

# School District of Loyal

## Science

### Grade: 8

## Student Learning Targets



### Class: Science 8 (Integrated)

Students who demonstrate understanding can:

WI State Standards	Standard:	Student Learning Targets:
SCI.ESS1.B	Solar system models explain and predict eclipses, lunar phases, and seasons.	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Discuss how the tilt of the Earth's axis and our revolution about the Sun are responsible for seasons</li> <li>• Discuss the Moon's motion about the Earth, and explain the phases of the Moon</li> <li>• Explain how eclipses happen, and why we don't have them every month</li> </ul>
MS-ESS2-3	Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Explain and give evidence for the Theory of Continental Drift</li> <li>• Explain and give evidence for the Theory of Seafloor Spreading</li> <li>• Explain and give evidence for the Theory of Plate Tectonics</li> </ul>
SCI.ESS3.B	Patterns can be seen through mapping the history of natural hazards in a region and understanding related geological forces.	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Discuss how and where earthquakes happen</li> <li>• Describe how volcanoes form</li> <li>• Explain why the Ring of Fire is so important in the study of natural hazards</li> </ul>
SCI.ESS2.C	Water cycles among land, ocean, and atmosphere, and is propelled by sunlight and gravity.	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Illustrate and explain the Water Cycle</li> <li>• Discuss how sunlight provides the energy for phase changes</li> <li>• Describe gravity's role in the Water Cycle</li> </ul>
MS-ESS2-6	Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Explain how varying sunlight intensities over the Earth's surface affect global climates</li> </ul>

	<p>circulation that determine regional climates.</p>	<ul style="list-style-type: none"> <li>● Discuss the Coriolis Effect and how it applies to both atmospheric and oceanic circulations</li> <li>● Discuss density differences and how they apply to both atmospheric and oceanic circulations</li> <li>● Identify global wind belts</li> <li>● Identify global ocean currents</li> </ul>
MS-ESS2-5	<p>Collect data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions.</p>	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>● Illustrate and describe various types of fronts (cold, warm, occluded) and the weather associated with each</li> <li>● Explain how different portions of the Earth create different types of air masses</li> <li>● Describe how severe weather (tornadoes, hurricanes, thunderstorms) forms</li> </ul>
MS-ESS3-5	<p>Human activities, such as the release of greenhouse gases from burning fossil fuels, are major factors in the current rise in Earth's mean surface temperature (global warming). Reducing the level of climate change and reducing human vulnerability to whatever climate changes do occur depend on the understanding of climate science, engineering capabilities, and other kinds of knowledge, such as understanding of human behavior and on applying that knowledge wisely in decisions and activities.</p>	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>● Analyze how climate has changed over the last two centuries</li> <li>● Recognize causes of climate change</li> <li>● Discuss the effects of rising global temperatures</li> <li>● Describe steps that humans can take to slow or even reverse climate change</li> </ul>
SCI.LS1.A	<p>All living things are made up of cells. In organisms, cells work together to form tissues and organs that are specialized for particular body functions</p>	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>● Discuss the organization of the human body</li> <li>● Identify various systems in the human body, including the musculoskeletal system, the circulatory system, the digestive system, and the respiratory system</li> <li>● Correlate basic functions to system structures</li> </ul>