

Correlation with National Science Standards

Use the chart below to find Science A–Z units that best support the Next Generation Science Standards* topics 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.



Storylines from Science A–Z present a coherent sequence of lessons that target the bundle of Performance Expectations within each topic at grade 3. They include:

- [The Effects of Forces on Objects](#) (Forces and Interactions)
- [Organisms and the Environment](#) (Interdependent Relationships in Ecosystems)
- [Life Cycles and Traits of Living Things](#) (Inheritance and Variation of Traits: Life Cycles and Traits)
- [Weather Around the World](#) (Weather and Climate)

| 3. Forces and Interactions | | |
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| 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 (Unit 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 (Unit 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 (Unit Nonfiction Books; Discussion Cards; <i>Magnetic Nails</i> Process Activity; <i>Magnets Attract and Repel</i> Science Diagram) |

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| 3. Interdependent Relationships in Ecosystems | | |
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| Performance Expectations | Disciplinary Core Ideas | Science A–Z Units (Featured Resources) |
| 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 (Unit Nonfiction Books; <i>Trash Pick-Up Debate</i>) |
| 3-LS2-1. Construct an argument that some animals form groups that help members survive. | LS2.D: Social Interactions and Group Behavior | 3–4 Vertebrates (<i>Animals in Groups</i> FOCUS Book; <i>Wandering Seals</i> Science Video) 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; <i>Fossils: Evidence of Earth’s Past</i> Interactive Science Lesson) 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 (Unit 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 (Unit 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 (Unit 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 | | |
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| 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 (Unit 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) |

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| 3. Inheritance and Variation of Traits: Life Cycles and Traits (continued) | | |
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| Performance Expectations | Disciplinary Core Ideas | Science A–Z Units (Featured Resources) |
| 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>Inherited Traits</i> Process Activity; <i>Inheriting Stripes</i> FOCUS Book; <i>Adults</i> Investigation Pack; <i>Green Sea Turtles</i> Quick Reads; <i>Mendel’s Pea Plants</i> Quick Reads) 3–4 Plant Life (<i>How a Flower Gets Its Color</i> FOCUS Book) |
| | LS3.B: Variation of Traits | 3–4 Life Cycles (Unit Nonfiction Books; <i>Inherited Traits</i> Process Activity; <i>Inheriting Stripes</i> FOCUS Book; <i>Mendel’s Pea Plants</i> Quick Reads; <i>The Mermaid’s Purse</i> FOCUS Book) 3–4 Plant Life (<i>How a Flower Gets Its Color</i> FOCUS Book) |
| 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 (Unit Nonfiction Books; <i>Clever Animals</i> FOCUS Book; <i>Habitat in a Bottle</i> Process Activity) 3–4 Life Cycles (<i>Hot and Cold Reptiles</i> FOCUS Book) |
| | LS3.B: Variation of Traits | 3–4 Habitats/Environment (<i>Clever Animals</i> FOCUS Book) 3–4 Life Cycles (<i>Hot and Cold Reptiles</i> FOCUS Book) 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 | 3–4 Habitats/Environment (<i>Clever Animals</i> FOCUS Book) 5–6 Adaptations (Unit Nonfiction Books; <i>The Curious Case of the Peppered Moth</i> FOCUS Book) |

| 3. Weather and Climate | | |
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| 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 (Unit 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) |

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| 3. Weather and Climate (continued) | | |
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| Performance Expectations | Disciplinary Core Ideas | Science A-Z Units (Featured Resources) |
| 3-ESS2-2. Obtain and combine information to describe climates in different regions of the world. | ESS2.D: Weather and Climate | <p>3-4 Habitats/Environment (Unit Nonfiction Books)</p> <p>3-4 Clouds, Wind, and Storms (<i>Earth's Major Climate Zones</i> Science Diagram; <i>Weather and Climate</i> Interactive Science Lesson)</p> <p>5-6 Atmosphere and Climate (<i>Seasons and Climate</i> FOCUS Book; <i>El Niño and La Niña</i> FOCUS Book)</p> |
| 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 | <p>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)</p> <p>5-6 Water (<i>Hailstorms</i> FOCUS Book; <i>Tsunami!</i> FOCUS Book)</p> |