

The AP[®] Physics Correlation Guide

The AP[®] Physics Collection is a free, turnkey solution for your AP[®] Physics course, including an openly licensed book, Concept Trailer videos, instructional videos, and problem solution videos. Use this correlation guide to see how each element of the collection integrates with the content in OpenStax College Physics for AP[®] Courses.

The AP[®] Physics Collection is brought to you through a collaboration between OpenStax and Rice Online Learning.

College Physics for AP[®] Courses book

College Physics for AP[®] Courses is a free, Learning List[™]-approved text designed to engage students and prepare them for the Advanced Placement[®] test.

Concept Trailers

These dynamic, Hollywood studio-produced videos bring key physics concepts to life in your course.

Instructional Videos

These videos feature AP[®] teachers and Rice professors teaching core material and reinforcing College Board learning objectives.

Problem Solution Videos

In these videos, instructors walk through example problems from the text to give students step-by-step guidance.

		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
1.0	Connection for AP® Courses	X	X	X
1.1	Introduction: The Nature of Science and Physics	X	X	X
1.2	Physical Quantities and Units	X	X	X
1.3	Accuracy, Precision, and Significant Figures	X	X	X
1.4	Approximation	X	X	X
2.0	Connection for AP® Courses	X	X	X
2.1	Displacement	http://bit.ly/1OnLbE7	Position Defined http://bit.ly/265RIYy	X
2.2	Vectors, Scalars, and Coordinate Systems	http://bit.ly/1OnLbE7	Vectors Defined http://bit.ly/1tyCuO9	X
2.3	Time, Velocity, and Speed	http://bit.ly/1OnLbE7	Velocity Defined http://bit.ly/1UbiEi4	X
		X	Average Velocity http://bit.ly/1UXAMvd	X
		X	Velocity Graphs http://bit.ly/1YuURhP	X
2.4	Acceleration	http://bit.ly/1OnLbE7	Acceleration Defined http://bit.ly/1Uy5ZJB	X
2.5	Motion Equations for Constant Acceleration in One Dimension	http://bit.ly/1OnLbE7	Average Velocity Revisited http://bit.ly/1XrPNvz	X

*Looking for this problem in the book? Check out the YouTube description for each problem solution video.

	 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
	X	Accelerating for a Distance http://bit.ly/1YuNDuu	X
2.6 Problem-Solving Basics for One Dimensional Kinematics	http://bit.ly/1OnLbE7	X	X
2.7 Falling Objects	http://bit.ly/1OnLbE7	X	X
2.8 Graphical Analysis of One Dimensional Motion	http://bit.ly/1OnLbE7	Graphs and Kinematics http://bit.ly/1WOWlin	X
3.0 Connection for AP® Courses	X	X	X
3.1 Kinematics in Two Dimensions: An Introduction	http://bit.ly/1twpNmK	Vectors in 2D http://bit.ly/1UAZ4LG	X
3.2 Vector Addition and Subtraction: Graphical Methods	http://bit.ly/1twpNmK	Adding Vectors http://bit.ly/1ZUa9vr	X
3.3 Vector Addition and Subtraction: Analytical Methods	http://bit.ly/1twpNmK	Adding Vectors http://bit.ly/1ZUa9vr	X
3.4 Projectile Motion	http://bit.ly/1twpNmK	Projectile Basics http://bit.ly/1W1FBsC	http://bit.ly/1YyqO9g
	X	Shoot the Monkey http://bit.ly/265S2qb	http://bit.ly/29vqo1B
	X	Hang Time http://bit.ly/1Pws99q	X
	X	Projectile Height http://bit.ly/1Q8yY6B	X
	X	Projectile Range http://bit.ly/265RG2T	X

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	 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
	X	Uneven Projectiles http://bit.ly/1rsnVJT	X
	X	Projectile Graphs http://bit.ly/1ZUe4by	X
3.5 Addition of Velocities	http://bit.ly/1twpNmK	X	X
4.0 Connection for AP® Courses	X	X	X
4.1 Development of Force Concept	http://bit.ly/29o5ctG	X	X
4.2 Newton's First Law of Motion: Inertia	http://bit.ly/29o5ctG	Newton's 1st and 2nd Laws http://bit.ly/1UQOVwT	X
	X	Tour de Force: Gravity http://bit.ly/1YuCeeu	X
4.3 Newton's Second Law of Motion: Concept of a System	http://bit.ly/29o5ctG	Newton's 1st and 2nd Laws http://bit.ly/1UQOVwT	http://bit.ly/1V2wOBp
4.4 Newton's Third Law of Motion: Symmetry in Forces	http://bit.ly/29o5ctG	Newton's 3rd Law http://bit.ly/1XYtPF	X
4.5 Normal, Tension, and Other Examples of Force	http://bit.ly/29o5ctG	Tour de Force: Gravity http://bit.ly/1YuCeeu	X
	X	Tour de Force: Normal Force http://bit.ly/29jWs5t	X
	X	Tour de Force: Friction http://bit.ly/1OsV5Ek	X
	X	Tour de Force: Tension Force http://bit.ly/1OsUMcK	X

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		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
4.6	Problem-Solving Strategies	http://bit.ly/29o5ctG	X	X
4.7	Further Applications of Newton's Laws of Motion	http://bit.ly/29o5ctG	X	http://bit.ly/1Ue8Qnu
4.8	Extended Topic: The Four Basic Forces — An Introduction	http://bit.ly/29o5ctG	X	X
5.0	Connection for AP® Courses	X	X	X
5.1	Friction	http://bit.ly/25XYdzS	Tour de Force: Friction http://bit.ly/1OsV5Ek	X
5.2	Drag Forces	http://bit.ly/25XYdzS	Tour de Force: Air Drag http://bit.ly/1W1TgA2	X
5.3	Elasticity: Stress and Strain	http://bit.ly/25XYdzS	Tour de Force: Spring Force http://bit.ly/29rCDf9	X
		X	Tour de Force: Tension Force http://bit.ly/1OsUMcK	X
6.0	Connection for AP® Courses	X	X	X
6.1	Rotation Angle and Angular Velocity	http://bit.ly/1Q5dNTc http://bit.ly/29xQEdh	Angular Position http://bit.ly/295uSvx	X
		http://bit.ly/1Q5dNTc http://bit.ly/1sGHv6t	Angular Position II http://bit.ly/23eGZsQ	X
		X	Angular Velocity http://bit.ly/1OsVel4	X
		X	Angular Velocity II http://bit.ly/1ttJKKo	X

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	 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
6.2 Centripetal Acceleration	http://bit.ly/1Q5dNTc http://bit.ly/1sGHv6t	Centripetal Acceleration http://bit.ly/28I9mDQ	http://bit.ly/1XurH39
	X	A Wild Ride http://bit.ly/1UBjWCA	http://bit.ly/21rfPh5
	X	X	http://bit.ly/1UTIBWL
6.3 Centripetal Force	http://bit.ly/1Q5dNTc http://bit.ly/1sGHv6t	Centripetal Force http://bit.ly/1YuHtut	X
6.4 Fictitious Forces and Non-inertial Frames: The Coriolis Force	http://bit.ly/1Q5dNTc http://bit.ly/1sGHv6t	X	X
6.5 Newton's Universal Law of Gravitation	http://bit.ly/1Q5dNTc http://bit.ly/1sGHv6t	Universal Gravitation http://bit.ly/1Yvc8aX	X
	X	Gravity on Earth http://bit.ly/1Yvc0YW	X
6.6 Satellites and Kepler's Laws: An Argument for Simplicity	http://bit.ly/1Q5dNTc http://bit.ly/1sGHv6t	A Simple Orbit http://bit.ly/1Yvcmi5	X
	X	Geosynchronous Orbit http://bit.ly/28I8Be5	X
Additional Videos	X	Circular vs. Rotational Movement http://bit.ly/28I6N4D	X
7.0 Connection for AP® Courses	X	X	X
7.1 Work: The Scientific Definition	http://bit.ly/1twEWo7	Energy and Work http://bit.ly/1Q924my	X
	X	Energy and Gravity http://bit.ly/1Uyv5bn	X

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	 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
	X	Negative Work http://bit.ly/29iQT64	X
7.2 Kinetic Energy and the Work-Energy Theorem	http://bit.ly/1twEWo7	Energy and Work http://bit.ly/1Q924my	http://bit.ly/24WyPEN
	X	The Energy of Motion http://bit.ly/2930gdJ	X
	X	Internal Energy 1 http://bit.ly/1UY67Od	X
7.3 Gravitational Potential Energy	http://bit.ly/1twEWo7	Energy and Gravity http://bit.ly/1Uyv5bn	X
	X	Gravitational Potential http://bit.ly/1YvgQFn	X
7.4 Conservative Forces and Potential Energy	http://bit.ly/1twEWo7	Spring Potential http://bit.ly/24Us8TG	http://bit.ly/1W4eUUf
	X	Conservation of Mechanical Energy http://bit.ly/1UY4d0e	X
	X	Pendulums http://bit.ly/1UY4Uqd	X
7.5 Nonconservative Forces	http://bit.ly/1twEWo7	Conservation of Mechanical Energy http://bit.ly/1UY4d0e	X
	X	Internal Energy 1 http://bit.ly/1UY67Od	X
	X	Internal Energy 2 http://bit.ly/21p1pOx	X
7.6 Conservation of Energy	http://bit.ly/1twEWo7	Conservation of Mechanical Energy http://bit.ly/1UY4d0e	X

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	 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
	X	Pendulums http://bit.ly/1UY4Uqd	X
7.7 Power	http://bit.ly/1twEWo7	Power http://bit.ly/23eLeot	http://bit.ly/1PyPFTj
7.8 Work, Energy, and Power in Humans	http://bit.ly/1twEWo7	X	X
7.9 World Energy Use	http://bit.ly/1twEWo7	X	X
Additional Videos	X	External Work http://bit.ly/1ZUuGAb	X
	X	More Negative Work http://bit.ly/266c1oH	X
8.0 Connection for AP® Courses	X	X	X
8.1 Linear Momentum and Force	http://bit.ly/1Ub8ttM	Momentum Vector http://bit.ly/1OsxYd2	http://bit.ly/1XutyoM
	X	Momentum and Newton's 2nd Law http://bit.ly/1XYnRjF	X
8.2 Impulse	http://bit.ly/1Ub8ttM	Impulse Defined http://bit.ly/1XsfoEF	http://bit.ly/1UecKMU
	X	X	http://bit.ly/1UecfT3
8.3 Conservation of Momentum	http://bit.ly/1Ub8ttM	Momentum and Newton's 3rd Law http://bit.ly/1XsglN8	http://bit.ly/28Zyyyf
	http://bit.ly/1Ub8ttM	Using Momentum Conservation http://bit.ly/1YuTakU	X

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	 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
8.4 Elastic Collisions in One Dimension	http://bit.ly/1Ub8ttM	Collisions Defined http://bit.ly/1ZUCzp2	X
	X	Elastic Collisions 1 http://bit.ly/1YvoaRr	X
	X	Elastic Collisions 2 http://bit.ly/1Ot3CqV	X
8.5 Inelastic Collisions in One Dimension	http://bit.ly/1Ub8ttM	Collisions Defined http://bit.ly/1ZUCzp2	X
	X	Inelastic Collisions http://bit.ly/1tz4gtL	X
	X	Collisions and COM http://bit.ly/1sll80i	X
8.6 Collisions of Point Masses in Two Dimensions	http://bit.ly/1Ub8ttM	2D Collisions http://bit.ly/1UIUOIZ	X
	X	Collisions and COM http://bit.ly/1sll80i	X
8.7 Introduction to Rocket Propulsion	http://bit.ly/1Ub8ttM	Rockets http://bit.ly/1Q9eLhd	X
	X	Collisions and COM http://bit.ly/1sll80i	X
Additional videos	X	Center of Mass http://bit.ly/1YuGr1o	X
9.0 Connection for AP® Courses	X	X	X
9.1 The First Condition for Equilibrium	http://bit.ly/1rsL0fF	X	X

*Looking for this problem in the book? Check out the YouTube description for each problem solution video.

		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
9.2	The Second Condition for Equilibrium	http://bit.ly/1rsL0fF	Torque Defined http://bit.ly/1YuULXX	X
		X	Calculating Torque http://bit.ly/1Q9h9of	X
9.3	Stability	http://bit.ly/1rsL0fF	X	X
9.4	Application of Statics, Including Problem-Solving Strategies	http://bit.ly/1rsL0fF	X	X
9.5	Simple Machines	http://bit.ly/1rsL0fF	X	X
9.6	Forces and Torques in Muscles and Joints	http://bit.ly/1rsL0fF	X	X
10.0	Connection for AP® Courses	X	X	X
10.1	Angular Acceleration	http://bit.ly/1UBDR4a http://bit.ly/1sInVGy	Angular Position http://bit.ly/23gbQ8y	X
		X	Angular Position II http://bit.ly/28KjCvq	X
10.2	Kinematics of Rotational Motion	http://bit.ly/1UBDR4a http://bit.ly/1sInVGy	Rotational Kinematics http://bit.ly/1OuuM0v	http://bit.ly/1UAXopo
		X	X	http://bit.ly/1W4gXaR
10.3	Dynamics of Rotational Motion: Rotational Inertia	http://bit.ly/1UBDR4a http://bit.ly/1sInVGy	Defining Rotational Inertia http://bit.ly/29j63ZN	http://bit.ly/1sKrlZG
		X	Calculating Rotational Inertia http://bit.ly/24VSB3w	X

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		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
10.4	Rotational Kinetic Energy: Work and Energy Revisited	http://bit.ly/1UBDR4a http://bit.ly/1sInVGy	Defining Krot http://bit.ly/1Unfudd	http://bit.ly/1UecOMS
		X	Energy is Energy http://bit.ly/1sJlfsH	http://bit.ly/1UEPQxX
10.5	Angular Momentum and Its Conservation	http://bit.ly/1UBDR4a http://bit.ly/1sInVGy	Rotating Disk http://bit.ly/1ZWmC1U	http://bit.ly/23gT9I7
			X	http://bit.ly/29AEPzH
		X	Angular Momentum Conservation http://bit.ly/1UDF76P	X
10.6	Collisions of Extended Bodies in Two Dimensions	http://bit.ly/1UBDR4a http://bit.ly/1sInVGy	X	X
10.7	Gyroscopic Effects: Vector Aspects of Angular Momentum	http://bit.ly/1UBDR4a http://bit.ly/1sInVGy	Energy is Energy http://bit.ly/1sJlfsH	X
	Additional Videos	X	Circular vs. Rotational Movement http://bit.ly/28I6N4D	X
11.0	Connection for AP® Courses	X	X	X
11.1	What Is a Fluid?	http://bit.ly/28Kmit5 http://bit.ly/1ZWpVpQ	X	X
11.2	Density	http://bit.ly/28Kmit5 http://bit.ly/1ZWpVpQ	X	X
11.3	Pressure	http://bit.ly/28Kmit5 http://bit.ly/1ZWpVpQ	X	X
11.4	Variation of Pressure with Depth in a Fluid	http://bit.ly/28Kmit5 http://bit.ly/1ZWpVpQ	X	X

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		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
11.5	Pascal's Principle	http://bit.ly/28Kmit5 http://bit.ly/1ZWpVpQ	X	X
11.6	Gauge Pressure, Absolute Pressure, and Pressure Measurement	http://bit.ly/28Kmit5 http://bit.ly/1ZWpVpQ	X	X
11.7	Archimedes' Principle	http://bit.ly/28Kmit5 http://bit.ly/1ZWpVpQ	X	X
11.8	Cohesion and Adhesion in Liquids: Surface Tension and Capillary Action	http://bit.ly/28Kmit5 http://bit.ly/1ZWpVpQ	X	X
11.9	Pressures in the Body	http://bit.ly/28Kmit5 http://bit.ly/1ZWpVpQ	X	X
12.0	Connection for AP® Courses	X	X	X
12.1	Flow Rate and Its Relation to Velocity	http://bit.ly/1XZriXo	X	X
12.2	Bernoulli's Equation	http://bit.ly/1XZriXo	X	X
12.3	The Most General Applications of Bernoulli's Equation	http://bit.ly/1XZriXo	X	X
12.4	Viscosity and Laminar Flow; Poiseuille's Law	http://bit.ly/1XZriXo	X	X
12.5	The Onset of Turbulence	http://bit.ly/1XZriXo	X	X
12.6	Motion of an Object in a Viscous Fluid	http://bit.ly/1XZriXo	X	X
12.7	Molecular Transport Phenomena: Diffusion, Osmosis, and Related Processes	http://bit.ly/1XZriXo	X	X

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		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
13.0	Connection for AP® Courses	X	X	X
13.1	Temperature	X	X	X
13.2	Thermal Expansion of Solids and Liquids	X	X	X
13.3	The Ideal Gas Law	X	X	X
13.4	Kinetic Theory: Atomic and Molecular Explanation of Pressure and Temperature	X	X	X
13.5	Phase Changes	X	X	X
13.6	Humidity, Evaporation, and Boiling	X	X	X
14.0	Connection for AP® Courses	X	X	X
14.1	Heat	http://bit.ly/1YwRwPT	X	X
14.2	Temperature Change and Heat Capacity	http://bit.ly/1YwRwPT	X	X
14.3	Phase Change and Latent Heat	http://bit.ly/1YwRwPT	X	X
14.4	Heat Transfer Methods	http://bit.ly/1YwRwPT	X	X
14.5	Conduction	http://bit.ly/1YwRwPT	X	X


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		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
14.6	Convection	http://bit.ly/1YwRwPT	X	X
14.7	Radiation	http://bit.ly/1YwRwPT	X	X
15.0	Connection for AP® Courses	X	X	X
15.1	The First Law of Thermodynamics	X	X	X
15.2	The First Law of Thermodynamics and Some Simple Processes	X	X	X
15.3	Introduction to the Second Law of Thermodynamics: Heat Engines and Their Efficiency	X	X	X
15.4	Carnot's Perfect Heat Engine: The Second Law of Thermodynamics Restated	X	X	X
15.5	Applications of Thermodynamics: Heat Pumps and Refrigerators	X	X	X
15.6	Entropy and the Second Law of Thermodynamics: Disorder and the Unavailability of Energy	X	X	X
15.7	Statistical Interpretation of Entropy and the Second Law of Thermodynamics: The Underlying Explanation	X	X	X
16.0	Connection for AP® Courses	X	X	X
16.1	Hooke's Law: Stress and Strain Revisited	http://bit.ly/1WRtLT3	Tour de Force: Spring Force http://bit.ly/1rtvoZf	X
16.2	Period and Frequency in Oscillations	http://bit.ly/1WRtLT3	Natural Frequency for Mass on Spring http://bit.ly/1sJPzU0	http://bit.ly/291Oksg

*Looking for this problem in the book? Check out the YouTube description for each problem solution video.

		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
16.3	Simple Harmonic Motion: A Special Periodic Motion	http://bit.ly/1WRtLT3	Harmonic Motion Defined http://bit.ly/1Ugjz60	X
		X	Harmonic Speed and Acceleration http://bit.ly/291L5RT	X
16.4	The Simple Pendulum	http://bit.ly/1WRtLT3	Pendulums http://bit.ly/1YxRmat	X
		X	Natural Frequency for a Pendulum http://bit.ly/1UAxO43	X
16.5	Energy and the Simple Harmonic Oscillator	http://bit.ly/1WRtLT3	Kinetic and Potential Energy for Mass on Spring http://bit.ly/1rtwaW1	X
		X	Kinetic and Potential Energy for Pendulum http://bit.ly/1OuDX0V	X
16.6	Uniform Circular Motion and Simple Harmonic Motion	http://bit.ly/1WRtLT3	X	X
16.7	Damped Harmonic Motion	http://bit.ly/1WRtLT3	X	X
16.8	Forced Oscillations and Resonance	http://bit.ly/1WRtLT3	Natural Frequency for Mass on Spring http://bit.ly/1sJPzU0	X
		X	Natural Frequency for a Pendulum http://bit.ly/293TXaH	X
16.9	Waves	http://bit.ly/1WRtLT3	Amplitude, Frequency, Speed http://bit.ly/1XZC140	http://bit.ly/291CF6p
		X	X	http://bit.ly/290km5l
16.10	Superposition and Interference	http://bit.ly/1WRtLT3	What is Interference http://bit.ly/23gyNbk	http://bit.ly/292VI9R

*Looking for this problem in the book? Check out the YouTube description for each problem solution video.

		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
		X	Standing Waves http://bit.ly/1UdMimF	X
		X	Superposition and Interference in Sound http://bit.ly/1XZBhvN	X
16.11	Energy in Waves: Intensity	http://bit.ly/1WRtLT3	Energy of Waves http://bit.ly/1YxV6Zv	http://bit.ly/295uAnV
		X	X	http://bit.ly/295uGMk
		X	X	http://bit.ly/28YzC1Y
17.0	Connection for AP® Courses	X	X	X
17.1	Sound	http://bit.ly/261W1ay	Sound as a Wave http://bit.ly/28L4RIQ	X
17.2	Speed of Sound, Frequency, and Wavelength	http://bit.ly/261W1ay	X	X
17.3	Sound Intensity and Sound Level	http://bit.ly/261W1ay	Energy of Sound Waves: Amplification http://bit.ly/1XZJtfM	X
17.4	Doppler Effect and Sonic Booms	http://bit.ly/261W1ay	Doppler Effect http://bit.ly/1XZJzE2	X
17.5	Sound Interference and Resonance: Standing Waves in Air Columns	http://bit.ly/261W1ay	Superposition and Interference in Sound http://bit.ly/1Xueyr2	http://bit.ly/29B4Csb
		X	X	http://bit.ly/29ITKwG
17.6	Hearing	http://bit.ly/261W1ay	X	X


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		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
17.7	Ultrasound	http://bit.ly/261W1ay	X	X
18.0	Connection for AP® Courses	X	X	X
18.1	Static Electricity and Charge: Conservation of Charge	http://bit.ly/1UnJV2R	Charge in Matter http://bit.ly/29xhH76	http://bit.ly/2925qXc
		X	Accumulating Charge http://bit.ly/29kJaEP	X
		X	Charged Objects http://bit.ly/29RNj4R	X
		X	Charge is Conserved http://bit.ly/29tmaXV	X
18.2	Conductors and Insulators	http://bit.ly/1UnJV2R	Accumulating Charge http://bit.ly/29kJaEP	http://bit.ly/28YLm4I
		X	Charged Objects http://bit.ly/29RNj4R	X
		X	Field of Spheres and Shells http://bit.ly/1XZNEYI	X
18.3	Conductors and Electric Fields in Static Equilibrium	http://bit.ly/1UnJV2R	The Electric Field http://bit.ly/1sKd8Ms	http://bit.ly/28YLn8H
18.4	Coulomb's Law	http://bit.ly/1UnJV2R	Forces Between Charges http://bit.ly/1ZWYOe3	X
18.5	Electric Field: Concept of a Field Revisited	http://bit.ly/1UnJV2R	Defining Electric Fields http://bit.ly/1rtEzZK	http://bit.ly/298Lqmh
		X	Some Electric Fields http://bit.ly/1rtFTLW	http://bit.ly/292trML




*Looking for this problem in the book? Check out the YouTube description for each problem solution video.

		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
18.6	Electric Field Lines: Multiple Charges	http://bit.ly/1UnJV2R	Superposition of Electric Fields http://bit.ly/29kK6Ji	X
18.7	Electric Forces in Biology	http://bit.ly/1UnJV2R	X	X
18.8	Application of Electrostatics	http://bit.ly/1UnJV2R	X	X
	Additional Videos	X	Superposition of Charges in 1D http://bit.ly/290zTSX	X
		X	Superposition of Charges in 2D http://bit.ly/292vKiQ	X
19.0	Connection for AP® Courses	X	X	X
19.1	Electric Potential Energy: Potential Difference	http://bit.ly/21r7Ksx http://bit.ly/1YxpTpC	Electrical Potential http://bit.ly/1S9SSsa	http://bit.ly/2929iHv
19.2	Electric Potential in a Uniform Electric Field	http://bit.ly/21r7Ksx http://bit.ly/1YxpTpC	Field Between Two Charged Plates http://bit.ly/1W48e8r	X
		X	Electric Fields and Particle Motion http://bit.ly/1tAMwy3	X
19.3	Electric Potential Due to a Point Charge	http://bit.ly/21r7Ksx http://bit.ly/1YxpTpC	Field of Spheres and Shells http://bit.ly/1XZNEYI	X
19.4	Equipotential Lines	http://bit.ly/21r7Ksx http://bit.ly/1YxpTpC	X	X
19.5	Capacitors and Dielectrics	http://bit.ly/21r7Ksx http://bit.ly/1YxpTpC	X	X
19.6	Capacitors in Series and Parallel	http://bit.ly/21r7Ksx http://bit.ly/1YxpTpC	X	X

*Looking for this problem in the book? Check out the YouTube description for each problem solution video.

		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
19.7	Energy Stored in Capacitors	http://bit.ly/21r7Ksx http://bit.ly/1YxpTpC	X	X
20.0	Connection for AP® Courses	X	X	X
20.1	Current	http://bit.ly/29d9xPF	Charge Flow in Materials http://bit.ly/29pbl77	http://bit.ly/292KnkU
20.2	Ohm's Law: Resistance and Simple Circuits	http://bit.ly/29d9xPF	Ohm's Law http://bit.ly/290k0ef	http://bit.ly/29f3Ocg
		X	Ohm's Law II http://bit.ly/29Cg8G5	http://bit.ly/294dJBN
		X	A Simple Circuit http://bit.ly/29aK7DD	X
20.3	Resistance and Resistivity	http://bit.ly/29d9xPF	Ohm's Law II http://bit.ly/29Cg8G5	X
20.4	Electric Power and Energy	http://bit.ly/29d9xPF	X	X
20.5	Alternating Current versus Direct Current	http://bit.ly/29d9xPF	X	X
20.6	Electric Hazards and the Human Body	http://bit.ly/29d9xPF	X	X
20.7	Nerve Conduction—Electrocardiograms	http://bit.ly/29d9xPF	X	X
21.0	Connection for AP® Courses	X	X	X
21.1	Resistors in Series and Parallel	X	X	X

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		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
21.2	Electromotive Force: Terminal Voltage	X	X	X
21.3	Kirchhoff's Rules	X	Kirchhoff's Junction Rule http://bit.ly/1YypDqc	X
21.4	DC Voltmeters and Ammeters	X	X	X
21.5	Null Measurements	X	X	X
21.6	DC Circuits Containing Resistors and Capacitors	X	X	X
22.0	Connection for AP® Courses	X	X	X
22.1	Magnets	http://bit.ly/1tujwaM	X	X
22.2	Ferromagnets and Electromagnets	http://bit.ly/1tujwaM	X	X
22.3	Magnetic Fields and Magnetic Field Lines	http://bit.ly/1tujwaM	X	X
22.4	Magnetic Field Strength: Force on a Moving Charge in a Magnetic Field	http://bit.ly/1tujwaM	X	X
22.5	Force on a Moving Charge in a Magnetic Field: Examples and Applications	http://bit.ly/1tujwaM	X	X
22.6	The Hall Effect	http://bit.ly/1tujwaM	X	X
22.7	Magnetic Force on a Current-Carrying Conductor	http://bit.ly/1tujwaM	X	X




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		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
22.8	Torque on a Current Loop: Motors and Meters	http://bit.ly/1tujwaM	X	X
22.9	Magnetic Fields Produced by Currents: Ampere's Law	http://bit.ly/1tujwaM	X	X
22.10	Magnetic Force Between Two Parallel Conductors	http://bit.ly/1tujwaM	X	X
22.11	Magnetic Force between Two Parallel Conductors	http://bit.ly/1tujwaM	X	X
22.12	More Applications of Magnetism	http://bit.ly/1tujwaM	X	X
23.0	Connection for AP® Courses	X	X	X
23.1	Induced Emf and Magnetic Flux	http://bit.ly/1UEEyK5	X	X
23.2	Faraday's Law of Induction: Lenz's Law	http://bit.ly/1UEEyK5	X	X
23.3	Motional Emf	http://bit.ly/1UEEyK5	X	X
23.4	Eddy Currents and Magnetic Damping	http://bit.ly/1UEEyK5	X	X
23.5	Electric Generators	http://bit.ly/1UEEyK5	X	X
23.6	Back Emf	http://bit.ly/1UEEyK5	X	X
23.7	Transformers	http://bit.ly/1UEEyK5	X	X

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		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
23.8	Electrical Safety: Systems and Devices	http://bit.ly/1UEEyK5	X	X
23.9	Inductance	http://bit.ly/1UEEyK5	X	X
23.10	RL Circuits	http://bit.ly/1UEEyK5	X	X
23.11	Reactance, Inductive and Capacitive	http://bit.ly/1UEEyK5	X	X
23.12	RLC Series AC Circuits	http://bit.ly/1UEEyK5	X	X
24.0	Connection for AP® Courses	X	X	X
24.1	Maxwell's Equations: Electromagnetic Waves Predicted and Observed	X	X	X
24.2	Production of Electromagnetic Waves	X	X	X
24.3	The Electromagnetic Spectrum	X	X	X
24.4	Energy in Electromagnetic Waves	X	X	X
25.0	Connection for AP® Courses	X	X	X
25.1	The Ray Aspect of Light	http://bit.ly/1UARPYb	X	X
25.2	The Law of Reflection	http://bit.ly/1UARPYb	X	X

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		 Concept Trailers	 Instructional Videos	 Problem Solution Videos*
25.3	The Law of Refraction	http://bit.ly/1UARPYb	X	X
25.4	Total Internal Reflection	http://bit.ly/1UARPYb	X	X
25.5	Dispersion: The Rainbow and Prisms	http://bit.ly/1UARPYb	X	X
25.6	Image Formation by Lenses	http://bit.ly/1UARPYb	X	X
25.7	Image Formation by Mirrors	http://bit.ly/1UARPYb	X	X

There are no videos for chapters 26.0 - 34.7.

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