



FIRST GRADE SCIENCE

Course Overview

The performance expectations in first grade help students formulate answers to questions such as: “What happens when materials vibrate? What happens when there is no light? What are some ways plants and animals meet their needs so that they can survive and grow? How are parents and their children similar and different? What objects are in the sky and how do they seem to move?” First grade performance expectations include PS4, LS1, LS3, and ESS1 Disciplinary Core Ideas from the Next Generation Science Standards. In the first grade performance expectations, students are expected to demonstrate grade-appropriate proficiency in planning and carrying out investigations, analyzing and interpreting data, constructing explanations and designing solutions, and obtaining, evaluating, and communicating information. Students are expected to use these practices to demonstrate understanding of the core ideas.

| Unit | Estimated Class Time | Overview |
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| <u>Unit 1</u> <u>Sound</u> | 5 weeks | Students will be able to independently use their learning to conduct simple tests to gather evidence that supports or refutes cause and effect relationships of wave properties. Students are expected to develop understanding of the relationship between sound and vibrating materials as well as between the availability of light and ability to see objects. |
| <u>Unit 2</u> <u>Light</u> | 5 weeks | Students will be able to independently use their learning to analyze the behaviors and patterns of light to understand the interaction of physical properties in the world around them. The idea that light travels from place to place can be understood by students at this level through determining the effect of placing objects made with different materials in the path of a beam of light. |
| <u>Unit 3</u> <u>Plants and</u> <u>Animals</u> | 4 weeks | Students will be able to independently use their learning to analyze how the shape and stability of structures of natural and designed objects are related to their functions. Students are also expected to develop understanding of how plants and animals use their external parts to help them survive, grow, and meet their needs as well as how behaviors of parents and offspring help the offspring survive. |
| <u>Unit 4</u> <u>Growth and</u> <u>Development of</u> <u>Organisms</u> | 5 weeks | Students will be able to independently use their learning to analyze how the patterns in the natural world can be observed, used to describe phenomena, and used as evidence. The understanding is developed that young plants and animals are like, but not exactly the same as, their parents. |
| <u>Unit 5</u> <u>Patterns in the</u> <u>Sky</u> | 5 weeks | Students will be able to independently use their learning to analyze the behaviors and patterns of light to understand the interaction of physical properties in the world around us. Students are able to observe, describe, and predict some patterns of the movement of objects in the sky. |
| <u>Unit 6</u> <u>Seasons</u> | 5 weeks | Students will be able to independently use their learning to analyze the behaviors and patterns of light to understand the interaction of physical properties in the world around them. Students will develop an understanding that seasonal patterns of sunrise and sunset can be observed, described, and predicted and that daylight changes with seasons. |