

Carolina Core Assessment Rubric: Scientific Literacy Core Component

Apply the principles and language of the natural sciences and associated technologies to historical and contemporary issues

#	Learning Outcome	1-Unsatisfactory	2-Satisfactory	3-Exceeds
1	Demonstrate understanding and manner of thinking of the basic principles, concepts and terms of the specific scientific discipline.	<i>(Explanations provided indicate)</i> Demonstrates little to no understanding of the basic principles, concepts, and terms of the discipline; little to no evidence of ability to describe natural phenomena, formulate questions and determine answers through research and inquiry, computational methods, and/or empirical reasoning.	<i>(Explanations provided indicate)</i> Demonstrates an understanding of the basic principles, concepts, and terms of the discipline; clear evidence of ability to describe natural phenomena, formulate questions and determine answers through research and inquiry, computational methods, and/or empirical reasoning.	<i>(Explanations provided indicate)</i> Accurately demonstrates a full understanding of the basic principles, concepts, and terms of the discipline demonstrated through theoretical assignments and practical laboratory exercises; full evidence of ability to describe natural phenomena, formulate questions and determine answers through research and inquiry, computational methods, and/or empirical reasoning.
2	Demonstrate and apply understanding of the scientific method using observations, inquiry, formulation of hypotheses, and experimentation to explain natural phenomena.	Demonstrates and applies little to no knowledge of the steps of the scientific method based on observations, inquiry, formulation of hypotheses, and experimentation in order to explain natural phenomena.	Demonstrates knowledge of the scientific method and accurately applies a majority of the steps involved based on observations, inquiry, formulation of hypotheses, and experimentation in order to explain natural phenomena.	Accurately demonstrates a higher level of knowledge of the scientific method and accurately applies all of the steps involved based on observations, inquiry, formulation of hypotheses, and experimentation in order to explain natural phenomena.
3	Evaluate relationships between science, technology, and society as these affect critical historical or contemporary issues.	Is unable to identify relationships between science, technology, and society or unable to identify accurate scientific sources for posing and evaluating scientific arguments.	Is able to evaluate relationships between science, technology, and society; is able to identify accurate scientific sources for posing and evaluating scientific arguments.	Is able not only to evaluate relationships between science, technology, and society but also to place them in a contemporary or historical perspective; is able not only to identify accurate and reliable scientific sources but also to use them in a systematic manner for posing and evaluating scientific arguments.