

**Introductory Physical Science & Force, Motion and Energy Correlation with
Tennessee State Board of Education
Standards, Learning Expectations and Draft Performance Indicators
Seventh and Eighth Grade Physical Science Benchmarks**

Standard	Learning Expectation/ Performance Indicators	IPS Ch. 1	IPS Ch. 2	IPS Ch. 3	IPS Ch. 4	IPS Ch. 5	IPS Ch. 6	IPS Ch. 7	IPS Ch. 8	IPS Ch. 9	IPS Ch. 10	IPS Ch. 11	IPS Ch. 12	FM&E Ch. 1	FM&E Ch. 2	FM&E Ch. 3	FM&E Ch. 4	FM&E Ch. 5	FM&E Ch. 6	FM&E Ch. 7
Standard Number: 12.0 Structure and Properties of Matter The student will investigate the characteristic properties of matter.	Learning Expectations: 12.1 Distinguish among elements, compounds, and mixtures.					X	X													
	12.2 Identify and measure the simple properties of common substances.		X	X	X				X	X	X	X	X							
	12.3 Understand that the periodic table is used as a tool for grouping elements.																			
	Performance Indicators: <i>As documented through state assessment,</i> <i>at Level 1, the student is able to</i> 7.12.spi.1 determine the measurable properties of matter using appropriate metric units.		X	X	X					X		X								
	<i>at Level 2, the student is able to</i> 7.12.spi.2 recognize the different properties of elements, compounds, and mixtures.			X	X	X	X		X	X	X	X								
	7.12.spi.3 identify observable and measurable properties of solids, liquids, and gases.			X	X															
	<i>at Level 3, the student is able to</i> 7.12.spi.4 classify substances as elements or compounds from their chemical equations or formulas.												X							

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Standard Number: 11.0 Forces and Motion The student will investigate the effects of force on the movement of objects.	Learning Expectation: 11.1 Distinguish between speed and velocity.															X	X			
	11.2 Demonstrate an understanding of Newton's three laws of motion.													X		X				
	11.3 Identify factors that influence gravitational force between objects.																			
	11.4 Identify simple machines and their uses.															X				
	Performance Indicators: <i>As documented through state assessment,</i> <i>at Level 1, the student is able to:</i> 8.11.spi.1 recognize that forces cause changes in speed and/or the direction of motion.															X				
	8.11.spi.2 identify simple machines.															X				
	<i>at Level 2, the student is able to:</i> 8.11.spi.3 recognize the relationship between mass and the amount of force needed to move an object.																			
	8.11.spi.4 identify the relationship between the mass of objects and the amount of gravitational attraction.													X						
	8.11.spi.5 choose the most appropriate simple machine to use for a specific task.																			
	<i>at Level 3, the student is able to:</i> 8.11.spi.6 relate inertia, momentum and action-reaction forces to Newton's three laws of motion.													X		X				

