

Short Synopsis of the Course/Subject Areas of Focus

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.

Grade Level: Kindergarten

Subject: Science

Big ideas of the unit

Trimester 1 Weather and Climate

- Use and share observations of local weather conditions to describe patterns over time
- Obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather
- Determine the effect of sunlight on Earth’s surface
- Design and build a structure that will reduce the warming effect of sunlight on an area

Trimester 2 Matter and Forces

- Different kinds of matter exist as solid or liquid, depending on temperature
- Compare the effects of different strengths or different directions of pushes and pulls on the motion of an object
- Determine if a design solution works as intended to change the speed or direction of an object with a push or a pull

Trimester 3 Interdependent Relationships in Ecosystems

- Describe patterns of what plants and animals need to survive
- Construct an argument supported by evidence for how plants and animals can change the environment to meet their needs
- Represent the relationship between the needs of different plants or animals and the places they live

- Communicate solutions that will reduce the impact of humans on living organisms and nonliving things in the local environment

Student learning standards (Students will be able to)

Trimester 1

Students will be able to ask questions and define problems, plan and carry out investigations, analyze and interpret data, construct explanations and design solutions, and obtain, evaluate and communicate information.

Trimester 2

Students will be able to plan and carry out investigations, and analyze and interpret data.

Trimester 3

Students will be able to develop and use models, analyze and interpret data, engage in argument from evidence, and obtain, evaluate and communicate information.

Culturally responsive content and practices

Students will enjoy texts by a variety of authors that depict a range of cultures within families and communities. Examples of this include Summer Sun Risin' and Hot Feet. Additionally, students will be exposed to healthy foods across cultures. Our third trimester unit of study includes pieces of sustainability as students discover the ways in which humans can impact their environment and how these impacts can affect different cultural groups in different ways.

Assessment plan

Trimester 1 / Trimester 2 / Trimester 3

Students will be assessed through informal, anecdotal observation. I will be looking for students' participation in the whole-group lesson and the ways in which they are able to collaborate with one another. Information can be obtained about their understanding from individual and small-group conferences during students' work time as well as from finished work products. 3-D assessment tasks will also be used, when appropriate.

Resources

Trimester 1

Dreaming Up by Christy Hale

Summer Sun Risin' by W. Nikola-Lisa

Water by Frank Asch

Trimester 2

Newton and Me by Lynne Mayer

The Red Racer by Audrey Wood

And Everyone Shouted: "Pull!" by C. Llewellyn

Trimester 3

Gregory, the Terrible Eater by Mitchell Sharmat

Jack and the Hungry Giant by Loreen Leedy

Fairy Houses by Tracy Kane

The EARTH Book by Todd Parr