

Green Chemistry Lab Peer Grading Rubric

Whose lab report are you grading? _____

Grader's Name _____ Date _____ Period _____

***Take off at least one point for each box that is not checked in the table below.

<u>Requirements</u>	<u>Earned Points</u>	<u>Possible Points</u>	<u>Comments</u>
Heading <ul style="list-style-type: none"> <input type="checkbox"/> Date of experiment <input type="checkbox"/> Lab partner(s) <input type="checkbox"/> Experiment Title 		3	
Pre-Lab <ul style="list-style-type: none"> <input type="checkbox"/> Purpose <input type="checkbox"/> Background Knowledge (5 pts) <input type="checkbox"/> Materials <input type="checkbox"/> Safety Protocol <ul style="list-style-type: none"> <input type="checkbox"/> detailed enough to follow <input type="checkbox"/> imperative <input type="checkbox"/> numbered 		11	
Data <ul style="list-style-type: none"> <input type="checkbox"/> Data Table (-1/2 if no title) <input type="checkbox"/> Mass of crucible and cover <input type="checkbox"/> Mass of crucible, cover and sample <input type="checkbox"/> Mass of sample <input type="checkbox"/> Mass of crucible, cover and sample after heating <input type="checkbox"/> Units included in header <input type="checkbox"/> Neat, easy to read 		7	
Data Processing <p>Mass of H₂O(g) and CO₂(g)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Mass of H₂O(g) and CO₂(g) = mass before – mass after <input type="checkbox"/> Substitution <input type="checkbox"/> Boxed answer with g units <p>Moles of metal bicarbonate, in initial sample</p> <ul style="list-style-type: none"> <input type="checkbox"/> = 2 x (mass loss of sample / 62.03 g/mol) <input type="checkbox"/> Substitution <input type="checkbox"/> Boxed answer with mol units <p>Mass of metal bicarbonate in sample</p> <ul style="list-style-type: none"> <input type="checkbox"/> = moles of metal bicarbonate x mass of metal bicarbonate <input type="checkbox"/> Substitution <input type="checkbox"/> Boxed answer with g units <p>Weight percent of metal bicarbonate in sample</p> <ul style="list-style-type: none"> <input type="checkbox"/> = (mass of metal bicarbonate / mass of mixture) x 100 <input type="checkbox"/> Substitution <input type="checkbox"/> Boxed answer with % <input type="checkbox"/> All calculations are clearly labeled and easy to understand 		13	

<p>Conclusion and Evaluation</p> <ul style="list-style-type: none"> <input type="checkbox"/> Complete sentences <input type="checkbox"/> Correct spelling and grammar <p>Paragraph 1:</p> <ul style="list-style-type: none"> <input type="checkbox"/> What is Green Chemistry? <input type="checkbox"/> What are the practical applications of Green Chemistry? <input type="checkbox"/> Identify and explain the 3 principles of Green Chemistry applied in this lab <p>Paragraph 2:</p> <ul style="list-style-type: none"> <input type="checkbox"/> CLAIM: Based on your lab data, state your weight percent of metal bicarbonate in the mixture. <input type="checkbox"/> EVIDENCE: Significant data (quantitative) to support claim <input type="checkbox"/> REASONING: Scientific principles applied <p>Paragraph 3:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Compare your answer to the theoretical value (75% MHCO_3; 25% M_2CO_3). What is your percent error? <input type="checkbox"/> Identify sources of error <input type="checkbox"/> How would these errors affect the results? <input type="checkbox"/> How could the results be improved? 		12	
<p>Presentation</p> <ul style="list-style-type: none"> <input type="checkbox"/> Well-organized, sections clearly labeled <input type="checkbox"/> Neat, legible writing <input type="checkbox"/> Table of contents includes information <input type="checkbox"/> Page numbers included <input type="checkbox"/> Lab is written in ink <input type="checkbox"/> Errors properly crossed out, no white out <input type="checkbox"/> Writes on one side of the page only 		4	

Total points earned: _____ / 50

Write two things the student did well in this lab report:

-
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Write two things that the student could do to improve the lab report:

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