



RAISE YOUR AP[®] STUDENT EXAM SCORES!

We've got all your curriculum, labs, kits and supply needs.



DISCOVER HOW FLINN'S SOLUTIONS FOR AP[®]
CAN PREPARE YOUR STUDENTS FOR SUCCESS.



RAISE STUDENT TEST SCORES WITH FLINN’S SOLUTIONS FOR AP®

As scientists and educators, we know that properly aligning lessons and labs to test requirements is essential to raising students’ AP® test scores. Carefully following the College Board guidelines for AP, we have developed a variety of solutions in accordance with the guidelines as well as the new Unit Breakouts. This guide aligns our Top 3 recommended Flinn Solutions with each Unit Breakout so you can plan your curriculum and ensure that lab and instruction time are perfectly correlated to the AP courses.

In the following pages, you’ll find specific Flinn*PREP*™, Advanced Inquiry Labs and POGIL® Activities* aligned to each Course Unit. To learn more about the product, click on the link within the guide to view specifications and pricing options. Click on your preferred subject below to get started!

AP® Chemistry

AP® Physics 1

AP® Biology

AP® Physics 2

AP® Environmental Science

* POGIL activities available for Chemistry and Biology only.

FLINN TOP 3 SOLUTIONS FOR AP®

Flinn*PREP*™

Developed in collaboration with teacher and student focus groups, Flinn*PREP*™ online courses and lab solutions help strengthen the AP® learning experience.

Flinn*PREP*™ Courses: Textbook Alternatives

These online digital courses walk students through BIG IDEAS and UNITS, one by one. Complete with content, supporting videos, assessments and practice exams, these courses can be used individually or together to fully teach your AP® program.

Flinn*PREP*™ Lab Solutions: Comprehensive Courses Plus Inquiry Labs

These unique blended labs enable a flipped classroom model by offering a combination of lab videos and simulations in addition to the physical, inquiry-based labs themselves.

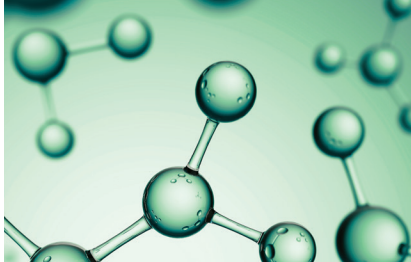
Advanced Inquiry Labs

These engaging inquiry lab activities are aligned to the latest AP® curriculum standards. They include comprehensive background information, step-by-step procedures, student worksheets, teacher notes and the basic materials needed for each experiment.

POGIL®

The College Board specifically calls out using POGIL® activities as one of the learning strategies for teaching AP® Courses. Flinn is proud to be the sole supplier of POGIL Activities for Chemistry and Biology, a collection of more than 60 process-oriented guided-inquiry learning activities.

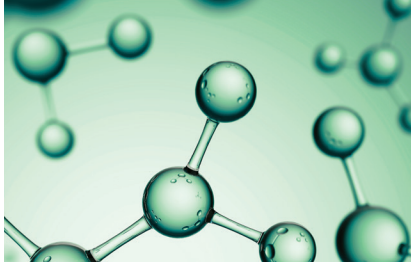
In addition to these product categories, we offer a wide assortment of AP®-focused lab manuals, books, hands-on kits, demonstration kits, one-period labs, classic labs, lab equipment and technology. We have everything you need to build a successful Advanced Placement® program for your school.



AP[®] Chemistry

COURSE ALIGNMENT GUIDE

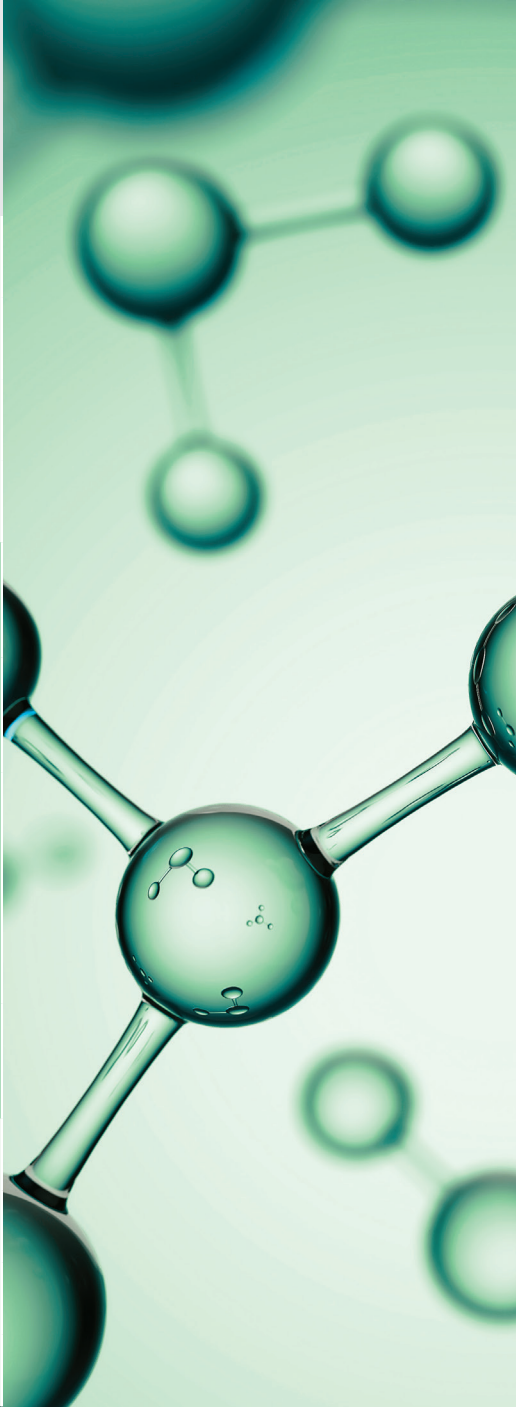
	<div><div>UNIT 1</div><div>Atomic Structure and Properties</div><div><div>~9–10</div><div>Class Periods</div><div>7–9%</div><div>AP Exam Weighting</div></div></div>	<div><div>UNIT 2</div><div>Molecular and Ionic Compound Structure and Properties</div><div><div>~12–13</div><div>Class Periods</div><div>7–9%</div><div>AP Exam Weighting</div></div></div>			<div><div>UNIT 3</div><div>Intermolecular Forces and Properties</div><div><div>~14–15</div><div>Class Periods</div><div>18–22%</div><div>AP Exam Weighting</div></div></div>	<div><div>UNIT 4</div><div>Chemical Reactions</div><div><div>~14–15</div><div>Class Periods</div><div>7–9%</div><div>AP Exam Weighting</div></div></div>	<div><div>UNIT 5</div><div>Kinetics</div><div><div>~13–14</div><div>Class Periods</div><div>7–9%</div><div>AP Exam Weighting</div></div></div>
<div><div>FlinnPREP[™] for AP[®] Chemistry</div><div>EL1000</div></div>	<div>FlinnPREP Unit 2: Atomic Structure and the Periodic Table</div> <div>FlinnPREP Unit 15: Photoelectron Spectroscopy and Mass Spectrometry</div>	<div>FlinnPREP Unit 4: Bonding Basics</div> <div>FlinnPREP Unit 5: Structure and Properties</div>			<div>FlinnPREP Unit 4: Bonding Basics</div> <div>FlinnPREP Unit 7: Gases</div> <div>FlinnPREP Unit 8: Solutions</div> <div>FlinnPREP Unit 15: Photoelectron Spectroscopy and Mass Spectrometry</div>	<div>FlinnPREP Unit 3: Chemical Reactions</div> <div>FlinnPREP Unit 6: Stoichiometry</div>	<div>FlinnPREP Unit 13: Kinetics</div>
<div><div>Inquiry Labs</div></div>	<div>Gravimetric Analysis of Calcium and Hard Water—Blended Lab AP7660</div> <div>Investigating the Reaction of Nickel with Ethylenediamine One-Period Lab AP9588</div> <div>Copper, Silver and Gold: Analysis of an Alloy One-Period Lab AP9715</div> <div>Activity Station Exploration of Metals One-Period Lab AP9716</div> <div>Analyzing Food Dyes in Beverages One-Period Lab AP8497</div>	<div>Qualitative Analysis and Chemical Bonding—Blended Lab AP7664</div> <div>Separation of a Dye Mixture Using Chromatography—Blended Lab AP7661</div> <div>Copper, Silver and Gold: Analysis of an Alloy AP9715</div> <div>Activity Station Exploration of Metals One-Period Lab AP9716</div> <div>Chemical Bonding: Vibrant Colors and Determining an Unknown AP8498</div>			<div>Qualitative Analysis and Chemical Bonding—Blended Lab AP7664</div> <div>Green Chemistry Analysis of a Mixture—Blended Lab AP7653</div> <div>Separation of a Dye Mixture Using Chromatography—Blended Lab AP7661</div> <div>Distribution of Acetic Acid in 1-Octanol One-Period Lab AP9587</div> <div>Candy Chromatography One-Period Lab AP9592</div> <div>Investigating Polarized Light with a Student-Built LCD One-Period Lab AP9665</div>	<div>Analysis of Hydrogen Peroxide AP7647—Blended Lab</div> <div>Separating a Synthetic Pain Relief Mixture—Blended Lab AP7662</div> <div>Green Chemistry Analysis of a Mixture—Blended Lab AP7653</div> <div>Acidity of Beverages—Blended Lab AP7645</div> <div>Solventless Aldol Condensation, Green Chemistry One-Period Lab AP9676</div> <div>Electrochemistry: Build Your Own Handheld Battery One-Period Lab AP8496</div> <div>Electrochemistry Target One-Period Lab AP9729</div>	<div>Kinetics of Crystal Violet Fading—Blended Lab AP7644</div> <div>Rate of Decomposition of Calcium Carbonate—Blended Lab AP7648</div> <div>Kinetics: Determine the Rate of a Reaction One-Period Lab AP9475</div>
<div><div>POGIL[®] Activities for AP[®] Chemistry</div><div>AP7925</div></div>	<div>Mass Spectroscopy</div> <div>Photoelectron Spectroscopy</div> <div>Advanced Periodic Trends</div>	<div>Types of Bonds</div> <div>Properties of Covalent Bonds</div> <div>Types of Solids</div> <div>Lattice Energy</div> <div>Alloys</div>			<div>Polar and Nonpolar Molecules</div>	<div>Net Ionic Equations</div> <div>Combustion Analysis</div>	<div>Rates of Reaction</div> <div>Method of Initial Rates</div>



AP[®] Chemistry

COURSE ALIGNMENT GUIDE

	<div>UNIT 6</div> <div>Thermodynamics</div> <div>~10–11 Class Periods7–9% AP Exam Weighting</div>	<div>UNIT 7</div> <div>Equilibrium</div> <div>~14–16 Class Periods7–9% AP Exam Weighting</div>		<div>UNIT 8</div> <div>Acids and Bases</div> <div>~14–15 Class Periods11–15% AP Exam Weighting</div>	<div>UNIT 9</div> <div>Chemical Reactions</div> <div>~10–13 Class Periods7–9% AP Exam Weighting</div>
<div>FlinnPREP™ for AP[®] Chemistry</div> <div>EL1000</div>	FlinnPREP Unit 11: Thermochemistry	FlinnPREP Unit 10: Aqueous Equilibrium FlinnPREP Unit 12: Equilibrium		FlinnPREP Unit 9: Acids and Bases FlinnPREP Unit 10: Aqueous Equilibrium	FlinnPREP Unit 11: Thermochemistry FlinnPREP Unit 14: Electrochemistry
<div>Inquiry Labs</div>	Designing a Handwarmer AP7654 Flameless Ration Heater One-Period Lab AP9707	Applications of LeChatelier’s Principle AP7659 Buffers in Household Products AP7665 Properties of Buffer Solutions AP7663		Acid-Base Titrations AP7656 Buffers in Household Products AP7665 Properties of Buffer Solutions AP7663 Acid-Base Titration Curves One-Period Lab AP8495 Buffer Target One-Period Lab AP9730	Designing a Handwarmer AP7654 Flameless Ration Heater One-Period Lab AP9707 Electrochemistry: Build Your Own Handheld Battery One-Period Lab AP8496 Electrochemistry Target One-Period Lab AP9729
<div>POGIL[®] Activities for AP[®] Chemistry</div> <div>AP7925</div>	Heats of Formation	Reaction Quotient Common Ion Effect and Solubility Common Ion Effect on Acid Ionization		Buffers Strength of Acids Titration Curves Polyprotic Acids	Electrochemical Cell Voltage Faraday’s Law



Information from <https://apcentral.collegeboard.org/pdf/ap-chemistry-course-a-glance.pdf>



AP[®] Biology

COURSE ALIGNMENT GUIDE

	<div>UNIT 1</div> <div>Chemistry of Life</div> <div>~5–7Class Periods8–11%AP Exam Weighting</div>	<div>UNIT 2</div> <div>Cell Structure and Function</div> <div>~11–13Class Periods10–13%AP Exam Weighting</div>		<div>UNIT 3</div> <div>Cellular Energetics</div> <div>~14–17Class Periods12–16%AP Exam Weighting</div>	<div>UNIT 4</div> <div>Cell Communication and Cell Cycle</div> <div>~9–11Class Periods10–15%AP Exam Weighting</div>	<div>UNIT 5</div> <div>Heredity</div> <div>~9–11Class Periods8–11%AP Exam Weighting</div>
<div>FlinnPREP™ for AP[®] Biology</div> <div>EL7019</div>	<div>FlinnPREP Unit 1: Fundamental Biology Skills and Knowledge</div> <div>FlinnPREP Unit 11: Biochemistry</div>	<div>FlinnPREP Unit 2: Cells: Structure and Function</div>		<div>FlinnPREP Unit 11: Biochemistry</div> <div>FlinnPREP Unit 12: Energy and Metabolism</div>	<div>FlinnPREP Unit 3: The Cell Cycle</div> <div>FlinnPREP Unit 13: Organismal Regulation</div> <div>FlinnPREP Unit 14: Gene Regulation and Cell Communication</div>	<div>FlinnPREP Unit 4: Meiosis: Heredity and Variation</div> <div>FlinnPREP Unit 5: Mendelian and Molecular Genetics</div>
<div>Inquiry Labs</div>		<div>Water Potential—Blended Lab FB2032</div> <div>Diffusion and Osmosis—Blended Lab FB2030</div>		<div>Photosynthesis and Leaf Disks—Blended Lab FB2034</div> <div>Cellular Respiration—Blended Lab FB2045</div> <div>Peroxidase Enzyme Activity—Blended Lab FB2039</div> <div>Understanding Evolutionary Relationships—Blended Lab FB2041</div>	<div>Environmental Effects on Mitosis—Blended Lab FB2031</div> <div>Cancer and the Loss of Cell Cycle Control—Blended Lab FB2033</div>	<div>Sordaria Genetics—Blended Lab FB2001</div> <div>Restriction Enzyme Analysis of DNA FB2043</div>
<div>POGIL[®] Activities for AP[®] Biology</div> <div>FB2047</div>	<div>Biochemistry Basics</div> <div>Free Energy</div> <div>Protein Structure</div>	<div>Membrane Structure</div> <div>ATP-The Free Energy Carrier</div> <div>Cellular Respiration-An Overview</div> <div>Oxidative Phosphorylation</div> <div>Photosynthesis</div>		<div>Cellular Communication</div> <div>Signal Transduction Pathways</div> <div>Cell Cycle Regulation</div>	<div>The Statistics of Inheritance</div> <div>Chi-Square</div>	<div>Gene Expression-Transcription</div> <div>Gene Expression-Translation</div> <div>Genetic Mutation</div> <div>Control of Gene Expression in Prokaryotes</div>



AP[®] Biology

COURSE ALIGNMENT GUIDE

	<div>UNIT 6</div> <div>Gene Expression and Regulation</div> <div>~18–21Class Periods12–16%AP Exam Weighting</div>	<div>UNIT 7</div> <div>Natural Selection</div> <div>~20–23Class Periods13–20%AP Exam Weighting</div>		<div>UNIT 8</div> <div>Ecology</div> <div>~18–21Class Periods10–15%AP Exam Weighting</div>
<div>FlinnPREP™ for AP[®] Biology</div> <div>EL7019</div>	<div>FlinnPREP Unit 1: Fundamental Biology Skills and Knowledge</div> <div>FlinnPREP Unit 11: Biochemistry</div>	<div>FlinnPREP Unit 2: Cells: Structure and Function</div>		<div>FlinnPREP Unit 11: Biochemistry</div> <div>FlinnPREP Unit 12: Energy and Metabolism</div>
<div>Inquiry Labs</div>	<div>Bacterial Transformation FB2042</div>	<div>Artificial Selection—Blended Lab FB2036</div>		<div>Fruit Fly Behavior—Blended Lab FB2037</div> <div>Rate of Transpiration—Blended Lab FB2038</div>
<div>POGIL[®] Activities for AP[®] Biology</div> <div>FB2047</div>	<div>Gene Expression—Transcription</div> <div>Gene Expression—Transcription</div> <div>Genetic Mutations</div> <div>Control of Gene Expression in Prokaryotes</div>	<div>Selection and Speciation</div> <div>Phylogenetic Trees</div> <div>The Hardy-Weinberg Equation</div> <div>Mass Extinctions</div>		<div>Global Climate Change</div> <div>Eutrophication</div>



Information from <https://apcentral.collegeboard.org/pdf/ap-biology-course-a-glance.pdf>



AP[®] Environmental Science

COURSE
ALIGNMENT GUIDE

	<div><div>UNIT 1</div><div>The Living World: Ecosystems</div></div> <div><div>~14–15</div><div>Class Periods</div><div>6–8%</div><div>AP Exam Weighting</div></div>	<div><div>UNIT 2</div><div>The Living World: Biodiversity</div></div> <div><div>~11–12</div><div>Class Periods</div><div>6–8%</div><div>AP Exam Weighting</div></div>		<div><div>UNIT 3</div><div>Populations</div></div> <div><div>~12–13</div><div>Class Periods</div><div>10–15%</div><div>AP Exam Weighting</div></div>	<div><div>UNIT 4</div><div>Earth Systems and Resources</div></div> <div><div>~11–12</div><div>Class Periods</div><div>10–15%</div><div>AP Exam Weighting</div></div>	<div><div>UNIT 5</div><div>Land and Water Use</div></div> <div><div>~18–19</div><div>Class Periods</div><div>10–15%</div><div>AP Exam Weighting</div></div>
<div>FlinnPREP[™] for AP[®] Environmental Science</div> <div>EL4000</div>	FlinnPREP Unit 3: Fundamentals of Ecology	FlinnPREP Unit 5: Biodiversity Loss		FlinnPREP Unit 4: Population Dynamics	FlinnPREP Unit 1: Planet Earth FlinnPREP Unit 2: Earth’s Surface FlinnPREP Unit 6: Land Use	FlinnPREP Unit 6: Land Use FlinnPREP Unit 7: Conservation and Sustainability
Inquiry Labs	Discover Life in the Soil FB1991	Stream Macroinvertebrate Sampling Simulation AP7401		Duckweed Population Study FB1433	Mapping Earthquakes and Volcanoes AP6881 Physical and Chemical Properties of Soil AP7184 Common Uses of Rocks and Minerals AP7052	Exploring Groundwater AP7357

	<div><div>UNIT 6</div><div>Energy Resources and Consumption</div></div> <div><div>~16–17</div><div>Class Periods</div><div>10–15%</div><div>AP Exam Weighting</div></div>	<div><div>UNIT 7</div><div>Atmospheric Pollution</div></div> <div><div>~11–12</div><div>Class Periods</div><div>7–10%</div><div>AP Exam Weighting</div></div>		<div><div>UNIT 8</div><div>Aquatic and Terrestrial Pollution</div></div> <div><div>~19–20</div><div>Class Periods</div><div>7–10%</div><div>AP Exam Weighting</div></div>	<div><div>UNIT 9</div><div>Global Change</div></div> <div><div>~19–20</div><div>Class Periods</div><div>15–20%</div><div>AP Exam Weighting</div></div>	
<div>FlinnPREP[™] for AP[®] Environmental Science</div> <div>EL4000</div>	FlinnPREP Unit 8: Energy Concepts and Consumption FlinnPREP Unit 9: Nonrenewable and Renewable Energy	FlinnPREP Unit 10: Types of Pollution FlinnPREP Unit 11: Impacts of Pollution		FlinnPREP Unit 10: Types of Pollution FlinnPREP Unit 11: Impacts of Pollution	FlinnPREP Unit 12: Climate Change	
Inquiry Labs	Wind Energy AP7512 Build a Solar Cell AP6916	Environmental Pollution and Lichens AP6461		Landfill Decomposition FB0425 Environmental Pollution AB1133	Specific Heat and Climate FB1883 Greenhouse Effect and Global Warming AP7324	

Information from <https://apcentral.collegeboard.org/pdf/ap-environmental-science-course-a-glance.pdf?course=ap-physics-2-algebra-based>



AP[®] Physics 1

COURSE ALIGNMENT GUIDE

	<div>UNIT 1</div> <div>Kinematics</div> <div>~16–19Class Periods10–16%AP Exam Weighting</div>	<div>UNIT 2</div> <div>Dynamics</div> <div>~19–22Class Periods12–18%AP Exam Weighting</div>			<div>UNIT 3</div> <div>Circular Motion and Gravitation</div> <div>~7–9Class Periods4–6%AP Exam Weighting</div>	<div>UNIT 4</div> <div>Energy</div> <div>~19–22Class Periods16–24%AP Exam Weighting</div>	<div>UNIT 5</div> <div>Momentum</div> <div>~12–15Class Periods10–16%AP Exam Weighting</div>
<div>FlinnPREP™ for AP[®] Physics 1</div> <div>EL3000</div>	FlinnPREP Unit 1: Kinematics	FlinnPREP Unit 2: Dynamics			FlinnPREP Unit 3: Circular Motion	FlinnPREP Unit 4: Energy	FlinnPREP Unit 5: Momentum
<div>Inquiry Labs</div>	<div>Measuring g: Exploring Free-Fall AP7722</div> <div>Graphing Motion AP7723</div>	<div>Newton’s Second Law AP7724</div> <div>Coefficient of Friction AP7725</div>			<div>Uniform Circular Motion AP7726</div>	<div>Conservation of Energy on an Inclined Plane AP7727</div> <div>Conservation of Elastic Potential Energy AP7728</div>	<div>Conservation of Linear Momentum AP7729</div>

	<div>UNIT 6</div> <div>Simple Harmonic Motion</div> <div>~2–5Class Periods2–4%AP Exam Weighting</div>	<div>UNIT 7</div> <div>Torque and Rotational Motion</div> <div>~12–17Class Periods10–16%AP Exam Weighting</div>			<div>UNIT 8</div> <div>Electric Charge and Electric Force</div> <div>~3–5Class Periods4–6%AP Exam Weighting</div>	<div>UNIT 9</div> <div>DC Circuits</div> <div>~9–12Class Periods6–8%AP Exam Weighting</div>	<div>UNIT 10</div> <div>Mechanical Waves and Sound</div> <div>~11–14Class Periods12–16%AP Exam Weighting</div>
<div>FlinnPREP™ for AP[®] Physics 1</div> <div>EL3000</div>	FlinnPREP Unit 7: Simple Harmonic Motion	FlinnPREP Unit 6: Torque and Rotational Motion			FlinnPREP Unit 9: Electrostatics	FlinnPREP Unit 10: DC Circuits	FlinnPREP Unit 8: Mechanical Waves and Sound
<div>Inquiry Labs</div>	<div>Hooke’s Law and Simple Harmonic Motion for Elastic Materials AP7730</div> <div>Simple Pendulums AP7731</div>	<div>Rotational Motion and Angular Momentum AP7732</div> <div>Torque AP7733</div>				<div>Electrical Circuits AP7736</div> <div>Resistance and Resistivity AP7737</div>	<div>Mechanical waves AP7734</div> <div>Speed of Sound AP7735</div>

Information from <https://apcentral.collegeboard.org/pdf/ap-physics-1-course-a-glance.pdf?course=ap-physics-2-algebra-based>



AP[®] Physics 2

COURSE ALIGNMENT GUIDE

	<div>UNIT 1</div> <div>Fluids</div> <div>~14–17 Class Periods10–12% AP Exam Weighting</div>	<div>UNIT 2</div> <div>Thermodynamics</div> <div>~15–20 Class Periods12–18% AP Exam Weighting</div>			<div>UNIT 3</div> <div>Electric Force, Field, and Potential</div> <div>~23–25 Class Periods18–22% AP Exam Weighting</div>	<div>UNIT 4</div> <div>Electric Circuits</div> <div>~14–16 Class Periods10–14% AP Exam Weighting</div>	<div>UNIT 5</div> <div>Magnetism and Electromagnetic Induction</div> <div>~13–15 Class Periods10–12% AP Exam Weighting</div>
Inquiry Labs	Archimedes’ Principle and Buoyancy AP7995 Fluid Dynamics AP7996	Thermal Conductivity AP7999 Boyle’s Law AP7997			Investigating Electric Charge AP8000 Electric Field Mapping AP8001	Capacitance and RC Circuits AP8002 Kirchoff’s Rules AP8003	A Magnetism Investigation AP8004 Electromagnetic Induction AP8005

	<div>UNIT 6</div> <div>Geometric and Physical Optics</div> <div>~15–18 Class Periods12–14% AP Exam Weighting</div>	<div>UNIT 7</div> <div>Quantum, Atomic, and Nuclear Physics</div> <div>~13–15 Class Periods10–12% AP Exam Weighting</div>	
Inquiry Labs	Reflection and Mirrors AP8006 Refraction and Lenses AP8007 Diffraction AP8008	The Photoelectric Effect AP8010 Modern Topics AP8009	



Information from <https://apcentral.collegeboard.org/pdf/ap-physics-2-course-a-glance.pdf?course=ap-physics-2-algebra-based>