

Grade 5 Scope and Sequence (rev. 2018-2019)

<p align="center"><u>Nature of Science</u> September/October/</p>	<p align="center"><u>Physical and Chemical Changes</u> (Modeling Matter) October/ November</p>	<p align="center"><u>Earth Systems Science</u> December/January</p>	<p align="center"><u>Project Based Learning -Science Celebration</u> February</p>	<p align="center"><u>MATTER AND ENERGY IN ECOSYSTEMS</u> March/April</p>	<p align="center"><u>STARS AND THE SOLAR SYSTEM</u> May/June</p>
<ul style="list-style-type: none"> ● How do scientists gather, use and share information? ● How do scientists think and work? ● How do scientists investigate the natural world? Why inquire? ● How can we use data to support a claim? 	<ul style="list-style-type: none"> ● How much does air weigh? 	<ul style="list-style-type: none"> ● Where does rain come from ? 	<ul style="list-style-type: none"> ● Students will be involved in their Science Fair Projects. (see rubric) 	<ul style="list-style-type: none"> ● How do matter and energy flow through ecosystems? 	<ul style="list-style-type: none"> ● How far away are the stars ?
<ul style="list-style-type: none"> ● Gathering information ● The Scientific Method ● Using Scientific tools to solve a problem ● Formulate testable questions about the natural world. ● Introduce variables ● Independently form a hypothesis ● Use appropriate tools and techniques ● Perform Science Investigation ● Generate graphs with appropriate scales and titles ● Identify sources of error ● Lab Report 	<p align="center">*Develop an understanding of the particle nature of matter and the idea that regardless of physical or chemical change, the total amount of matter is conserved.</p> <ul style="list-style-type: none"> ● Make observations and measurements to identify materials based on their properties and conduct investigations to determine whether the 	<ul style="list-style-type: none"> ● Investigate the particle nature of matter and energy within the interactions of larger systems occurring on Earth. ● Students support arguments that the gravitational force exerted by the Earth on objects is directed down. ● Analyze information about Earth's systems and how humans use science to protect Earth's resources and environment. 	<ul style="list-style-type: none"> ● A systematic teaching method that engages students in learning knowledge and skills through an extended inquiry process structured around complex, authentic questions and carefully designed products and tasks. 	<ul style="list-style-type: none"> ● Develop an understanding of the dynamic nature of matter and energy as life scientists. ● Use models to describe the path that energy takes from the Sun to the Earth, where it is converted into food ● by producers. ● Use evidence to support arguments about where plants obtain materials needed for their growth. ● Develop and use models to 	<ul style="list-style-type: none"> ● Analyze and interpret data to represent how the Earth's position in the universe, relative to other celestial objects, affects observable phenomena. ● Identify patterns of phenomena including daily changes in length and direction of shadows, the day-night cycle, and the seasonal appearance of some stars in the night sky. ● Students also investigate and use evidence to support

	<p>mixing of two or more substances results in new substances.</p> <ul style="list-style-type: none">• Develop, plan and carry out fair tests, using controlled variables and identifying failure points to improve aspects of a model or prototype.	<ul style="list-style-type: none">• Describe and graph the amounts of saltwater and freshwater available in various reservoirs.		<p>demonstrate how matter and energy continue to travel throughout ecosystems, in complex food web pathways, from producers to consumers, decomposers, and back into the environment</p>	<p>arguments that the apparent brightness of the Sun compared to other stars is due to their relative distances from Earth.</p>
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