

APPORTIONING OF PRIMARY SCHOOLS SCIENCE & TECHNOLOGY CURRICULUM

KINDERGARTEN



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APPORTIONING OF PRIMARY SCIENCE & TECHNOLOGY CURRICULUM for KINDERGARTEN

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KINDERGARTEN – TERM ONE

UNIT: STRUCTURE AND FUNCTION (GRADE K)

Topic: What are the Main External Parts of Plants and Animals?

Duration: 6 Lessons (30 minutes each)

Specific Objectives

Students should be able to:

- 1. Name the main external parts of animals (vertebrates and selected invertebrates such as insects, spiders, crab).
- 2. Identify the main external body parts of various animals and their functions (include sense organs).
- 3. Name the main external parts of plants (roots, stems, roots leaves, fruits, flowers).
- 4. Identify the roots, stems, leaves, fruits and flowers of plants.

UNIT: ECOSYSTEMS (GRADE K)

Topic: Animals/Pets

Duration: 2 Lessons

Specific Objectives:

- 1. Name and identify some common pets.
- 2. Identify the different foods for different pets.
- 3. Describe and demonstrate appropriate ways of treating their pets.
- 4. Identify precautionary measures that should be employed to maintain safety to self, others and environment and the pet itself when a pet is present.

Topic: Plants

Duration: 2 Lessons

Specific Objectives

Students should be able to:

- 1. Observe a plant and identify the main parts.
- 2. Classify plants (size, shape of leaves, etc.)
- 3. Name the process of initial seed growth (germination).
- 4. State in simple terms the conditions necessary for seed growth.

Topic: The Senses

Duration: 2 Lessons

Objectives:

Students should be able to:

- 1. Name and identify each sense organ.
- 2. State what stimulates each sense.
- 3. Identify different stimuli that affect the senses.

UNIT: MATTER AND MATERIALS (GRADE K)

DURATION: 6 Lessons (30 minutes each)

OBJECTIVES

- 1. Identify and describe objects according to properties such as colour, size, shape and texture.
- 2. Distinguish between objects and the materials from which they are made.
- 3. Choose materials to make an object of their choice.
- 4. Make an object using the materials they chose.

UNIT: EARTH'S WEATHER (GRADE K)

DURATION: 4 Lessons

OBJECTIVES

- 1. Observe different types of weather -sunny, rainy, cloudy and windy.
- 2. Observe changes in weather patterns over a specific period of time.
- 3. Discuss how the different types of weather affect people's activities
- 4. Make weather charts, using pictures, to illustrate daily weather changes.
- 5. Design and make models of things used to solve problems related to the weather.

KINDERGARTEN - TERM TWO

UNIT: SOLAR SYSTEM (GRADE K)

DURATION: 2 Lessons

OBJECTIVES

The students should be able to:

- 1. Observe that day and night are different.
- 2. Identify natural sources of light.
- 3. Identify sources of light made by humans.

<u>UNIT: ECOSYSTEMS (GRADE K)</u>

Topic: Conserving our Water Resources

Duration: 2 Lessons

Specific Objectives

Students should be able to:

- 1. State two different uses of water.
- 2. Give a simple definition of drought and discuss its effect.
- 3. Discuss some ways in which water may be polluted.
- 4. Identify ways in which water may be conserved.
- 5. Appreciate that clean water is very important to human life and participate in its conservation.

Topic: Habitats of Animals

Duration: 3 Lessons

Specific Objectives

- 1. Identify places where animals live.
- 2. Observe homes of different types of animals.

3. Determine how each home satisfies the needs (e.g. food, shelter, protection) of the animals that live there.

4. Compare human vs. animal homes for similarities and differences.

Topic: Pollution and Care/Respect for Habitats

Duration: 3 Lessons

Specific Objectives

Students should be able to:

1. Distinguish between actions that harm habitats or the environment from those that preserve it.

2. Demonstrate how one would care for habitats or the environment.

3. Identify and predict actions that could harm a named habitats or the environment.

Topic: Interactions between Plants and Animals

Duration: 2 Lessons

Specific Objectives

Students should be able to:

1. Identify some ways in which plants and animals depend on each other (e.g. feeding, pollination, shelter, protection).

2. Describe how some named organisms depend on one another.

UNIT: FORCES, MOTION AND STRUCTURES (GRADE: K)

Topic: Forces

DURATION: 2 Lessons

OBJECTIVE:

Students should be able to:

1. Demonstrate pushes and pulls.

Topic: Using Forces

DURATION: 2 Lessons

OBJECTIVES

Students should be able to:

- 1. Give examples of situations where force is used.
- 2. Identify forces used to create movement in given situations.

Topic: Structures

DURATION: 3 Lessons

OBJECTIVES

- 1. Identify structures (buildings, bridges, tables etc) in our everyday lives.
- 2. State the functions of these structures.
- 3. Classify structures according to size and shape.
- 4. Classify structures as natural, human-made or animal-made.
- 5. Make models of structures from materials provided.

KINDERGARTEN – TERM THREE

UNIT: DIVERSITY AND CLASSIFICATION (GRADE K)

Topic: Living and Non-living things

Duration: 5 Lessons

Specific Objectives:

Students should be able to:

- 1. Name some living things.
- 2. Name some non-living things.
- 3. Classify living and non-living things.

Topic: There is a wide variety of animals

Duration: 2 Lessons

Specific Objectives

Students should be able to:

1. Classify animals on the basis of their size, body covering, and the food they eat.

UNIT: ENERGY (GRADE K)

DURATION: 2 Lessons

OBJECTIVES:

- 1. Identify a variety of moving objects in the environment.
- 2. Indicate the direction in which various objects move.
- 3. Demonstrate and identify body movements

DURATION: 2 sessions

OBJECTIVES

Students should be able to:

1. Design and make paper aeroplanes and boats.

DURATION: 1 Lesson

OBJECTIVES

Students should be able to:

- 1. Demonstrate how sounds can be made.
- 2. Identify objects or events in the environment by the sounds they make.
- 3. Identify sounds in the immediate environment.
- 4. Describe sounds by using appropriate words.

UNIT: EARTH'S RESOURCES (GRADE K)

DURATION: 8 Lessons

OBJECTIVES

The students should be able to:

- 1. Identify and name some objects found in the environment.
- 2. Classify objects according to:
 - > shape
 - > colour
 - > texture
 - > size
 - composition (metal, wood, plastic, paper, etc.)
 - > living and non-living
 - > natural and man-made
- 3. Identify situations that indicate the presence of air.
- 4. Identify evidence of dust in the air.
- 5. Discuss how water is used in the home.