

## Science Curriculum: Grade 8

### Georgia Performance Standards: Year Curriculum Map

This document is part of a framework that was designed to support the major concepts addressed in the 8th Grade Science Curriculum of the Georgia Performance Standards through the processes of inquiry. These units are written to be stand alone units that may be taught in any sequence. The length of each unit is a suggestion. Unit length should be based on student performance.

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1 <sup>st</sup> 9 weeks		2 <sup>nd</sup> 9 weeks		3 <sup>rd</sup> 9 weeks	4 <sup>th</sup> 9 weeks
Unit: Sports	Unit: Food and Cooking	Unit: Energy in our Life	Unit: Light and Sound Show	Unit: Science with Toys	
7 weeks	7 weeks	7 weeks	7 weeks	8 weeks	
<p><b>Focus:</b>  <i>Pure substances (elements and compounds)</i>  <i>Mixtures</i>  <i>Law of Conservation of Energy (energy transformations)</i>  <i>Relationship between</i>  <ul style="list-style-type: none"> <li>○ <i>Potential and Kinetic</i></li> <li>○ <i>Velocity and Acceleration</i></li> </ul> <i>Effects of balance and unbalanced forces on an object</i>  <i>Effect of simple machines on work</i>  <i>Gravitational forces</i></p>	<p><b>Focus:</b>  <i>Atoms and Molecules</i>  <i>Pure substances (elements and compounds)</i>  <i>Mixtures</i>  <i>Motions of particles on solids, liquids, gases, and plasmas</i>  <i>Distinguish between</i>  <ul style="list-style-type: none"> <li>○ <i>Physical and chemical properties</i></li> <li>○ <i>Physical and chemical changes</i></li> </ul> <i>Conservation of Matter</i>  <i>Conservation of Energy</i>  <i>Heat flow</i>  <ul style="list-style-type: none"> <li>○ <i>Conduction</i></li> <li>○ <i>Radiation</i></li> <li>○ <i>Convection</i></li> </ul></p>	<p><b>Focus:</b>  <i>Conservation of Energy</i>  <i>Relationship between Potential and Kinetic Energy</i>  <i>Compare and contrast forms of energy and their characteristics</i>  <ul style="list-style-type: none"> <li>○ <i>Heat</i></li> <li>○ <i>Light</i></li> <li>○ <i>Electric</i></li> <li>○ <i>Magnetic</i></li> <li>○ <i>Mechanical Motion</i></li> <li>○ <i>Sound</i></li> </ul> <i>Series and parallel circuits</i>  <i>Electric currents</i>  <i>Magnets</i>  <i>Electric and magnetic forces</i></p>	<p><b>Focus:</b>  <i>Conservation of Energy</i>  <i>Compare and contrast forms of energy and their characteristics</i>  <ul style="list-style-type: none"> <li>○ <i>Heat</i></li> <li>○ <i>Light</i></li> <li>○ <i>Electric</i></li> <li>○ <i>Magnetic</i></li> <li>○ <i>Mechanical Motion</i></li> <li>○ <i>Sound</i></li> </ul> <i>Characteristics of electromagnetic and mechanical waves</i>  <i>Behavior of light</i>  <ul style="list-style-type: none"> <li>○ <i>Reflection</i></li> <li>○ <i>Refraction</i></li> <li>○ <i>Diffraction</i></li> <li>○ <i>Absorption</i></li> </ul> <i>Colors and human eyes</i>  <i>Sound</i>  <i>Amplitude and pitch</i></p>	<p><b>Focus:</b>  <i>Conservation of Energy</i>  <i>Relationship between</i>  <ul style="list-style-type: none"> <li>○ <i>Potential and Kinetic</i></li> <li>○ <i>Velocity and Acceleration</i></li> </ul> <i>Effects of balance and unbalanced forces on an object</i>  <i>Effect of simple machines on work</i></p>	