Montana Science

Grade 4

Adopted 2016

Physical Science

1. Use evidence to describe the relationship between the speed of an object and the energy of that object. PS.4.1
2. Make observations to provide evidence of transfer of energy from place to place by sound, light, heat, and electric currents. PS.4.2
3. Ask questions and predict outcomes about the changes in energy that occur when objects collide. PS.4.3
4. Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. PS.4.4
5. Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move. PS.4.5
6. Develop a model communicating that light reflected from objects into the eye allows objects to be seen. PS.4.6
7. Generate and compare multiple solutions that use patterns to transfer information. PS.4.7

Life Science

1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. LS.4.1
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. LS.4.2

Earth and Space Science

1. Obtain and combine information from a variety of sources to communicate that energy and fuels are derived from natural resources and their uses affect the environment. ESS.4.1
2. Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time. ESS.4.2
3. Make observations or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. ESS.4.3

4. **Analyze and interpret data from maps as evidence to make a claim about patterns of Earth's features.** ESS.4.4

5. **Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.** ESS.4.5