



5th Grade Graduate Profile
Science

Upon Graduation from 5th grade students will be able to:

- Conduct field and laboratory investigations following home and school safety procedures and environmentally appropriate and ethical practices
- Use scientific methods during field and laboratory investigations
- Use critical thinking and scientific problem solving to make informed decisions
- Use a variety of tools and methods to conduct science inquiry
- Recognize that a system is a collection of cycles, structures, and processes that interact
 - * Describe cycles, structures, and processes in a simple system
 - * Describe interactions occurring in a simple system
- Recognize that some changes occur in cycles
 - * Identify and describe changes on a regular basis: daily, weekly, lunar, and seasonal
 - * Identify the significance of the water, carbon and nitrogen cycles
 - * Compare life cycles of plants and animals
- Recognize that matter has physical properties
 - * Classify matter based on physical properties
 - * Demonstrate mixtures maintain the physical properties of their ingredients
 - * Identify changes that occur in physical properties of the ingredients of a solution
 - * Observe and measure physical properties of a substance that remain constant (ex: boiling and melting points)
- Recognize that energy occurs in many forms
 - * Identify and demonstrate everyday examples of how light is reflected and refracted
 - * Demonstrate that electricity can flow in a circuit and produce heat, light, sound and magnetic fields
 - * Verify that vibrations produce sound
- Recognize that plant and animal adaptations may increase the survival of members of a species
- Recognize that likenesses between offspring and parents can be inherited or learned
- Recognize that certain past events affect present and future events
 - * Identify and observe actions that require time to be measurable (ex: growth, erosion, dissolving, weathering, and flow)
 - * Identify past events that led to the formation of the Earth's renewable resources
- Recognize that the natural world includes earth materials and objects in the sky
 - * Interpret how land forms are the result of construction and destruction forces
 - * Describe processes responsible for formation of coal, oil, gas and minerals
 - * Identify physical characteristics of earth and compare them to those of the moon
 - * Identify gravity as the force that keeps planets in orbit