

Physical Science	
2010 Standards	2016 Standards
4.1.1 Describe and investigate the different ways in which heat can be generated.	4.PS.4 Describe and investigate the different ways in which energy can be generated and/or converted from one form of energy to another form of energy.
4.1.2 Investigate the variety of ways in which heat can be generated and moved from one place to another. Explain the direction the heat moved.	4.PS.5 Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.
4.1.3 Construct a complete circuit through which an electrical current can pass as evidenced by the lighting of a bulb or ringing of a bell.	4.PS.4 Describe and investigate the different ways in which energy can be generated and/or converted from one form of energy to another form of energy.
4.1.4 Experiment with materials to identify conductors and insulators of heat and electricity.	4.PS.4 Describe and investigate the different ways in which energy can be generated and/or converted from one form of energy to another form of energy.
4.1.5 Demonstrate that electrical energy can be transformed into heat, light, and sound.	4.PS.4 Describe and investigate the different ways in which energy can be generated and/or converted from one form of energy to another form of energy.
	4.PS.3 Investigate how multiple simple machines work together to perform everyday tasks.

Earth and Space Science	
2010 Standards	2016 Standards
4.2.1 Demonstrate and describe how smaller rocks come from the breakage and weathering of larger rocks in a process that occurs over a long period of time.	4.ESS.3 Describe how geological forces change the shape of the land suddenly and over time.

<p>4.2.2 Describe how wind, water and glacial ice shape and reshape earth’s land surface by eroding rock and soil in some areas and depositing them in other areas in a process that occurs over a long period of time.</p>	<p>4.ESS.3 Describe how geological forces change the shape of the land suddenly and over time.</p>
<p>4.2.3 Describe how earthquakes, volcanoes and landslides suddenly change the shape of the land.</p>	<p>4.ESS.3 Describe how geological forces change the shape of the land suddenly and over time.</p>
<p>4.2.4 Investigate earth materials that serve as natural resources and gather data to determine which ones are limited by supply.</p>	<p>4.ESS.4 Develop solutions that could be implemented to reduce the impact of humans on the natural environment and the natural environment on humans.</p>
<p>4.2.5 Describe methods that humans currently use to extend the use of natural resources.</p>	<p>4.ESS.2 Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.</p>
<p>4.2.6 Describe ways in which humans have changed the natural environment. Explain if these changes have been detrimental or beneficial.</p>	<p>4.ESS.4 Develop solutions that could be implemented to reduce the impact of humans on the natural environment and the natural environment on humans.</p>
	<p>4.ESS.1 Investigate how the moon appears to move through the sky and it changes day to day, emphasizing the importance of how the moon impacts the Earth, the rising and setting times, and solar and lunar eclipses.</p>

<p style="text-align: center;">Life Science</p>	
<p style="text-align: center;">2010 Standards</p>	<p style="text-align: center;">2016 Standards</p>
<p>4.3.1 Observe and describe how offspring are very much, but not exactly, like their parents or one another. Describe how these differences in physical characteristics among individuals in a population may be advantageous for survival and reproduction.</p>	<p>4.LS.1 Observe, analyze, and interpret how offspring are very much, but not exactly, like their parents or one another. Describe how these differences in physical characteristics among individuals in a population may be advantageous for survival and reproduction.</p>

<p>4.3.2 Observe, compare and record the physical characteristics of living plants or animals from widely different environments. Describe how each plant or animal is adapted to its environment.</p>	<p>4.LS.2 Use evidence to support the explanation that a change in the environment may result in a plant or animal will survive and reproduce, move to a new location, or die.</p>
<p>4.3.3 Design investigations to explore how organisms meet some of their needs by responding to stimuli from their environments.</p>	<p>4.LS.2 Use evidence to support the explanation that a change in the environment may result in a plant or animal will survive and reproduce, move to a new location, or die.</p>
<p>4.3.4 Describe a way that a given plant or animal might adapt to a change arising from a human or non-human impact on its environment.</p>	<p>4.LS.2 Use evidence to support the explanation that a change in the environment may result in a plant or animal will survive and reproduce, move to a new location, or die.</p>
	<p>4.LS.3 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction in a different ecosystems.</p>

<p align="center">Science, Engineering, and Technology</p>	
<p align="center">2010 Standards</p>	<p align="center">2016 Standards</p>
<p>4.4.1 Investigate transportation systems and devices that operate on or in land, water, air and space and recognize the forces (lift, drag, friction, thrust and gravity) that affect their motion.</p>	<p>4.PS.1 Investigate transportation systems and devices that operate on or in land, water, air and space and recognize the forces (lift, drag, friction, thrust and gravity) that affect their motion.</p>
<p>4.4.2 Make appropriate measurements to compare the speeds of objects in terms of the distance traveled in a given amount of time or the time required to travel a given distance.</p>	<p>4.PS.2 Investigate the relationship of the speed of an object to the energy of that object.</p>
<p>4.4.3 Investigate how changes in speed or direction are caused by forces: the greater the force exerted on an object, the greater the change.</p>	<p>4.PS.2 Investigate the relationship of the speed of an object to the energy of that object.</p>

<p>4.4.4 Define a problem in the context of motion and transportation. Propose a solution to this problem by evaluating, reevaluating and testing the design. Gather evidence about how well the design meets the needs of the problem. Document the design so that it can be easily replicated.</p>	<p>4.PS.1 Investigate transportation systems and devices that operate on or in land, water, air and space and recognize the forces (lift, drag, friction, thrust and gravity) that affect their motion.</p>
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Engineering	
2010 Standards	2016 Standards
	<p>3-5.E.1 Identify a simple problem with the design of an object that reflects a need or a want. Include criteria for success and constraints on materials, time, or cost.</p>
	<p>3-5.E.2 Construct and compare multiple plausible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.</p>
	<p>3-5.E.3 Construct and perform fair investigations in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.</p>