



Grade 6 Science – Marking Period 4

STANDARD	PERFORMANCE INDICATORS	PLAN #	RESOURCES (Print, Visual, Technology, Manipulatives)	ASSESSMENT (Evidence & Scoring Guides)
MST4.PS.4.1	<ul style="list-style-type: none"> • Students describe the sources and identify the transformations of energy observed in everyday life. (4.1 a-e) 			
P.S. 4.1A	<ul style="list-style-type: none"> • The Sun is a major source of energy for Earth. Other sources of energy include nuclear and geothermal energy. 			
P.S. 4.1B	<ul style="list-style-type: none"> • Fossil fuels contain stored solar energy, and are considered non-renewable resources. They are a major source of energy in the United States. Solar energy, wind, moving water, and biomass are some examples of renewable energy resources. 			
P.S. 4.1C	<ul style="list-style-type: none"> • Most activities in everyday life involve one form of energy being transformed into another. For example, the chemical energy in gasoline is transformed into mechanical energy in an automobile engine. Energy, in the form of heat, is almost always one of the products of energy transformations. 			



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P.S. 4.1D	<ul style="list-style-type: none"> Different forms of energy include heat, light, electrical, mechanical, sound, nuclear, and chemical. Energy is transformed in many ways. 			
P.S. 4.1E	<ul style="list-style-type: none"> Energy can be considered to be either kinetic energy, which is the energy of motion, or potential energy, which depends on relative position. 			
MST4.P.S.4.4	<ul style="list-style-type: none"> Students observe and describe the properties of sound, light, magnetism, and electricity (4.4 a-c, f, g) 			
P.S. 4.4A	<ul style="list-style-type: none"> Different forms of electromagnetic energy have different wavelengths. Some examples of electromagnetic energy are microwaves, infrared light, visible light, ultraviolet light, x-rays, and gamma rays. 			
P.S. 4.4B	<ul style="list-style-type: none"> Light passes through some materials, sometimes refracting in the process. Materials absorb and reflect light, and may transmit light. To see an object, light from that object, emitted by or reflected from it, must enter the eye. 			



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P.S. 4.4C	<ul style="list-style-type: none"> Vibrations in materials set up wave-like disturbances that spread away from the source. Sound waves are an example. Vibrational waves move at different speeds in different materials. Sound cannot travel in a vacuum. 			
P.S. 4.4F	<ul style="list-style-type: none"> Without touching them, materials that have been electrically charged attracts uncharged material, and may either attract or repel other charged material. 			
P.S. 4.4G	<ul style="list-style-type: none"> Without direct contact, a magnet attracts certain materials and either attracts or repels other magnets. The attractive force of a magnet is greatest at its poles. 			
MST4.P.S.4.5	<ul style="list-style-type: none"> Describe situations that support the principle of conservation of energy. (4.5 a, b) 			
P.S. 4.5A	<ul style="list-style-type: none"> Energy cannot be created or destroyed, but only changes from one form into another. 			
P.S. 4.5B	<ul style="list-style-type: none"> Energy can change from one form to another, although in this process some energy is always converted to heat. Some systems transform energy with 			



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	less loss of heat than others.			
MST4.P.S.5.2	<ul style="list-style-type: none"> Students observe, describe, and compare effects of forces (gravity, electric current, and magnetism) on the motion of objects. (5.2 c-g) 			
P.S. 5.2C	<ul style="list-style-type: none"> Machines transfer mechanical energy from one object to another. 			
P.S. 5.2D	<ul style="list-style-type: none"> Friction is a force that opposes motion. 			
P.S. 5.2E	<ul style="list-style-type: none"> A machine can be made more efficient by reducing friction. Some common ways of reducing friction include lubricating or waxing surfaces. 			
P.S. 5.2F	<ul style="list-style-type: none"> Machines can change the direction or amount of force, or the distance or speed of force required to do work. 			
P.S. 5.2G	<ul style="list-style-type: none"> Simple machines include a level, a pulley, a wheel and axle, and an inclined plane. A complex machine uses a combination of interacting simple machines, e.g., a bicycle. 			
MST1.S.I.3.1	<ul style="list-style-type: none"> Students design charts, tables, graphs, and other representations of observation 			



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	in conventional and creative ways to help them address their research question or hypothesis. (3.1a, b)			
S.I. 3.1A	<ul style="list-style-type: none"> Organize results, using appropriate graphs, diagrams, data tables, and other models to show relationships. 			
S.I. 3.1B	<ul style="list-style-type: none"> Generate and use scales, create legends, and appropriately label axes. 			