Scientific Literacy Rubric

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

A. Demonstrates proficiency in core scientific concepts and appropriate terminology.

Behavior Absent	Behavior Emerging	Behavior Developing	Behavior Present
Never or rarely uses core concepts and appropriate terminology • Never or rarely • Many errors • Ambiguous explanations and/or improper usage	Sometimes uses core concepts and appropriate terminology. • Some errors • Incomplete explanations or usage	Frequently uses core concepts and appropriate terminology. • Few errors • Mostly/clear consistent explanations and usage	Always uses core concepts and appropriate terminology • Always uses with few or no errors • Clear and complete explanations and usage
0	**1 / 2**	**3 / 4**	**5**

B. Demonstrates the ability to collect, evaluate, analyze and interpret information and data.

Behavior Absent	Behavior Emerging	Behavior Developing	Behavior Present
Never or rarely demonstrates ability to collect, analyze and interpret information and data: • Utilizes irrelevant information/data • Omits relevant information/data • Unable to analyze or interpret data	Sometimes able to collect, analyze and interpret information and data: • 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: • Utilizes mostly relevant information/data • Rarely omits relevant information/data • Mostly complete analysis/ examination of information and/or data.	Always able to collect, analyze and interpret information/data: • Consistently/always identifies relevant information and/or data. • Complete examination/analysis of information/data.
0	**1 / 2**	**3 / 4**	**5**

Scientific Literacy Rubric

C. Demonstrates the ability to synthesize information and data in drawing conclusions and solving problems.

Behavior Absent	Behavior Emerging	Behavior Developing	Behavior Present
Never able to synthesize information/data. • 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	Sometimes able to synthesize information and data to draw conclusions. • 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	Frequently able to synthesize information and data to draw conclusions. • 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	Always able to synthesize information and data to draw conclusions. • Always formulates valid well supported conclusions • Provides clear and concise conclusions • Constructs logical connections to other related concepts • Always solves problems correctly with no errors
0	**1 / 2**	**3 / 4**	**5**

D. Demonstrates the ability to apply acquired knowledge to scientific aspects of personal and global issues.

Behavior Absent	Behavior Emerging	Behavior Developing	Behavior Present
Never applies acquired knowledge: • Never or rarely identifies scientific aspects of issue • Never or rarely recognizes ethical implications	Sometimes applies acquired knowledge: • Sometimes identifies scientific aspects of issue • Sometimes recognizes ethical implications	Frequently applies acquired knowledge: • Consistently / frequently identifies scientific aspects of issues • Recognizes ethical implications	Always applies acquired knowledge: • Consistently / always identifies scientific aspects of issue • Recognizes ethical implications
0	**1 / 2**	**3 / 4**	**5**