Rubric for the Honors in Biology

	Element of Thesis	Excelling	Acceptable
P r o p o s a l	**Connections to Discipline** *Sees (makes) connections across disciplines, perspectives.*	Independently creates wholes out of multiple parts (synthesizes) or draws conclusions by combining examples, facts, or theories from more than one field of study.	When prompted, connects examples, facts, or theories from more than one field of study or perspective.
	Evidence gathered *Selecting and using information to investigate a point of view or conclusion.*	Information is taken from source(s) with enough interpretation or evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with some interpretation or evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact with little or no questioning.
	Sources and Evidence	Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for their research project.	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for their research project.
T h e s i s	**Disciplinary-specific Conventions in Writing** *Formal and informal rules for writing are followed.*	Demonstrates detailed attention to and successful execution of conventions particular to the discipline and the writing task – including organization, content, presentation, formatting, and stylistic choices.	Follows expectations appropriate to Biology for basic organization, content, and presentation.
	Embrace of Contradictions	Integrates alternate, divergent, or contradictory perspectives or ideas fully.	Acknowledges (mentions in passing) alternate, divergent, or contradictory perspectives or ideas in a small way.
	Application/Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data.*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
S k i l l s	**Hypothesis generation**	Hypothesis uses appropriate terminology and is clearly written. Addresses an idea that extends beyond the thesis itself. Statement is both testable and falsifiable.	Language of hypothesis may be ambiguous or unclear. Idea is too narrowly focused. Statement is both testable and falsifiable.
	Experimental design	Experimental design is simple, elegant, and robust. Logistical challenges are incorporated into the design. Given the available resources, the most useful data are collected. The data will allow the hypothesis to be fully tested.	The sample size is constrained due to sub-optimal design. An overly ambitious design resulted in an incomplete dataset. The data will allow part of the hypothesis to be tested.
	Solving Problems	Develops a logical, consistent plan to solve a problem, and recognizes the consequences of their solution and can articulate their reason for choosing the solution.	Only a single approach is considered and used to solve the problem.

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