

School District of Loyal
Biology
Grade: 9/10
Student Learning Targets



Class: Biology		
Students who demonstrate understanding can:		
WI State Standards	Standard:	Student Learning Targets:
SCI.ESS1	Students use science and engineering practices, crosscutting concepts, and an understanding of Earth's place in the universe to make sense of phenomena and solve problems.	Students will be able to: <ul style="list-style-type: none"> ● Explain causes for major transitions in Earth's history ● Explain techniques for investigating Earth history
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	Students will be able to: <ul style="list-style-type: none"> ● Explain the roles of mitosis, meiosis, and differentiation in growth and development ● Use cell structures and theory to explain function and phenotypes ● Explain the roles of macromolecules within the cell ● Explain the roles of chemical reactions within the cell
SCI.LS2	Students use science and engineering practices, crosscutting concepts, and an understanding of the interactions, energy, and dynamics within ecosystems to make sense of phenomena and solve problems	Students will be able to: <ul style="list-style-type: none"> ● Explain and identify factors that affect carrying capacity ● Explain the roles of cell respiration and photosynthesis in matter and energy transfer in ecosystems ● Predict how disturbances in an ecosystem may change it ● Identify interactions within an ecosystem including group behaviors
SCI.LS3	Students use science and engineering practices, crosscutting concepts, and an understanding of	Students will be able to: <ul style="list-style-type: none"> ● Use Mendelian genetics to predict offspring of crosses at 1 or 2 loci

	<p>heredity to make sense of phenomena and solve problems.</p>	<ul style="list-style-type: none"> ● Apply concepts of incomplete dominance, codominance, and incomplete dominance to inheritance problems ● Explain features of genes at the molecular level ● Understand the role of DNA replication in mutation ● Explain how transcription and translation turn genetic information into cell function
<p>SCI.LS4</p>	<p>Students use science and engineering practices, crosscutting concepts, and an understanding of biological evolution to make sense of phenomena and solve problems</p>	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● Identify and explain multiple lines of evidence for common descent and evolution ● Identify and explain causes and conditions needed for evolution to occur ● Use Theory of Natural selection to predict and explain changes to populations ● Explain the role of humans in altering biodiversity