

## **Fourth and Fifth Grade Science**

The fourth and fifth grade science course is a two-year program that incorporates two cycles of study. Cycle One embraces a comprehensive study of the human body, nutrition, force and motion, and electricity. Cycle Two centers on earth science and focuses on the makeup of the earth, the Solar System, weather, and oceanography. The program is designed to engage students in a variety of hands-on experiences through labs and simulations using the scientific method. Cooperation and collaboration are encouraged as students problem solve in partners or small groups. Discussion is important to the understanding of concepts.

Each cycle has students immersed in the scientific method as they delve into their Science Fair projects. Beginning with a problem that each student selects based on individual interest, they form a hypothesis, set up a procedure, run the experiment, collect and present their data, and finally answer their question to either prove or disprove their hypothesis. Projects are displayed in our library and then judged by our Middle School science teachers.

### **Areas of Study – Cycle One**

#### **The Human Body – Systems**

- Digestive System
- Nervous System
- Circulatory System
- Skeletal System
  - Muscular System
  - Endocrine System
  - Integumentary System
  - Reproductive System

#### **Nutrition**

- Food Labels
- Healthy and Unhealthy Foods
- Preservatives and Other Additives
- Nutrition Fair

#### **Force and Motion**

- Gravity, Inertia, and Friction
- Kinetic and Potential Energy
- Simple Machines

#### **Electricity**

- Closed and open circuitry
- Circuit boards
- Positive and negative charges
- Magnetism

### **Areas of Study - Cycle Two**

#### **Weather**

- Temperature
- Air Movement
- Clouds and Precipitation
- Air pressure and Weather
- Weather Prediction

#### **Exploring Oceans**

- Ocean Floor Map

Exploration Techniques  
Currents and Waves  
Ocean Organisms

**Movements in the Solar System**

Seasons  
Effects of Earth's Movements  
Effects of the Moon's Movements  
Phases of the Moon  
Planets

**Characteristics of Earth**

Magnum and Volcanoes  
Earth's surface  
Weathering and Erosion  
Classification of Rocks  
Natural resources

**Plant Structure and Function**

Classification of Seeds  
Classification of Plants  
Life Cycle and Parts of Flowering Plant  
Seed Germination

**Energy and Ecosystems**

Ecosystems  
Habitats  
Photosynthesis  
Food Chains  
Food Webs