

School District of Loyal

Advanced Biology

Grade: 11/12

Student Learning Targets



Class: Advanced Biology

Students who demonstrate understanding can:

WI State Standards	Standard:	Student Learning Targets:
SCI.ETS2	Students use science and engineering practices, crosscutting concepts, and an understanding of the links among Engineering, Technology, Science, and Society to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> Design a research or service-based project relevant to organismal biology In the context of conservation, discuss major issues that affect populations of organisms and ways we mitigate.
SCI.ETS3	Students use science and engineering practices, crosscutting concepts, and an understanding of the nature of science and engineering to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> Ask questions to clarify an author's motivation for their opinion on scientific topics.
SCI.ETS1	Students use science and engineering practices, crosscutting concepts, and an understanding of engineering design to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
SCI.ESS3	Students use science and engineering practices, crosscutting concepts, and an understanding of the Earth and human activity to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> Recognize the broad relevance of organismal biology to everyday life.
SCI.LS4	Students use science and engineering practices, crosscutting concepts, and an understanding of biological evolution to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> Describe the process of natural selection and the patterns of divergence it yields. Differentiate the major groups of living organisms based on shared, derived characters.

		<ul style="list-style-type: none"> ● Discuss historical relationships among the major groups of living organisms. ● Recognize traditional levels of classification from domain to species.
SCI.LS3	Students use science and engineering practices, crosscutting concepts, and an understanding of heredity to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● Evaluate outcomes of genetic crosses based on principles of Mendelian inheritance and the Central Dogma.
SCI.LS1	Students use science and engineering practices, crosscutting concepts, and an understanding of structures and processes (on a scale from molecules to organisms) to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● Describe basic life processes, including cell structure and division, respiration, and photosynthesis. ● Discuss patterns and consequences of animal behavior.