

Correlation with National Science Standards

Use the chart below to find Science A–Z units that best support the Next Generation Science Standards* at grade 1, and several featured resources from those units that provide strong connections. Each Performance Expectation in the chart represents all three dimensions: Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts.

First Grade Topics: "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?"

1. Waves: Light and Sound		
Performance Expectations	Disciplinary Core Ideas	Science A–Z Units (Featured Resources)
1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	PS4.A: Wave Properties	K–2 Energy (Nonfiction Books; <i>Sound of Drums</i> FOCUS Book; <i>Tuning Forks and Sound</i> Process Activity) 3–4 Sound (Nonfiction Books)
1-PS4-2. Make observations to construct an evidence-based account that objects can be seen only when illuminated.	PS4.B: Electromagnetic Radiation	K–2 Light (Nonfiction Books; <i>Light from Space</i> FOCUS Book; <i>Properties of Light</i> Investigation Pack)
1-PS4-3. Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.	PS4.B: Electromagnetic Radiation	K–2 Light (Nonfiction Books; <i>Stained Glass</i> FOCUS Book; <i>Fun House Mirrors</i> FOCUS Book; Concept Books; <i>Shadows Change Shape</i> Quick Reads)
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.	PS4.C: Information Technologies and Instrumentation	K–2 Light (<i>Fireflies</i> FOCUS Book) 3–4 Sound (<i>String Telephones</i> Process Activity; <i>Communicating with Sound Patterns</i> Project-Based Learning Pack)

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1. Structure, Function, and Information Processing		
Performance Expectations	Disciplinary Core Ideas	Science A-Z Units (Featured Resources)
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.	LS1.A: Structure and Function	K-2 Animals (<i>Animal Protection</i> Project-Based Learning Pack; <i>Catch Dinner</i> Quick Reads; <i>Grab Food</i> Quick Reads; <i>Animals of the Air</i> FOCUS Book; <i>Animals of the Deep Ocean</i> FOCUS Book; <i>Animals of the Ice and Snow</i> FOCUS Book) K-2 Plants (Nonfiction Books; <i>Insect Control</i> Debate; <i>Giant Sequoias</i> FOCUS Book)
	LS1.D: Information Processing	K-2 Senses (<i>Animals Ears</i> Quick Reads; <i>How Animals Smell</i> Quick Reads; <i>Properties of Senses</i> Investigation Pack)
1-LS1-2. Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.	LS1.B: Growth and Development of Organisms	K-2 Living/Non-Living (<i>Living Things</i> Investigation Pack; <i>Babies and Parents</i> FOCUS Book; <i>Living Things Reproduce</i> Concept Book)
1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	LS3.A: Inheritance of Traits	K-2 Living/Non-Living (<i>Babies and Parents</i> FOCUS Book; <i>Fruit Seeds</i> Process Activity)
	LS3.B: Variation of Traits	K-2 Living/Non-Living (<i>Babies and Parents</i> FOCUS Book) K-2 Plants (<i>Roses</i> FOCUS Book)

1. Space Systems: Patterns and Cycles		
Performance Expectations	Disciplinary Core Ideas	Science A-Z Units (Featured Resources)
1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.	ESS1.A: The Universe and its Stars	K-2 Earth, Moon, and Sun (Nonfiction Books; <i>Modeling the Earth, Moon, and Sun</i> Process Activity; <i>Using the Sun to Tell Time</i> Project-Based Learning Pack; <i>Shapes in the Night Sky</i> FOCUS Book; <i>Shadows in Space</i> FOCUS Book; <i>Days and Moon Phases</i> Interactive Science Lesson)
1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.	ESS1.B: Earth and the Solar System	K-2 Weather (Nonfiction Books; <i>Earth's Seasons</i> Science Diagram) K-2 Earth, Moon, and Sun (<i>Seasons and Sunlight</i> FOCUS book)