



**Science  
Pre-Advanced Placement  
Physics**

<b>Unit Name: Energy</b>		<b>Second 9 Weeks, Days to Teach: 15</b>	
<b>Date Taught</b>	<b>TEKS and AP Required Elements</b>	<b>Content/Vocabulary</b>	<b>Guiding Questions</b>
	5(A) interpret evidence for the work-energy theorem;  5(B) observe and describe examples of kinetic and potential energy and their transformations.  AP Physics Connections:  IX. Work and Energy  A. Work B. Energy C. Work-Energy Theorem D. Conservation of Energy E. Thermal Energy: temperature, heat, heat transfer, specific heat F. Designing a rollercoaster	Work-energy theorem, kinetic energy, potential energy, power, systems, rate, mechanical, and translational.	How can you identify energy transformations?  How much work can be obtained from energy storage?
	5(C) calculate the mechanical energy and momentum in a physical system such as billiards, cars, and trains; and  5(D) demonstrate the conservation	Conservation, mechanical energy, momentum, impulse, center of mass, elastic and inelastic collisions, and recoil.	How can you calculate final velocity of an object dropped from height $h$ ?  How can you differentiate between elastic and inelastic collisions?



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	<p>of energy and momentum.</p> <p>AP Physics Connections</p> <p>III. Accelerated Motion</p> <ul style="list-style-type: none"><li>A. Velocity and acceleration</li><li>B. Kinematic equations</li><li>C. Free Fall</li></ul>		
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