

## SCIENTIFIC CONCEPTS

A child's world is ever changing. Children need to observe and understand these changes. The human body provides a sense of amazement to the young child. An understanding and experience of body movement, how the body grows and changes adds to this sense of amazement. The environment fosters a sense of wonder by its very nature for the young child. The seasonal changes are felt through a child's senses. A child needs to experience nature through concrete manipulations as well as hands-on natural activities.



## Five Senses

All children will discover the five senses and their uses.

Children will:

- understand the five senses.
- identify the body parts that facilitate each sensory process.  
example: ears – hearing, eyes – seeing.
- name and locate various body parts.

## Scientific Method

All children will make simple predictions of experimental outcomes.

Children will:

- discover solutions to problems through free exploration and manipulation of concrete objects.
- experiment with objects to discover which will sink and which will float.
- determine which objects, concrete or pictorial feel hot/cold.
- predict outcomes. example: "If I add another block, will my tower fall?"

## Living & Non-Living Things

All children will explore living things.

Children will:

- understand that living things need water and food to survive.
- recognize that human beings are not the only living things in their world.
- understand the concept of growth.  
example: self, pets, plants.
- list ways to care for a classroom pet.

## States of Matter

All children will experiment with matter.

Children will:

- observe water in its different states.  
example: solid, liquid, gas.
- understand the effect temperature has to change the state of water into a solid, liquid, or gas.

## Magnetism

All children will discover the properties of magnets.

Children will:

- exhibit an interest and understanding of magnets using various objects.
- develop an understanding of materials that do and do not possess magnetic properties.  
example: paper/no, paper clip/yes.

## Earth Science

All children will investigate the earth's properties.

Children will:

- name and understand the sequence of the seasons.
- understand the weather relevant to the seasons.
- understand how the weather of each season affects the clothing needed.
- describe daily weather conditions and communicate their observations verbally and pictorially.

## Cosmology

All children will explore the components of the solar system.

Children will:

- understand the sequence of a day.  
example: morning, afternoon, night, yesterday, today, tomorrow.
- identify the sun, moon, and stars.
- connect the time of day the sun, moon and stars can be seen.
- recall and verbalize past events.
- demonstrate an understanding of the order of events.

## Ecology

All children will participate in the proper care of the environment.

Children will:

- develop a responsibility for the environment.  
example: disposing of garbage properly.
- assist teacher to compile a list for the care and routine cleaning of classroom materials.
- develop a sense of responsibility for personal belongings.  
example: coats, backpacks.