

1st Grade Thematic Model

Narrative and Rationale: This first grade model is tied together with a thread relating to light, which can be connected through the four bundles. The first bundle focuses on seeing objects, and includes the foundational and challenging idea that light is necessary for us to see. The need for light is true whether viewing objects on Earth or in the sky. Bundle 2 extends the study of light to include its interaction with various materials, and applies ideas about light and sound to solve a problem. Bundle 3 is tied to organisms and sunlight, as part of a study of the structure and function of the external parts of plants and animals. In bundle 4, while students study plants and animals with a focus on the traits of parents and their offspring and behaviors of parents and offspring, the study of light is brought back in by looking back over student observations of the amount of daylight over the past year.

Each bundle in this course also has a focus CCC, building on student understanding of the CCCs that are introduced the previous year, in Kindergarten. Bundles 1 and 4 focus on Patterns, Bundle 2 focuses on Cause and Effect, and Bundle 3 focuses on Structure and Function. Note that the practices and crosscutting concepts described are intended as end-of-instructional unit expectations and not curricular designations – additional practices and crosscutting concepts should be used throughout instruction in each bundle.

<p>Bundle 1: Can patterns of the sun, moon, and stars be used to make predictions of future observations? ~4 Weeks</p>	<p>Bundle 2: How can light or sound be used to send messages over a distance? ~8 Weeks</p>	<p>Bundle 3: How can we solve problems related to organisms and sunlight? ~10 Weeks</p>	<p>Bundle 4: How do patterns relate to sunlight throughout the year as well as to relationships between parents and offspring? ~12 Weeks</p>
<p>1-PS4-2. Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated.</p> <p>1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.</p> <p>1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.¹</p>	<p>1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.</p> <p>1-PS4-3. Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light.</p> <p>1-PS4-4. Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.*</p> <p>1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.¹</p>	<p>1-LS1-1. Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.*</p> <p>1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.¹</p> <p>K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.¹</p>	<p>1-LS1-2. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.</p> <p>1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.</p> <p>1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year</p>

	<p>K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.¹</p>	<p>K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.¹</p>	
--	---	---	--

¹ The bundle only includes part of this PE; the PE is not fully assessable in a unit of instruction leading to this bundle.

1st Grade Thematic Model Flowchart

