

3rd Grade Science Curriculum NYSSLS Aligned

Unit 1: Forces and Interactions

NYSSLS Standards:

- **3-PS2-1:** Balanced and Unbalanced Forces
- **3-PS2-2:** Predicting Future Motion
- **3-PS2-3:** Electric and Magnetic Forces
- **3-PS2-4:** Magnetic Design Solution

Focus:

- Students will explore how forces affect the motion of objects. They will learn to identify balanced and unbalanced forces, predict motion, and experiment with electric and magnetic forces. They will also design solutions that use magnets to solve a problem.

Possible Integration:

- **ELA Connection:** As students learn about the physical forces that shape the world, they'll discuss how personal experiences shape identity, just as forces shape motion. They can create personal narratives about times when they felt a "force" in their life, connecting personal identity to physical science concepts.
 - **Math Connection:** Students will use multiplication and division to calculate the speed and force applied to objects in motion experiments. They will also track and measure time intervals in their experiments to observe how long it takes for objects to move.
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Unit 2: Interdependent Relationships in Ecosystems

NYSSLS Standards:

- **3-LS2-1:** Animal Groups
- **3-LS4-1:** Fossil Evidence of Past Environments
- **3-LS4-3:** Habitats and Organism Survival
- **3-LS4-4:** Environmental Change Solution

Focus:

- Students will investigate how animals form groups for survival and how organisms adapt to their habitats. They will examine fossil evidence to learn about past environments and explore how environmental changes impact the survival of species. Students will design solutions to mitigate environmental changes affecting ecosystems.

Possible Integration:

- **ELA Connection:** Students will read folktales that highlight the relationship between animals, people, and the environment. They will compare these relationships to those they study in ecosystems, observing how both stories and science reveal the importance of interdependence.
 - **Math Connection:** Students will solve real-world math problems related to animal groups, such as calculating how much food an animal group needs for survival. They will also measure and record data on different habitats and create graphs to represent how animals adapt to changing environments.
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Unit 3: Life Cycles and Traits

NYSSLS Standards:

- **3-LS1-1:** Plant and Animal Life Cycles
- **3-LS3-1:** Inheritance and Variation of Traits
- **3-LS3-2:** Environmental Influence of Traits
- **3-LS4-2:** Variation, Survival, and Reproduction

Focus:

Students will study the life cycles of plants and animals, explore how traits are inherited, and examine how the environment can influence traits. They will also learn how variations in traits can affect an organism's survival and reproduction.

Possible Integration:

- **ELA Connection:** Just as characters in the stories learn about their unique identities, students will explore how plants and animals inherit traits from their parents and how their environment shapes who they are. They will discuss how organisms adapt to their surroundings and how their traits help them survive.
 - **Math Connection:** Students will estimate and measure the growth of plants and animals during their life cycle investigations. They will also use multiplication and division to track the number of generations in a plant or animal life cycle.
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Unit 4: Weather and Climate

NYSSLS Standards:

- **3-ESS2-1:** Seasonal Weather Conditions
- **3-ESS2-2:** World Climates
- **3-ESS3-1:** Weather-Related Hazard Solution

- **3-ESS2-3: Weather and the Water Cycle***

Focus:

Students will explore seasonal weather patterns, world climates, and how these factors impact life on Earth. They will also study the water cycle and design solutions to address weather-related hazards such as floods or droughts.

Possible Integration:

- **ELA Connection:** Students will read nonfiction texts about extreme weather and connect them to their scientific observations of seasonal patterns, world climates, and the water cycle. They'll explore the impact of weather on communities and discuss how people prepare for weather hazards.
- **Math Connection:** Students will measure and record data on local and global weather patterns, creating bar graphs and pictographs to represent different types of weather. They will also calculate the area affected by weather events, such as the size of a floodplain or a drought-impacted region.