

Department: Science

Course Name: Kindergarten Science

Course Description:

The goal of the Kindergarten Science curriculum is designed to provide a foundation and introduction to Life Science, Earth Science and Physical Science. Students will observe, inquire, question, formulate, test, analyze, report, and evaluate data. Teachers will facilitate communication, collaboration, critical thinking, and problem solving. Teachers will also foster creativity and the development of innovative skills when applying the scientific process, communicating scientific ideas, and understanding the nature of science. The Kindergarten Science curriculum prioritizes acquiring skills over learning facts.

Content:

Natural Resources

Conservation, Ecology, Environmental Laws

Scientific Process

Length, Mass, Volume

Climate Change

Scientific Process

Weight

Plant Growth

Weather Features

Temperature Patterns

Seasons

Good Health Habits, Nutrition, Human Body

Microscope

Lab Equipment

Texture (soft/hard, smooth/rough)

Animal Habitat, Animal Life, Classification of Animals, Food Chain

Liquid, Solid, Gas (H₂O)

Extinction

Earth Cycles

Water Cycles

Solar System

Magnetism

Five Senses

Analyze Data

Earth and Waterways (oceans, streams, rivers)

Motion

Graphs

Life Cycles

Forces & Energy (physical forces – levers, pulleys)

Problem Solving

Collaborative Work

Physical Changes

Earth's Landforms

Atmosphere

Earth's History

Characteristics of Ecosystem (rainforest, etc.)

Types of Soil (sandy, clay)
Thermometer
Rain Gauge
Wind Vane
Gravity
Robotics

Skills:

Develop language skills and scientific vocabulary
Communicate clearly using scientific vocabulary
Identify the steps used in the scientific method and formulate meaningful questions
Talk about observations using new vocabulary
Conduct investigations using the scientific method
Analyze information gathered using the scientific method
Investigate the world around us using our senses
Gather information using five senses
Describe observations, I see... I hear... I can smell...
Explain what body part is used to gather specific sensory information
Investigate weather patterns and earth cycles
Investigate, observe, identify, and describe life processes of plants and animals
Look closely at living and nonliving objects and describe what they notice
Develop an understanding of our Solar System
Compare and contrast planets
Develop an understanding of the Earth's forces and magnetic fields
Recognize that magnets attract/repel, push/pull items with iron in them
Identify, explain, compare, and contrast properties of matter
Investigate energy conservation and recycling
Identify and describe the shape, texture, hardness, etc. of objects
Relate what is learned to other areas of learning
Collect and classify rocks, leaves, or sticks
Collect information by counting objects, taking part in surveys, measuring, and completing simple experiments
Inquire about nature and seek answers
Count and measure items while making observations
Organize collections and observations while discussing findings
Ask questions about the information gathered (data)
Compare data using measurement terms - bigger, smaller
Work with others by taking turns, sharing, listening, and encouraging
Share ideas about observations
Programming & Coding

Text and Materials:

Enchanted Learning, Enchanted Learning.com
Library resources
Multimedia resources
Scholastic – Let's Find Out
BrainPop Jr.
Mystery Science
Sphero indi robotic vehicles
Martha H. Patten Hydroponics Lab materials

Methods of Instruction:

Listening to reading of non-fiction material
Class discussions
Laboratory experiments
Hands on exploration
Class projects
Field Trips
Sphero indi robotic vehicles
Martha H. Patten Hydroponics Lab materials

Methods of Evaluation:

Class work
Class participation
Class projects
Oral presentation
Integrated subject projects
Written responses
Let's Find Out Scholastic extension activities
Sphero indi robotic vehicles
Martha H. Patten Hydroponics Lab materials

