

Joliet Public Schools District 86
Grade 4 Science Curriculum

Unit Title	NGSS Standards	Unit Overview
<p><u>Earth's Systems</u></p> <p>Trimester 1</p> <p>~ 6 weeks</p>	<ul style="list-style-type: none"> ● <u>4-ESS1-1</u>: Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time. ● <u>4-ESS2-1</u>: Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. ● <u>4-ESS2-2</u>: Analyze and interpret data from maps to describe patterns of Earth's features. ● <u>4-ESS3-2</u>: Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans. 	<p>This unit addresses the question of “What evidence of patterns and systems do we see in weathering, fossils, and rock formation?” Students will explain how water, ice, wind, living organisms, and gravity break rocks, soils and sediments into smaller particles and move them around causing changes in the Earth's features. Local, regional, and global patterns of rock formations reveal changes over time due to earth's forces.</p>
<p><u>Energy Gets Things Done</u></p> <p>Trimester 2</p> <p>~ 6 weeks</p>	<ul style="list-style-type: none"> ● <u>PS3-1</u> - Use evidence to construct an explanation relating the speed of an object to the energy of that object. ● <u>PS3-2</u> - Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents. ● <u>PS3-3</u> - Ask questions and predict outcomes about the changes in energy that occur when objects collide. ● <u>PS3-4</u> - Apply scientific ideas to solve design problems and refine a device that converts energy from one form to another. ● <u>PS4-1</u> - Develop a model of waves to describe patterns in terms of amplitude and wavelength, and that waves can cause objects to move. 	<p>The unit focuses on understanding that waves are patterns that transfer light, sound, and energy. Students will be able to explain how energy can be moved from place to place by moving objects or through sound, light, or electric currents and observe the transfer of energy that occurs when objects collide.</p>
<p><u>Structures and Senses of Plants and Animals</u></p> <p>Trimester 3</p> <p>~ 6 weeks</p>	<ul style="list-style-type: none"> ● <u>4-LS1-1</u> - Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. ● <u>4-LS1-2</u> - Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways. ● <u>4-PS4-2</u> - Develop a model to describe how light reflecting from objects and entering the eye allows objects to be seen. 	<p>This unit addresses the question, “What evidence of patterns and systems do we see in organism structure and how do those structures function in information transfer?” Observations throughout this unit will enable students to identify how plants and animals survive and adapt to their environment by using different sense receptors.</p>