



First Grade Science Scope and Sequence

Theme	<p>OBSERVATIONS OF THE ENVIRONMENT</p> <p>This theme focuses on helping students develop the skills for systematic discovery to understand the science of the physical world around them in greater depth by using scientific inquiry.</p> <p>Strand Connections: Energy is observed through movement, heating, cooling and the needs of living organisms.</p>			
Spiraled Standards	<ul style="list-style-type: none"> ● SIA: SIA.1, SIA. 2, SIA. 3, SIA.4, SIA.5, SIA.6 ● RI: RI. 1.1, RI. 1.5, RI. 1.6. RI. 1.7 			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Strand	Life Science (Living Things)	Earth Science (Energy and Water)	Earth Science Physical Science	Physical Science (Motion)
Content Statements	<ul style="list-style-type: none"> ● 1.LS.1 Living things have basic needs, which are met by obtaining materials from the physical environment. <p>Living things require energy, water and a particular range of temperatures in their environments.</p> <p>Plants get energy from sunlight.</p> <p>Animals get energy from plants and other animals.</p> <p>Living things acquire resources from the living and nonliving.</p> <p>(Living things acquire resources from the living and nonliving components of the environment. This includes temperature range, amount of water, amount of sunlight and available food sources. The environment includes both living (plants and animals) and nonliving (water, air, sunlight, nutrients) things.) ● 1.LS.2 Living things survive only in environments that meet their needs. <p>Resources are necessary to meet the needs of an individual and populations</p> </p>	<ul style="list-style-type: none"> ● 1.ES.1 The sun is the principal source of energy. <p>Sunlight warms Earth’s land, air and water. The amount of exposure to sunlight affects the amount of warming or cooling of air, water and land. (Use quantitative measurements to observe and document the warming and cooling of air, water or soil. The length of time an object or material (including water) is exposed to sunlight and its resulting temperature must be observed, as should the amount of time for the object or material to cook down after it is taken out of the sunlight.) (Tie in with 1.ES.2; how the sun’s energy affects water changing.) ● 1.ES.2 Water on Earth is present in many forms. <p>The physical properties of water can change. These changes occur due to changing energy. Water can change from a liquid to a solid and from a solid to a liquid.</p> <p>(Examine maps of Ohio, world maps or globes can illustrate the amount of</p> </p>	<ul style="list-style-type: none"> ● 1.ES.2 Water on Earth is present in many forms. <p>The physical properties of water can change. These changes occur due to changing energy. Water can change from a liquid to a solid and from a solid to a liquid. (Focus on solids and liquids. Comment on how water can be observed as clouds, steam or fog – not a sole focus).</p> ● 1.PS.1 Properties of objects and materials change. <p>Objects and materials change when exposed to various conditions, such as heating or freezing. Not all materials change in the same way. (Materials can be a liquid or a solid at room temperature and may change from one form to the other with a change in the temperature. The amount of material in a liquid or solid form remains the same.)</p>	<ul style="list-style-type: none"> ● 1.PS.1 Properties of objects and materials change. <p>Objects and materials change when exposed to various conditions, such as heating or freezing. Not all materials change in the same way. (Parts of objects have specific properties that allow them to work with other parts to carry out a particular function. Something may not work well or at all if a part of it is missing, broken, worn out, mismatched or misconnected.) ● 1.PS.2 Objects can be moved in a variety of ways, such as straight, zigzag, circular, and back and forth. <p>The position of an object can be described by locating it relative to another object or to the object’s surroundings. An object is in motion when its position is changing. The motion of an object can be affected by pushing</p> </p>

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	<p>of individuals. Living things interact with the physical environment as they meet those needs. Effects of seasonal changes within the local environment directly impact the availability of resources.</p> <p>*During this unit set up systems and routines about working in pairs and collaborative groups.</p>	<p>Earth’s surface that is covered in water and why it is important to learn about water. Weather observation can also be used to examine the property change of water).</p> <p>RI.1.9</p>	<p>RI.1.7 RI.1.9 ES.1.1</p>	<p>or pulling. A push or pull is a force that can make an object move faster, slower or go in a different direction. Changes in motion are a result of changes in energy. (Objects near Earth fall to the ground unless something holds them up. An object is in motion when a position is changed.)</p> <p>RI.1.7 RI.1.9 ES.1.1</p>
<p>Resources</p>	<ul style="list-style-type: none"> ● Inspire McGraw Hill ● Non Fiction Text ● ODE Model Curriculum ● Online magazine for K-5 http://beyondpenguins.ehe.osu.edu/ ● The Cleveland Metroparks has a travelling bus that teaches children about living things and their needs. 	<ul style="list-style-type: none"> ● Inspire McGraw Hill ● Non Fiction Text ● ODE Model Curriculum ● Online magazine for K-5 http://beyondpenguins.ehe.osu.edu/ ● Wonders Resource- The Sun Rise- Spelling Song Movement and Video Performance. Interactive Read Aloud- Why are the Sun and Moon in the Sky? Paired Read- Our Sun is a Star Leveled Readers- Family Night Unplugged, Wind Power, We Want Water, Why Turtles Live in Water 	<ul style="list-style-type: none"> ● Inspire McGraw Hill ● Non Fiction Text ● ODE Model Curriculum ● Online magazine for K-5 http://beyondpenguins.ehe.osu.edu/ 	<p>Inspire McGraw Hill</p> <ul style="list-style-type: none"> ● Non Fiction Text ● ODE Model Curriculum ● Online magazine for K-5 http://beyondpenguins.ehe.osu.edu/ ● Wonders Leveled Reader- Forces at Work
<p>STEAM</p>	<p>STEAM Everywhere https://www.youtube.com/watch?v=BLMsgeyhVWc STEAM Careers https://www.youtube.com/watch?v=qyrQI1Yk8Ug</p>	<p>STEAM Everywhere https://www.youtube.com/watch?v=BLMsgeyhVWc STEAM Careers https://www.youtube.com/watch?v=qyrQI1Yk8Ug</p>	<p>STEAM Everywhere https://www.youtube.com/watch?v=BLMsgeyhVWc STEAM Careers https://www.youtube.com/watch?v=qyrQI1Yk8Ug</p>	<p>STEAM Everywhere https://www.youtube.com/watch?v=BLMsgeyhVWc STEAM Careers https://www.youtube.com/watch?v=qyrQI1Yk8Ug</p>

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