

Shead High School Laboratory Report Scoring Rubric

| Standard | 4 - Exceeds | 3 - Meets | 2 - Partially Meets | 1 - Does Not Meet |
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| <p>Lab report</p> <p><u>Appearance</u></p> | <ul style="list-style-type: none"> - Text is typed - Attractive and appealing - Free of spelling and grammatical errors - Required sections are all present and in the correct order | <ul style="list-style-type: none"> - Text is typed - Free of spelling errors with minimal grammatical errors - Required sections are all present, but not in required order | <ul style="list-style-type: none"> - Text is typed - Neat and legible text - Free of distracting spelling and grammatical errors - One required section is missing. | <ul style="list-style-type: none"> - Difficult to read - Appearance is sloppy and careless - Riddled with spelling errors and poorly constructed sentences. - Few or no formatting requirements are met |
| <p><i>Content:</i></p> <p>Heading</p> | <ul style="list-style-type: none"> - Title page contains: <ul style="list-style-type: none"> - Your name - Partner's name - Title of the experiment - Date experiment was performed | | <ul style="list-style-type: none"> - Lab page heading contains: <ul style="list-style-type: none"> - Your name - Partner's name - Title of the experiment - Date experiment was performed | <ul style="list-style-type: none"> - Lab page heading contains: <ul style="list-style-type: none"> - Your name - Title of the experiment - Date experiment was performed |
| <p>Purpose</p> <p>A statement of intent or purpose of the experiment. What general concepts were considered?</p> <p>POINTS X1.5</p> | <ul style="list-style-type: none"> - Labeled Purpose - A clearly written statement of the intended objective(s). It may begin with ... "The purpose of the investigation is to ..." (i.e. determine, observe) - Written in 3rd person "point of view, no use of personal pronouns - like "I", "we", or "you" - whatsoever | <ul style="list-style-type: none"> - Labeled Purpose - A clearly written statement of the intended objective(s). - Written in 3rd person "point of view, no use of personal pronouns - like "I", "we", or "you" - whatsoever | <ul style="list-style-type: none"> - Labeled Purpose - A clearly written statement of the intended objective(s). - Attempt is made to write in 3rd persons. "I", "we", or "you" is used once in the statement | <ul style="list-style-type: none"> - Label not clearly written or not present - Written statement does not clearly identify the purpose of the laboratory - No attempt was made to write in the 3rd person. |
| <p>State your Hypothesis.</p> <p>Include discussion of any essential background information. State clearly the assumption relied upon to develop your hypothesis logically and clearly. (What do you think will happen and why? Justify.</p> | <ul style="list-style-type: none"> - Labeled Hypothesis - A clearly written statement of your predictions regarding the outcome of the experiment - What conclusion will you be able to make from your data - Provides 1 or more justifying pieces of evidence | <ul style="list-style-type: none"> - Labeled Hypothesis - A clearly written statement of what you believe will be the outcome of the experiment - What conclusion will you be able to make from your data | <ul style="list-style-type: none"> - Labeled Hypothesis - An unclear but plausible written statement of what you believe will be the outcome of the experiment - What conclusion will you be able to make from your data | <ul style="list-style-type: none"> - Label not clearly written or not present - Written statement does not provide a plausible outcome for the experiment |
| <p>Materials</p> | <ul style="list-style-type: none"> - Labeled List of Materials - A list of all lab tools and reagents, properly identified, that were used in the experiment | <ul style="list-style-type: none"> - Labeled List of Materials - A complete list of all lab tools and reagents, with minimal error in identification, that were used in the experiment | <ul style="list-style-type: none"> - Labeled List of Materials - An incomplete list of all lab tools and reagents, with minimal error in identification, that were used in the experiment | <ul style="list-style-type: none"> - Label not clearly written or not present - An incomplete and incorrect list of lab tools and reagents that were used in the experiment - List includes tool that were not used in the experiment |

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| <p><u>Procedure:</u></p> <p>A summary that explains what you did and how you did it. This section should not be a strict paraphrasing of the procedures described in the lab sheet and in your lab journal.</p> | <ul style="list-style-type: none"> - Labeled Procedure - A clearly written paragraph summarizing what was done in the lab (in your own words) - Written in 3rd person "point of view, no use of personal pronouns – like "I", "we", or "you" - Maintains the same verb tense throughout paragraph | <ul style="list-style-type: none"> - Labeled Procedure - A clearly written paragraph, incorporating phrase from the lab sheet, summarizing what was done in the lab - Written in 3rd person "point of view, no use of personal pronouns – like "I", "we", or "you" - Maintains the same verb tense throughout paragraph | <ul style="list-style-type: none"> - Labeled Procedure - A clearly written paragraph, incorporating phrase from the lab sheet, summarizing what was done in the lab - Attempt is made to write in 3rd person "point of view" - Pronouns like "I", "we", or "you" are used two or three times. | <ul style="list-style-type: none"> - Label not clearly written or present. - Paragraph formatting is not followed. Tendency toward itemizing steps. - Consistent use of personal pronouns - Verb tenses vary from past to present |
| <p><u>Data:</u></p> <p>Includes data collected clearly organized.</p> <p style="text-align: center;">POINTS X2</p> | <ul style="list-style-type: none"> - Labeled Data - Quantitative observations are clearly organized in a data table. - Measurements are recorded using the correct number of significant digits and proper units. - Qualitative observations are described in a data table | <ul style="list-style-type: none"> - Labeled Data - Quantitative observations are clearly organized in a data table. - Most measurements are recorded using the correct number of significant digits and proper units - Qualitative observations are described in a data table | <ul style="list-style-type: none"> - Labeled Data - Quantitative observations are clearly and neatly listed - Most measurements are recorded using the correct number of significant digits and proper units - Qualitative observations are listed neatly, some may be described in complete sentences | <ul style="list-style-type: none"> - Label not clearly written or present. - Quantitative observations are incomplete - Measurements recorded without proper number of significant digits and incorrect or no units - Qualitative observations are sparse or vague. |
| <p><u>Analysis and Calculations:</u></p> <p>Includes equations used, calculations, graphs of results, illustrations, etc.</p> <p>Verbal descriptions of results should be included where appropriate, i.e. – when results are qualitative and not quantitative.</p> | <ul style="list-style-type: none"> - Labeled Analysis and Calculations - Equations used are listed - Calculations are included. If several sets of data are calculated in the same way, show calculations for the first set only. Indicated same method was used for remaining data. - Calculations are correct. - Calculate percent error and measurement uncertainty where applicable. | <ul style="list-style-type: none"> - Labeled Analysis and Calculations - Some equations used are listed - Calculations are included. If several sets of data are calculated in the same way, show calculations for the first set only. Indicated same method was used for remaining data. - Only minimal errors in the calculations. - Calculate percent error and measurement uncertainty where applicable. | <ul style="list-style-type: none"> - Labeled Analysis and Calculations - Some equations used are listed - Calculations are included. If several sets of data are calculated in the same way, show calculations for the first set only. Indicated same method was used for remaining data. - Calculations contain significant errors. - Calculate percent error where applicable. | <ul style="list-style-type: none"> - Label not clearly written or present. - Few, if any, calculations are shown and contain significant errors. - Percent error calculations are omitted or incorrect. |

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| <p style="text-align: center;"><u>Conclusion:</u></p> <p>A discussion of the details of your experiment, the results, and what you learned from them. Really think about the experiment. Be creative and original in analyzing your results. Be careful of your own bias and do not let it slant your conclusions. If you expected a result and did not get it, determine whether the problem was in your technique or in your expectations. Be objective. Your conclusion response should show a thorough understanding of the principles involved in the experiment.</p> <p style="text-align: center;">POINTS X2</p> | <ul style="list-style-type: none"> - Labeled Conclusion - A clear, well-written response to the experiment. It should answer the four sets of questions in paragraph format: <ol style="list-style-type: none"> 1. What are the results of your experiment? (Discuss data/obs) 2. What do the results mean? How do they relate to the principle being tested? (Interpretation of calculations, data, interesting or unexpected observations.) 3. Did you achieve the expected results? Did the results match your hypothesis? Why or why not? 4. Are your results valid? Was there something that you did during the experiment that may have affected your outcome? (Suggest improvements in the techniques. How might you do the lab differently? Do not be afraid to criticize and add your own creative input.) - Refers to and incorporates the answers to the questions on the lab sheet within the conclusion response | <ul style="list-style-type: none"> - Labeled Conclusion - A clear, well-written response to the experiment. It should answer the three sets of questions in paragraph format: <ol style="list-style-type: none"> 1. What are the results of your experiment? (Discuss data/obs) 2. What do the results mean? How do they relate to the principle being tested? (Interpretation of calculations, data, interesting or unexpected observations.) 3. Did you achieve the expected results? Did the results match your hypothesis? Why or why not? - Refers to and incorporates the answers to the questions on the lab sheet within the conclusion response | <ul style="list-style-type: none"> - Labeled Conclusion - A clear, well-written response to the experiment. It should answer at least two of the following questions in paragraph format: <ol style="list-style-type: none"> 1. What are the results of your experiment? (Discuss data/obs) 2. What do the results mean? How do they relate to the principle being tested? (Interpretation of calculations, data, interesting or unexpected observations.) 3. Did you achieve the expected results? Did the results match your hypothesis? - Refers to and itemizes the answers to the questions on the lab sheet at the end of the conclusion response | <ul style="list-style-type: none"> - Label not clearly written or present. - A clear, well-written response to the experiment. It should answer at least one of the following questions in paragraph format. <ol style="list-style-type: none"> 1. What are the results of your experiment? (Discuss data/obs) 2. What do the results mean? How do they relate to the principle being tested? (Interpretation of calculations, data, interesting or unexpected observations.) - Neglects to answer the questions on the lab sheet or only covers them partially in the conclusion |
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| <p>References:</p> <p>A list of any books, periodicals, etc. (other than the lab sheet) used to assist you in understanding/writing your lab report.</p> | <ul style="list-style-type: none"> - Require 3 reference sources <ul style="list-style-type: none"> a) any book other than your textbook b) chemistry book c) an Internet site - Reference notation will include: <ul style="list-style-type: none"> - Author - Title of book, "article", site - Date of publication - Volume#, page# - Internet address (if applicable) - Reference notation uses correct format with no errors | <ul style="list-style-type: none"> - Require 2 reference sources <ul style="list-style-type: none"> a) any book other than your textbook b) chemistry book c) an Internet site - Reference notation will include: <ul style="list-style-type: none"> - Author - Title of book - Date of publication - Volume#, - Page# - Reference notation uses correct format with minimal errors | <ul style="list-style-type: none"> - Require 2 reference sources <ul style="list-style-type: none"> d) any book other than your textbook e) chemistry book f) an Internet site - Reference notation will include: <ul style="list-style-type: none"> - Author - Title of book - Date of publication - Volume#, - Page# -Reference notation use correct format with significant errors | <ul style="list-style-type: none"> - No reference source |
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0 represents missing or absent section.