

Science Curriculum - Grade 4

GRADE FOUR ESSENTIAL SKILLS

- Content Skills - Students will demonstrate an understanding of the interactions and interdependence between plants and animals and their habitats in New Hampshire ecosystems. Students will demonstrate an understanding of the interactions between land and water on the planet Earth. Students will explore chemistry in the familiar context of food, and relate nutrients to human health.
- 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 and will observe, describe, experiment isolate a variable, pose a question, make a prediction, read and create graphs and tables and create explanations
- Scientific Technology & Tools – Students will use appropriate tools, technology, and techniques to gather, analyze, interpret, and share data. (computers, rulers, magnifying glasses, microscopes, thermometers (F & C), compasses, litmus paper, models and safety goggles)
- Science Safety- - Students will follow safety instructions, directions, and use appropriate safety equipment.

LIFE SCIENCE CONTENT

Habitats in N.H. Ecosystems

- Students will create examples of food chains and webs to demonstrate an understanding of the interdependence of plants and animals in a New Hampshire ecosystems i.e. Alpine and Sub-alpine, Spruce-Fir-Northern Hardwood, Transitional Forest, Central Hardwood Forest, Coastal Plain.
- Students will relate different plants and animals to their habitats based on their physical characteristics
- Students will observe how seasonal changes affect plants and animals and how they adapt to survive in New Hampshire

EARTH/SPACE SCIENCE CONTENT

Land and Water – STC

- Students will draw or construct a model and label the parts of the water cycle (evaporation, condensation, precipitation, transpiration, surface runoff, water table, and groundwater)
- Students will explain in their own words, with or without visuals, that soil has properties of color and texture and capacity to retain water and ability to support growth of plants.
- Students will investigate the effects of slope, flow, soil components, and natural formations on erosion and deposition
- Students will give examples of the interaction of land and water in the real world
- Students will give examples of how human activity affects land and water

PHYSICAL SCIENCE CONTENT

Food Chemistry - STC

- Students will perform physical and chemical tests to identify the presence of starch, glucose, fats and proteins in common foods
- Students will explain how nutrients are essential to human health
- Students will perform and describe experiments which illustrate physical and chemical changes in substances