

SAS Pacing Guide (Sept. 2017 – June 2018)

Grade: First

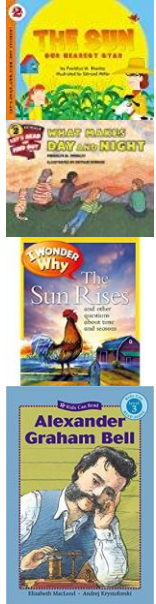
Subject: Science

Pacing (Month)	Essential Standards	Unit Topic(s) and Essential Questions	Student Target Outcomes and Goals <i>SWBAT</i>	Focus Topics/Skills	Assessment	Resources	Catholic Identity
Sept - Nov	Physical Science Waves: Light and Sound	<p>Become aware of sounds in our environment.</p> <p>Vibrating objects make sounds.</p> <p>Identify objects by the sounds they make.</p> <p>Identify objects that make sounds.</p> <p>Light travels in a straight line.</p> <p>Identify materials that block light (resulting in shadows), manipulate it (mirrors), and materials which light can pass through.</p> <p>Identify objects</p>	<p>PS4.A: Wave Properties Sound can make matter vibrate, and vibrating matter can make sound. (1-PS4-1)</p> <p>PS4.B: Electromagnetic Radiation Objects can be seen if light is available to illuminate them or if they give off their own light. (1-PS4-2)</p> <p>Some materials allow light to pass through them, others allow only some light through and others block all the light and create a dark shadow on any surface beyond them, where the light cannot reach. Mirrors can be used to redirect a light beam. (<u>Boundary</u>: The idea that light travels from place to place is developed through experiences with light</p>	<p>-What sounds do I notice? Nature walk listening for and identifying different sounds.</p> <p>-What sounds do I know? Have students identify various sounds (i.e. instruments, dribbling ball, type of animal, etc.) using only their sense of sound.</p> <p>-How do sound waves move? Feel sound vibrations using plastic cups (or tissue boxes) and rubber bands.</p> <p>-How can sound travel farther distances? Discuss Alexander Graham Bell and how his invention of the telephone relates to sound (able to be carried over greater distance).</p> <p>-What direction does light travel in? Experiment with flashlight shining on various objects (i.e.</p>	<p>Teacher Observation</p> <p>Hands on Experiments with follow up discussion</p> <p>Identify objects by the sounds they make.</p> <p>Identify objects that make sounds.</p> <p>Ability to name at least three objects that give us light.</p>	<p>FOSS Grade 1 Light and Sound Module: https://www.foosweb.com/delagate/ssi-wdf-ucm-webContent?dDocName=G3837891</p> <p>Video (For Teachers only) Light Lesson: https://www.teachingchannel.org/video/science-lesson-on-light</p> <p>Brainpop Jr. Video: https://jr.brainpop.com/science/energy/light/</p> <p>PBS Sound Videos: https://vermont.pbslearningmedia.org/resource/phy03.sci.phys.howmove.lp</p>	<p>Share ideas and thoughts about God and science topics</p> <p>Understand God created a well-ordered universe.</p> <p>Appreciate God’s creation Symbols of light, candles.</p>

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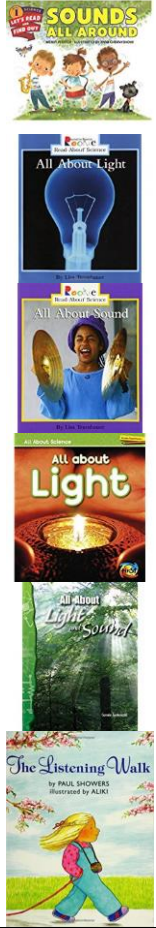
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		that produce light.	<p>sources, mirrors, and shadows, but no attempt is made to discuss the speed of light.) (1- PS4-3)</p> <p>PS4.C: Information Technologies and Instrumentation People also use a variety of devices to communicate (send and receive information) over long distances. (1- PS4-4)</p>	<p>blocks, mirror, glass, etc.). Determine that light travels in straight lines. Some objects block light and create shadows, mirrors reflect it, and it can pass through transparent objects. -and/or- Notice how sun’s position affects position of shadows. Check in the morning and afternoon to see how the direction changes.</p>		<p>sound/sound-vibrations/#.WuGyMrJ00</p> <p>Tuning Forks</p> <p>Musical Instruments – tambourine, drum, triangle</p> <p>Books:</p>  <p>The Sun What Makes Day and Night Wonder Why: The Sun Rises Alexander Graham Bell</p>	<p>How do we reflect the goodness of God? What does Jesus mean by “Be like me”?</p>

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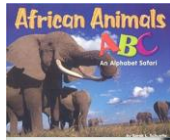
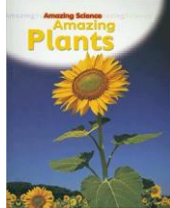
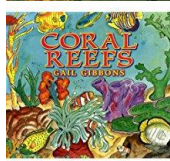

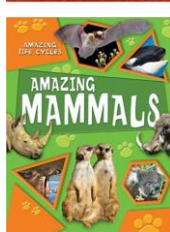
Pacing (Month)	Essential Standards	Unit Topic(s) and Essential Questions	Student Target Outcomes and Goals <i>SWBAT</i>	Focus Topics/Skills	Assessment	Resources	Catholic Identity
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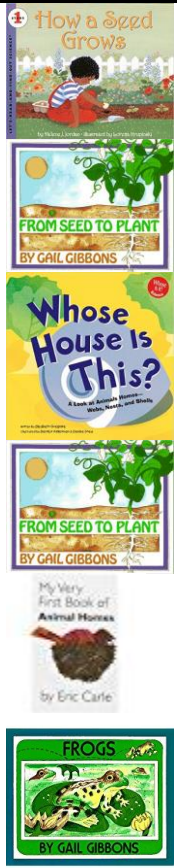
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March - June	Plants and Animals	<p>How can animals be classified?</p> <p>How might animals survive in their habitats?</p> <p>How does climate affect animals?</p> <p>What are the lifecycles for various plants and animals?</p> <p>What is a food chain?</p>	<p>LS1.A: Structure and Function All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1)</p> <p>LS1.B: Growth and Development of Organisms Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. (1-LS1-2)</p> <p>LS1.D: Information</p>	<ul style="list-style-type: none"> • Identify and describe physical characteristics of mammals, reptiles, amphibians, birds, fish and insects • Classify animal as invertebrate/vertebrate, warm blooded/cold blooded • Explain the survival behavior of each group of animals listed • Describe how plants and animals use the sun to get energy • Recognize similarities/ differences between animals and plants • Recognize lifecycles for specific plants and animals • Identify what plants and animals need to survive • Investigate and illustrate simple food chain • Describe the relationship of 	<p>Teacher Observation</p> <p>Able to fill in blanks in various life cycles</p> <p>Able to distinguish between predator and prey</p> <p>identify animals that belong to specific habitats</p> <p>Able to classify specific animals as herbivore, carnivore and omnivore</p> <p>Compare and</p>	<p>Books:</p>     	<p>Noah and the Flood (Genesis 6:9-9)</p> <p>Story of Creation (Genesis 1)</p> <p>Psalm 50:10-11</p> <p>God created the plants and animals.</p> <p>God wants us to protect his creation. Earth Day</p> <p>Appreciate God's creation</p> <p>Show respect for</p>

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			<p>Processing Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. (1-LS1-1)</p> <p>LS3.A: Inheritance of Traits (NYSED) Some young animals are similar to, but not exactly, like their parents. Some young plants are also similar to, but not exactly, like their parents. (1-LS3-1)</p> <p>LS3.B: Variation of Traits Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways. (1-LS3-1)</p>	<p>predator/prey</p> <ul style="list-style-type: none"> • Differentiate between herbivore, carnivore and omnivore • Define offspring, competition, physical/seasonal adaptations, variations • Describe stages of development for a specific animal from birth to death (life span) 	<p>contrast types of plants and animals using various methods</p> <p>recognize basic adaptations</p>	 <p>Web: Plant Life cycle interactive video</p>	<p>and help take care of God's creation</p> <p>Stewards of all Creation. Why we care for plants and animals.</p>

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						<p>How Plants Grow Interactive Game</p> <p>Structure of a Plant Interactive Diagram</p> <p>Life cycle of a plant interactive diagram</p> <p>Food Chains Interactive Game</p> <p>Safari Park Adventure Game (Animal Information through the San Diego Zoo)</p> <p>Brainpop Jr.</p>	<p>God wants us to grow and develop into adults.</p>
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						Food Chain Brainpop Jr. Animal Classification Brainpop Jr. Frog Life Cycle Brainpop Jr. Butterfly Life Cycle Bill Nye Video Plants	
Dec - Feb	Space Systems: Patterns and Cycles	Is the sun a star? What pictures can we see in the sky?	ESS1.A: The Universe and its Stars Patterns of the motion of the sun, moon, and stars in the sky	Define and identify the characteristics of a star • Explain star types and	Teacher Observation Discussion	Bill Nye Sun Video (S2E13 better)	Psalm 146:6 Acts 4:24

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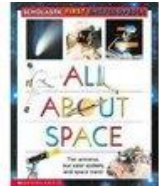
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		<p>Why do we have sunrise and sunset? How does the sun affect the weather?</p>	<p>can be observed, described, and predicted. (1- ESS1-1) ESS1.B: Earth and the Solar System Seasonal patterns of sunrise and sunset can be observed, described, and predicted. (1-ESS1-2)</p> <p>The Sun and moon appear to rise along the eastern horizon, move in a predictable pathway across the sky, and set along the western horizon; and stars other than our Sun are visible at night depending on weather and other conditions such as light pollution but not visible during the day.</p>	<p>brightness</p> <ul style="list-style-type: none"> Identify and create various constellations Identify that the Earth rotates around the sun, resulting in the 4 seasons. Recognize that the Earth rotates on an axis, resulting in day and night. The Solar System has different planets 	<p>Written responses</p> <p>Understands that Earth’s rotation around the sun gives us 4 seasons and ability to see different constellations.</p> <p>Understands that Earth’s rotation on axis results in sunrise/sunset and phases of the moon</p> <p>Recognizes that the sun is a star</p>	<p>version on Netflix): https://www.youtube.com/watch?v=HsdSsiQ2tWM&t=1012s</p> <p>Brainpop Jr. Sun: https://jr.brainpop.com/science/space/sun/</p> <p>ELA Module 6: https://www.engageny.org/resource/grade-1-ela-domain-6-astronomy</p> <p>comparisons of the amount of daylight in the winter to</p>	<p>Genesis 1:1</p> <p>God is the creator of the Heavens and Earth.</p> <p>Share ideas and thoughts about God and science topics</p> <p>Understand God created a well-ordered universe.</p> <p>Appreciate God’s creation Story of Abraham.</p>

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						the amount in the spring or fall Books:    	

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