

## West Northfield School District #31 Science Curriculum

### Grade Four

#### Physical, Life, and Earth Space Sciences

#### **4-PS3 Energy**

1. [4-PS3-1](#) Use evidence to construct an explanation relating the speed of an object to the energy of that object.
2. [4-PS3-2](#) Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electrical currents.
3. [4-PS3-3](#) Ask questions and predict outcomes about the changes in energy that occur when objects collide.
4. [4-PS3-4](#) Apply scientific ideas to design, test, and refine a device that converts from one form to another.

#### **4-PS4 Waves and Their Applications in Technologies for Information Transfer**

5. [4-PS4-1](#) Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.
6. [4-PS4-2](#) Develop a model to describe that light reflecting from objects and entering the eyes allows objects to be seen.
7. [4-PS4-3](#) Generate and compare multiple solutions that use patterns to transfer information.

#### **4-LS1 From Molecules to Organisms: Structures and Processes**

8. [4-LS1-1](#) Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
9. [4-LS1-2](#) Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

#### **4-ESS1 Earth's Place in the Universe**

10. [4-ESS1-1](#) Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.

#### **4-ESS2 Earth's Systems**

11. [4-ESS2-1](#) Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.

12. [4-ESS2-2](#) Analyze and interpret data from maps to describe patterns of Earth's features.

**4-ESS3      Earth and Human Activity**

13. [4-ESS3-1](#) Obtain and combine information to describe that energy and fuels are derived from natural resources and that their uses affect the environment.
14. [3-ESS3-2](#) Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.