

1st Grade Integrated Science Curriculum

Unit 1: Light and Sound

Science Focus:

- **1-PS4-1:** Sound and Vibrating Materials
- **1-PS4-2:** Illumination and Darkness
- **1-PS4-3:** Light and Materials
- **1-PS4-4:** Communication Device Design

Focus:

- Students will explore how sound is produced through vibrations and how light helps us see.
- They will investigate how different materials affect light and learn how light and sound can be used for communication.

Possible Integration:

- **ELA Connection:** Students will discuss how light and sound help friends stay connected and communicate, tying into stories about friendship.
 - **Math Connection:** Students will categorize materials based on how they interact with light (transparent, translucent, opaque) and organize data on how different sounds are made (e.g., loud vs. soft, high vs. low) using simple bar graphs.
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Unit 2: Structure, Function, and Information Processing

Science Focus:

- **1-LS1-1:** Biomimicry Design Solution
- **1-LS1-2:** Behavior - Parents and Offspring
- **1-LS3-1:** Plant and Animal Structures

Focus:

- Students will learn how animals and plants have special structures that help them survive.
- They will explore the relationships between parents and offspring, noticing how young animals and plants share traits with their parents but are not identical.

Possible Integration:

- **ELA Connection:** As students read folktales about animals and plants, they will relate the stories to how real animals and plants use their structures to meet their needs.
 - **Math Connection:** Students can measure and compare the sizes of different plants or animals, reinforcing measurement skills. They can also use simple addition and subtraction when discussing traits passed from parents to offspring.
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Unit 3: Space Systems: Patterns and Cycles**Science Focus:**

- **1-ESS1-1:** Sun, Moon, and Star Patterns
- **1-ESS1-2:** Seasonal Sunlight

Focus:

- Students will observe patterns in the sun, moon, and stars and explore how these patterns repeat daily and across seasons.
- They will learn how the amount of daylight changes throughout the year, noticing that winter has fewer daylight hours compared to spring or fall.

Possible Integration:

- **ELA Connection:** Students will discuss folktales that explain the movement of the sun and stars, then compare these fictional stories to the real patterns they observe in the sky.
- **Math Connection:** Students will observe and record the time of sunrise and sunset, using clocks to help them understand daily and seasonal patterns of light. They will count the hours of daylight and compare them across different seasons.