

## Design Your Own Chemlab Holistic Rubric

Scoring Criteria	Rating
<ul style="list-style-type: none"> <li>• The design of study is exemplary in its clarity and completeness and shows a clear understanding of the scientific process.</li> <li>• The sequence of steps is exceptionally logical, easy to follow, allowing for the collection of valid scientific data.</li> <li>• The student employs experimental controls, replication and strategies to minimize error where applicable.</li> <li>• Observations/data collection is very systematic and detailed.</li> <li>• Measuring tools were appropriately selected and used precisely.</li> <li>• If the student's original methodology prevented successful collection of data, the student successfully problem solved the procedures to improve the precision and accuracy of the data set.</li> <li>• Data tables are very organized include appropriate labels and units.</li> <li>• Answers to Analyze and Conclude questions are exceptionally logical, thoughtful and accurate, utilizing evidence collected from the investigation for support.</li> <li>• Student shows a thorough understanding of the relationship between evidence and explanation and does not make inferences beyond what the data set allows.</li> <li>• Appropriate safety precautions are planned and utilized.</li> <li>• Waste disposal was complete.</li> </ul>	4
<ul style="list-style-type: none"> <li>• The design of study is exemplary in its clarity and completeness and shows a clear understanding of the process.</li> <li>• The sequence of steps is exceptionally logical, easy to follow, allowing for the collection of valid scientific data.</li> <li>• Where applicable, student shows a thorough understanding of the need for controls, replication and strategies to minimize error.</li> <li>• Observations were made systematically and data charts are organized and complete.</li> <li>• The student uses tools and materials precisely and employs strategies to minimize error.</li> <li>• Analysis questions are answered completely and where applicable logical explanations are provided.</li> <li>• Appropriate safety precautions are planned and utilized.</li> <li>• Waste disposal was complete.</li> </ul>	3
<ul style="list-style-type: none"> <li>• Lab was completed but procedures were not written clearly or procedures were not followed systematically.</li> <li>• Observations were made but were not made systematically.</li> <li>• Data tables were poorly drawn and organized and/or lack complete data collection.</li> <li>• Tool and material usage was sloppy, leading to imprecise measurements.</li> <li>• Answers to analysis questions were not based on evidence from the lab and/or lacked explanations where required.</li> <li>• Safety precautions are lacking or are incomplete.</li> <li>• Plans to care for the workstation and dispose of wastes are lacking or incomplete.</li> </ul>	2
<ul style="list-style-type: none"> <li>• The work is very poorly done or has not been completed.</li> </ul>	1