

Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
Science Motion, Energy, and Machines	Seventh	2 nd Six Weeks	4 Weeks
TEKS/Student Expectations		Examples/Specifications:	
<p>(6)</p> <p>(A) demonstrate basic relationships between force and motion using simple machines including pulleys and levers;</p> <p>(B) demonstrate that an object will remain at rest or move at a constant speed and in a straight line if it is not being subjected to an unbalanced force; and</p> <p>(C) relate forces to basic processes in living organisms including the flow of blood and the emergence of seedlings.</p> <p>(8)</p> <p>(A) illustrate examples of potential and kinetic energy in everyday life such as objects at rest, movement of geologic faults, and falling water; and</p> <p>(B) identify that radiant energy from the Sun is transferred into chemical energy through the process of photosynthesis.</p> <p>(5)</p> <p>(A) describe how systems may reach an equilibrium such as when a volcano erupts; and</p>		<p>6 A and B- describe how forces can cause movement and how simple machines relate to forces</p> <p>6 C- Understand how forces are expressed in the human body</p> <p>8 A and B- Explain how everyday objects are effected by forces and solar energy is converted</p> <p>5 A- Volcanoes are expressions of force and equal forces</p>	
Language of Instruction:		Instructional Resources/Textbook Correlations:	

Force Net force Unbalanced forces Balanced forces Inertia Newton Friction Gravity Free fall Projectile Air resistance Terminal velocity Law of universal gravitation Momentum Pressure	Law of conservation of momentum Pascal fluid Pascal's Principle Equilibrium Hydraulic system Bernoulli's principle Work Joule Machine Input force Output force Mechanical advantage efficiency	Incline plane Wedge Screw Lever Fulcrum Wheel and axle Pulley Compound machine Gears Energy Kinetic energy Potential energy Law of conservation of energy Power	Prentice Hall Science Explorer and Guided Reading Workbook Chapter 4, 5, and 6
			Weblinks/Other Resources:
Evaluation/External Assessment/Local Assessment:			Best Instruction Timeline:
Teacher Test Power formulas Mass and accelerations formulas Illustrate simple machines			20 days 3 days- The Nature of Force and Motion 4 days- Acceleration, Friction and Gravity 2 days- Forces in Fluid 2 days- What is Work 2 days- Mechanical Advantage and Efficiency 3 days- Simple Machines 1 day- Machines in the human body 2 days- Energy Conversion and Efficiency 1 day- Power and Formulas