



<u>Course Title:</u> Fifth Grade Science		
<u>Description:</u> In fifth grade students will formulate answers to questions focusing on systems. They will learn that objects and organisms do not exist in isolation and are connected to, interact with, and are influenced by each other.		
<i>Physical Sciences</i>		
<u>Reporting Topic</u>	<u>Grade Level Standards</u>	<u>Standard Summary</u>
<u>Structure and Properties of Matter</u>	<ul style="list-style-type: none">Develop a model to describe that matter is made of particles too small to be seen (for example, show that matter is made of microscopic particles by adding air to expand a basketball, compressing air in a syringe, dissolving sugar in water, or evaporating salt water). (5-PS1-1)Make observations and measurements to identify materials based on their properties (for example, identify various materials—such as baking soda and other powders, metals, minerals, and liquids—based on their color, hardness, reflectivity, electrical conductivity, thermal conductivity, solubility, and response to magnetic forces). (5-PS1-3)	Students will: <ul style="list-style-type: none">Identify materials based on propertiesCreate a model that shows that matter is made of particles to be seen.
<u>Gravity</u>	<ul style="list-style-type: none">Support an argument that the gravitational force exerted by Earth on objects is directed down (for example, use evidence to show that an object near Earth's surface is drawn "down" to the center of the spherical planet due to its gravitational force). (5-PS2-1)	Students will: <ul style="list-style-type: none">Model that gravity pulls objects down
<u>Conservation of Matter</u>	<ul style="list-style-type: none">Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved (for example, weigh a substance before and after it goes through a phase change, dissolves, or mixes with another substance to form a new one, and then graph the results). (5-PS1-2)	Students will: <ul style="list-style-type: none">Prove that matter is conserved by measuring and graphing.
<u>Chemical Reactions</u>	<ul style="list-style-type: none">Conduct an investigation to determine whether the mixing of two or more substances results in new substances (for example, observe the mixing of two or more substances and decide whether a chemical reaction has occurred). (5-PS1-4)	Students will: <ul style="list-style-type: none">Plan and conduct an investigation and determine



		whether a new substance was created.
<i>Life Sciences</i>		
<u>Reporting Topic</u>	<u>Grade Level Standards</u>	<u>Standard Summary</u>
<u>Matter and Energy in Organisms</u>	<ul style="list-style-type: none"> Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun (for example, use diagrams and flowcharts to explain that the energy in animals' food originally came from the sun). (5-PS3-1) Support an argument that plants get the materials they need for growth chiefly from air and water (for example, make and defend the claim that plant matter comes mostly from air and water, not soil). (5-LS1-1) 	Students will: <ul style="list-style-type: none"> Explain the cycle of energy by creating a model Prove that plants get the materials they need to grow from air and water.
<u>Matter and Energy in Ecosystems</u>	<ul style="list-style-type: none"> Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment (for example, create a model that shows the cycle of organisms changing matter that is not food [such as air, water, or decomposed materials in soil] into matter that is food, animals eating plants [or eating the animals that eat plants] for food, and then all organisms releasing waste matter [gas, liquid, or solid] back into the environment). (5-LS2-1) 	Students will: <ul style="list-style-type: none"> Describe the transfer of matter among plants, animals, decomposers, and the environment.
<i>Earth and Space Science</i>		
<u>Reporting Topic</u>	<u>Grade Level Standards</u>	<u>Standard Summary</u>
<u>Humans and Earth Systems</u>	<ul style="list-style-type: none"> Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment (for example, gather and synthesize information from books or other reliable media about ways individuals and communities use science to protect the Earth). (5-ESS3-1) 	Students will: <ul style="list-style-type: none"> Identify how communities use science to protect Earth's resources and environment.
<u>The Solar System</u>	<ul style="list-style-type: none"> Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance 	Students will:

