

Kindergarten Science Units:

Exploring My Weather (STC kit)

The STC-Kindergarten **Exploring My Weather** unit was designed to draw upon and expand students' natural curiosity and enthusiasm for finding out about weather. Students use their senses and the tools of meteorologists to explore temperature, precipitation, wind, and cloud cover. Observations develop a weather vocabulary and lead to new questions: how water changes between its forms and how weather affects humans and other animals. Students choose clothing and design roofs and hats to protect against weather. They conclude by discussing seasonal changes and the importance of weather forecasting.

- **K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.**
- **K-ESS3-2. Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.**
- **K-PS3-1. Make observations to determine the effect of sunlight on Earth's surface.**
- **K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.**

Exploring Forces in Motion (STC)

STC-Kindergarten **Exploring Forces and Motion** is a unit designed to allow students to investigate how forces—pushes and pulls—are responsible for the motion of objects. During *Exploring Forces and Motion*, students bring motion to a personal level as they consider their daily activities and the motions that accompany them. Students explore and describe motion, speed, and pushes and pulls. Using models, the class explores how pushes and pulls affect the speed and direction of an object's motion. To conclude the unit, students apply what they learn to invent and play games as a class.

- **K-PS2-1: Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.**
- **K-PS2-2: Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.**

Exploring Plants and Animals (STC)

STC-Kindergarten **Exploring Plants and Animals** is a unit that expands children's appreciation of plants and animals as well as their awareness about how these living things all relate to each other and to the world around them. Students explore the structures, needs, and life cycles of plants and animals. They plant seeds and watch them grow, and they set up habitats for zebra fish and milkweed bugs to observe over time. Finally, they explore human impact on the environment, particularly as related to trash and recycling.

- **K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.**
- **K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.**
- **K-ESS3-1. Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.**
- **K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.**