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Kindergarten Performance Expectations

District 102 Priority Standards for Science - Kindergarten (Coming Soon)

Overview

The performance expectations in kindergarten help students formulate answers to questions such as: "What happens if you push or pull an object harder? Where do animals live and why do they live there? What is the weather like today and how is it different from yesterday?" Students are expected to develop understanding of patterns and variations in local weather and the purpose of weather forecasting to prepare for, and respond to, severe weather. Students are able to apply an understanding of the effects of different strengths or different directions of pushes and pulls on the motion of an object to analyze a design solution. Students are also expected to develop understanding of what plants and animals (including humans) need to survive and the relationship between their needs and where they live.

Forces and Interactions: Pushes and Pulls

Student Outcomes - In Grade K, children will:

- 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
- 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

Interdependent Relationships in Ecosystems: Animals, Plants, and Their Environment

Student Outcomes - In Grade K, children will:

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

Weather and Climate

Student Outcomes - In Grade K, children will:

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

Engineering Design

Student Outcomes - In Grades K-2, children will:

- Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool
- Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem
- Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs