

## AP Physics Curriculum Map

	August	September	October	November
<b>Essential Questions</b>	What is motion?		What are Newton's Laws of motion? What is a gravity field?	
<b>Content</b> in terms of essential concepts and topics	Vectors	Displacement Velocity Acceleration Kinematic Equations (two sets)	Force –linear and centripetal <b>F = ma</b>	
<b>Standards/skills</b> (i.e., processes and skills emphasized— State Academic Standards, and MCSC skills)	1.27 → 1.4 →	1.5, 1.6	1.5,1.6, 1.7, 1.8, 1.10, 1.11, 2.1, 2.2, 2.3	1.9, 1.12, 1.14, 1.15, 1.16, 2.7
<b>Products/Assessments</b> It is assumed that students will be assessed with traditional tests.	Computer Generated Velocity vs. Time Experiment	Compare computer sensors to air track	Momentum Rotational Motion	Coffee filter velocity equation  Atomic mass (heat capacity)
<b>Resources</b>	Include textbook, and lab investigations, teacher directed demonstrations throughout the year			

	December	January	February	March
<b>Essential Questions</b>	What is energy conservation? $\longrightarrow$		What is current, an electric charge? $\longrightarrow$	
	What is an electric field, what is a static electric charge ?			What is Ohm's Law? What is a magnetic field?
<b>Content</b> in terms of essential concepts and topics	Conservation Laws 1. Mass 2. Energy 3. Electrical charge  Harmonic Motion	Coulomb's law  Voltage Capacitance		$V=IR$ $B \leftrightarrow I$ (induction)
<b>Standards/skills</b> (i.e., processes and skills emphasized— State Academic Standards, and MCSC skills)	1.3, 1.13, 1.27, 1.28	1.1, 1.10, 1.13, 1.17, 1.18	1.11, 1.19, 1.18	1.8, 1.9, 1.20,
<b>Products/Assessments</b> It is assumed that students will be assessed with traditional tests.	Physical pendulum Spring constant Gamma Constant	Radiation	Time Constant e/m ratio	Phase angles (ac)
<b>Resources</b>	Include textbook, and ancillary materials, teacher directed demonstrations			

	<b>April</b>	<b>May</b>		
<b>Essential Questions</b>	(Continue) What is Ohm's Law? What is a magnetic field? What is light?			
<b>Content</b> in terms of essential concepts and topics	Snell's Law Waves and Rays Interference (+/-)			
<b>Standards/skills</b> (i.e., processes and skills emphasized— State Academic Standards, and MCSC skills)	1.22, 1.23, 1.24, 1.25. 1.26, 1.21			
<b>Products/Assessments</b> It is assumed that students will be assessed with traditional tests.	Speed of Light	Combination of Lenses		
<b>Resources</b>	Include textbook, and ancillary materials, teacher directed demonstrations			