

# Grade 4

Adopted 2017

## Energy

**4-PS3-1.** Use evidence to construct an explanation relating the speed of an object to the energy of that object. [4-PS3-1](#)

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**4-PS3-2.** Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents. [4-PS3-2](#)

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**4-PS3-3.** Ask questions and predict outcomes about the changes in energy that occur when objects collide. [4-PS3-3](#)

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**4-PS3-4.** Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. [4-PS3-4](#)

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## Waves and their Applications In Technologies For Information Transfer

**4-PS4-1.** Develop 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](#)

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**4-PS4-2.** Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen. [4-PS4-2](#)

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## From Molecules to Organisms: Structures and Processes

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

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**4-LS1-2.** Construct an explanation to describe how animals receive different types of information through their senses, process the information in their brains, and respond to the information in different ways. [4-LS1-2](#)

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## Earth's Systems

**4-ESS2-1.** Plan and conduct investigations on the effects of water, ice, wind, and vegetation on the relative rate of weathering and erosion. [4-ESS2-1](#)

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

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**4-ESS2-3.** Ask questions that can be investigated and predict reasonable outcomes about how living things affect the physical characteristics of their environment. [4-ESS2-3](#)

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**Earth and Human  
Activity**

**4-ESS3-1.** 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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**4-ESS3-2.** Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans. 4-ESS3-2

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**Earth's Place in the  
Universe**

**4-ESS1-1.** Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in landforms over time. 4-ESS1-1