

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 3, 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.

Third Grade Topics: "What is typical weather in different parts of the world and during different times of the year? How can the impact of weather-related hazards be reduced? How do organisms vary in their traits? How are plants, animals, and environments of the past similar or different from current plants, animals, and environments? What happens to organisms when their environment changes? How do equal and unequal forces on an object affect the object? How can magnets be used?"

3. Forces and Interactions		
Performance Expectations	Disciplinary Core Ideas	Science A–Z Units (Featured Resources)
3-PS2-1. Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.	PS2.A: Forces and Motion	3–4 Machines (Nonfiction Books; <i>Spaceship Motions and Deep, Deep Oceans</i> FOCUS Book; <i>Let's Ride a Bike!</i> FOCUS Book) 5–6 Force and Motion (<i>Force, Mass, and Acceleration</i> Interactive Science Lesson)
	PS2.B: Types of Interactions	3–4 Machines (Nonfiction Books; <i>Wrecking Ball vs. Strong Wall</i> FOCUS Book; <i>Waterwheels and Windmills</i> FOCUS Book; <i>Designing a Machine to Solve a Problem</i> Project-Based Learning Pack)
3-PS2-2. Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.	PS2.A: Forces and Motion	3–4 Machines (<i>Design Machines</i> Process Activity; <i>Pendulums</i> Process Activity) K–2 Energy (<i>Rolling Down a Ramp</i> Process Activity) K–2 Things Move (<i>Motion</i> Interactive Science Lesson)
3-PS2-3. Ask questions to determine cause and effect relationships of electric or magnetic interactions between two objects not in contact with each other.	PS2.B: Types of Interactions	3–4 Machines (<i>Strength of Electromagnets</i> Process Activity) K–2 Magnets (Nonfiction Books; Discussion Cards; <i>Magnetic Nails</i> Process Activity; <i>Magnets Attract and Repel</i> Science Diagram)
3-PS2-4. Define a simple design problem that can be solved by applying scientific ideas about magnets.	PS2.B: Types of Interactions	3–4 Machines (<i>Machines with Magnets</i> Quick Reads) K–2 Magnets (Nonfiction Books; <i>Trash Pick-Up</i> Debate)

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3. Interdependent Relationships in Ecosystems		
Performance Expectations	Disciplinary Core Ideas	Science A–Z Units (Featured Resources)
3-LS2-1. Construct an argument that some animals form groups that help members survive.	LS2.D: Social Interactions and Group Behavior	3–4 Life Cycles (<i>Honeybees</i> Quick Reads) 5–6 Adaptations (<i>Emperors of the Ice</i> FOCUS Book)
3-LS4-1. Analyze and interpret data from fossils to provide evidence of the organisms and the environments in which they lived long ago.	LS4.A: Evidence of Common Ancestry and Diversity	3–4 Minerals, Rocks, and Soil (<i>Fossils</i> FOCUS Book) 3–4 Vertebrates (<i>How Fossils are Made</i> Quick Reads; <i>Paleontologist</i> Career File) 3–4 Habitats/Environment (<i>Habitats Then and Now</i> FOCUS Book)
3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.	LS4.C: Adaptation	3–4 Habitats/Environment (Nonfiction Books; <i>Clever Camouflage</i> FOCUS Book; <i>Extreme Habitats</i> FOCUS Book) 3–4 Vertebrates (<i>Reptiles</i> Investigation Pack) 3–4 Invertebrates (Nonfiction Books; <i>Arthropods</i> Investigation Pack) 5–6 Adaptations (<i>Design Animal Adaptations</i> Process Activity)
3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.	LS4.D: Biodiversity and Humans	3–4 Habitats/Environment (Nonfiction Books; <i>In the Zone</i> Science Video; <i>Teens, Frogs, and Climate Change</i> Science Video)
	LS2.C: Ecosystem Dynamics, Functioning, and Resilience	3–4 Habitats/Environment (<i>Life Along the Colorado</i> FOCUS Book; <i>Bloomin' Algae</i> FOCUS Book); <i>Protect Your Local Environment</i> Project-Based Learning Pack

3. Inheritance and Variation of Traits: Life Cycles and Traits		
Performance Expectations	Disciplinary Core Ideas	Science A–Z Units (Featured Resources)
3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.	LS1.B: Growth and Development of Organisms	3–4 Life Cycles (Nonfiction Books; <i>Mealworm Life Cycles</i> Process Activity; <i>Life Cycles of Edible Plants</i> Process Activity; <i>Human Life Cycle Sequence</i> Process Activity; <i>Maggots, Grubs, and Nymphs</i> FOCUS Book; <i>Veligers and Polyps</i> FOCUS Book)
3-LS3-1. Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.	LS3.A: Inheritance of Traits	3–4 Life Cycles (<i>Adults</i> Investigation Pack; <i>Green Sea Turtles</i> Quick Reads; <i>Mendel's Pea Plants</i> Quick Reads)
	LS3.B: Variation of Traits	3–4 Life Cycles (Nonfiction Books; <i>Mendel's Pea Plants</i> Quick Reads; <i>The Mermaid's Purse</i> FOCUS Book)

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3. Inheritance and Variation of Traits: Life Cycles and Traits (continued)		
Performance Expectations	Disciplinary Core Ideas	Science A–Z Units (Featured Resources)
3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.	LS3.A: Inheritance of Traits	3–4 Habitats/Environment (Nonfiction Books; <i>Habitat in a Bottle</i> Process Activity)
	LS3.B: Variation of Traits	5–6 Adaptations (<i>Darwin’s Finches</i> FOCUS Book; <i>The Curious Case of the Peppered Moth</i> FOCUS Book)
3-LS4-2. Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.	LS4.B: Natural Selection	5–6 Adaptations (Nonfiction Books; <i>The Curious Case of the Peppered Moth</i> FOCUS Book)

3. Weather and Climate		
Performance Expectations	Disciplinary Core Ideas	Science A–Z Units (Featured Resources)
3-ESS2-1. Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.	ESS2.D: Weather and Climate	3–4 Clouds, Wind, and Storms (Nonfiction Books; <i>Weather and Climate</i> Interactive Science Lesson; <i>Storm Chasers</i> FOCUS Book; <i>Barometer and Jet Stream</i> Quick Reads; <i>Annual Precipitation Map</i> Science Diagram)
3-ESS2-2. Obtain and combine information to describe climates in different regions of the world.	ESS2.D: Weather and Climate	3–4 Habitats/Environment (Nonfiction Books) 3–4 Clouds, Wind, and Storms (<i>Earth’s Major Climate Zones</i> Science Diagram; <i>Weather and Climate</i> Interactive Science Lesson) 5–6 Atmosphere and Climate (<i>Seasons and Climate</i> FOCUS Book; <i>El Niño and La Niña</i> FOCUS Book)
3-ESS3-1. Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.	ESS3.B: Natural Hazards	3–4 Clouds, Wind, and Storms (<i>Listen to Weather Warnings</i> Quick Reads; <i>Ice Storms</i> FOCUS Book; <i>Thunderstorms</i> FOCUS Book; <i>Tornado Sirens</i> Debate; Career Files) 5–6 Water (<i>Hailstorms</i> FOCUS Book; <i>Tsunami!</i> FOCUS Book)