

Physical Science	
2010 Standards	2016 Standards
6.1.1 Understand that the properties and behavior of matter can be explained by a model that depicts particles representing atoms or molecules in motion.	
6.1.2 Explain the properties of solids, liquids and gases using drawings and models that represent matter as particles in motion whose state can be represented by the relative positions and movement of the particles.	
6.1.3 Using a model in which matter is composed of particles in motion, investigate that when substances undergo a change in state, mass is conserved.	
6.1.4 Recognize that objects in motion have kinetic energy and objects at rest have potential energy.	6.PS.3 Describe how potential and kinetic energy can be transferred from one form to another.
6.1.5 Describe with examples that potential energy exists in several different forms (e.g., gravitational potential energy, elastic potential energy and chemical potential energy).	6.PS.3 Describe how potential and kinetic energy can be transferred from one form to another.
6.1.6 Compare and contrast potential and kinetic energy and how they can be transformed from one form to another	6.PS.3 Describe how potential and kinetic energy can be transferred from one form to another.
6.1.7 Explain that energy may be manifested as heat, light, electricity, mechanical motion, and sound and is often associated with chemical reactions.	
	6.PS.1 Distinguish between the terms position, distance, and displacement, as well as, the terms speed and velocity.
	6.PS.2 Describe the motion of an object graphically showing the relationship between time and position.

	<p>6.PS.4 Investigate the properties of light, sound, and other energy waves and how they are reflected, absorbed, and transmitted through materials and space.</p>
--	--

Earth and Space Science	
2010 Standards	2016 Standards
<p>6.2.1 Describe and model how the position, size and relative motions of the earth, moon and sun cause day and night, solar and lunar eclipses, and phases of the moon.</p>	
<p>6.2.2 Recognize that gravity is a force that keeps celestial bodies in regular and predictable motion, holds objects to earth’s surface and is responsible for tides.</p>	<p>6.ESS.1 Describe the role of gravity and inertia in maintaining the regular and predictable motion of celestial bodies.</p>
<p>6.2.3 Understand that the sun, an average star where nuclear reactions occur, is the central and largest body in the solar system.</p>	
<p>6.2.4 With regard to their size, composition, distance from sun, surface features and ability to support life, compare and contrast the planets of the solar system with one another and with asteroids and comets.</p>	<p>6.ESS.3 Compare and contrast the Earth, its moon, and other planets in the solar system, including comets and asteroids. (Comparisons should be made in regard to size, surface features, atmospheric characteristics, and the ability to support life.)</p>
<p>6.2.5 Demonstrate that the seasons in both hemispheres are the result of the inclination of the earth on its axis, which causes changes in sunlight intensity and length of day.</p>	<p>6.ESS.2 Design models to describe how Earth's rotation, revolution, tilt, and interaction with the sun and moon cause seasons, tides, changes in daylight hours, eclipses, and phases of the moon.</p>

Life Science	
2010 Standards	2016 Standards
6.3.1 Describe specific relationships (i.e., predator and prey, consumer and producer, and parasite and host) between organisms and determine whether these relationships are competitive or mutually beneficial.	6.LS.3 Describe specific relationships (predator/prey, consumer/producer, parasite/host) and symbiotic relationships between organisms. Construct an explanation that predicts why patterns of interactions develop between organisms in an ecosystem.
6.3.2 Describe how changes caused by organisms in the habitat where they live can be beneficial or detrimental to themselves or to native plants and animals.	
6.3.3 Describe how certain biotic and abiotic factors—such as predators, quantity of light and water, range of temperatures and soil composition—can limit the number of organisms an ecosystem can support.	6.LS.4 Investigate and use data to explain how changes in biotic and abiotic components in a given habitat can be beneficial or detrimental to native plants and animals.
6.3.4 Recognize that plants use energy from the sun to make sugar (i.e., glucose) by the process of photosynthesis.	6.LS.2 Describe the role of photosynthesis in the flow of energy in food chains, energy pyramids, and food webs. Create diagrams to show how the energy in animals' food used for bodily processes was once energy from the sun.
6.3.5 Describe how all animals, including humans, meet their energy needs by consuming other organisms, breaking down their structures, and using the materials to grow and function.	
6.3.6 Recognize that food provides the energy for the work that cells do and is a source of the molecular building blocks that can be incorporated into a cell's structure or stored for later use.	
	6.LS.1 Investigate and describe how homeostasis is maintained as living things seek out their basic needs of food, water, shelter, space, and air.
	6.LS.5 Research invasive species and discuss their impact on ecosystems.

Science, Engineering, and Technology	
2010 Standards	2016 Standards
6.4.1 Understand how to apply potential or kinetic energy to power a simple device.	6.PS.3 Describe how potential and kinetic energy can be transferred from one form to another.
6.4.2 Construct a simple device that uses potential or kinetic energy to perform work.	6.PS.3 Describe how potential and kinetic energy can be transferred from one form to another.
6.4.3 Describe the transfer of energy amongst energy interactions.	6.PS.4 Investigate the properties of light, sound, and other energy waves and how they are reflected, absorbed, and transmitted through materials and space.

Engineering	
2010 Standards	2016 Standards
	6-8.E.1 Identify the criteria and constraints of a design to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
	6-8.E.2 Evaluate competing design solutions using a systematic process to identify how well they meet the criteria and constraints of the problem.
	6-8.E.3 Analyze data from investigations to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.
	6-8.E.4 Develop a prototype to generate data for repeated investigations and modify a proposed object, tool, or process such that an optimal design can be achieved.