

**Scientific World Rubric instructions:** (1) Please use a separate copy of the rubric for each student whose work you are assessing. (2) Highlight the box in each row of the rubric that best approximates the work of that student on the assignment being assessed (or in your class as a whole) with regard to the learning outcome listed on the left-hand column. (3) When you have completed your assessment, use the report template provided specifically for Scientific World to show your aggregated results. (4) Please answer all questions on the report template about your results – what you have learned from them and how you will use them – as completely and as thoughtfully as you can.

CUNY Pathways Outcome: Scientific World	Choose the one box in each row below that best describes the level at which the student has demonstrated the described knowledge or skills through their work in the assignment or class.			
	Does Not Meet Expectations	Approaches Expectations	Meets Expectations	Exceeds Expectations
1a. <u>Identify</u> the fundamental concepts and methods of a discipline or interdisciplinary field exploring the scientific world.	Little or no recognition or understanding of fundamental concepts & methods of the discipline.	Some limited recognition and understanding of fundamental concepts & methods of the discipline, but at an incomplete or simplistic level.	Clear understanding of fundamental concepts & methods, including some connection between or among concepts and methods.	Advanced understanding of concepts & methods, including sophisticated connection between concepts covered in the class and the methods used to analyze them.
1b. <u>Apply</u> the fundamental concepts and methods of a discipline or interdisciplinary field exploring the scientific world.	Little or no application of the fundamental concepts & methods of the discipline to specific topics or problems.	Some limited application of the concepts & methods of the discipline to specific topics or problems, but with significant errors, gaps, or misunderstandings.	More advanced application of the concepts & methods of the discipline to specific topics or problems, with minor errors, gaps, or misunderstandings.	Advanced application of the concepts & methods of the discipline to specific topics or problems, with few or no errors, gaps, or misunderstandings, showing understanding at a more sophisticated level.
2. Demonstrate how tools of science, mathematics, technology, or formal analysis can be used to analyze problems and develop solutions.	Little or no demonstration of the use of tools of science, mathematics, technology, or formal analysis to analyze problems and develop solutions to problems.	Some limited demonstration of the use of tools of science, mathematics, technology, or formal analysis, but with significant errors, gaps, or misunderstandings.	More advanced demonstration of the use of tools of science, mathematics, technology, or formal analysis, with minor errors, gaps, or misunderstandings.	Advanced demonstration of the use of tools of science, mathematics, technology, or formal analysis with few or no errors, gaps, or misunderstandings, showing understanding at a more sophisticated level.
3. Articulate and evaluate the empirical evidence supporting a scientific or formal theory.	Little or no understanding of the use of empirical evidence in supporting a scientific or formal theory; uses biased beliefs, applies ideas inaccurately, or uses irrelevant facts to explain scientific phenomena.	A simplistic or partial understanding of the use of empirical evidence in supporting a scientific or formal theory; may still misapply evidence or use irrelevant facts.	Clear articulation and evaluation of empirical evidence in support of an appropriate scientific or formal theory, with minor errors, gaps or misunderstandings.	Advanced articulation and evaluation of empirical evidence in support of an appropriate scientific or formal theory. Shows a sophisticated understanding of theoretical frameworks, concepts, terms, or ideas to explain contemporary scientific phenomena.