

1. Connect the relationship between cause and effect to how it impacts the balance of biological processes.

Student can...	4	3	2	1
1.1: Construct an explanation for how changes in conditions may affect survival and reproduction	I can evaluate how the changes in conditions affects the gene pool	I can construct an explanation for how changes in conditions may affect survival and reproduction	I can describe how a species can change overtime	I can connect changes in conditions to success of a species
1.2 Analyze factors that impact populations, species, or ecosystems	I can evaluate how a change in biodiversity can have positive or negative effects on the ecosystem	I can analyze factors that impact populations, species, or ecosystems	I can relate specific factors to changes in populations	I can identify a factor that would impact a population
1.3: Analyze the relationship between human activity and biodiversity.	I can construct a solution to mitigate the effects of human activity on biodiversity	I can analyze the relationship between human activity and biodiversity	I can relate human activity to a change in biodiversity	I can describe a human activity that affects biodiversity

2. Analyze and apply how energy transfers and transforms within and across biological processes.

Student can...	4	3	2	1
2.1: Construct an explanation for how light energy is transformed into chemical energy	I can compare the process of photosynthesis to chemosynthesis	I can construct an explanation for how light energy is transformed into chemical energy	I can identify the inputs and outputs of photosynthesis	I can summarize the purpose of photosynthesis
2.2: Connect the phases of cellular respiration to the production of ATP	I can evaluate the role of oxygen in the production of ATP	I can connect the phases of cellular respiration to the production of ATP	I can identify the inputs and outputs of cellular respiration	I can describe the purpose of cellular respiration

3. Analyze relationships between structure and function of matter as it applies to biological systems.

Student can...	4	3	2	1
3.1: Explain how DNA encodes for proteins	I can investigate how changes in DNA impact protein synthesis	I can explain how DNA encodes for proteins	I can describe the purpose of DNA and proteins	I can identify the stages of protein synthesis
3.2: Explain how traits are passed through generations	I can analyze how traits are impacted by different modes of inheritance	I can explain how traits are passed through generations	I can compare dominant and recessive traits	I can determine the probability of a trait being passed down
3.3: Investigate how cells divide	I can predict the outcome of an error during cell division	I can investigate how cells divide	I can describe the purpose of cell division	I can identify cell organelles involved in cell division

4. Critique patterns to predict behavior and relationships within biological systems.

Student can...	4	3	2	1
4.1: Explain the relationship amongst biological concepts	I can connect how a change in one would impact the other	I can explain the relationship amongst biological concepts	I can identify biological concepts that relate to one another	I can categorize biological concepts
4.2: Illustrate a feedback loop in the body	I can explain how environmental changes affect feedback mechanisms	I can illustrate a feedback loop	I can describe the purpose of feedback loops	I can identify a system that uses a feedback loop

5. Design and conduct controlled biological investigations.

Student can...	4	3	2	1
5.1: I can ask and refine questions to explain natural phenomena.	I can revise my questions based on new information.	I can ask questions to explain phenomena.	I can determine variables involved with phenomena.	I can make observations based off a phenomena.
5.2: I can explain phenomena utilizing relevant information.	I can support my claims with background research.	I can explain phenomena utilizing relevant information.	I can communicate information from various resources.	I can summarize the central idea of a source.
5.3: I can conduct an investigation using a clear, concise procedure.	I can create and conduct an investigation to answer a scientific question.	I can conduct an investigation using a clear, concise procedure.	I can determine the type of data that should be collected during an investigation..	I can identify independent variable, dependent variable, and constants in an investigation.
5.4: I can create an appropriate visual	I can manipulate data or make	I can create an appropriate	I can make a visual	I can collect data.

representation of data.	inferences about the data.	visual representation of data.	representation of data.	
5.5: I can construct an explanation based on evidence	I can connect my explanation to the real-world.	I can construct an explanation based on evidence.	I can summarize supporting evidence	I can state a claim to answer a scientific question
5.6: I can evaluate the reliability and validity of data sets.	I can identify the causes of error in the investigation.	I can evaluate the reliability and validity of data sets.	I can assess the validity of data sets/	I can identify sources of error within the investigation.
5.7: I can develop models to support explanations, predict phenomena, analyze systems, and/or solve problems.	I can evaluate the merits and limitations of different models in order to select or revise a model that best fits the evidence.	I can develop models that support explanations, predict phenomena, analyze systems, and/or solve problems.	I can use a model to explain phenomena.	I can select an appropriate model to represent a phenomenon
5.8: I can design a solution to a real-world problem.	I can evaluate a solution to a real-world problem based on prioritized criteria and trade-offs.	I can design a solution to a real-world problem.	I can explain why the real-world problem needs to be solved.	I can identify a problem that can be solved.