Curriculum Map: Kindergarten Science

Course: K Science Sub-topic: General

Grade(s): Kindergarten

Course Description: In Kindergarten, students will experience three science domains; Life Science, Physical Science, and Earth and Space Science. In each domain, hands on learning opportunities will be provided.

In Physical Science, students will explore topics related to Matter (properties, interactions) and Energy (transference, conservation).

In Life Science, students will explore topics related to Plants and Animal Life (structure, behavior, adaptation, characteristics, life cycles).

In Earth and Space, students will learn about topics related to Space (systems, patterns, sunlight) and Earth (seasons, weather).

Unit:

This Curriculum Map Unit has no Topics to display

Unit: Unit One

Unit Description: Energy

Unit Essential Questions: How is energy transferred and conserved?

How can one explain and predict the structure, properties, and interactions of matter?

Unit Big Ideas: Interactions of objects or systems of objects can be predicted and explained using the concept of energy transfer and conservation.

Matter can be understood as composed of very small particles which are continuously moving and have space between them.

Unit Materials: Teacher Manual, science kit, Tradebooks, internet, Teacher Pay Teacher, outdoor environment

Unit Assignments:

Lesson	Objective	Standard	Assessment	Resources

Matter	Analyze data from testing objects made from different objects made from different materials to determine if a proposed object functions as intended. Design an object built from a small set of pieces to solve a problem and compare solutions designed by peers given the same set of pieces.	3.2.K.A1 3.2.2.A4		Scholastic News Let's Find Out

Lesson	Objective	Standards	Assessment	Resources
Energy	Plan and conduct an investigation and/or simple test to compare the effects of different strengths or different directions of pushes and pulls on motion of an object. (K-PS2-1: K-PS2-2) Analyze data to determine if a design solution works as intended. (K-PS2-1) Make observations to create an evidence-based activity to prove that energy is being transferred or conserved by objects.(K-PS2-1)	3.2.3.B1 3.2.4.A 3.2.3.B1 3.2.6.B1 3.2.4.B1 3.2.4B2. 3.2.4.B6		Scholastic News Let's Find Out

Unit Key Terminology & Definitions:

Energy

Investigation

Speed

Design

Solution

Transfer

Balance

Matter

Cause and effect

Push and pull

Motion

Problem Solving

Unit Notes: Science is integrated throughout Math, Social Studies, Writing.

This Curriculum Map Unit has no Topics to display

Unit: Unit Two

Unit Description: Plant and Animal Life

Unit Essential Questions: How do organisms live, grow, respond to their environment, and reproduce?

Unit Big Ideas: All organisms are made of cells and can be characterized by common aspects of their structure.

Unit Materials: Teacher manual, science kit, tradebooks, internet, outdoor environment, Teacher Pay Teacher

Unit Assignments:

Lesson	Objective	Standards	Assessment	Resources
Plant and Animal Life	Make observations to describe what plants and animals need to survive.(K-LS1-1) Use a model (charts, books, videos) to explain the relationship between the needs of different plants or animals and the places they live. (K-ESS3-1)	3.1.4.A2 3.1.3.A2 3.1.4.A2 3.1.4.A8 3.1.3.C2	Teacher Observations	Scholastic News Let's Find Out

Unit Key Terminology & Definitions:

Environment

Parts (roots, leaves, flowers, stems, fruit)

Patterns

Structure

Survive

Habitat

Model

Needs

Offspring

Relationship

Unit Notes: Science is integrated throughout Math, Social Studies, Writing.

This Curriculum Map Unit has no Topics to display

Unit: Unit Three

Unit Description: Earth

Unit Essential Questions: How and why is Earth constantly changing?

How do Earth's processes and human activities affect each other?

Unit Big Ideas: The Earth is a complex and dynamic set of interconnected systems.

The Earth's surface processes affect and are affected by human activities.

Unit Materials: Teacher Manual, science kit, tradebooks, internet, outdoor environment, Teacher Pay Teacher

Unit Assignments:

Lesson	Objective	Standards	Assessment	Resources
Earth	Use and share observations of local weather conditions to describe patterns over time. (K-ESS2-!)	3.3.3.A5 3.3.4.A5		Scholastic News Let's Find Out
	Make observations to determine the effect of sunlight on the Earth's surface. (K-PS3-1)	3.2.3.B3		
	Use tools and materials to design and build a structure that will reduce (or increase) the warming effect of sunlight on an area. (K-PS3-2)	3.3.3.A5		
	Ask questions to obtain information about the purpose of weather forecasting to prepare for and respond to weather. (K-ESS3-2)	3.3.4.A5		
	Use evidence to show how plants and animals are able to change their environment to meet their needs. (K-	4.1.1.A 4.1.1.K.D		

	ESS3-3)	4.6.4.A 4.8.4.C
	Describe ways to reduce impact of humans on the land, water and air. (K-ESS2-2)	4.5.K.D 4.5.2.C
	Describe and communicate solutions to reduce impact o humans on land, water, and air. (K-ESS2-2)	4.5.PK.D 4.5.3.D

Unit Key Terminology & Definitions:

Sunlight

Weather (Sunny, Cloudy, Partly Cloudy, Foggy, Rainy, Snowy, Windy, hot, warm, cold)

Observe

Changes

Describe

Earth

Sun

Star

Predict

Surface

Build

Canopy

Materials

Structure

Tent

Tools

Umbrella

Warming

Conditions

Region

Air

Land

Water

Reduce

Reuse

Recycle

Unit Notes: Science is integrated throughout Math, Social Studies, Writing.

This Curriculum Map Unit has no Topics to display