

5th Grade Science Curriculum

Matter and Energy

Fall: *Skyline, Sunnycrest, Highland*

Winter: *Highland, Glenwood, Mt. Pilchuck*

Unit Goals:

- *Learn that light from the Sun is the source of most of the energy on Earth.*
- *Observe energy sources doing work and learn how energy (light, heat, motion, chemical, electric) can be converted from one form to another.*
- *Learn that stored energy takes many forms; machines and organisms can convert energy into motion and heat.*
- *Describe how energy can be carried from one place to another by waves, electric current, and moving objects.*
- *Learn that light energy travels in straight lines from a source.*
- *Find out how light can reflect from the surface of a mirror.*
- *Learn that white light is a mixture of all colors of light, that matter can absorb and reflect light, and that a shadow is the dark area behind objects that block light.*
- *Learn that the apparent color of an object is the result of the light it reflects; observe that the apparent color of an object is affected by the color of light striking it.*
- *Explore properties of the three forms of matter (solid, liquid, and gas), including change of state.*
- *Learn that all matter is made of particles.*
- *Use metric tools to measure mass, volume, and temperature, and make multiple numerical observations to improve accuracy.*
- *Observe and analyze a chemical reaction.*
- *Collect and analyze data to develop logical conclusions.*

Environments

Fall: *Highland, Skyline, Sunnycrest*

Winter: *Glenwood, Mt. Pilchuck, Hillcrest*

Unit Goals:

- *Develop an attitude of respect and understanding for life.*
- *Gain experience with the major environmental factors in terrestrial and aquatic systems.*
- *Conduct controlled experiments with plants to determine ranges of tolerance.*
- *Determine an organism's optimum conditions and environmental preferences.*
- *Organize and analyze data from experiments and investigations with plants and animals.*
- *Observe and describe changes in complex systems over time.*
- *Relate laboratory studies to natural systems.*
- *Apply mathematics in the context of science.*
- *Acquire vocabulary associated with environmental biology.*
- *Exercise language, math, and social studies skills in the context of biology investigations.*
- *Use scientific thinking processes to conduct investigations and build explanations: observing, communicating, comparing, organizing, and relating.*