

## Scientific Inquiry Rubric

Criteria	Problem Statement	Design	Data Collection and Representation	Analysis and Conclusions	Conceptual Understanding
<b>4</b>	Independently, clearly, and succinctly articulates the problem and/or hypothesis, so it can be tested in an efficient manner.	Independently designs experiment while indentifying and controlling variables to obtain precise results.	Given appropriate tools, independently and accurately collects and records data using appropriate techniques with no errors.  Powerfully uses scientific representation to organize and display information.	Accurately interprets data to develop and support conclusions based on the information collected and offers a new question(s) and revisions.	Demonstrates in-depth understanding of the concept in relation to other principles, theories, and/or contexts.
<b>3</b>	Independently states the problem and/or hypothesis so it can be tested.	Independently designs and identifies variables to conduct the experiment.	Given appropriate tools, independently collects and records data using appropriate techniques with minimum errors.  Appropriately organizes and displays information.	Accurately interprets data and forms conclusions based on the information collected.	Demonstrates understanding of the concept in the context of the experiment.
<b>2</b>	Independently struggles to state the problem and/or hypothesis so it can be tested.	Demonstrates limited ability to independently design and conduct an experiment.	Demonstrates limited ability to independently collect and record data which impacts the result of the experiment.  Demonstrates limited ability to organize and display information.	Demonstrates limited ability to interpret data and form conclusions.	Demonstrates limited ability to understand concepts.
<b>1</b>	Articulates the problem and/or hypothesis with significant assistance.	Designs and conducts experiment with significant assistance.	Collects and records data with significant assistance.  Organizes and displays information with significant assistance.	Interprets data and forms conclusions with significant assistance.	Understands concepts with significant assistance.

*\*Note: If a student does not meet the level 1 criterion but has made an attempt, he/she does not receive a score of zero. Instead, the work should be returned for revision and resubmission.*