

## Kindergarten Science Scope & Sequence 2022-23

### On going TEKS:

- K.1(A) identify, discuss, and demonstrate safe and healthy practices as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations, including wearing safety goggles or chemical splash goggles, as appropriate, washing hands, and using materials appropriately
- K.1(B) demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reusing or recycling paper, plastic, and metal
- K.2(A) ask questions about organisms, objects, and events observed in the natural world
- K.2(B) plan and conduct simple descriptive investigations
- K.4(A) collect information using tools, including computing devices, hand lenses, primary balances, cups, bowls, magnets, collecting nets, and notebooks; timing devices; non-standard measuring items; weather instruments such as demonstration thermometers; and materials to support observations of habitats of organisms such as terrariums and aquariums
- K.4(B) use the senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment

### Introduction: Science as Inquiry

#### **K.2 Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations**

- K.2(C) collect data and make observations using simple tools
- K.2(D) record and organize data and observations using pictures, numbers, and words
- K.2(E) communicate observations about simple descriptive investigations

#### **K.3 Scientific investigation and reasoning. The student knows that information and critical thinking are used in scientific problem solving.**

- K.3(A) identify and explain a problem such as the impact of littering and propose a solution
- K.3(B) make predictions based on observable patterns in nature
- K.3(C) explore that scientists investigate different things in the natural world and use tools to help in their investigations

### Investigating Properties and Patterns of Objects:

#### **K.4 Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world.**

- K.4(A) collect information using tools, including computing devices, hand lenses, primary balances, cups, bowls, magnets, collecting nets, and notebooks; timing devices; non-standard measuring items; weather instruments such as demonstration thermometers; and materials to support observations of habitats of organisms such as terrariums and aquariums
- K.4(B) use the senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment

#### **K.5 Matter and energy. The student knows that objects have properties and patterns**

- K.5(A) observe and record properties of objects, including bigger or smaller, heavier or lighter, shape, color, and texture
- K.5(B) observe, record, and discuss how materials can be changed by heating or cooling

### Investigating Energy:

#### **K.6 Force, motion, and energy. The student knows that energy, force, and motion are related and are a part of their everyday life.**

- K.6(A) use the senses to explore different forms of energy such as light, thermal, and sound
- K.6(B) explore interactions between magnets and various materials
- K.6(C) observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside
- K.6(D) observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow

First Nine Weeks

Second Nine Weeks

Third Nine Weeks

**Patterns in the Natural World**

**K.8 Earth and space. The student knows that there are recognizable patterns in the natural world and among objects in the sky.**

K.8(A) observe and describe weather changes from day to day and over seasons

K.8(B) identify events that have repeating patterns, including seasons of the year and day and night

K.8(C) observe, describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun

**Earth's Materials**

**K.7 Earth and space. The student knows that the natural world includes earth materials.**

K.7(A) observe, describe, and sort rocks by size, shape, color, and texture

K.7(B) observe and describe physical properties of natural sources of water, including color and clarity

K.7(C) give examples of ways rocks, soil, and water are useful

Fourth Nine Weeks

**Basic Needs of Plants and Animals:**

**K.9 Organisms and environments. The student knows that plants and animals have basic needs and depend on the living and nonliving things around them for survival.**

K.9(A) differentiate between living and nonliving things based upon whether they have basic needs and produce offspring

K.9(B) examine evidence that living organisms have basic needs such as food, water, and shelter for animals and air, water, nutrients, sunlight, and space for plants

**Characteristics of Plants and Animals:**

**K.10 Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments.**

K.10(A) sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape

K.10(B) identify basic parts of plants and animals

K.10(C) identify ways that young plants resemble the parent plant

K.10(D) observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower, and fruit