

# Fourth Grade

Use evidence to construct an explanation relating the speed of an object to the energy of that object. 4-

PS3-1

**1** Use evidence to construct an explanation relating the speed of an object to the energy of that object. 4-PS3-1

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

**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

Ask questions and predict outcomes about the changes in energy that occur when objects collide. 4-PS3-3

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

Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. 4-PS3-4

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

Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move. 4-PS4-1

**5** Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move. 4-PS4-1

Develop a model to describe that light reflecting from objects and entering the eye

**6** 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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Generate and compare multiple solutions that use patterns to transfer information. 4-PS4-3

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**7** Generate and compare multiple solutions that use patterns to transfer information. 4-PS4-3

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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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**8** 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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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

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**9** 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

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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

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**10** 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

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

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

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Analyze and interpret data from maps to describe patterns of Earth's features. 4-ESS2-2

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**12** Analyze and interpret data from maps to describe patterns of Earth's features. 4-ESS2-2

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**Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.** 4-ESS3-1

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**13 Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.** 4-ESS3-1

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

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

**Define a simple design problem, reflecting a need or a want, that includes specified criteria for success and constraints on materials, time, or cost.** 4-ETS1-1

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**15 Define a simple design problem, reflecting a need or a want, that includes specified criteria for success and constraints on materials, time, or cost.** 4-ETS1-1

**Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.** 4-ETS1-2

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**16 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.** 4-ETS1-2

**Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.** 4-ETS1-3

**17 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.** 4-ETS1-3