

Scientific Literacy Rubric

Students can apply fundamental scientific principles and methods to explain the impacts of scientific research and technology.

A. Uses appropriate terminology to describe core scientific concepts.

Behavior Absent	Behavior Emerging	Behavior Developing	Behavior Present
Never or rarely uses appropriate terminology to describe core concepts. <ul style="list-style-type: none"> • Many errors • Ambiguous explanations and/or improper usage 	Sometimes uses appropriate terminology to describe core concepts. <ul style="list-style-type: none"> • Some errors • Incomplete explanations or usage 	Frequently uses appropriate terminology to describe core concepts. <ul style="list-style-type: none"> • Few errors • Mostly/clear consistent explanations and usage 	Consistently uses core concepts and appropriate terminology to describe core concepts. <ul style="list-style-type: none"> • Few or no errors • Clear and complete explanations and usage
0	1 / 2	3 / 4	5

B. Collects, evaluates, analyzes, and interprets information and data.

Behavior Absent	Behavior Emerging	Behavior Developing	Behavior Present
Never or rarely demonstrates ability to collect, analyze and interpret information and data. <ul style="list-style-type: none"> • Utilizes irrelevant information/data • Omits relevant information/data • Unable to analyze or interpret data 	Sometimes able to collect, analyze and interpret information and data. <ul style="list-style-type: none"> • Utilizes some irrelevant information and / or data. • Omits some relevant information and / or data • Some incomplete analysis/ interpretation of information and / or data 	Frequently able to collect, analyze and interpret information and data. <ul style="list-style-type: none"> • Utilizes mostly relevant information/data • Rarely omits relevant information/data • Mostly complete analysis/ interpretation of information and/or data 	Consistently able to collect, analyze and interpret information and data. <ul style="list-style-type: none"> • Consistently identifies relevant information and/or data. • Complete analysis/interpretation of information/data
0	1 / 2	3 / 4	5

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C. Synthesizes information and data to draw conclusions and solve problems.

Behavior Absent	Behavior Emerging	Behavior Developing	Behavior Present
<p>Never or rarely synthesizes information and data to draw conclusions.</p> <ul style="list-style-type: none"> Not able to formulate valid, well supported conclusions Conclusions are ambiguous Does not construct logical connections to related concepts. Never solves problems correctly; many errors present 	<p>Sometimes synthesizes information and data to draw conclusions.</p> <ul style="list-style-type: none"> Sometimes able to formulate valid conclusions Conclusions are somewhat clear and concise Sometimes constructs logical connections to few related concepts Sometimes solves problems correctly with few errors 	<p>Frequently synthesizes information and data to draw conclusions.</p> <ul style="list-style-type: none"> Frequently formulates valid, supported conclusions Conclusions are mostly clear and concise Frequently constructs logical connections to some related concepts Frequently solves problems correctly with few errors 	<p>Consistently synthesizes information and data to draw conclusions.</p> <ul style="list-style-type: none"> Consistently formulates valid well supported conclusions Provides clear and concise conclusions Constructs logical connections to other related concepts Consistently solves problems correctly with no errors
0	1 / 2	3 / 4	5

D. Applies scientific knowledge to personal and global issues.

Behavior Absent	Behavior Emerging	Behavior Developing	Behavior Present
<p>Never or rarely applies acquired knowledge:</p> <ul style="list-style-type: none"> Never or rarely identifies scientific aspects of global or personal issues Never or rarely recognizes broader implications of scientific knowledge 	<p>Sometimes applies acquired knowledge:</p> <ul style="list-style-type: none"> Sometimes identifies scientific aspects of global or personal issues Sometimes recognizes broader implications of scientific knowledge 	<p>Frequently applies acquired knowledge:</p> <ul style="list-style-type: none"> Frequently identifies scientific aspects of global or personal issues Frequently recognizes broader implications of scientific knowledge 	<p>Consistently applies acquired knowledge:</p> <ul style="list-style-type: none"> Consistently identifies scientific aspects of global or personal issues Recognizes broader implications of scientific knowledge
0	1 / 2	3 / 4	5