

Family Resources

Books:

Why the Sky is Blue and Other Wonders of the Earth, William Clevenger
Science Facts, Dorling Kindersley
Simple Earth Experiments with Everyday Materials, Louis V. Loeschig

Measurement



Software:

I Love Science, DK Multimedia

Websites

<http://www.fossweb.com/modules3-6/Measurement/index.html>
<http://www.fossweb.com/modules3-6/PhysicsofSound/index.html>
<http://www.fossweb.com/modules3-6/EarthMaterials/index.html>
<http://www.athena.ivv.nasa.gov/>
<http://www.enchantedlearning.com/Home.html>
<http://volcano.und.nodak.edu/>

Physics of



Sound

Third Grade

Students
Parents
Teachers



Science

B-E Public Schools

B-E Schools & Washington State Science

Essential Learnings

Students will know and apply science concepts to understand properties, structures and changes in physical, earth/space, and living systems

Units: Measurement
Physics of Sound
Earth's Materials

In Third Grade my child will:

-Properties: Understand how properties are used to identify, describe, and categorize substances, materials, and objects and; how characteristics are used to categorize living things;

- ◇ Understand simple properties of natural and manufactured materials
- ◇ Understand the relative position and motion of objects
- ◇ Understand behavior of sound and that energy comes in many forms
- ◇ Understand physical properties of Earth materials (rocks, water, air)
- ◇ Understand characteristics of living things and learn how to sort them

-Structures: Understand how components, structures, organization, and interconnections describe systems;

- ◇ Know that parts of a system go together and depend on each other
- ◇ Understand that energy can be transferred and transformed
- ◇ Know that substances are made of small particles
- ◇ Know Earth's system: interior, landforms, water and atmosphere
- ◇ Know how the sun, moon, and stars appear from Earth
- ◇ Understand that organisms can be a single cell or many cells
- ◇ Understand various life cycles and know the difference between inherited and acquired characteristics
- ◇ Know body structures and how they interconnect

-Changes: Understand how interactions within and among systems cause changes in matter and energy

- ◇ Understand forces in terms of strength and direction
- ◇ Understand that forces can change the motion of objects
- ◇ Know that substances stay the same even in different states
- ◇ Know processes that change the surface of the Earth
- ◇ Know fossils provide evidence of plants/animals that existed long ago
- ◇ Understand weather indicators and how the water cycle works
- ◇ Understand that living things need constant energy and matter
- ◇ Understand that plants and animal species change over time
- ◇ Understand that organisms rely on their environment

Investigating Systems: Develop the knowledge and skills necessary to do scientific inquiry

- ◇ Understand how to ask questions about objects, organisms, and events in the environment
- ◇ Understand how to conduct a simple investigation and follow safety rules
- ◇ Understand how to construct a reasonable explanation using evidence
- ◇ Understand how to use models represent real objects, events, or processes
- ◇ Understand how to record and report investigations, results, and explanations

-Nature of Science: Understand the nature of scientific inquiry

- ◇ Understand that all scientific observations are to be reported accurately and honestly
- ◇ Understand that scientific observations and measurements are used to describe the world that are repeatable and verified
- ◇ Understand that similar investigations may not produce similar results
- ◇ Understand how to make results reliable
- ◇ Understand that scientific comprehension of systems increases through inquiry
- ◇ Know and understand problems can be solved by using scientific design
- ◇ Understand how scientific design can be used to solve human problems
- ◇ Understand how well a design or product solves a problem

-Science, Technology, and Society: Analyze how science and technology are human endeavors; interrelated to each other, society, the workplace, and the environment

- ◇ Know that science and technology are practiced by all people around the world throughout history
- ◇ Know that people have invented tools for everyday life and for scientific investigations
- ◇ Know how knowledge and skills of science, math, and technology are used in common occupations
- ◇ Understand how humans depend on the natural environment