

CURRICULUM GUIDE
Sixth Grade Science
Fourth Six Weeks

Unit of Study— Objective 4 – Physical Science: Matter; Forces and Motion; Energy.

TEKS #	Knowledge and Skill TEK	Student Expectation	Vocabulary	Tools	Instructional/Assessment Resources
6.8ABC	(6.8) Science concepts. The student knows that complex interactions occur between matter and energy.	<p>(A) define matter and energy;</p> <p>(B) explain and illustrate the interactions between matter and energy in the water cycle and in the decay of biomass such as in a compost bin; and</p> <p>(C) describe energy flow in living systems including food chains and food webs.</p>	Matter Volume Mass Properties Physical properties Chemical properties Physical change Chemical change States of matter Solid, liquid, gas Melting point Freezing point Boiling point Vaporization Condensation		
6.9ABC	(6.9) Science concepts. The student knows that obtaining, transforming, and distributing energy affects the environment,	<p>(A) identify energy transformations occurring during the production of energy for human use such as electrical energy to heat energy or heat energy to electrical energy;</p> <p>(B) compare methods used for transforming energy in devices such as water heaters, cooling systems, or hydroelectric and wind power plants; and</p> <p>(C) research and describe energy types from their source to their use and determine if the type is renewable, non-renewable, or inexhaustible.</p>	Atom Nucleus Protons Neutrons Isotopes Electrons Mixture Solution Suspension Solute Solvent Solubility Force Gravity Mass Friction Balanced force Unbalanced force Newton's Laws of		

<p>6.6ABC</p>	<p>(6.6) Science concepts. The student knows that there is a relationship between force and motion.</p>	<p>(A) identify and describe the changes in position, direction of motion, and speed of an object when acted upon by force;</p> <p>(B) demonstrate that changes in motion can be measured and graphically represented; and</p> <p>(C) identify forces that shape features of the Earth including uplifting, movement of water, and volcanic activity.</p>	<p>Motion Speed Velocity Acceleration Work Joules Fluid force Buoyant force Archimedes' principle Lift Bernoulli's principle Energy Law of conservation of energy Mechanical energy Kinetic energy Potential energy Thermal energy Light energy Sound energy Electrical energy Chemical energy Nuclear energy Temperature Heat Conduction Convection Radiation Wave Transmission Transparent Translucent Opaque Refraction</p>		
<p>6.7AB</p>	<p>(6.7) Science concepts. The student knows that substances have physical and chemical properties.</p>	<p>(A) demonstrate that new substances can be made when two or more substances are chemically combined and compare the properties of the new substances to the original substances; and</p> <p>(B) classify substances by their physical and chemical properties.</p>			

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