



Newburyport Science Curriculum Framework Guide -Grade 1

Focus Areas

In Grade 1, the focus on student learning in Science is on the following areas:

1. Earth's Place in the Universe
2. From Molecules to Organisms: Structures and Processes
3. Heredity: Inheritance and Variation of Traits
4. Waves and their Applications in Technologies for Information Transfer
5. Engineering Design

Guiding Principles for Grade 1 Science

Earth & Space Science

- Observations of the sun, moon, and stars to describe apparent motion
- Analyzing data about seasonal patterns of change (sunrise, sunset, temperature, precipitation, environmental changes)

Life Science

- Using evidence to explain the function of animal senses and body parts and the function of plant parts
- Comparing different animals' behavior that helps offspring survive
- Using observations to compare individuals of the same kind

Physical Science

- Demonstrating the relationship of vibrating materials and sound
- Experimenting with different materials and light
- Designing and building a device that uses light or sound to send a signal

Technology/Engineering

- Gathering information and asking questions that can be solved by developing or improving an object or tool
- Generating and sketching multiple solutions to a 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