**LAB REPORT/SCIENTIFIC PROCESS RUBRIC**

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| --- | --- | --- | --- |
|  | **Below Standard** | **Approaching Standard** | **At Standard** |
| **Title** | Title is completely erroneous, irrelevant, or missing. | Title of the lab is a general description of the purpose | Title of the lab is descriptive, and representative of the purpose; clearly incorporates the experiment’s variables |
| **Question/ Purpose** | The purpose of the lab or the question to be answered during the lab is partially identified, and is stated in a somewhat unclear manner. | The purpose of the lab or the question to be answered during the lab is identified, but is stated in a somewhat unclear manner. | The purpose of the lab or the question to be answered during the lab is clearly identified and stated. |
| **Claim** | Relationship between the variables and the predicted results has been stated, but appears to be based on flawed logic. Claim does not answer the question AND is not written as a complete sentence that can stand alone. | Relationship between the variables and the predicted results is reasonable based on general knowledge and observations. Claim may not answer the question OR may not be written as a complete sentence that can stand alone. | Relationship between the variables and the predicted results is clear and reasonable based on what has been studied. Claim answers the question and is written as a complete sentence that can stand alone. |
| **Variables** | Variables are not described OR the majority lack sufficient detail. | Most variables are clearly described with most relevant details. | All variables (IV, DV, Controls) are clearly identified and described with all relevant details (including how the DV will be measured). |
| **Materials** | Many materials are described inaccurately OR are not described at all. | Almost all materials and the setup used in the experiment are clearly and accurately described. | All materials and setup used in the experiment are clearly and accurately described. |
| **Experimental Design** | Experiment is not relevant to the question being tested. Several steps are not outlined AND there is not enough detail to replicate procedures. | Experiment is mostly relevant to the question being tested. All steps are outlined, but there is not enough detail to replicate procedures. | Experiment is relevant to the question being tested. Procedures appear to be replicable. Steps are outlined sequentially and are adequately detailed. |
| **Data (Tables and Graphs)** | Data is represented in written form, but no graphs or tables are presented. No numerical data. | Accurate representation of the data in tables and/or graphs. Graphs and tables may be missing a title, labels, or units. Numerical data is included. | Professional looking and accurate representation of the data in tables and/or graphs. Graphs and tables are labeled and titled and include units. Numerical data is included. |
| **Conclusion: Evidence & Reasoning** | Conclusion includes little evidence and reasoning to support the claim. Evidence presented is insufficient, irrelevant, or vague. | Conclusion includes some evidence to explain how the findings support the claim. Evidence is relevant and accurate, but may be insufficient. There is some reasoning to connect the evidence to the claim | Conclusion includes evidence to explain how the findings support the claim. Evidence is sufficient, relevant, accurate, and clearly explained. Reasoning explains why and how the evidence connects to the claim. |
| **Conclusion: Error Analysis Improvement** | There is little or no discussion of errors. No new questions and reflection about the topic and/or suggestions to improve or further build upon this experiment. | Experimental errors and their possible effects are discussed. Contains a questions and reflection about the topic but may lack suggestions to improve or further build upon this experiment. | Experimental errors, their possible effects, and ways to reduce errors are discussed. Contains new questions and reflection about the topic and/or suggestions to improve or further build upon this experiment. |
| **Mechanics** | Many errors in spelling, punctuation and/or grammar in the report | Few errors in spelling, punctuation and/or grammar in the report | No errors in spelling, punctuation and/or grammar in the report |
| **Appearance/Organization** | Lab report is handwritten and looks sloppy with cross-outs, multiple erasures and/or tears and creases. | Lab report is neatly written or typed, but formatting does not help visually organize the material. | Lab report is typed and uses headings and subheadings to visually organize the material. It appears professional. |

 **LAB REPORT/SCIENTIFIC PROCESS RUBRIC**

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|  | **Below Standard** | **Approaching Standard** | **At Standard** |
| **Title** | * Completely erroneous, irrelevant, or missing
 | * Title is a general description of the purpose
 | * Descriptive and representative of the purpose
* Clearly incorporates the experiment’s variables
 |
| **Question/ Purpose** | * Partially identified, and is stated in a somewhat unclear manner
 | * Identified, but is stated in a somewhat unclear manner.
 | * Purpose or question to be answered during the lab is clearly identified and stated.
 |
| **Claim** | * Does not answer the question AND is not written as a complete sentence that can stand alone.
 | * May not answer question OR may not be written as complete sentence that can stand alone
 | * Answers the question and is written as a complete sentence that can stand alone
 |
| **Variables** | * Variables are not described OR the majority lack sufficient detail
 | * Most variables are clearly described with most relevant details
 | * IV, DV, Controls clearly identified and described (including how the DV will be measured)
 |
| **Materials** | * Many materials described inaccurately OR not listed
 | * Almost all materials clearly listed or described
 | * All materials are clearly and accurately described
 |
| **Experimental Design** | * Several steps not outlined **&** not enough detail to replicate
* Experiment not relevant to question
 | * All steps outlined, but there is not enough detail to replicate procedures
* Experiment mostly relevant to question
 | * Steps are outlined sequentially and are adequately detailed to replicate experiment
* Relevant to question being tested
 |
| **Data (Tables and Graphs)** | * Data is represented in written form, but no graphs or tables are presented.
 | * Accurate representation of the data in tables and/or graphs.
* May be missing clear title, labels, or units.
 | * Professional looking and accurate representation of the data in tables and/or graphs.
* Labeled and titled and include units.
 |
| **Conclusion: Evidence & Reasoning** | * Conclusion includes little evidence and reasoning to support the claim.
* Evidence presented is insufficient, irrelevant, or vague.
 | * Conclusion includes some evidence to explain how the findings support the claim.
* Evidence is relevant & accurate, but may be insufficient.
* Some reasoning to connect evidence to the claim
 | * Includes evidence to explain how findings/data supports the claim.
* Evidence is sufficient, relevant, accurate, and clearly explained.
* Reasoning explains why and how the evidence connects to the claim.
 |
| **Conclusion: Error Analysis Improvement** | * There is little or no discussion of errors.
* No reflection about topic and/or suggestions to improve or further build upon this experiment.
 | * Experimental errors & possible effects discussed
* Contains reflection about the topic but may lack suggestions to improve or further build upon this experiment.
 | * Experimental errors, possible effects, and ways to reduce them are discussed
* Contains new questions and reflection about the topic and/or suggestions to improve or further build upon this experiment.
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| **Mechanics** | * Many errors in spelling, punctuation and/or grammar in the report
 | * Few errors in spelling, punctuation and/or grammar in the report
 | * No errors in spelling, punctuation and/or grammar in the report
 |
| **Appearance/Organization** | * Looks sloppy with cross-outs, multiple erasures and/or tears and creases. Font or layout appears unprofessional
 | * Lab report is neatly written or typed, but formatting does not help visually organize the material.
 | * Typed and uses headings and subheadings to visually organize the material. Font and layout appear professional.
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