

Science Investigations Report Writing Rubric

Expectations	Exceeds Standard 4	Meets Standard 3	Nearly Meets Standard 2	Below Standard 1
Scientific Literacy	<p><i>Skillfully</i> fulfills all discipline-specific and task requirements.</p> <p>All elements are in the correct order.</p> <p>Uses <i>precise</i> language and scientific vocabulary that demonstrates understanding of the scientific concepts related to the task.</p> <p>Sources are cited following standard format.</p>	<p>Fulfills all discipline-specific and task requirements.</p> <p>All elements are in the correct order.</p> <p>Uses language and scientific vocabulary that demonstrates understanding of the scientific concepts related to the task. <i>WHST 9-12.2d</i></p> <p>Sources cited following standard format. <i>WHST 9-12. 8</i></p>	<p>Attempts to fulfill all discipline-specific and task requirements.</p> <p>Most elements are in the correct order.</p> <p>Uses language and scientific vocabulary that demonstrates some understanding of the scientific concepts related to the task.</p> <p>Attempts to cite sources</p>	<p>Omits several important discipline-specific and task requirements.</p> <p>Elements are not in the correct order.</p> <p>Does not use language and scientific vocabulary that demonstrates understanding.</p> <p>No sources are cited.</p>
Demonstrates Critical Thinking - Must meet standard on this expectation to meet the overall standard				
Hypothesis/Purpose	Formulates a <i>comprehensive</i> testable hypothesis and/or reasonable purpose to address the task.	Formulates a testable hypothesis and/or reasonable purpose to address the task.	Attempts to formulate a testable hypothesis and/or reasonable purpose to address the task.	Does not formulate a testable hypothesis and/or reasonable purpose to address the task.
Procedure	Creates a logical progression/sequence of information to successfully complete this procedure. If procedure is provided, procedural changes are noted when applicable.	Creates a logical progression/sequence of information to successfully complete this procedure <i>with minimal confusion. WHST 9-12.2c;VOG-Critical</i> If procedure is provided, procedural changes are noted when applicable. <i>VOG-Critical; VOG-SDL</i>	Creates a progression/sequence. Some steps or omissions may cause the reader confusion in completing the procedure. If procedure is provided, some procedural changes are noted.	Too many significant omissions exist in the procedure. Procedural changes are not noted.
Data Synthesis	Effectively describes most observations.	Describes most observations. <i>VOG-Comm</i>	Attempts to describe most observations.	Observations and or/evidence incomplete.
Data Analysis/ Conclusion	<i>All</i> calculations are correct and shown to the proper degree of precision/measurement error. Graphs, charts and data tables are correctly constructed.	Most calculations are correct and shown to the proper degree of precision/measurement error. Graphs, charts and data tables are correctly constructed. <i>MF-IF4</i>	The work is mostly accurate. Some calculations, graphs, charts, and data tables incomplete.	The work has inaccuracies throughout. The work may be difficult to follow as presented.
	<i>Appropriate and thorough</i> statistical analysis provided when applicable.	Statistical analysis provided when applicable.	Attempts to complete statistical analysis of data when applicable.	No statistical analysis.
	Based on <i>a comprehensive</i> interpretation and analysis of lab data, student establishes a final claim that refers back to the hypothesis/purpose and cites <i>multiple and relevant forms</i> of specific evidence and reasoning to support the claim. Refines hypothesis/purpose when applicable.	Based on interpretation and analysis of lab data, student establishes a final claim that refers back to the hypothesis/purpose and cites specific evidence and reasoning to support the claim. Refines hypothesis/purpose when applicable. <i>WHST 9-12.1a,c,e; VOG-Critical</i>	Based on interpretation and analysis of lab data, student attempts to establish a final claim that refers back to the hypothesis/purpose and cites some evidence and reasoning to support the claim. Attempts to refine the hypothesis/purpose when applicable.	Attempts to establish a final claim, but does not refer back to the hypothesis/purpose and/or cites limited evidence and reasoning to support the claim. Does not refine the hypothesis/purpose.
	Data analysis/conclusion references concepts covered in class, which <i>enhances</i> the argument.	Data analysis/conclusion references concepts covered in class.	Attempts to reference concepts covered in class in Data analysis/conclusion.	Does not reference concepts covered in class.
	<i>Thoroughly</i> identifies and explains sources of error.	Identifies and explains sources of error.	Attempts to identify and explain some sources of error.	Does not identify sources of error.

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Execution of Investigation	Student actively <b>leads</b> in execution of investigation.	Student actively participates in execution of investigation.	Student partially participates in execution of investigation.	Student minimally participates in execution of investigation.
	Follows <i>precisely</i> a procedure when carrying out experiments, taking measurements, or performing technical tasks.	Follows a procedure when carrying out experiments, taking measurements, or performing technical tasks. <i>RST 9-12.3; VOG-Critical</i>	Attempts to follow a procedure when carrying out experiments, taking measurements, or performing technical tasks, but errors interfere with the execution of the lab.	Does not follow the procedure when carrying out experiments, taking measurements, or performing technical tasks, but errors interfere with the execution of the lab.
Demonstrates Command of Written Language Conventions	Results consistent with proper performance of the investigation.	Results <i>mostly</i> consistent with proper performance of the investigation.	Results are somewhat consistent with proper performance of the investigation.	No results are provided or the results indicate improper performance of the procedure.
	<b>Student <i>skillfully</i> attends to discipline specific writing norms and conventions.</b>	<b>Student attends to discipline specific writing norms and conventions. <i>W.9-12.1d;2e</i></b>	<b>Student attends to most discipline specific writing norms and conventions.</b>	<b>Writing norms and conventions are not followed.</b>
	Demonstrates <i>consistent</i> control of grammar, usage, punctuation, sentence construction, and spelling.	Demonstrates command of the conventions of standard grammar, usage, capitalization, punctuation, spelling, and varied sentence construction. <i>L.9-12.1, 2</i>	Demonstrates some control of usage, grammar, punctuation, sentence construction, and spelling.	Demonstrates little control of usage, grammar, punctuation, sentence construction, and spelling.
		Occasional errors do not interfere with meaning (for on-demand writing).	Errors interfere with meaning.	Errors inhibit meaning.

Additional Feedback