

Grade 4

Adopted 2020

Energy

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

Waves and Their Applications in Technologies for Information Transfer

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

From Molecules to Organisms: Structure and Processes

1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. [4.LS1.1](#)
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. [4.LS1.2](#)

Earth's Place in the Universe

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.ESS1.1](#)

Earth's Systems

1. Plan and conduct investigations on the effects of water, ice, wind, and vegetation on the relative rate of weathering and erosion. [4.ESS2.1](#)
2. Analyze and interpret data from maps to describe patterns of Earth's features. [4.ESS2.2](#)

Earth and Human Activity

- 1. Obtain and combine information to describe that energy and fuels are derived from renewable and non-renewable resources and how their uses affect the environment.** 4.ESS3.1
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- 2. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.** 4.ESS3.2