Newburyport Public Schools
The Port Where Tradition and Innovation Converge

Newburyport Science Curriculum Framework Guide -Grade 3

Focus Areas

In Grade 3 the focus on student learning in Science is on the following areas:

1. Earth's Systems
2. Earth and Human Activity
3. Motion and Stability: Forces and Interactions
4. Engineering Design
5. From Molecules to Organisms: Structures and Processes
6. Heredity: Inheritance and Variation of Traits

Guiding Principles for Grade 3 Science

Earth and Space Science

•Using graphs to describe and predict local weather during a season
•Obtaining information about different climates to illustrate variations in weather by region
•Evaluating a design that reduces the impact of a weather-related hazard.

Life Science

•Using graphic representations to show the unique life cycles of organisms
•Providing evidence to explain traits are inherited from parents and can vary within a group of organisms
•Distinguishing between inherited characteristics and ones influenced by the environment
•Using fossils to compare environments and organisms from today and the past
•Explaining how variations in individual characteristics may provide advantages for survival
•Constructing an argument that some organisms can survive better in certain environments
•Using data to describe how environmental changes can affect some organisms' ability to survive and reproduce
•Providing evidence that survival of a population depends on reproduction

Physical Science

•Explaining the effect of various forces on an object
•Investigating forces between magnets
•Defining a design problem that can be solved using interactions between magnets

Technology/Engineering

•Defining a design problem that reflects a need or want
•Generating and comparing several solutions to a design problem
•Presenting representations of various solutions to a design problem

Science and Engineering Practices:

1. Ask Questions and Define Problems
2. Develop and Use Models
3. Plan and Carry Out Investigations
4. Analyze and Interpret Data 5. Use Mathematical and Computational Thinking
6. Construct Explanations and Design Solutions
7. Engage in Argument from Evidence
8. Obtain, Evaluate, and Communicate Information