



Grade 1 Next Generation Science Standards Course Pacing Guide

Narrative and Rationale: The three bundles in this 1st grade model are characterized by the study of patterns of light, sound, and organism structure. Bundle 1 centers on the theme of seeing objects, with a study of both light and solar patterns, and students could begin year-long observations of seasonal changes. Bundle 2 builds on the ideas about light and introduces a study of sound and communication. Bundle 3 introduces basic concepts of heredity, structure, and function relationships in organisms. Throughout the year, students have opportunities to build and apply their science knowledge through engineering practices and DCIs. In addition, the crosscutting concepts of patterns and structure and function can be a focus of instruction throughout the year.

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.

Michigan Model Social and Emotional Health Safety ~8 weeks	Bundle 1: Light and Solar Patterns ~9 weeks	Bundle 2: Observing Objects with Sight and Hearing ~ 9 weeks	Bundle 3: Structures and Behaviors in Organisms ~9 weeks
Resources: MI Model http://www.spsd.net/wp-content/uploads/2018/03/SEX-ED-NEWSLETTER.pdf	Pearson Resources Chapter 3	Pearson Resources Chapter 1	Pearson Resources Chapter 2
Health Education What health habits and skills should we be practicing?	Bundle Question Why are we able to see objects?	Bundle Question Why can we see objects and hear sounds?	Bundle Question What structures and behaviors help plants and animals survive?

<p>Strand 1. Nutrition and Physical Activity</p> <p>Strand 2. Alcohol, Tobacco, and other Drugs</p> <p>Strand 3. Safety</p> <p>Strand 4. Social and Emotional Health</p> <p>Strand 5. Personal Health and Wellness</p> <p>For specific standards, please refer to the Michigan Model for Health Manual for Grade 1</p>	<p>NGSS Standards</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-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-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.</p>	<p>NGSS Standards</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-PS4-2. Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated.</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-ESS1-1. 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.</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.</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.</p>	<p>NGSS Standards</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-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-ETS1-2. 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.</p>
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