

Rubric: Learning Goal iii: Create/develop and present a testable and falsifiable hypothesis and appropriate experiments to interrogate the hypothesis.

<i>Learning Objective</i>	<i>Excellent</i>	<i>Acceptable</i>	<i>Poor</i>	<i>Unacceptable</i>
Describe how the proposed work fits into the field/fills a gap in knowledge	Relationship of big picture of project to the field clearly indicated and explained	Relationship of big picture of project to the field indicated but explanation unclear	Relationship of big picture of project to the field clearly mentioned but not explained	Relationship of big picture of project to the field not addressed
Clearly states their Hypothesis and the requisite background information that lead to the hypothesis	Hypothesis or goal clearly stated. Gives appropriate background justification for hypothesis	Hypothesis or goal clearly stated but lacking justification	Hypothesis or goal is not clearly stated. Studies may or may not support hypothesis or goal as presented.	Hypothesis or goals lacking
Clearly indicates the testable and falsifiable predictions the hypothesis makes	Clearly states and justifies testable and falsifiable predictions and relates to hypothesis. Indicates controls	Limited predictions and justifications, some indication of controls.	Limited predictions, no justification or controls indicated.	Predictions lacking
Briefly outlines the types of experiments that will be used to interrogate the hypothesis	Summary of experiments is consistent with testing hypothesis or reaching goal. Types of data that will support or falsify hypothesis indicated	Outlines experiments but not how the data will contribute to the interrogation of the hypothesis	Gives detail but some proposed studies are not consistent with hypothesis or goal.	Minimal attention to how experimental data will be obtained or used to interrogate the hypothesis
As appropriate cites necessary References	Additional References added appropriately.	Additional references placed in text but some references missing.	Significant omission of additional references.	Additional references lacking.
General flow/organization	Logical flow from global to particular study point of view. Engaging writing style. Clearly connects ideas. Good use of graphics	Solid order & structure. Inviting writing style. Effectively moves the reader through the text. Graphics present but not well explained	Organization is functional; some order lacks logical pattern and structure. Minimal use of graphics	Lacks cohesive structure, difficult to follow.
Grammar/spelling/general attention to detail	No spelling or grammatical errors; includes all required sections; clearly written in language for reader familiar with biochemistry; well organized and legible.	Minor spelling or grammatical errors; includes all required sections.	Some spelling and grammatical errors; some sections not complete or less well organized.	Significant spelling and grammatical errors; disorganized, difficult to follow.