concise
* includes diagrams/pictures of apparatus’ used throughout the lab
* all steps are included and flow from one step to the next

**Data**: * tables are well-organized
* proper sig-figs and uncertainty
* includes units
* includes label/heading
* multiple trials for each point if applicable
 | **Calculations**: * ordered in a stepwise fashion
* includes correct units
* calculations are free from errors

**Graphing**: * title follows x vs. y for “process being analyzed”
* axis labelled with units
* lines/curves of best fit include equation
* line of best fit is not “forced” through the origin

**Discussion/Conclusion**: * questions are answered completely and connect to theory
* all answers demonstrate a thorough understanding of the concepts

**Conclusion**: * conclusion answers purpose by comparing key results to predictions/hypothesis (supported/no supported)
* connects to big picture and asks new question questions and suggests new experiments
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