

Science Curriculum - Grade 2

GRADE TWO ESSENTIAL SKILLS

- Content Skills- Students will demonstrate an understanding that the Earth gets heat and light from the sun and has air, soil and water to sustain life. Students will understand that proper soil conditions are essential for plant growth and survival. Students will understand that plants have life cycles and plant growth is affected by many different variables. Students will expand their understanding of solids, liquids, and gases and how they change.
- Process Skills/Scientific Method –Children will use the scientific method in our inquiry-based activities in all grade levels and content areas in the science curriculum. Students will use appropriate measurement units, observe, describe, predict, sort, record, categorize
- Scientific Technology & Tools - Students will use appropriate tools, models, technology, and techniques to gather, analyze, interpret, and share data. (Rulers, magnifying glasses, compare old and new technology, computers and safety goggles)
- Science Safety- - Students will follow safety instructions, directions, and use appropriate safety equipment.

LIFE SCIENCE CONTENT

Life Cycles of Plants

- Students will collect, sort, and classify a variety of seeds and explore various seed dispersal adaptations
- Students will identify and explain the major parts of plants and their functions
- Students will identify and describe the basic requirements for sustaining plant life
- Students will conduct experiments which illustrate how the environment affects the viability of plants
- Students will explain ways that plants are essential for human and animal survival

EARTH/SPACE SCIENCE CONTENT

Soils - STC

- Students will perform simple tests to identify the three basic soil components (sand, clay, and humus) and describe their properties
- Students will investigate composting as an effective way to recycle organic matter including the vital role of earthworms in soil
- Students will observe and compare how water moves through different soil components to begin to understand why different soils absorb water at different rates
- Students will observe and discuss the connections between roots and plants
- Students will explore the relationship between soil and plant growth

PHYSICAL SCIENCE CONTENT

Changes - Solids, Liquids, and Gases - STC

- Students will define matter
- Students will classify substances according to their physical properties
- Students will perform experiments to demonstrate changes of properties in a gases, liquids and solids
- Students will describe and record how matter is changed through such processes as heating, cooling, mixing, dissolving and separating
- Students will investigate and describe the characteristics of a chemical reaction
- Students will perform and describe experiments which illustrate the difference between physical and chemical changes in substances