

<b>SUBJECT:</b> Science		<b>GRADE:</b> Third Grade	
<b>UNIT TITLE:</b> Life Science			
<b>UNIT OVERVIEW</b>			
Biology of organisms and cells concerns living things, their appearance, different types of life, the scope of their similarities and differences, where they live and how they live. Living things are made of the same components as all other matter, involve the same kinds of transformations of energy and move using the same basic kinds of forces as described in chemistry and physics standards. Through the study of the diversity of life, students learn how life has evolved. This great variety of life forms continues to change even today as genetic instructions within cells are passed from generation to generation, yet the amazing integrity of most species remain.			
<b>LRG SKILLS AND DISPOSITIONS</b>		<b>STANDARDS</b>	
		<p><b><u>PA Standards</u></b></p> <ul style="list-style-type: none"><li>3.1.3.B1. Understand that plants and animals closely resemble their parents.</li><li>3.1.3.B5. PATTERNS Identify characteristics that appear in both parents and offspring.</li></ul> <p><b><u>Next Gen Standards</u></b></p> <p><b>Heredity: Inheritance and Variation of Traits</b></p> <ul style="list-style-type: none"><li>Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.</li></ul>	
<b>COMPETENCIES</b>		<b>LEARNING TARGETS</b>	
<p><u>Competency:</u> I can think, reason, and explain the way a scientist does.</p>		<ul style="list-style-type: none"><li>I can ask questions and define a problem. (K1SCA1D1)</li><li>I can develop and use a model. (K1SCA1D2)</li><li>I can plan and carry out an investigation. (K1SCA1D3)</li><li>I can analyze and interpret data. (K1SCA1D4)</li><li>I can use mathematical and computational thinking. (K1SCA1D5)</li><li>I can construct explanations and design solutions. (K1SCA1D6)</li><li>I can engage in an argument with evidence. (K1SCA1D7)</li><li>I can obtain, evaluate, and communicate information. (K1SCA1D8)</li></ul>	
<p><u>Competency:</u> I can understand the process of heredity.</p>		<ul style="list-style-type: none"><li>I can look at two living things and use evidence to explain that they are related. (K1SCA4D1)</li><li>I can explain that physical characteristics are inherited, so offspring resemble their parents. (K1SCA4D2)</li><li>I can give examples and evidence of animals whose offspring does not look like the parent at first, but changes during its life cycle.(K1SCA4D3)</li></ul>	

<b>SUBJECT:</b> Science		<b>GRADE:</b> Third Grade	
<b>UNIT TITLE:</b> Earth and Space Science			
<b>UNIT OVERVIEW</b>			
The dynamics of earth science include the studies of forces of nature that build up and wear down the earth’s surface. Dynamics include energy flow across the earth’s surface and its role in weather and climate. Space science is concerned with the origin and evolution of the universe. The understanding of these concepts uses principles from physical sciences, geography and mathematics.			
<b>LRG SKILLS AND DISPOSITIONS</b>		<b>STANDARDS</b>	
Collaboration and Teamwork: As part of the Cornerstone, students collaborate to research water sources and systems. (S1A)  Communication and Empathy: As part of the Cornerstone, students present and explain the water model they created and describe the impact of the water system. (S2A)  Creativity and Innovation: As part of the Cornerstone, students create a representation of a water system. (S3A)		<b><u>PA Standards</u></b> <ul style="list-style-type: none"><li>● 3.3.3.A1. Explain and give examples of the ways in which soil is formed.</li><li>● 3.3.4.A2. Identify basic properties and uses of Earth’s materials including rocks, soils, water, and gasses of the atmosphere.</li><li>● 3.3.4.A4. Recognize Earth’s different water resources, including both fresh and saltwater. Describe phase changes in the forms of water on Earth.</li></ul> <b><u>Next Gen Standards</u></b> <b>Earth’s Place in the Universe</b> <ul style="list-style-type: none"><li>● Use information from several sources to provide evidence that Earth events can occur quickly or slowly.</li></ul> <b>Earth’s Systems</b> <ul style="list-style-type: none"><li>● Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.</li><li>● Develop a model to represent the shapes and kinds of land and bodies of water in an area.</li><li>● Obtain information to identify where water is found on Earth and that it can be solid or liquid.</li></ul>	
<b>COMPETENCIES</b>		<b>LEARNING TARGETS</b>	
<u>Competency:</u> I can think, reason, and explain the way a scientist does.		<ul style="list-style-type: none"><li>● I can ask questions and define a problem. (K1SCA1D1)</li><li>● I can develop and use a model. (K1SCA1D2)</li><li>● I can plan and carry out an investigation. (K1SCA1D3)</li><li>● I can analyze and interpret data. (K1SCA1D4)</li><li>● I can use mathematical and computational thinking. (K1SCA1D5)</li><li>● I can construct explanations and design solutions. (K1SCA1D6)</li><li>● I can engage in an argument with evidence. (K1SCA1D7)</li><li>● I can obtain, evaluate, and communicate information. (K1SCA1D8)</li></ul>	
<u>Competency:</u> I can explain how natural forces impact Earth’s surface.		<ul style="list-style-type: none"><li>● I can make observations to provide evidence of weathering and/or erosion. (K1SCA9D1)</li></ul>	

	<ul style="list-style-type: none"> <li>● I can describe the composition of soil as weathered rock and decomposed organisms. (K1SCA9D2)</li> </ul>
<p><u>Competency:</u> I can understand water sources and systems.</p>	<ul style="list-style-type: none"> <li>● I can identify and compare saltwater and freshwater bodies of water. (K1SCA9D3)</li> <li>● I can identify and compare lentic and lotic systems. (K1SCA9D4)</li> <li>● I can explain how water goes through phase changes. (K1SCA9D5)</li> <li>● I can model and explain the water cycle. (K1SCA9D6)</li> <li>● I can explain the role and relationship of a watershed or wetland on water sources. (K1SCA9D7)</li> <li>● I can describe how human activities affect Earth's water sources. (K1SCA2D1)</li> <li>● I can identify, construct, and explain possible solutions to problems involving Earth's water resources. (K1SCA2D2)</li> </ul>
<p><u>Competency:</u> I can understand Earth's resources.</p>	<ul style="list-style-type: none"> <li>● I can identify Earth's renewable and nonrenewable resources. (K1SCA9D8)</li> <li>● I can identify how we can use Earth's resources. (K1SCA9D9)</li> <li>● I can describe ways humans need and use water resources. (K1SCA9D10)</li> </ul>