



Science

LEVEL RED

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STANDARDS	PAGE REFERENCES
<p>Standard A: Science Connections</p>	
<p>By the end of grade eight, students will:</p>	
<p>A.8.1 Develop their understanding of the science themes by using the themes to frame questions about science-related issues and problems</p>	<p>Student Edition: <i>Use the Internet Lab</i> 152-153 <i>Design Your Own Lab</i> 332-333, 668-669 <i>Science and History</i> 334 <i>Applying Science</i> 392, 510 <i>Science and Society</i> 432, 670 Teacher Wraparound Edition: ACT 432; AIL 216; UP 127</p>
<p>A.8.2 Describe limitations of science systems and give reasons why specific science themes are included in or excluded from those systems</p>	<p>Student Edition: 8-10, 26, 42-49, 50-54 <i>Unit 1</i> 2-3 <i>Launch Lab</i> 41 <i>MiniLAB</i> 8, 44 <i>Integrate Astronomy</i> 51 Teacher Wraparound Edition: ACT 51</p>

STANDARDS	PAGE REFERENCES
<p>A.8.3 Defend explanations and models by collecting and organizing evidence that supports them and critique explanations and models by collecting and organizing evidence that conflicts with them</p>	<p>Student Edition: 21-26, 27-30 <i>Lab</i> 31, 32-33 <i>Investigate</i> 90 <i>Applying Skills</i> 105 <i>Integrate Chemistry</i> 290 <i>Accidents in Science</i> 552</p> <p>Teacher Wraparound Edition: ACT 78; DI 16, 24; IL 263; IM 192F; 372F, 438F; VL 103</p>
<p>A.8.4 Collect evidence to show that models developed as explanations for events were (and are) based on the evidence available to scientists at the time</p>	<p>Student Edition: 21-26, 98-105 <i>Science and History</i> 90, 120 <i>National Geographic</i> 108</p> <p>Teacher Wraparound Edition: CC 99; HS 90; SCB 474E; TFYI 108; V 108; VL 25</p>
<p>A.8.5 Show how models and explanations, based on systems, were changed as new evidence accumulated (the effects of constancy, evolution, change, and measurement should all be part of these explanations)</p>	<p>Student Edition: 7, 21-26, 98-105, 415-422, 476-477 <i>Science and History</i> 90</p> <p>Teacher Wraparound Edition: CD 479; DI 104, 110; IM 15; SCB 474E; VL 7; WQ 252</p>
<p>A.8.6 Use models and explanations to predict actions and events in the natural world</p>	<p>Student Edition: 14, 21-26, 98-105, 203, 227-229, 300 <i>Launch Lab</i> 5, 407 <i>Lab</i> 112 <i>Model and Invent Lab</i> 306-307 <i>Design Your Own Lab</i> 488-489, 580-581</p> <p>Teacher Wraparound Edition: AIL 88; IL 103; LD 14, 174; QD 23</p>
<p>A.8.7 Design real or thought investigations to test the usefulness and limitations of a model</p>	<p>Student Edition: 21-26 <i>Lab</i> 31, 55, 298 <i>MiniLAB</i> 100, 421, 480 <i>Model and Invent Lab</i> 396-397, 550-551 <i>Launch Lab</i> 439</p> <p>Teacher Wraparound Edition: ACT 24; DIS 101; MM 25, 74, 227, 360; SCB 4F</p>

STANDARDS	PAGE REFERENCES
A.8.8. Use the themes of evolution, equilibrium, and energy to predict future events or changes in the natural world	<p>Student Edition: 123 #21, 283 #21, 311 #19, 371 #19 <i>Section Review</i> 200, 305 <i>Design Your Own Lab</i> 364-365 <i>Launch Lab</i> 407</p> <p>Teacher Wraparound Edition: A 129, 197, 217, 363, 421; AIL 364; DI 210; QD 8</p>
Standard B: Nature of Science	
B.8.1 Describe how scientific knowledge and concepts have changed over time in the earth and space, life and environmental, and physical sciences	<p>Student Edition: 26, 98-105, 138-143, 476-477 <i>Science and History</i> 90, 120, 218 <i>Applying Skills</i> 105 <i>National Geographic</i> 108 <i>Unit 3</i> 252-253 <i>Integrate Astronomy</i> 466</p> <p>Teacher Wraparound Edition: CD 292; DIS 90; SCB 474E; V 108</p>
B.8.2 Identify and describe major changes that have occurred over time in conceptual models and explanations in the earth and space, life and environmental, and physical sciences and identify the people, cultures, and conditions that led to these developments	<p>Student Edition: 26, 98-105, 138-143, 476-477 <i>Science and History</i> 34, 90, 120, 218 <i>Integrate History</i> 99, 174, 198 <i>National Geographic</i> 108 <i>Science Online</i> 140</p> <p>Teacher Wraparound Edition: CD 145, 166, 292; DI 205; DIS 90; TFYI 9, 108</p>
B.8.3 Explain how the general rules of science apply to the development and use of evidence in science investigations, model-making, and applications	<p>Student Edition: 12-20, 21-26, 27-30, 42-49, 50-54, 56-59 <i>Get Ready to Read</i> 6A-B <i>MiniLAB</i> 14, 23 <i>Science Online</i> 18 <i>Lab</i> 32-33</p> <p>Teacher Wraparound Edition: ACT 24; DIS 29; IL 17; IM 18; QD 18; SCB 4E-F, 40E-F; VL 13</p>

STANDARDS	PAGE REFERENCES
B.8.4 Describe types of reasoning and evidence used outside of science to draw conclusions about the natural world	<p>Student Edition: 456 <i>Science and History</i> 120 Unit 1 2-3 Unit 4 404-405</p> <p>Teacher Wraparound Edition: A 447; CC 352; CD 18, 75, 176, 199, 238; DI 457; HS 120; TFYI 16; TPK 128, 218</p>
B.8.5 Explain ways in which science knowledge is shared, checked, and extended, and show how these processes change over time	<p>Student Edition: 7, 17, 27-30, 39 #13, 98-105 <i>Section Review</i> 30 <i>Science and History</i> 90, 582 Unit 3 252-253</p> <p>Teacher Wraparound Edition: ACT 19; CD 292; DIS 29, 90, 604; HS 90</p>
B.8.6 Explain the ways in which scientific knowledge is useful and also limited when applied to social issues	<p>Student Edition: 6, 11, 144-150, 204-208, 212-214 <i>Section Review</i> 11 <i>Science Online</i> 146 <i>Science and History</i> 218, 334 <i>Science and Society</i> 366, 432, 490, 638, 670</p> <p>Teacher Wraparound Edition: CB 432; HS 218; NG 253; UP 127; VL 213</p>
Standard C: Science Inquiry	
C.8.1 Identify* questions they can investigate* using resources and equipment they have available	<p>Student Edition: 12-20 <i>Lab</i> 32-33, 184-185, 216-217, 278-279 <i>Design Your Own Lab</i> 60-61, 88-89, 244-245, 332-333, 364-365, 464-465</p> <p>Teacher Wraparound Edition: AIL 521; IL 17, 141, 211, 317, 566</p>
C.8.2 Identify* data and locate sources of information including their own records to answer the questions being investigated	<p>Student Edition: <i>Lab</i> 32-33, 87, 184-195, 278-279 <i>Design Your Own Lab</i> 88-89, 244-245, 332-333, 364-365 <i>Use the Internet Lab</i> 152-153, 430-431, 606-607 <i>MiniLAB</i> 212, 319 <i>Model and Invent Lab</i> 550-551</p> <p>Teacher Wraparound Edition: AIL 364, 606; IL 232</p>

STANDARDS	PAGE REFERENCES
<p>C.8.3 Design and safely conduct investigations* that provide reliable quantitative or qualitative data, as appropriate, to answer their questions</p>	<p>Student Edition: 12-20 <i>Design Your Own Lab</i> 60-61, 88-89, 244-245, 332-333, 364-365, 488-489, 520-521, 580-581, 636-637 <i>Lab</i> 278-279</p> <p>Teacher Wraparound Edition: A 333, 489, 637; AIL 184; DI 328; IL 17</p>
<p>C.8.4 Use inferences* to help decide possible results of their investigations, use observations to check their inferences</p>	<p>Student Edition: 12-20 <i>MiniLAB</i> 23, 176, 212, 383 <i>Lab</i> 87, 151, 183, 184-185, 216-217, 298 <i>Design Your Own Lab</i> 244-245, 332-333, 488-489</p>
<p>C.8.5 Use accepted scientific knowledge, models*, and theories* to explain* their results and to raise further questions about their investigations*</p>	<p>Student Edition: <i>Launch Lab</i> 5, 97 <i>MiniLAB</i> 23, 73, 450 <i>Lab</i> 87, 118-119, 151, 183, 215, 277, 298, 379 <i>Design Your Own Lab</i> 244-245</p> <p>Teacher Wraparound Edition: A 73, 176, 183; AIL 364; IL 211</p>
<p>C.8.6 State what they have learned from investigations*, relating their inferences* to scientific knowledge and to data they have collected</p>	<p>Student Edition: <i>MiniLAB</i> 23, 114, 176, 212, 383 <i>Lab</i> 87, 151, 183, 184-185, 216-217, 298 <i>Design Your Own Lab</i> 244-245, 332-333, 488-489</p>
<p>C.8.7 Explain* their data and conclusions in ways that allow an audience to understand the questions they selected for investigation* and the answers they have developed</p>	<p>Student Edition: 56-59 <i>Lab</i> 32-33 <i>Communicating Your Data</i> 55, 87, 153, 236, 245, 277, 333, 482 <i>Design Your Own Lab</i> 60-61 <i>Use the Internet Lab</i> 430-431</p> <p>Teacher Wraparound Edition: A 97, 185; AIL 278; CYD 298; DIS 58; LD 57</p>
<p>C.8.8 Use computer software and other technologies to organize, process, and present their data</p>	<p>Student Edition: <i>Science Online</i> 58 <i>Applying Skills</i> 117, 230, 276 <i>Use the Internet Lab</i> 152-153, 430-431, 606-607</p> <p>Teacher Wraparound Edition: CYD 31, 33, 112, 215, 245, 365, 465, 482</p>

STANDARDS	PAGE REFERENCES
C.8.9 Evaluate*, explain*, and defend the validity of questions, hypotheses, and conclusions to their investigations*	Student Edition: <i>Design Your Own Lab</i> 60-61, 88-89, 332-333, 364-365, 464-465, 488-489, 520-521, 580-581 <i>Lab</i> 118-119, 184-185, 216-217, 379 <i>Use the Internet Lab</i> 152-153, 430-431 <i>Model and Invent Lab</i> 306-307
C.8.10 Discuss the importance of their results and implications of their work with peers, teachers, and other adults	Student Edition: 17 <i>Communicating Your Data</i> 33, 89, 151, 183, 185, 215, 217, 245, 298, 397, 465, 489 <i>Use the Internet Lab</i> 152-153, 430-431, 606-607 Teacher Wraparound Edition: A 84; CYD 322
C.8.11 Raise further questions which still need to be answered	Student Edition: 16 <i>Lab</i> 184-185 <i>Communicating Your Data</i> 551 Teacher Wraparound Edition: A 151, 489; AIL 88, 152, 244, 430, 488, 513, 521; IL 211, 232, 317, 538, 566
Standard D: Physical Science	
PROPERTIES AND CHANGES OF PROPERTIES IN MATTER	
D.8.1 Observe, describe, and measure physical and chemical properties of elements and other substances to identify* and group* them according to properties such as density, melting points, boiling points, conductivity, magnetic attraction, solubility, and reactions to common physical and chemical tests	Student Edition: 70-79, 80, 93 #24, 110-111, 257-260 <i>Science Online</i> 71, 72 <i>MiniLAB</i> 73, 261, 319 <i>Lab</i> 278-279 Teacher Wraparound Edition: ACT 77; DI 274; LD 72; QD 75; R 79; SCB 68E, 254E; VL 76
D.8.2 Use the major ideas of atomic theory and molecular theory to describe physical and chemical interactions among substances, including solids, liquids, and gases	Student Edition: 73-75, 93 #16, #23, 113-114, 125 #14, 178-182 <i>MiniLAB</i> 114 Teacher Wraparound Edition: MM 74, 179; SCB 96E; TFYI 179; UAA 259; VL 74

STANDARDS	PAGE REFERENCES
D.8.3 Understand how chemical interactions and behaviors lead to new substances with different properties	<p>Student Edition: 80-86, 178-182 <i>MiniLAB</i> 84 <i>Design Your Own Lab</i> 88-89</p> <p>Teacher Wraparound Edition: ACT 83; AIL 88; DI 83; DIS 84, 181; FF 83; QD 82, 179; SCB 68F, 160F; SJ 83; UAA 82</p>
D.8.4 While conducting investigations, use the science themes to develop explanations of physical and chemical interactions and energy exchanges	<p>Student Edition: 80-86, 178-182 <i>MiniLAB</i> 23, 84 <i>Applying Science</i> 85 <i>Lab</i> 87 <i>Science Online</i> 168</p> <p>Teacher Wraparound Edition: ACT 181; AIL 89; FF 83; IL 85; QD 71, 82; SCB 68E-F; 160F</p>
MOTIONS AND FORCES	
D.8.5 While conducting investigations, explain the motion of objects by describing the forces acting on them	<p>Student Edition: 136-143, 157 #28, 209-212 <i>Launch Lab</i> 5, 193 <i>MiniLAB</i> 138 <i>Lab</i> 151</p> <p>Teacher Wraparound Edition: A 143, 151; ACT 137; DI 142; IL 141; IM 128F; 140; LD 140; QD 137</p>
D.8.6 While conducting investigations, explain the motion of objects using concepts of speed, velocity, acceleration, friction, momentum, and changes over time, among others, and apply these concepts and explanations to real-life situations outside the classroom	<p>Student Edition: 130-135 <i>Launch Lab</i> 129 <i>Applying Math</i> 131, 132, 140, 362 <i>Integrate Earth Science</i> 132</p> <p>Teacher Wraparound Edition: A 135; ACT 133; DI 13; QD 134; SJ 132</p>
D.8.7 While conducting investigations of common physical and chemical interactions occurring in the laboratory and the outside world, use commonly accepted definitions of energy and the idea of energy conservation	<p>Student Edition: 162-169, 178-182 <i>MiniLAB</i> 167, 176</p> <p>Teacher Wraparound Edition: ACT 165; AIL 184; CFU 169; DI 168; IL 166; QD 168; R 169; SCB 160E-F; TFYI 163</p>

STANDARDS	PAGE REFERENCES
TRANSFER OF ENERGY	
<p>D.8.8 Describe and investigate the properties of light, heat, gravity, radio waves, magnetic fields, electrical fields, and sound waves as they interact with material objects in common situations</p>	<p>Student Edition: 173-177, 194-200, 201-208, 209-214, 226-230, 323, 408-409 <i>Science Online</i> 181 <i>Launch Lab</i> 193 <i>MiniLAB</i> 212, 229 <i>Lab</i> 215, 216-217 <i>Integrate Health</i> 409 Teacher Wraparound Edition: CD 176; DI 409; DIS 233; IL 211; R 177</p>
<p>D.8.9 Explain the behaviors of various forms of energy by using the models of energy transmission, both in the laboratory and in real-life situations in the outside world</p>	<p>Student Edition: 162-169, 201-208, 408-409 <i>Integrate Life Science</i> 164 <i>National Geographic</i> 165 <i>MiniLAB</i> 167 <i>Science Online</i> 168, 202 <i>Lab</i> 183 Teacher Wraparound Edition: A 161, 169, 177; CC 205; IL 166, 409; SCB 160E-F</p>
<p>D.8.10 Explain how models of the atomic structure of matter have changed over time, including historical models and modern atomic theory</p>	<p>Student Edition: 98-105, 123 #20, 125 #16, #18, #21 <i>Science and History</i> 90 <i>Integrate History</i> 99 <i>Applying Skills</i> 105 Teacher Wraparound Edition: CFU 105; DI 104; DIS 120; VL 103</p>
Standard E: Earth and Space Science	
STRUCTURE OF EARTH SYSTEM	
<p>E.8.1 Using the science themes, explain and predict changes in major features of land, water, and atmospheric systems</p>	<p>Student Edition: 293-297, 299-305, 323-331, 356-362, 384 <i>Lab</i> 298 <i>Science Online</i> 302, 326 <i>Model and Invent Lab</i> 306-307 <i>MiniLAB</i> 359 Teacher Wraparound Edition: A 331; DI 361; SCB 372E; SJ 296; TBI 340; V 324; VL 295</p>

STANDARDS	PAGE REFERENCES
<p>E.8.2 Describe underlying structures of the earth that cause changes in the earth's surface</p>	<p>Student Edition: 288-297, 299-305 <i>Get Ready to Read</i> 288A-B <i>Science Online</i> 293 <i>MiniLAB</i> 295 <i>Lab</i> 298</p> <p>Teacher Wraparound Edition: ACT 293, 294; DI 295; DIS 296; SCB 286E-F; SJ 296; TBI 286; V 294; VL 293, 295</p>
<p>E.8.3 Using the science themes during the process of investigation, describe climate, weather, ocean currents, soil movements and changes in the forces acting on the earth</p>	<p>Student Edition: 292-297, 323-331, 356-362, 380-384 <i>MiniLAB</i> 295, 383 <i>Lab</i> 298, 363 <i>Applying Science</i> 304, 329 <i>Model and Invent Lab</i> 306-307 <i>Design Your Own Lab</i> 332-333, 364-365 <i>Science Online</i> 381</p> <p>Teacher Wraparound Edition: ACT 293; TBI 286, 340; V 324</p>
<p>E.8.4 Using the science themes, analyze the influence living organisms have had on the earth's systems, including their impact on the composition of the atmosphere and the weathering of rocks</p>	<p>Student Edition: 316-321, 339 #11, 394-395, 618-625 <i>MiniLAB</i> 320 <i>Applying Skills</i> 321 <i>Science Online</i> 620</p> <p>Teacher Wraparound Edition: A 333; CFU 321; DI 634; TFYI 394, 623; VL 394</p>
EARTH'S HISTORY	
<p>E.8.5 Analyze the geologic and life history of the earth, including change over time, using various forms of scientific evidence</p>	<p>Student Edition: 271, 285 #25, 292-297, 299-305, 557 #21 <i>Integrate Physics</i> 267 <i>Accidents in Science</i> 552</p> <p>Teacher Wraparound Edition: A 307; ACT 538; CB 552; CD 292; DI 324; IL 289</p>

STANDARDS	PAGE REFERENCES
<p>E.8.6 Describe through investigations the use of the earth's resources by humans in both past and current cultures, particularly how changes in the resources used for the past 100 years are the basis for efforts to conserve and recycle renewable and non-renewable resources</p>	<p>Student Edition: 646-653, 655-662, 663-667 <i>Integrate Social Studies</i> 391 <i>Launch Lab</i> 645 <i>Get Ready to Read</i> 646A-B <i>Lab</i> 654</p> <p>Teacher Wraparound Edition: A 653; ACT 657; CC 652; CD 620; CFU 662; IM 644F; SCB 644E; SJ 648; TBI 644; TFYI 649, 660</p>
EARTH IN THE SOLAR SYSTEM	
<p>E.8.7 Describe the general structure of the solar system, galaxies, and the universe, explaining the nature of the evidence used to develop current models of the universe</p>	<p>Student Edition: 440-446, 448-455, 456-463 <i>Launch Lab</i> 439 <i>Applying Science</i> 453, 455 <i>MiniLAB</i> 457 <i>Integrate Physics</i> 458, 462 <i>National Geographic</i> 460 <i>Integrate Astronomy</i> 466</p> <p>Teacher Wraparound Edition: ACT 459, 460; DI 452, 460; LD 450; MM 459; SCB 438E; TFYI 461</p>
<p>E.8.8 Using past and current models of the structure of the solar system, explain the daily, monthly, yearly, and long-term cycles of the earth, citing evidence gained from personal observation as well as evidence used by scientists</p>	<p>Student Edition: 440-441, 469 #6, #11 <i>MiniLAB</i> 441 <i>Section Review</i> 446</p> <p>Teacher Wraparound Edition: A 441; CC 441; CFU 446; R 446; SCB 438E; TBI 438; TFYI 441; TPK 440</p>
F. Life and Environmental Science	
STRUCTURE AND FUNCTION IN LIVING THINGS	
<p>F.8.1 Understand the structure and function of cells, organs, tissues, organ systems, and whole organisms</p>	<p>Student Edition: 476-481, 483-487, 560-572, 574-579 <i>MiniLAB</i> 481, 484, 569 <i>Applying Skills</i> 481 <i>National Geographic</i> 486</p> <p>Teacher Wraparound Edition: DI 479, 485, 486; IL 486; LD 562; SCB 474E-F</p>

STANDARDS	PAGE REFERENCES
<p>F.8.2 Show how organisms have adapted structures to match their functions, providing means of encouraging individual and group survival within specific environments</p>	<p>Student Edition: 501-505, 506-511, 512-518, 530-534, 535-539, 541-544, 545-547 <i>MiniLAB</i> 508, 546 <i>Science Stats</i> 523 <i>National Geographic</i> 533 Teacher Wraparound Edition: ACT 547; CFU 511; DI 533; QD 536; TPK 535; V 533; VL 537, 541</p>
<p>F.8.3 Differentiate between single-celled and multiple-celled organisms (humans) through investigation, comparing the cell functions of specialized cells for each type of organism</p>	<p>Student Edition: 389, 483-487, 560-572, 574-576 <i>Get Ready to Read</i> 476A-B <i>Communicating Your Data</i> 482 <i>Lab</i> 482 <i>MiniLAB</i> 484 <i>Science Online</i> 487 Teacher Wraparound Edition: CFU 487; IL 390; MM 568, 571; TBI 474</p>
REPRODUCTION AND HEREDITY	
<p>F.8.4 Investigate and explain that heredity is comprised of the characteristic traits found in genes within the cell of an organism</p>	<p>Student Edition: 599-605 <i>Get Ready to Read</i> 590A-B <i>MiniLAB</i> 601 <i>Applying Math</i> 603 <i>Section Review</i> 605 <i>Use the Internet Lab</i> 606-607 <i>Science and Society</i> 608 Teacher Wraparound Edition: DI 604; DIS 600; IM 588F, 602; R 605; SCB 588E; TFYI 604; UAA 602</p>
<p>F.8.5 Show how different structures both reproduce and pass on characteristics of their group</p>	<p>Student Edition: 501-503, 574-579, 590-597, 611 #25-#27, 613 #26 <i>Get Ready to Read</i> 590A-B <i>MiniLAB</i> 593 <i>Section Review</i> 597 Teacher Wraparound Edition: A 597; DIS 594; LD 594; R 597; SCB 588E; TPK 599; VL 503</p>

STANDARDS	PAGE REFERENCES
REGULATION AND BEHAVIOR	
<p>F.8.6 Understand that an organism is regulated both internally and externally</p>	<p>Student Edition: 531, 554 #2, #8, 556 #1 <i>Section Review</i> 534</p> <p>Teacher Wraparound Edition: DI 531</p>
<p>F.8.7 Understand that an organism's behavior evolves through adaptation to its environment</p>	<p>Student Edition: 508, 511, 556 #7 <i>MiniLAB</i> 508 <i>National Geographic</i> 514-515</p> <p>Teacher Wraparound Edition: A 517; ACT 547; CFU 505; DI 515; DIS 552; QD 536; TBI 528; TPK 535, 618</p>
POPULATIONS AND ECOSYSTEMS	
<p>F.8.8 Show through investigations how organisms both depend on and contribute to the balance or imbalance of populations and/or ecosystems, which in turn contribute to the total system of life on the planet</p>	<p>Student Edition: 618-625, 627-632, 633-635 <i>MiniLAB</i> 617, 623 <i>Science Online</i> 620 <i>Applying Skills</i> 625 <i>Lab</i> 626 <i>Design Your Own Lab</i> 636-637</p> <p>Teacher Wraparound Edition: A 623, 625, 637; AIL 636; CC 619; DI 621; SJ 629; VL 619</p>
DIVERSITY AND ADAPTATIONS OF ORGANISMS	
<p>F.8.9 Explain how some of the changes on the earth are contributing to changes in the balance of life and affecting the survival or population growth of certain species</p>	<p>Student Edition: 646-653, 655-662 <i>Science Online</i> 656 <i>Applying Science</i> 665</p> <p>Teacher Wraparound Edition: ACT 660; CC 652; R 662; SJ 656; TFYI 649, 660</p>
<p>F.8.10 Project how current trends in human resource use and population growth will influence the natural environment, and show how current policies affect those trends</p>	<p>Student Edition: 646-653, 655-662, 663-667 <i>Science Online</i> 653 <i>Lab</i> 654 <i>Applying Science</i> 665</p> <p>Teacher Wraparound Edition: A 653, 662; CC 661; CD 658; IL 659; IM 657; R 667; TFYI 666</p>

STANDARDS	PAGE REFERENCES
Standard G: Science Applications	
<p>G.8.1 Identify* and investigate* the skills people need for a career in science or technology and identify the academic courses that a person pursuing such a career would need</p>	<p>Student Edition: <i>Integrate Career</i> 13, 43, 104, 418, 442, 485, 538, 604 Teacher Wraparound Edition: DI 10, 421; UP 127, 473, 615</p>
<p>G.8.2 Explain* how current scientific and technological discoveries have an influence on the work people do and how some of these discoveries also lead to new careers</p>	<p>Student Edition: 22-26, 408-413, 415-422, 423-429 <i>Science Online</i> 22, 361 <i>National Geographic</i> 24 <i>Integrate Health</i> 234 <i>Lab</i> 363 Teacher Wraparound Edition: AIL 216; CC 260; DI 24; IP 230; SCB 406E-F; TBI 406; TFYI 25; UP 405</p>
<p>G.8.3 Illustrate* the impact that science and technology have had, both good and bad, on careers, systems, society, environment, and quality of life</p>	<p>Student Edition: 11, 212-214, 429 <i>Integrate Health</i> 81 <i>Science and Language Arts</i> 186 <i>Science and History</i> 218, 334 <i>Integrate Physics</i> 230, 577 <i>Science and Society</i> 490 Teacher Wraparound Edition: CC 350, 425; CD 376; DI 418; DIS 442; HS 218; SCB 406F</p>
<p>G.8.4 Propose a design (or re-design) of an applied science model or a machine that will have an impact in the community or elsewhere in the world and show* how the design (or re-design) might work, including potential side-effects</p>	<p>Student Edition: <i>Use the Internet Lab</i> 430-431 <i>Design Your Own Lab</i> 464-465, 668-669 <i>Model and Invent Lab</i> 550-551 Teacher Wraparound Edition: AIL 464, 668; IL 232, 263, 353; UP 127; WQ 126</p>
<p>G.8.5 Investigate* a specific local problem to which there has been a scientific or technological solution, including proposals for alternative courses of action, the choices that were made, reasons for the choices, any new problems created, and subsequent community satisfaction</p>	<p>Student Edition: <i>Use the Internet Lab</i> 152-153 <i>Science and History</i> 334 <i>Integrate Social Studies</i> 507 <i>Science Online</i> 507 <i>Applying Science</i> 510 Teacher Wraparound Edition: AIL 32; CD 508; DI 657; ITI 638; SJ 656; UP 127; WQ 614</p>

STANDARDS	PAGE REFERENCES
<p>G.8.6 Use current texts, encyclopedias, source books, computers, experts, the popular press, or other relevant sources to identify* examples of how scientific discoveries have resulted in new technology</p>	<p>Student Edition: 409-413, 415-422, 423-429 <i>Unit 3</i> 252-253 <i>Science Online</i> 361 <i>Unit 5</i> 472-473 Teacher Wraparound Edition: CC 425; DI 409; NG 253, 405; UP 405; V 419</p>
<p>G.8.7 Show* evidence* of how science and technology are interdependent, using some examples drawn from personally conducted investigations*</p>	<p>Student Edition: 11, 209-214, 288-289, 408-413, 415-422, 423-429, 476-477 <i>National Geographic</i> 143 <i>Lab</i> 363 <i>Science Online</i> 449, 478 <i>Integrate Physics</i> 462 Teacher Wraparound Edition: ACT 142; AIL 216; CC 173; DI 142, 409; SJ 411; UP 405</p>
<p>Standard H: Science in Personal and Social Perspectives</p>	
<p>H.8.1 Evaluate the scientific evidence used in various media (for example, television, radio, Internet, popular press, and scientific journals) to address a social issue, using criteria of accuracy, logic, bias, relevance of data, and credibility of sources</p>	<p>Student Edition: 27-30 <i>Section Review</i> 30 <i>Science Skill Handbook</i> 678 Teacher Wraparound Edition: CFU 30; DI 29; DIS 28; QD 29; TPK 27; VL 28; WQ 2</p>
<p>H.8.2 Present a scientific solution to a problem involving the earth and space, life and environmental, or physical sciences and participate in a consensus-building discussion to arrive at a group decision</p>	<p>Student Edition: <i>Design Your Own Lab</i> 364-365, 464-465, 520-521, 668-669 <i>Use the Internet Lab</i> 430-431 <i>Science and Society</i> 432 <i>Applying Science</i> 665 Teacher Wraparound Edition: ACT 427; AIL 364, 464, 668; DIS 638; IL 17, 232; UP 615; WQ 614</p>

STANDARDS	PAGE REFERENCES
<p>H.8.3 Understand the consequences of decisions affecting personal health and safety</p>	<p>Student Edition: <i>Applying Science</i> 171 <i>Integrate Health</i> 409, 595 <i>National Geographic</i> 565</p> <p>Teacher Wraparound Edition: ACT 564; AIL 580; CC 394, 564; DI 564; TFYI 561, 579; V 565</p>