Newburyport Public Schools
The Port Where Tradition and Innovation Converge

Newburyport Science Curriculum Framework Guide -Grade 2

Focus Areas

In Grade 2 the focus on student learning in Science is on the following areas:

1. Earth's Systems
2. Matter and Its Interactions
3. Energy
4. Engineering Design
5. Ecosystems: Interactions, Energy, and Dynamics

Guiding Principles for Grade 2 Science

Earth and Space Science

• Investigating and comparing multiple solutions to prevent changes in the land

•Mapping types and shapes of landforms and bodies of water

•Using information to explain where water is found on earth and that it may be liquid or solid

•Observing how wind and water can change the shape of a landform

Life Science

•Developing models of what animals and plants need to meet their needs

•Using texts and media to compare living things in an area and in different types of geographic areas

Physical Science

•Describing and classifying materials by observable properties

•Testing materials to determine which are best suited for a certain purpose

•Understanding that when a chunk of material is broken in to smaller pieces it is still the same material •Constructing an argument that some changes to materials can be reversed and some cannot

•Experimenting to show the effects of friction on the temperature and speed of objects that rub against each other

Technology/Engineering

•Analyzing data to compare two designs for the same problem.

Science and Engineering Practices:

The practice standards describe behaviors that scientists engage in as they investigate, build models, and construct theories about the natural world. They are a set of practices that engineers use as they design and build models and systems to solve problems. They are the skills that provide the foundation for scientific and technical reasoning.

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