



**ARIZONA**  
**Science Standards – High School**  
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OBJECTIVES	PAGE REFERENCES
<b>Strand 1: Inquiry Process</b>	
<b>Concept 1: Observations, Questions, and Hypotheses</b> Formulate predictions, questions, or hypotheses based on observations. Evaluate appropriate resources.	
PO 1. Evaluate scientific information for relevance to a given problem. (See R09-S3C1, R10-S3C1, R11-S3C1, R12-S3C1)	SE: <i>Use the Internet Lab</i> 278-279, 526-527, 652-653 <i>Integrate Career</i> 576 TWE: ACT 45, 461, 578, 634 SJ 589
PO 2. Develop questions from observations that transition into testable hypotheses.	SE: 8 <i>Design Your Own Lab</i> 58-59, 344-345 <i>Use the Internet Lab</i> 374-375 TWE: AIL 466, 652 A 42, 497 IL 12, 673
PO 3. Formulate a testable hypothesis.	SE: 8 <i>Design Your Own Lab</i> 58-59, 116-117, 214-215, 246-247 TWE: ACT 9, 18 A 330, 497 AIL 214
PO 4. Predict the outcome of an investigation based on prior evidence, probability, and/or modeling (not guessing or inferring).	SE: <i>Design Your Own Lab</i> 214-215, 716-717 <i>Lab</i> 106, 338 <i>MiniLab</i> 453 TWE: A 103, 125, 302, 405 AIL 466
<b>Concept 2: Scientific Testing (Investigating and Modeling)</b> Design and conduct controlled investigations.	
PO 1. Demonstrate safe and ethical procedures (e.g., use and care of technology, materials, organisms) and behavior in all science inquiry.	SE: <i>Design Your Own Lab</i> 214-215, 246-247, 406-407, 716-717 <i>Lab</i> 438-439, 622-623, 686-687, 748-749 TWE: DI 403 AIL 28
PO 2. Identify the resources needed to conduct an investigation.	SE: <i>Design Your Own Lab</i> 28-29, 58-59, 116-117, 214-215, 716-717 <i>Lab</i> 466-467 TWE: IL 543 AIL 778

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<p>PO 3. Design an appropriate protocol (written plan of action) for testing a hypothesis: Identify dependent and independent variables in a controlled investigation. Determine an appropriate method for data collection (e.g., using balances, thermometers, microscopes, spectrophotometer, using qualitative changes). Determine an appropriate method for recording data (e.g., notes, sketches, photographs, videos, journals (logs), charts, computers/calculators).</p>	<p>SE: 7-10 <i>Design Your Own Lab</i> 58-59, 116-117, 214-215, 246-247, 344-345 TWE: A 13 R 13 AIL 778 IL 80</p>
<p>PO 4. Conduct a scientific investigation that is based on a research design.</p>	<p>SE: <i>Design Your Own Lab</i> 58-59, 214-215, 246-247, 344-345, 716-717 <i>Lab</i> 622-623 TWE: IL 80, 710 A 13 AIL 246</p>
<p>PO 5. Record observations, notes, sketches, questions, and ideas using tools such as journals, charts, graphs, and computers.</p>	<p>SE: 22-26 <i>Design Your Own Lab</i> 58-59, 214-215, 344-345 <i>Communicating Your Data</i> 653 TWE: CYD 439, 527 SJ 24 CU 26 A 345</p>
<p><b>Concept 3: Analysis, Conclusions, and Refinements</b> Evaluate experimental design, analyze data to explain results and to propose further investigations. Design models.</p>	
<p>PO 1. Interpret data that show a variety of possible relationships between variables, including: positive relationship negative relationship no relationship</p>	<p>SE: <i>Design Your Own Lab</i> 58-59, 246-247 <i>Lab</i> 338, 686-687, 778-779 <i>Use the Internet Lab</i> 374-375 TWE: CYD 313 A 706 ACT 492 MM 141</p>
<p>PO 2. Evaluate whether investigational data support or do not support the proposed hypothesis.</p>	<p>SE: <i>Design Your Own Lab</i> 58-59, 116-117, 214-215, 246-247, 406-407, 592-593, 716-717 <i>Lab</i> 466-467, 622-623 TWE: A 527</p>
<p>PO 3. Critique reports of scientific studies (e.g., published papers, student reports).</p>	<p>SE: <i>Communicating Your Data</i> 91, 467, 497, 687, 717 TWE: CYD 171, 181, 457, 484</p>
<p>PO 4. Evaluate the design of an investigation to identify possible sources of procedural error, including: sample size trials controls analyses</p>	<p>SE: <i>Communicating Your Data</i> 29, 59, 680 <i>Chapter Review</i> 33 #22 TWE: AIL 748 EA 59, 91, 215 A 5 D 23</p>

OBJECTIVES	PAGE REFERENCES
PO 5. Design models (conceptual or physical) of the following to represent "real world" scenarios: carbon cycle water cycle phase change collisions	Students design and build models: SE: <i>Model and Invent Lab</i> 148-149, 558-559 <i>Lab</i> 438-439 <i>MiniLab</i> 729, 765 <i>Design Your Own Lab</i> 592-593 TWE: MM 141, 266, 401 R 483
PO 6. Use descriptive statistics to analyze data, including: mean frequency range (See MHS-S2C1-10)	SE: <i>Math Skill Handbook</i> 823 <i>Lab</i> 180-181, 312-313 <i>Section Review</i> 13 #4 TWE: USW 10 DI 10 R 46 QD 41 CYD 717
PO 7. Propose further investigations based on the findings of a conducted investigation.	SE: <i>Communicating Your Data</i> 749 TWE: AIL 246, 466, 686, 716, 748, 778
<b>Concept 4: Communication</b> Communicate results of investigations.	
PO 1. For a specific investigation, choose an appropriate method for communicating the results. (See W09-S3C2-01 and W10-S3C2-01)	SE: <i>Communicating Your Data</i> 405, 779 <i>Science Online</i> 479 TWE: DI 45, 669 CYD 89, 106, 117, 527 AIL 180
PO 2. Produce graphs that communicate data. (See MHS-S2C1-02)	SE: 22-26 <i>Design Your Own Lab</i> 58-59 <i>Lab</i> 496-497, 680, 778-779 TWE: VL 468 DI 257 CU 26 LD 50 MM 300
PO 3. Communicate results clearly and logically.	SE: <i>Lab</i> 180-181, 496-497 <i>Communicating Your Data</i> 405, 623 TWE: A 168, 198, 345, 698 CYD 147, 277
PO 4. Support conclusions with logical scientific arguments.	SE: <i>Design Your Own Lab</i> 116-117 <i>Science Online</i> 7, 275 <i>MiniLab</i> 19 <i>Science and History</i> 118 <i>Launch Lab</i> 255 <i>Use the Internet Lab</i> 278-279 TWE: CU 137 SJ 196 A 484

OBJECTIVES	PAGE REFERENCES
<b>Strand 2: History and Nature of Science</b>	
<b>Concept 1: History of Science as a Human Endeavor</b>	
Identify individual, cultural, and technological contributions to scientific knowledge.	
PO 1. Describe how human curiosity and needs have influenced science, impacting the quality of life worldwide.	SE: <i>Science and Society</i> 150, 440, 780 <i>Science and History</i> 314 <i>National Geographic</i> 287, 567 <i>Oops! Accidents in Science</i> 624, 654 TWE: IL 774 SJ 398
PO 2. Describe how diverse people and/or cultures, past and present, have made important contributions to scientific innovations.	SE: 516-517, 633-634 <i>Integrate History</i> 540 <i>Science and History</i> 92, 376, 560 <i>National Geographic</i> 510 TWE: CD 210, 643 CC 134
PO 3. Analyze how specific changes in science have affected society.	SE: <i>Science and Society</i> 440, 780 <i>Science and History</i> 248, 314 <i>Science Online</i> 371 <i>Integrate History</i> 429 TWE: SJ 176 HS 248, 560 CD 259
PO 4. Analyze how specific cultural and/or societal issues promote or hinder scientific advancements.	SE: <i>Science and Society</i> 280 <i>Science and History</i> 314 TWE: CB 150, 280 D 376 VL 509 CD 273
<b>Concept 2: Nature of Scientific Knowledge</b>	
Understand how science is a process for generating knowledge.	
PO 1. Specify the requirements of a valid, scientific explanation (theory), including that it be: logical subject to peer review public respectful of rules of evidence	SE: 12 <i>Chapter Study Guide</i> 31 TWE: SJ 11
PO 2. Explain the process by which accepted ideas are challenged or extended by scientific innovation.	SE: 7-12, 509-511, 516-517 <i>Science and History</i> 560 TWE: ACT 9, 510 IL 12 USW 114 DI 727 CU 511
PO 3. Distinguish between pure and applied science.	SE: 13, 544-545, 591, 678-679, 698-699, 744-745 <i>Use the Internet Lab</i> 374-375 TWE: D 590 QD 589 VL 586

OBJECTIVES	PAGE REFERENCES
PO 4. Describe how scientists continue to investigate and critically analyze aspects of theories.	SE: 12, 507-509, 523, 586 <i>Standardized Test Practice 35 #9</i> <i>Science Online 591</i> TWE: D 507 QD 508 UA 508 SJ 523
<b>Strand 3: Science in Personal and Social Perspectives</b>	
<b>Concept 1: Changes in Environments</b>	
Describe the interactions between human populations, natural hazards, and the environment.	
PO 1. Evaluate how the processes of natural ecosystems affect, and are affected by, humans.	SE: 364 <i>Integrate History 713</i> <i>Science and History 528</i> <i>Science and Society 718</i> TWE: CC 364 INV 718
PO 2. Describe the environmental effects of the following natural and/or human-caused hazards: <ul style="list-style-type: none"> <li>• flooding</li> <li>• drought</li> <li>• earthquakes</li> <li>• fires</li> <li>• pollution</li> <li>• extreme weather</li> </ul>	SE: 364 <i>Integrate History 713</i> <i>Integrate Social Studies 299</i> <i>Integrate Earth Science 295</i> <i>National Geographic 197</i> <i>Science and Society 718</i> <i>Chapter Review 317 #25</i> TWE: INV 718 CC 364 ACT 262
PO 3. Assess how human activities (e.g., clear cutting, water management, tree thinning) can affect the potential for hazards.	SE: 364 <i>Use the Internet Lab 652-653</i> <i>Science and Society 280, 718</i> <i>Integrate History 713</i> TWE: A 653 INV 718 ACT 262 CC 364
PO 4. Evaluate the following factors that affect the quality of the environment: <ul style="list-style-type: none"> <li>• urban development</li> <li>• smoke</li> <li>• volcanic dust</li> </ul>	SE: <i>Design Your Own Lab 344-345</i> TWE: AIL 344, 652 CC 167 ACT 262
PO 5. Evaluate the effectiveness of conservation practices and preservation techniques on environmental quality and biodiversity.	SE: <i>Design Your Own Lab 344-345</i> <i>Integrate Environment 772</i> <i>MiniLab 272</i> <i>Science and Society 718</i> TWE: ACT 268

OBJECTIVES	PAGE REFERENCES
<b>Concept 2: Science and Technology in Society</b> Develop viable solutions to a need or problem.	
PO 1. Analyze the costs, benefits, and risks of various ways of dealing with the following needs or problems: <ul style="list-style-type: none"> <li>• various forms of alternative energy</li> <li>• storage of nuclear waste</li> <li>• abandoned mines</li> <li>• greenhouse gases</li> <li>• hazardous wastes</li> </ul>	SE: 267-269, 271-276 <i>Lab 277</i> <i>Applying Science 269</i> <i>Science and Society 280</i> <i>Use the Internet Lab 652-653</i> TWE: IL 174 ACT 268 CU 276 AIL 278
PO 2. Recognize the importance of basing arguments on a thorough understanding of the core concepts and principles of science and technology.	SE: 10 <i>Science and History 118</i> <i>Integrate History 713</i> <i>Applying Science 766</i> TWE: D 580 SJ 362 A 277 AIL 496
PO 3. Support a position on a science or technology issue.	SE: <i>Science and Society 280</i> <i>Science Online 113, 434</i> <i>Use the Internet Lab 278-279</i> TWE: A 399, 535 ACT 268 D 176 SJ 552
PO 4. Analyze the use of renewable and nonrenewable resources in Arizona: <ul style="list-style-type: none"> <li>• water</li> <li>• land</li> <li>• soil</li> <li>• minerals</li> <li>• air</li> </ul>	The use of renewable and nonrenewable resources is discussed on the following pages. SE: 256-263, 271-276, 577 <i>Use the Internet Lab 278-279</i> <i>Science and Society 280</i> TWE: R 263, 276 D 257 ACT 258 INV 280
PO 5. Evaluate methods used to manage natural resources (e.g., reintroduction of wildlife, fire ecology).	SE: <i>Integrate Career 576</i> <i>Use the Internet Lab 278-279</i> <i>Applying Science 269</i> TWE: IL 260
<b>Concept 3: Human Population Characteristics</b> Analyze factors that affect human populations.	
PO 1. Analyze social factors that limit the growth of a human population, including: affluence education access to health care cultural influences	See Glencoe's <i>Biology: The Dynamics of Life</i> © 2004 SE: 100-103

OBJECTIVES	PAGE REFERENCES
PO 2. Describe biotic (living) and abiotic (nonliving) factors that affect human populations.	SE: <i>Science and History</i> 528 Also see Glencoe's <i>Biology: The Dynamics of Life</i> © 2004 Point out to students that humans are affected by abiotic factors. SE: 37-38, 52-55, 56-57, 65-66, 91-93, 96-99, 100-103
PO 3. Predict the effect of a change in a specific factor on a human population.	See Glencoe's <i>Biology: The Dynamics of Life</i> © 2004 SE: <i>Section Assessment</i> 103 #5
<b>Strand 5: Physical Science</b>	
<b>Concept 1: Structure and Properties of Matter</b>	
Understand physical, chemical, and atomic properties of matter.	
PO 1. Describe substances based on their physical properties.	SE: 458-459 <i>Design Your Own Lab</i> 592-593 <i>Lab</i> 583, 680 <i>MiniLab</i> 169, 486 <i>Standardized Test Practice</i> 473 #8, #12, & #20 TWE: A 465 ACT 461
PO 2. Describe substances based on their chemical properties.	SE: 461, 696-701 <i>Lab</i> 466-467, 706 <i>Design Your Own Lab</i> 716-717 <i>Standardized Test Practice</i> 473 #12 TWE: ACT 461 R 701 CU 701
PO 3. Predict properties of elements and compounds using trends of the periodic table (e.g., metals, non-metals, bonding – ionic/covalent).	SE: 520-523 <i>Lab</i> 583, 607 <i>Chapter Review</i> 531 #25 TWE: A 582 R 524 IL 523 TPK 584 CU 606 ACT 611
PO 4. Separate mixtures of substances based on their physical properties.	SE: 459-461, 463 <i>MiniLab</i> 453 <i>Launch Lab</i> 449 <i>Standardized Test Practice</i> 473 #14 TWE: DI 459 LD 460 QD 737
PO 5. Describe the properties of electric charge and the conservation of electric charge.	SE: 192-194 <i>MiniLab</i> 198 TWE: ACT 193 SJ 193 CU 199

OBJECTIVES	PAGE REFERENCES
PO 6. Describe the following features and components of the atom: protons neutrons electrons mass number and type of particles structure organization	SE: 507, 511-513 <i>MiniLab 509</i> <i>Section Review 515 #1 &amp; #4</i> TWE: DI 507 R 511 D 513 QD 513
PO 7. Describe the historical development of models of the atom.	SE: 509-511 <i>Standardized Test Practice 533 #18 &amp; #19</i> TWE: CU 511, 515 ACT 510
PO 8. Explain the details of atomic structure (e.g., electron configuration, energy levels, isotopes).	SE: 507-508, 514-515, 520-521 <i>Science Online 521</i> <i>Lab 607</i> TWE: A 511, 515 VL 514 DI 520 IL 611
<b>Concept 2: Motions and Forces</b> Analyze relationships between forces and motion.	
PO 1. Determine the rate of change of a quantity (e.g., rate of erosion, rate of reaction, rate of growth, velocity).	SE: 47-50, 668-670 <i>Lab 180-181, 651</i> <i>MiniLab 668</i> TWE: ACT 40
PO 2. Analyze the relationships among position, velocity, acceleration, and time: graphically mathematically	SE: 38-44, 47-50 <i>MiniLab 42</i> TWE: SJ 41 QD 41 D 44 A 46 VL 50 LD 50
PO 3. Explain how Newton's 1 <sup>st</sup> Law applies to objects at rest or moving at constant velocity.	SE: 54-55 <i>MiniLab 54</i> <i>Section Review 56 #2 &amp; #3</i> <i>National Geographic 85</i>
PO 4. Using Newton's 2 <sup>nd</sup> Law of Motion, analyze the relationships among the net force acting on a body, the mass of the body, and the resulting acceleration: graphically mathematically	SE: 68-70 <i>Lab 57</i> <i>Section Review 74 #2 &amp; #7</i> TWE: QD 69
PO 5. Use Newton's 3 <sup>rd</sup> Law to explain forces as interactions between bodies (e.g., a table pushing up on a vase that is pushing down on it; an athlete pushing on a basketball as the ball pushes back on her).	SE: 83-84 <i>National Geographic 85</i> TWE: QD 84 SJ 84 R 88

OBJECTIVES	PAGE REFERENCES
PO 6. Analyze the two-dimensional motion of objects by using vectors and their components.	SE: 44 TWE: D 44 ACT 44 SJ 44
PO 7. Give an example that shows the independence of the horizontal and vertical components of projectile motion.	SE: 79-80 TWE: CU 82 IL 80 DI 80
PO 8. Analyze the general relationships among force, acceleration, and motion for an object undergoing uniform circular motion.	SE: 81-82 <i>MiniLab</i> 81 TWE: ACT 44 A 81 DI 81
PO 9. Represent the force conditions required to maintain static equilibrium.	SE: 53 TWE: MM 54
PO 10. Describe the nature and magnitude of frictional forces.	SE: 70-72 <i>MiniLab</i> 71 <i>Section Review</i> 74 #5 & #8 TWE: DI 71, 72 LD 70 R 74 A 74
PO 11. Using the Law of Universal Gravitation, predict how the gravitational force will change when the distance between two masses changes or the mass of one of them changes.	SE: 76 <i>Science Online</i> 76 <i>Section Review</i> 82 #1 TWE: SJ 76
PO 12. Using Coulomb's Law, predict how the electrical force will change when the distance between two point charges changes or the charge of one of them changes.	SE: 193-194 <i>MiniLab</i> 198 TWE: ACT 193
PO 13. Analyze the impulse required to produce a change in momentum.	SE: 86-87 <i>Lab</i> 90-91 TWE: D 86 AIL 90
PO 14. Quantify interactions between objects to show that the total momentum is conserved in both collision and recoil situations.	SE: 87-88 <i>Chapter Review</i> 95 #26 TWE: D 87 VL 87 A 88
<b>Concept 3: Conservation of Energy and Increase in Disorder</b> Understand ways that energy is conserved, stored, and transferred.	
PO 1. Describe the following ways in which energy is stored in a system: mechanical electrical chemical nuclear	SE: 103-105, 115 <i>Lab</i> 106 TWE: D 101 QD 104 DI 212

OBJECTIVES	PAGE REFERENCES
PO 2. Describe various ways in which energy is transferred from one system to another (e.g., mechanical contact, thermal conduction, electromagnetic radiation).	SE: 164-167 <i>MiniLab</i> 168, 169 <i>Lab</i> 171, 180-181 TWE: LD 165 CU 170 A 170 AIL 180
PO 3. Recognize that energy is conserved in a closed system.	SE: 111-114, 135 <i>Design Your Own Lab</i> 116-117 TWE: LD 110
PO 4. Calculate quantitative relationships associated with the conservation of energy.	SE: <i>Section Review</i> 115 #5 & #6 <i>Chapter Review</i> 121 #25 TWE: IL 113 AIL 116
PO 5. Analyze the relationship between energy transfer and disorder in the universe (2 <sup>nd</sup> Law of Thermodynamics).	SE: 175 <i>Science and History</i> 118 TWE: DI 177 D 118
PO 6. Distinguish between heat and temperature.	SE: 158-160 <i>Chapter Study Guide</i> 183
PO 7. Explain how molecular motion is related to temperature and phase changes.	SE: 158-159, 164-165, 494 <i>Launch Lab</i> 157 <i>Lab</i> 171
<b>Concept 4: Chemical Reactions</b> Investigate relationships between reactants and products in chemical reactions.	
PO 1. Apply the law of conservation of matter to changes in a system.	SE: 465, 632-633 <i>Applying Math</i> 463 <i>Section Review</i> 637 #6 <i>Chapter Review</i> 657 #24 TWE: R 465 IM 448F QD 633 D 635
PO 2. Identify the indicators of chemical change, including formation of a precipitate, evolution of a gas, color change, absorption or release of heat energy.	SE: 462, 646-649 <i>Lab</i> 466-467 <i>MiniLab</i> 460, 648 TWE: QD 459, 464 SJ 462 ACT 649 CYD 467
PO 3. Represent a chemical reaction by using a balanced equation.	SE: 635, 638-640 <i>Science Online</i> 639 <i>Applying Math</i> 644 <i>Chapter Review</i> 657 #23 TWE: A 637, 645 CU 637, 640 R 640

OBJECTIVES	PAGE REFERENCES
PO 4. Distinguish among the types of bonds (i.e., ionic, covalent, metallic, hydrogen bonding).	SE: 571, 610-611 <i>Lab</i> 622-623 <i>Section Review</i> 614 #2 & #4 TWE: ACT 611 R 614 A 614 VL 571
PO 5. Describe the mole concept and its relationship to Avogadro's number.	See Glencoe's <i>Chemistry: Matter &amp; Change</i> © 2005 SE: 309-312
PO 6. Solve problems involving such quantities as moles, mass, molecules, volume of a gas, and molarity using the mole concept and Avogadro's number.	See Glencoe's <i>Chemistry: Matter &amp; Change</i> © 2005 SE: 309-327, 430-433
PO 7. Predict the properties (e.g., melting point, boiling point, conductivity) of substances based upon bond type.	SE: 610-614 <i>MiniLab</i> 612 TWE: A 612 QD 610
PO 8. Quantify the relationships between reactants and products in chemical reactions (e.g., stoichiometry, equilibrium, energy transfers).	SE: 636, 638-640 <i>MiniLab</i> 636 <i>Section Review</i> 637 #6 TWE: R 637, 640 A 637 CC 203
PO 9. Predict the products of a chemical reaction using types of reactions (e.g., synthesis, decomposition, replacement, combustion).	SE: 641-643 <i>Chapter Review</i> 657 #27 <i>Use the Internet Lab</i> 652-653 TWE: ACT 642 QD 642 D 644
PO 10. Explain the energy transfers within chemical reactions using the law of conservation of energy.	SE: 114-115, 646-649 <i>Integrate Environment</i> 111 TWE: LD 648 R 650 ACT 649 VL 103
PO 11. Predict the effect of various factors (e.g., temperature, concentration, pressure, catalyst) on the equilibrium state and on the rates of chemical reaction.	SE: 650 <i>Lab</i> 651
PO 12. Compare the nature, behavior, concentration, and strengths of acids and bases.	SE: 696-705 <i>Lab</i> 706 <i>Design Your Own Lab</i> 716-717 TWE: D 700 CU 701 ACT 704 R 705
PO 13. Determine the transfer of electrons in oxidation/reduction reactions.	SE: 645 <i>Chapter Review</i> 657 #21 TWE: MM 644

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<b>Concept 5: Interactions of Energy and Matter</b> Understand the interactions of energy and matter.	
PO 1. Describe various ways in which matter and energy interact (e.g., photosynthesis, phase change).	SE: 323-324, 481-482 <i>Lab</i> 302, 484 <i>Launch Lab</i> 353 <i>Integrate Environment</i> 111 TWE: QD 362, 481 LD 291
PO 2. Describe the following characteristics of waves: wavelength frequency period amplitude	SE: 296-301, 358 <i>Lab</i> 312-313 <i>MiniLab</i> 297 TWE: R 301, 359 ACT 297 DI 358 CYD 302
PO 3. Quantify the relationships among the frequency, wavelength, and the speed of light.	SE: 298-299, 358 <i>Lab</i> 312-313 <i>Applying Math</i> 299 <i>Section Review</i> 301 #6 & #7 <i>Chapter Review</i> 317 #28 & #29; 379 #28
PO 4. Describe the basic assumptions of kinetic molecular theory.	SE: 476 <i>Section Review</i> 483 #1
PO 5. Apply kinetic molecular theory to the behavior of matter (e.g., gas laws).	SE: 481, 490-495 <i>Launch Lab</i> 157 <i>Standardized Test Practice</i> 503 #19 TWE: LD 478 SJ 482 A 181
PO 6. Analyze calorimetric measurements in simple systems and the energy involved in changes of state.	SE: 162-163 <i>Applying Math</i> 162 <i>Section Review</i> 163 #6 & #7 <i>Chapter Review</i> 185 #23-25 TWE: A 163
PO 7. Explain the relationship between the wavelength of light absorbed or released by an atom or molecule and the transfer of a discrete amount of energy.	See Glencoe's <i>Chemistry: Matter &amp; Change</i> © 2005 SE: 122-126
PO 8. Describe the relationship among electric potential, current, and resistance in an ohmic system.	SE: 204-205 <i>Design Your Own Lab</i> 214-215 TWE: R 205 AIL 214
PO 9. Quantify the relationships among electric potential, current, and resistance in an ohmic system.	SE: 204-205 <i>Section Review</i> 205 #6 & #7 <i>Chapter Review</i> 218 #14 TWE: AIL 214

## Codes Used for TWE Pages

A	Assessment
ACT	Activity
AIL	Alternative Inquiry Lab
CB	Content Background
CC	Curriculum Connection
CD	Cultural Diversity
CU	Check for Understanding
CYD	Communicating Your Data
D	Discussion
DI	Differentiated Instruction
EA	Error Analysis
HS	Historical Significance
IL	Inquiry Lab
IM	Identifying Misconceptions
INV	Investigate the Issue
LD	Lab Demonstration
MM	Make a Model
QD	Quick Demo
R	Reteach
SJ	Science Journal
TPK	Tie to Prior Knowledge
UA	Use an Analogy
USW	Use Science Words
VL	Visual Learning