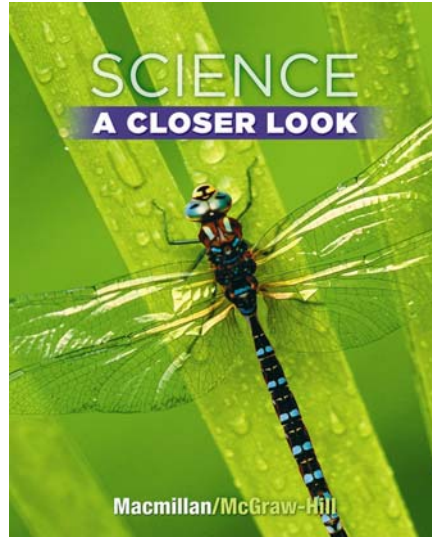




Macmillan/McGraw-Hill

Grade Span Expectations in Science
Grade 5



SCIENCE

A CLOSER LOOK

Grade 5

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STANDARDS	PAGE REFERENCES
Life Science	
LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).	
LS1 (5-8) – INQ+ SAE- 1 Using data and observations about the biodiversity of an ecosystem make predictions or draw conclusions about how the diversity contributes to the stability of the ecosystem.	
LS1 (5-6) – 1 Students demonstrate understanding of biodiversity by...	
1a recognizing that organisms have different features and <u>behaviors for meeting their needs to survive</u> (e.g., fish have gills for respiration, mammals have lungs, bears hibernate).	<p>Student Edition: 50-55, 62-68, 168-174 <i>Explore</i> 47, 167 <i>Literature from Ranger Rick</i> 16-17 <i>Quick Check</i> 169 <i>Quick Lab</i> 50, 65 <i>Reading in Science</i> 176-177 <i>Writing Link</i> 175</p> <p>Teacher Wraparound Edition: AE 167; DIF 169; DMI 50, 172; FA 175; HA 56I</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Animal Adaptations</i> Grade 5 Approaching Level Reader: <i>Costa Rican Rain Forests</i> Grade 5 Beyond Level Reader: <i>Earth's Oceans</i> Grade 5 Approaching Level Reader: <i>Nature's Partners</i> Grade 5 On Level Reader: <i>One-Celled Organisms</i> Grade 5 English Learner Level Reader: <i>One-Celled Organisms</i> Grade 5 On Level Reader: <i>Weird and Wonderful Plants</i> Grade 5 English Learner Level Reader: <i>Weird and Wonderful Plants</i></p> <p>Teacher's Resources: <i>Activity Flipchart</i> 5 <i>Activity Lab Book</i> 18-20, 22, 27, 77-79 <i>Presentation Toolkit CD-ROM</i> <i>Reading and Writing</i> 1, 66-68, 70-71 <i>Science Activity DVD</i></p>

STANDARDS	PAGE REFERENCES
<p>LS1 (5-8) SAE+FAF –2 <i>Describe or compare how different organisms have mechanisms that work in a coordinated way to obtain energy, grow, move, respond, provide defense, enable reproduction, or maintain internal balance (e.g., cells, tissues, organs and systems).</i></p>	
<p>LS1 (5-6) – 2 Students demonstrate understanding of structure and function-survival requirements by...</p>	
<p>2a describing structures or behaviors that help organisms survive in their environment (e.g., <u>defense</u>, obtaining <u>nutrients</u>, reproduction, and <u>eliminating waste</u>).</p>	<p>Student Edition: 168-174 <i>Critical Thinking</i> 171 <i>Explore: Inquiry Activity</i> 167 <i>Literature from Ranger Rick</i> 16-17 <i>Quick Lab</i> 171 <i>Writing Link</i> 175</p> <p>Teacher Wraparound Edition: AE 167; EMI 169; UV 170</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Animal Adaptations</i> Grade 5 Approaching Level Reader: <i>Costa Rican Rain Forests</i> Grade 5 Beyond Level Reader: <i>Earth's Oceans</i> Grade 5 Approaching Level Reader: <i>Nature's Partners</i> Grade 5 On Level Reader: <i>One-Celled Organisms</i> Grade 5 English Learner Level Reader: <i>One-Celled Organisms</i> Grade 5 On Level Reader: <i>Weird and Wonderful Plants</i> Grade 5 English Learner Level Reader: <i>Weird and Wonderful Plants</i></p> <p>Teacher's Resources: <i>Activity Flipchart</i> 18 <i>Activity Lab Book</i> 77-79 <i>Reading and Writing</i> 1 <i>Science Activity DVD</i></p>

STANDARDS	PAGE REFERENCES
<p>LS1 (5-8) POC -3 <i>Compare and contrast sexual reproduction with asexual reproduction.</i></p>	
<p>LS1 (5-6) –3 Students demonstrate an understanding of reproduction by ...</p>	
<p>3a <u>defining reproduction as a process through which organisms produce offspring.</u></p>	<p>Student Edition: 90-94</p> <p>Teacher Wraparound Edition: DMI 90; FA 95; UV 91</p> <p>Leveled Readers: Grade 5 On Level Reader: <i>Life Goes On</i> Grade 5 English Learner Level Reader: <i>Life Goes On</i> Grade 5 Approaching Level Reader: <i>Seeds and Spores</i></p> <p>Teacher’s Resources: <i>Reading and Writing</i> 32-34</p>
<p>3b <u>describing reproduction in terms of being essential for the continuation of a species.</u></p>	<p>Student Edition: 90-94 <i>Quick Check</i> 199</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Animal Adaptations</i> Grade 5 On Level Reader: <i>Life Goes On</i> 2-22 Grade 5 English Learner Level Reader: <i>Life Goes On</i></p>

STANDARDS	PAGE REFERENCES
<p>3c <u>investigating and comparing a variety of plant and animal life cycles.</u></p>	<p>Student Edition: 100-101, 104-105, 108, 114-115, 118 <i>Explore: Inquiry Activity</i> 113 <i>Quick Check</i> 109, 115 <i>Read a Diagram</i> 101</p> <p>Teacher Wraparound Edition: DIF 101, 115; DMI 104; UV 101, 104, 108</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>Costa Rican Rain Forests</i> Grade 5 On Level Reader: <i>Life Goes On</i> Grade 5 English Learner Level Reader: <i>Life Goes On</i> Grade 5 Approaching Level Reader: <i>Seeds and Spores</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 12 <i>Activity Lab Book</i> 50-52 <i>Science Activity DVD</i> <i>Science in Motion: Fern Life Cycle</i></p>
<p>LS1 (5-8) FAF –4 <i>Explain relationships between or among the structure and function of the cells, tissues, organs, and organ systems in an organism.</i></p>	
<p>LS1 (5-6) –4 Students demonstrate understanding of differentiation by...</p>	
<p>4a <u>identifying cells as the building blocks of organisms.</u></p>	<p>Student Edition: 22, 24 <i>Explore: Inquiry Activity</i> 21</p> <p>Teacher Wraparound Edition: DMI 22; GI 21</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Can Cells Grow Too Much</i> Grade 5 Approaching Level Reader: <i>Cells</i> Grade 5 On Level Reader: <i>One-Celled Organisms</i> Grade 5 English Learner Level Reader: <i>One-Celled Organisms</i></p>

STANDARDS	PAGE REFERENCES
<p>4b <u>recognizing and illustrating (e.g. flow chart) the structural organization of an organism from a cell to tissue to organs to organ systems to organisms.</u></p>	<p>Student Edition: 22-23, 28 <i>Quick Check</i> 28</p> <p>Teacher Wraparound Edition: DMI 28; HA 28I UV 28</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>Cells</i></p> <p>Teacher’s Resources: <i>Science Quest: Body Systems</i></p>
<p>LS2 - Matter cycles and energy flows through an ecosystem.</p>	
<p>LS2 (5-8) INQ+SAE -5 <i>Using data and observations, predict outcomes when abiotic/biotic factors are changed in an ecosystem.</i></p>	
<p>LS2 (5-6) –5 Students demonstrate an understanding of equilibrium in an ecosystem by ...</p>	
<p>5a <u>identifying and defining an ecosystem and the variety of relationships within it (e.g., predator/prey, consumer/producer/decomposer, host/parasite, catastrophic events).</u></p>	<p>Student Edition: 142-143, 144-145, 147, 160-162 <i>Explore: Inquiry Activity</i> 141 <i>Quick Check</i> 147, 161</p> <p>Teacher Wraparound Edition: DIF 145, 161; DMI 144; DV 161; SYP TR44; UV 145, 147, 160</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Animal Adaptations</i> Grade 5 Approaching Level Reader: <i>Costa Rican Rain Forests</i> Grade 5 Approaching Level Reader: <i>Nature's Partners</i> Grade 5 On Level Reader: <i>One-Celled Organisms</i> Grade 5 English Learner Level Reader: <i>One-Celled Organisms</i> Grade 5 On Level Reader: <i>Weird and Wonderful Plants</i> Grade 5 English Learner Level Reader: <i>Weird and Wonderful Plants</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 15 <i>Activity Lab Book</i> 64-66 <i>Presentation Toolkit</i> CD-ROM <i>Science Activity</i> DVD</p>

STANDARDS	PAGE REFERENCES
<p>LS2 (5-8) SAE– 6</p> <p><i>Given a scenario trace the flow of energy through an ecosystem, beginning with the sun, through organisms in the food web, and into the environment (includes photosynthesis and respiration).</i></p>	
<p>LS2 (5-6) –6</p> <p>Students demonstrate an understanding of energy flow in an ecosystem by ...</p>	
<p>6a identifying the sun as the major source of energy for life on earth and <u>sequencing the energy flow in an ecosystem.</u></p>	<p>Student Edition: 56, 144-149 <i>Writing Link</i> 151</p> <p>Teacher Wraparound Edition: APK 140; DIF 145; SYP TR44</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Earth's Oceans</i> Grade 5 On Level Reader: <i>Weird and Wonderful Plants</i> Grade 5 English Learner Level Reader: <i>Weird and Wonderful Plants</i></p> <p>Teacher's Resources: <i>Science in Motion: Food Chains</i></p>
<p>6b. <u>describing the basic processes and recognizing the substances involved in photosynthesis and respiration.</u></p>	<p>Student Edition: 54-56 <i>Quick Check</i> 56</p> <p>Teacher Wraparound Edition: DMI 54, 56; EMI 54</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Air Pollution</i> Grade 5 Approaching Level Reader: <i>Costa Rican Rain Forests</i> Grade 5 Beyond Level Reader: <i>Earth's Oceans</i> Grade 5 Approaching Level Reader: <i>Seeds and Spores</i> Grade 5 On Level Reader: <i>Weird and Wonderful Plants</i> Grade 5 English Learner Level Reader: <i>Weird and Wonderful Plants</i></p> <p>Teacher's Resources: <i>Science Quest: Photosynthesis and Respiration</i></p>

STANDARDS	PAGE REFERENCES
<p>LS2 (5-8) SAE-7 <i>Given an ecosystem, trace how matter cycles among and between organisms and the physical environment (includes water, oxygen, food web, decomposition, recycling but not carbon cycle or nitrogen cycle).</i></p>	
<p>LS2 (5-6)-7 Students demonstrate an understanding of recycling in an ecosystem by ...</p>	
<p>7a explaining the processes of precipitation, evaporation, condensation as parts of the water cycle.</p>	<p>Student Edition: 184-185 <i>Explore: Inquiry Activity</i> 183 <i>Quick Check</i> 185 <i>Read a Diagram</i> 185 Teacher Wraparound Edition: AE 183; DIF 185; UV 184 Leveled Readers: Grade 5 Approaching Level Reader: <i>Earth's Water</i> Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5 On Level Reader: <i>The Water Cycle</i> Grade 5 English Learner Reader: <i>The Water Cycle</i> Teacher's Resources: <i>Activity Flipchart</i> 19 <i>Activity Lab Book</i> 82-84 <i>Log On: Science in Motion</i> <i>Science Activity DVD</i></p>
<p>7b completing a basic food web for a given ecosystem.</p>	<p>Student Edition: 144-147 <i>Explore: Inquiry Activity</i> 141 <i>Read a Diagram</i> 146 <i>Writing Link</i> 151 Teacher Wraparound Edition: AE 141; FA 151; GI 141; SI 141; UV 147 Leveled Readers: Grade 5 Beyond Level Reader: <i>Earth's Oceans</i> Teacher's Resources: <i>Activity Flipchart</i> 15 <i>Activity Lab Book</i> 64-66 <i>Log On: Science in Motion: Food Chains</i> <i>Science Activity DVD</i> <i>Visual Literacy</i> 20</p>

STANDARDS	PAGE REFERENCES
<p>LS3 - Groups of organisms show evidence of change over time (structures, behaviors, and biochemistry).</p>	
<p>LS3 (5-8) MAS+FAF – 8</p> <p><i>Use a model, classification system, or dichotomous key to illustrate, compare, or interpret possible relationships among groups of organisms (e.g., internal and external structures, anatomical features).</i></p>	
<p>LS3 (5-6) – 8</p> <p>Students demonstrate an understanding of classification of organisms by ...</p>	
<p>8a <u>stating the value of, or reasons for, classification systems.</u></p>	<p>Student Edition: 34 <i>Explore: Inquiry Activity 33</i> <i>Look and Wonder 32</i></p> <p>Teacher Wraparound Edition: SYP TR40</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>Seeds and Spores</i></p>
<p>8b <u>following a taxonomic key to identify a given organism (e.g. flowering and non-flowering plants).</u></p>	<p>Student Edition: <i>Explore: Inquiry Activity 61</i></p> <p>Teacher Wraparound Edition: AE 61; EMI 63</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>Seeds and Spores</i></p> <p>Teacher’s Resources: <i>Activity Flipchart 6</i> <i>Activity Lab Book 23-25</i> <i>Science Activity DVD</i></p>

STANDARDS	PAGE REFERENCES
<p>LS3 (5-8) POC-9</p> <p><i>Cite examples supporting the concept that certain traits of organisms may provide a survival advantage in a specific environment and therefore, an increased likelihood to produce offspring.</i></p>	
<p>LS3 (5-6) -9</p> <p>Students demonstrate an understanding of Natural Selection/evolution by ...</p>	
<p>9a <u>explaining how a population's or species' traits affect their ability to survive over time.</u></p>	<p>The following references can be used to meet this objective.</p> <p>Student Edition: 142-143, 168-174 <i>Explore: Inquiry Activity</i> 167 <i>Literature from Ranger Rick</i> 16-17 <i>Writing Link</i> 175</p> <p>Teacher Wraparound Edition: AE 167; APK 166; DIF 173; ELL 168; SB 170; SYP TR45</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Animal Adaptations</i> Grade 5 Approaching Level Reader: <i>Costa Rican Rain Forests</i> Grade 5 Beyond Level Reader: <i>Earth's Oceans</i></p> <p>Teacher's Resources: <i>Activity Flipchart</i> 18 <i>Activity Lab Book</i> 77-79 <i>Science Activity DVD</i></p>
<p>9b <u>researching or reporting on possible causes for the extinction of an animal or plant.</u></p>	<p>Student Edition: 198-199 <i>Quick Check</i> 199 <i>Quick Lab</i> 198</p> <p>Teacher Wraparound Edition: DMI 198; UV 199</p> <p>Teacher's Resources: <i>Activity Lab Book</i> 95 <i>Presentation Toolkit CD-ROM</i></p>

STANDARDS	PAGE REFERENCES
<p>9c <u>explaining how fossil evidence can be used to understand the history of life on Earth.</u></p>	<p>Student Edition: 253, 326-327 <i>Writing in Science</i> 338</p> <p>Teacher Wraparound Edition: DIF 253; SYP TR54</p> <p>Leveled Readers: Grade 5 English Learner Level Reader: <i>Carbon All Around</i> Grade 5 On Level Reader: <i>Carbon All Around</i></p> <p>Teacher’s Resources: <i>Reading and Writing</i> 140-141</p>
<p>LS 4 - Humans are similar to other species in many ways, and yet are unique among Earth’s life forms.</p>	
<p>LS4 (5-8) INQ-10 <i>Use data and observations to support the concept that environmental or biological factors affect human body systems (biotic & abiotic).</i></p>	
<p>LS4 (5-6)-10 Students demonstrate an understanding of human body systems by ...</p>	
<p>10a <u>identifying the biotic factors (e.g., microbes, parasites, food availability, aging process) that have an effect on human body systems.</u></p>	<p>Student Edition: 3-11, 40, 42, 162 <i>Health Handbook</i> R14-R15 <i>Look and Wonder</i> 2 <i>Social Studies Link</i> 29</p> <p>Teacher Wraparound Edition: AE 3; DIF 5; DMI 42; EMI 7; HA 42, 162; IN 3; SB 11, 77; SYP TR41</p> <p>Leveled Readers: Grade 5 On Level Reader: <i>One-Celled Organisms</i> Grade 5 English Learner Level Reader: <i>One-Celled Organisms</i></p>

STANDARDS	PAGE REFERENCES
<p>10b <u>identifying the abiotic factors (e.g., drugs, altitude, weather, pollution) that have an effect on human body systems.</u></p>	<p>Student Edition: 197, 319, 344-345, 348-350, 398, 400-401 <i>Health Link</i> 351 <i>Writing in Science</i> 404</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Air Pollution</i> Grade 5 Beyond Level Reader: <i>Can Cells Grow Too Much</i> Grade 5 Approaching Level Reader: <i>Earth's Water</i> Grade 5 Beyond Level Reader: <i>Periodic Table of Elements</i> Grade 5 English Learner Reader: <i>The Water Cycle</i> Grade 5 On Level Reader: <i>The Water Cycle</i></p> <p>Teacher's Resources: <i>Reading and Writing</i> 164-165</p>
<p>Students demonstrate an understanding patterns of human health/disease by ...</p>	
<p>10c <u>identifying the biotic (e.g., microbes, parasites, food availability, aging process) and abiotic (e.g., radiation, toxic materials, carcinogens) factors that cause disease and affect human health.</u></p>	<p>Student Edition: 3-11, 40, 42, 162, 348 <i>Health Link</i> 351 <i>Look and Wonder</i> 2 <i>Social Studies Link</i> 29</p> <p>Teacher Wraparound Edition: AE 3; DIF 5; DMI 42; EMI 7; HA 42, 162; IN 3; SB 11; SYP TR41</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Air Pollution</i> Grade 5 Approaching Level Reader: <i>Earth's Water</i> Grade 5 English Learner Level Reader: <i>One-Celled Organisms</i> Grade 5: English Learner Level Reader: <i>Mission Green Earth</i> Grade 5: On Level Reader: <i>Mission Green Earth</i> Grade 5 On Level Reader: <i>One-Celled Organisms</i> Grade 5 Beyond Level Reader: <i>Periodic Table of Elements</i> Grade 5 English Learner Reader: <i>The Water Cycle</i> Grade 5 On Level Reader: <i>The Water Cycle</i></p>

STANDARDS	PAGE REFERENCES
<p>LS4 (5-8) INQ+POC-11</p> <p><i>Using data provided, select evidence that supports the concept that genetic information is passed on from both parents to offspring</i></p>	
<p>LS4 (5-6)-11</p> <p>Students demonstrate an understanding of human heredity by ...</p>	
<p>11a <u>differentiating between inherited and acquired traits.</u></p>	<p>Student Edition: 124-127</p> <p>Teacher Wraparound Edition: DIF 125; ELL 124; FA 129' UV 125</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Genetics</i></p> <p>Teacher's Resources: <i>Presentation Toolkit CD-ROM</i> <i>Reading and Writing</i> 46-48</p>
<p>11b <u>observing, recording and comparing differences in inherited traits (e.g. connected earlobe, tongue rolling).</u></p>	<p>Student Edition: 126-128 <i>Chapter Review</i> 133 (<i>Family Traits</i> #1-#3) <i>Explore: Inquiry Activity</i> 123 <i>Quick Lab</i> 127 <i>Read a Chart</i> 239</p> <p>Teacher Wraparound Edition: DMI 124; OI 123</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Genetics</i></p> <p>Teacher's Resources: <i>Activity Flipchart</i> 14 <i>Activity Lab Book</i> 59-61, 63 <i>Science Activity DVD</i> <i>Visual Literacy</i> 17</p>

STANDARDS	PAGE REFERENCES
Earth & Space Science	
ESS1 - The earth and earth materials as we know them today have developed over long periods of time, through continual change processes.	
ESS1 (5-8) INQ+ POC –1 <i>Use geological evidence provided to support the idea that the Earth’s crust/lithosphere is composed of plates that move.</i>	
ESS1 (5-6)–1 Students demonstrate an understanding of processes and change over time within earth systems by ...	
<u>1a identifying and describing the layers of the earth.</u>	Student Edition: 246 <i>Lesson Review 247 (#1)</i> <i>Quick Check 246</i> Teacher Wraparound Edition: DMI 246 Leveled Readers: <i>Grade 5 Beyond Level Reader: Air Pollution</i> <i>Grade 5 Beyond Level Reader: Earth’s Heat</i> <i>Grade 5 Beyond Level Reader: Global Weather</i> <i>Grade 5 On Level Reader: The Weather Detectives</i> <i>Grade 5 English Learner Level Reader: The Weather Detectives</i>
<u>1b plotting location of volcanoes and earthquakes and explaining the relationship between the location of these phenomena and faults.</u>	Student Edition: 262-263, 272-273, 275 <i>Chapter Review (Test Prep) 297</i> <i>Quick Check 263, 273</i> <i>Read a Map 273</i> Teacher Wraparound Edition: DIF 262, 275; UV 273 Leveled Readers: <i>Grade 5 Beyond Level Reader: Earth’s Heat</i> <i>Grade 5 On Level Reader: Shake, Rattle, Explode</i> <i>Grade 5 English Learner Level Reader: Shake, Rattle, Explode</i> Teacher’s Resources: <i>Presentation Toolkit CD-ROM</i> <i>Reading and Writing 109-111</i> <i>Visual Literacy 39</i>

STANDARDS	PAGE REFERENCES
<p>ESS1 (5-8) SAE-2 <i>Explain the processes that cause the cycling of water into and out of the atmosphere and their connections to our planet’s weather patterns.</i></p>	
<p>ESS1 (5-6)-2 Students demonstrate an understanding of processes and change over time within earth systems by ...</p>	
<p>2a <u>diagramming, labeling and explaining the processes of the water cycle including evaporation, precipitation, and run-off, condensation, transpiration, and groundwater.</u></p>	<p>Student Edition: 184-185 <i>Explore: Inquiry Activity</i> 183 <i>Quick Check</i> 185 <i>Read a Diagram</i> 185</p> <p>Teacher Wraparound Edition: AE 183; DIF 185; UV 184</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>Earth’s Water</i> Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5 English Learner Reader: <i>The Water Cycle</i> Grade 5 On Level Reader: <i>The Water Cycle</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 19 <i>Activity Lab Book</i> 82-84 <i>Log On: Science in Motion</i> <i>Science Activity DVD</i></p>
<p>2b <u>explaining how condensation of water vapor forms clouds which affects climate and weather.</u></p>	<p>Student Edition: 380-383 <i>Quick Check</i> 383 <i>Read a Diagram</i> 383</p> <p>Teacher Wraparound Edition: DMI 380; UV 383</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5 English Learner Reader: <i>The Water Cycle</i> Grade 5 On Level Reader: <i>The Water Cycle</i> Grade 5 English Learner Level Reader: <i>The Weather Detectives</i> Grade 5 On Level Reader: <i>The Weather Detectives</i></p> <p>Teacher’s Resources: <i>Reading and Writing</i> 156-158 <i>Science Quest: Atmosphere and Weather</i></p>

STANDARDS	PAGE REFERENCES
<p>2c <u>developing models to explain how humidity, temperature, and altitude affect air pressure and how this affects local weather.</u></p>	<p>Student Edition: 367, 368-369, 372-373, 386-387 <i>Quick Check</i> 369, 387 <i>Quick Lab</i> 369</p> <p>Teacher Wraparound Edition: DIF 369; HA 374; UV 368, 372</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Global Weather</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 172 <i>Science Quest: Atmosphere and Weather</i></p>
<p>2d <u>identifying composition and layers of earth’s atmosphere.</u></p>	<p>Student Edition: 366</p> <p>Teacher Wraparound Edition: DMI 366; EMI 367; SYP TR52</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Air Pollution</i> Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5 On Level Reader: <i>The Weather Detectives</i> Grade 5 English Learner Level Reader: <i>The Weather Detectives</i></p> <p>Teacher’s Resources: <i>Science Quest: Atmosphere and Weather</i></p>

STANDARDS	PAGE REFERENCES
<p>ESS1 (5-8) POC –3 <i>Explain how earth events (abruptly and over time) can bring about changes in Earth’s surface: landforms, ocean floor, rock features, or climate.</i></p>	
<p>ESS1 (5-6)–3 Students demonstrate an understanding of processes and change over time within earth systems by ...</p>	
<p>3a <u>describing events and the effect they may have on climate (e.g. El Nino, deforestation, glacial melting, and an increase in greenhouse gases).</u></p>	<p>Student Edition: 409, 412 <i>Chapter Review</i> 417 (#12) <i>Quick Check</i> 413 <i>Social Studies Link</i> 413</p> <p>Teacher Wraparound Edition: DMI 412; SB 408; SYP TR53; UV 412</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Air Pollution</i> Grade 5 English Learner Level Reader: <i>Carbon All Around</i> Grade 5 On Level Reader: <i>Carbon All Around</i> Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5: On Level Reader: <i>Mission Green Earth</i> Grade 5: English Learner Level Reader: <i>Mission Green Earth</i></p>

STANDARDS	PAGE REFERENCES
<p>ESS1 (5-8) SAE+ POC –4 <i>Explain the role of differential heating or convection in ocean currents, winds, weather and weather patterns, atmosphere, or climate.</i></p>	
<p>ESS1 (5-6)–4 <i>Students demonstrate an understanding of processes and change over time within earth systems by ...</i></p>	
<p>4a <u>explaining how differential heating and convection affect Earth’s weather patterns.</u></p>	<p>Student Edition: 364-365, 370, 372-373 <i>Quick Check</i> 365, 373 <i>Explore: Inquiry Activity</i> 363 <i>Read a Diagram</i> 364, 372</p> <p>Teacher Wraparound Edition: DIF 365; DMI 364, 370; UV 364</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5 Approaching Level Reader: <i>Hurricanes and Tornadoes</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 38 <i>Activity Lab Book</i> 168-170 <i>Reading and Writing</i> 152-154 <i>Science Activity DVD</i> <i>Science Quest: Atmosphere and Weather</i> <i>Visual Literacy</i> 51, 52</p>
<p>4b <u>describing how differential heating of the oceans affects ocean currents which in turn influence weather and climate.</u></p>	<p>Student Edition: 372-373, 400, 410, 412 <i>Explore: Inquiry Activity</i> 407</p> <p>Teacher Wraparound Edition: DMI 410, 412; ELL 411; UV 372, 410</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Earth’s Oceans</i> Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5 Approaching Level Reader: <i>Hurricanes and Tornadoes</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 43 <i>Activity Lab Book</i> 190-192 <i>Presentation Toolkit CD-ROM</i> <i>Science Activity DVD</i> <i>Visual Literacy</i> 58</p>

STANDARDS	PAGE REFERENCES
<p>4c <u>explaining the relationship between differential heating/convection and the production of winds.</u></p>	<p>Student Edition: 370-373 <i>Quick Check</i> 371, 373</p> <p>Teacher Wraparound Edition: DMI 370, 372; ELL 370; UV 372</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5 Approaching Level Reader: <i>Hurricanes and Tornadoes</i></p> <p>Teacher’s Resources: <i>Presentation Toolkit CD-ROM</i> <i>Science Quest: Atmosphere and Weather</i> <i>Visual Literacy</i> 52</p>
<p>4d <u>analyzing global patterns of atmospheric movements to explain effects on weather.</u></p>	<p>Student Edition: 370-371, 384-388 <i>Quick Check</i> 385, 387, 388</p> <p>Teacher Wraparound Edition: DIF 385, 387; DMI 384, 385, 386; VL 384</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5 Approaching Level Reader: <i>Hurricanes and Tornadoes</i> Grade 5 On Level Reader: <i>The Weather Detectives</i> Grade 5 English Learner Level Reader: <i>The Weather Detectives</i></p> <p>Teacher’s Resources: <i>Presentation Toolkit CD-ROM</i> <i>Science Quest: Atmosphere and Weather</i></p>

STANDARDS	PAGE REFERENCES
<p>4e <u>predicting temperature and precipitation changes associated with the passing of various fronts.</u></p>	<p>Student Edition: 384-388 <i>Quick Check</i> 385, 387, 389</p> <p>Teacher Wraparound Edition: DIF 385; DMI 385; EMI 387; FA 389</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5 Approaching Level Reader: <i>Hurricanes and Tornadoes</i> Grade 5 On Level Reader: <i>The Weather Detectives</i> Grade 5 English Learner Level Reader: <i>The Weather Detectives</i></p> <p>Teacher’s Resources: <i>Presentation Toolkit CD-ROM</i> <i>Science Quest: Atmosphere and Weather</i></p>
<p>ESS1 (5-8) INQ+ POC –5 <i>Using data about a rock’s physical characteristics make and support an inference about the rock’s history and connection to rock cycle.</i></p>	
<p>ESS1 (5-6)-5 Students demonstrate an understanding of processes and change over time by ...</p>	
<p>5a <u>representing the processes of the rock cycle in words, diagrams, or models.</u></p>	<p>Student Edition: 306-307 <i>Quick Check</i> 306 <i>Read a Diagram</i> 307</p> <p>Teacher Wraparound Edition: DIF 307; ELL 306; FA 311; UV 307</p> <p>Teacher’s Resources: <i>Presentation Toolkit CD-ROM</i> <i>Visual Literacy</i> 307</p>
<p>5b <u>citing evidence and developing a logical argument to explain the formation of a rock, given its characteristics and location. (e.g. classifying rock type using identification resources).</u></p>	<p>Student Edition: 308-310 <i>Focus on Skills: Skill Builder</i> 312-313 <i>Quick Check</i> 309</p> <p>Teacher Wraparound Edition: DMI 308; ELL 306; UV 309</p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 313 <i>Activity Lab Book</i> 146-148 <i>Instructional Navigator CD-ROM</i></p>

STANDARDS	PAGE REFERENCES
<p>ESS2 - The earth is part of a solar system, made up of distinct parts that have temporal and spatial interrelationships.</p>	
<p>ESS2 (5-8) MAS –6 <i>Compare and contrast planets based on data provided about size, composition, location, orbital movement, atmosphere, or surface features (includes moons).</i></p>	
<p>ESS2 (5-6)-6 Students demonstrate an understanding of characteristics of the solar system by ...</p>	
<p>6a <u>identifying and comparing the size, location, distances, and movement (e.g. orbit of planets, path of meteors) of the objects in our solar system.</u></p>	<p>Student Edition: 444-451 <i>Explore: Inquiry Activity 441</i> <i>Focus on Skills: Skill Builder 428-429</i> <i>Math in Science 439</i> <i>Quick Lab 447</i></p> <p>Teacher Wraparound Edition: AE 441; HA 426; WU 440</p> <p>Teacher’s Resources: <i>Activity Flipchart 45, 47</i> <i>Activity Lab Book 200-202, 208-210, 212</i> <i>Instructional Navigator CD-ROM</i> <i>Math 19-20</i> <i>Presentation Toolkit CD-ROM</i> <i>Science Activity DVD</i></p>

STANDARDS	PAGE REFERENCES
<p>6b <u>comparing the composition, atmosphere, and surface features of objects in our solar system.</u></p>	<p>Student Edition: 432, 444-451 <i>Explore: Inquiry Activity</i> 441 <i>Math in Science</i> 439 <i>Quick Check</i> 447 <i>Quick Lab</i> 447 <i>Read a Chart</i> 445 <i>Reading in Science</i> 455</p> <p>Teacher Wraparound Edition: AE 441; DIF 447; DMI 446, 448; ELL 451; HA 436; UV 445</p> <p>Leveled Readers: Grade 5 On Level Reader: <i>The Sun and Other Stars</i> Grade 5 English Learner Level Reader: <i>The Sun and Other Stars</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 47 <i>Activity Lab Book</i> 208-210, 212 <i>Math</i> 19-20 <i>Presentation Toolkit CD-ROM</i> <i>Reading and Writing</i> 189-190 <i>Science Activity DVD</i></p>
<p>ESS2 (5-8) SAE+ POC –8 <i>Explain temporal or positional relationships between or among the Earth, sun, and moon (e.g., night/day, seasons, year, tides) or how gravitational force affects objects in the solar system (e.g., moons, tides, orbits, satellites).</i></p>	
<p>ESS2 (5-6)-8 Students demonstrate an understanding of temporal or positional relationships between or among the Earth, sun, and moon by ...</p>	
<p>8a <u>using models to describe the relative motion/position of the Earth, sun and moon.</u></p>	<p>Student Edition: 424-426, 432-434 <i>Quick Lab</i> 425, 435</p> <p>Teacher Wraparound Edition: AE 431; ELL 454; HA 426</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 199, 207 <i>Presentation Toolkit CD-ROM</i> <i>Visual Literacy</i> 60, 61</p>

STANDARDS	PAGE REFERENCES
<p>8b <u>explaining night/day, seasons, year, and tides as a result of the regular and predictable motion of the Earth, sun, and moon.</u></p>	<p>Student Edition: 424-426, 436 <i>Quick Check</i> 425, 426 <i>Quick Lab</i> 425 <i>Read a Diagram</i> 424, 436 Teacher Wraparound Edition: AM 425; DMI 424, 426, 436; FA 427 Teacher’s Resources: <i>Activity Lab Book</i> 424 <i>Presentation Toolkit CD-ROM</i> <i>Science in Motion: Moon and Tides</i> <i>Visual Literacy</i> 60</p>
<p>8c <u>using a model of the Earth, sun and moon to recreate the phases of the moon.</u></p>	<p>Student Edition: 432-433 <i>Explore: Inquiry Activity</i> 431 <i>Quick Check</i> 433 Teacher Wraparound Edition: AE 431; AM 433; FA 437; HA 436 Teacher’s Resources: <i>Activity Flipchart</i> 46 <i>Activity Lab Book</i> 203-205 <i>Science Activity DVD</i></p>

STANDARDS	PAGE REFERENCES
<p>ESS2 (5-6) -8 Students demonstrate an understanding of gravitational relationships between or among objects of the solar system by ...</p>	
<p>8d <u>defining the Earth's gravity as a force that pulls any object on or near the Earth toward its center without touching it.</u></p>	<p>Student Edition: 422-423, 586 <i>Explore: Inquiry Lab</i> 421 <i>Look and Wonder</i> 420 <i>Read a Diagram</i> 423 <i>Writing in Science</i> 438</p> <p>Teacher Wraparound Edition: DMI 422; WU 420</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Life on a Space Station</i> Grade 5 Approaching Level Reader: <i>Sir Isaac Newton</i></p> <p>Teacher's Resources: <i>Activity Flipchart</i> 44 <i>Activity Lab Book</i> 195-197 <i>Reading and Writing</i> 175-177 <i>Science Quest: Gravity and Orbits</i> <i>Visual Literacy</i> 59</p>
<p>ESS3 - The origin and evolution of galaxies and the universe demonstrate fundamental principles of physical science across vast distances and time</p>	
<p>ESS3 (5-6)–9 Students demonstrate an understanding of the structure of the universe by ...</p>	
<p>9a <u>describing the apparent motion/position of the objects in the sky. (e.g. constellations, planets).</u></p>	<p>Student Edition: 432-433, 444, 462-463 <i>Explore: Inquiry Activity</i> 441, 457</p> <p>Teacher Wraparound Edition: AM 463; DMI 462; WU 440</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>Looking to the Sky</i> Grade 5 On Level Reader: <i>The Sun and Other Stars</i> Grade 5 English Learner Level Reader: <i>The Sun and Other Stars</i></p> <p>Teacher's Resources: <i>Activity Flipchart</i> 47, 48 <i>Activity Lab Book</i> 208-210, 213-215</p>

STANDARDS	PAGE REFERENCES
<p>9b <u>identifying the sun as a medium-sized star located near the edge of a disk-shaped galaxy of stars.</u></p>	<p>Student Edition: 464-465</p> <p>Teacher Wraparound Edition: SYP TR55</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>Looking to the Sky</i> Grade 5 On Level Reader: <i>The Sun and Other Stars</i> Grade 5 English Learner Level Reader: <i>The Sun and Other Stars</i></p>
<p>Physical Science</p>	
<p>PS1 - All living and nonliving things are composed of matter having characteristic properties that distinguish one substance from another (independent of size or amount of substance).</p>	
<p>PS1 (5-8) INQ-1 <i>Investigate the relationships among mass, volume and density.</i></p>	
<p>PS1 (5-6)-1 Students demonstrate an understanding of characteristic properties of matter by ...</p>	
<p>1a <u>comparing the masses of objects of equal volume made of different substances.</u></p>	<p>Student Edition: 480-481, 482-483</p> <p>Teacher Wraparound Edition: AE 479; DMI 482; ELL 483</p> <p>Teacher’s Resources: <i>Presentation Toolkit CD-ROM</i></p>

STANDARDS	PAGE REFERENCES
<p>PS1 (5-8) INQ+POC –2 <i>Given data about characteristic properties of matter (e.g., melting and boiling points, density, solubility) identify, compare, or classify different substances.</i></p>	
<p>PS1 (5-6) –2 Students demonstrate an understanding of characteristic properties of matter by ...</p>	
<p>2a <u>recognizing that different substances have properties, which allow them to be identified regardless of the size of the sample.</u></p>	<p>Student Edition: 482-483, 490-491, 494-498, 504-505, 508-509 <i>Be a Scientist: Inquiry Investigation</i> 512-513 <i>Explore: Inquiry Activity</i> 503 <i>Look and Wonder</i> 488 <i>Quick Check</i> 507 <i>Quick Lab</i> 507</p> <p>Teacher Wraparound Edition: AE 502; DIF 476, 495; DMI 490, 494; SB 490; WU 488</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>Discovering the Elements</i> Grade 5 Beyond Level Reader: <i>Periodic Table of Elements</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 53, 54 <i>Activity Lab Book</i> 235-237, 240-243 <i>Reading and Writing</i> 203-205 <i>Presentation Toolkit CD-ROM</i></p>

STANDARDS	PAGE REFERENCES
<p>2b <u>classifying and comparing substances</u> using characteristic properties (e.g., solid, liquid, gas).</p>	<p>Student Edition: 482-483, 490-491, 494-498, 504-505, 508-509 <i>Be a Scientist: Inquiry Investigation</i> 512-513 <i>Explore: Inquiry Activity</i> 503 <i>Look and Wonder</i> 488 <i>Quick Check</i> 507 <i>Quick Lab</i> 507</p> <p>Teacher Wraparound Edition: AE 502; DIF 476, 495; DMI 490, 494; SB 490; WU 488</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Periodic Table of Elements</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 53, 54 <i>Activity Lab Book</i> 235-237, 240-243 <i>Reading and Writing</i> 203-205 <i>Presentation Toolkit CD-ROM</i></p>
<p>PS1 (5-8) INQ+ SAE –3 <i>Collect data or use data provided to infer or predict that the total amount of mass in a closed system stays the same, regardless of how substances interact (conservation of matter).</i></p>	
<p>PS1 (5-6)–3 Students demonstrate an understanding of conservation of matter by ...</p>	
<p>3a explaining that regardless of how parts of an object are arranged, the <u>mass of the whole is always the same as the sum of the masses of its parts.</u></p>	<p>Student Edition: 545 <i>Math in Science</i> 551 <i>Read a Diagram</i> 544</p> <p>Teacher Wraparound Edition: FA 549</p> <p>Teacher’s Resources: <i>Science Quest: Chemical Reactions</i> <i>Visual Literacy</i> 77</p>

STANDARDS	PAGE REFERENCES
<p>PS1 (5-8) SAE+MAS – 4 <i>Represent or explain the relationship between or among energy, molecular motion, temperature, and states of matter.</i></p>	
<p>PS1 (5-6) – 4 Students demonstrate an understanding of states of matter by ...</p>	
<p>4a <u>differentiating among the characteristics of solids, liquids, and gases.</u></p>	<p>Student Edition: 484, 520 <i>Lesson Review</i> 484 (#3) <i>Quick Check</i> 484 <i>Writing Link</i> 485 Teacher Wraparound Edition: UV 484 Leveled Readers: Grade 5 Beyond Level Reader: <i>Periodic Table of Elements</i> 6-9</p>
<p>4b predicting the effects of heating and cooling on the physical state, <u>volume and mass</u> of a substance.</p>	<p>Student Edition: 520-524 <i>Explore: Inquiry Activity</i> 519 <i>Quick Lab</i> 523 <i>Read a Diagram</i> 520 Teacher Wraparound Edition: WU 518 Teacher’s Resources: <i>Activity Flipchart</i> 55 <i>Activity Lab Book</i> 244-246 <i>Science Activity DVD</i></p>

STANDARDS	PAGE REFERENCES
<p>PS1 (5-8) MAS –5 <i>Given graphic or written information, classify matter as atom/molecule or element/compound (Not the structure of an atom).</i></p>	
<p>PS1 (5-6) – 5 Students demonstrate an understanding of the structure of matter by ...</p>	
<p>5a distinguishing between solutions, mixtures, and “pure” substances, i.e. compounds and elements.</p>	<p>Student Edition: 490-491, 530-531 <i>Quick Lab</i> 493</p> <p>Teacher Wraparound Edition: APK 528; DIF 491; ELL 530; EMI 491</p> <p>Leveled Readers: Grade 5 On Level Reader: <i>Alloys: Metals in the Mix</i> Grade 5 English Learner Level Reader: <i>Alloys: Metals in the Mix</i> Grade 5 On Level Reader: <i>Carbon All Around</i> Grade 5 English Learner Level Reader: <i>Carbon All Around</i> Grade 5 Approaching Level Reader: <i>Discovering the Elements</i> Grade 5 Approaching Level Reader: <i>Mixtures and Solutions</i> Grade 5 Beyond Level Reader: <i>Periodic Table of Elements</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 234 <i>Science Quest: Mixtures and Compounds</i> <i>Visual Literacy</i> 69</p>

STANDARDS	PAGE REFERENCES
<p>PS 2 - Energy is necessary for change to occur in matter. Energy can be stored, transferred, and transformed, but cannot be destroyed.</p>	
<p>PS2 (5-8)-SAE+ POC- 6 <i>Given a real-world example, show that within a system, energy transforms from one form to another (i.e., chemical, heat, electrical, gravitational, light, sound, mechanical).</i></p>	
<p>PS2 (5-6)- 6 Students demonstrate an understanding of energy by...</p>	
<p>6a <u>differentiating among the properties</u> of various forms of energy.</p>	<p>Student Edition: 600-602, 626-627, 638-639, 652, 666-667, 678-679</p> <p>Teacher Wraparound Edition: APK 622; DMI 600; DV 600; EMI 601; FA 603; HA 602; UV 602</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Global Weather</i> Grade 5 Approaching Level Reader: <i>Magnetism</i> Grade 5 Beyond Level Reader: <i>Sonar, Radar, and Lasers</i> Grade 5: On Level Reader: <i>Mission Green Earth</i> Grade 5: English Learner Level Reader: <i>Mission Green Earth</i> Grade 5: On Level Reader: <i>When Energy Changes</i> Grade 5: English Learner Level Reader: <i>When Energy Changes</i></p>

STANDARDS	PAGE REFERENCES
<p>6b <u>explaining how energy may be stored in various ways</u> (e.g. batteries, springs, height in terms of potential energy).</p>	<p>Student Edition: 684 <i>Be a Scientist: Inquiry Investigation</i> 604-605, 686-687 <i>Read a Photo</i> 600 <i>Reading in Science</i> 674-675 <i>Writing Link</i> 603</p> <p>Teacher Wraparound Edition: IW 686</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>What Is GPS?</i> Grade 5: On Level Reader: <i>When Energy Changes</i> Grade 5: English Learner Level Reader: <i>When Energy Changes</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 65, 74 <i>Activity Lab Book</i> 289-292, 330-333 <i>Instructional Navigator CD-ROM</i> <i>Reading and Writing</i> 281-282 <i>Technology: A Closer Look, Lesson 2</i> <i>Visual Literacy</i> 86</p>
<p>6c <u>describing sound as the transfer of energy through various materials</u> (e.g. solids, liquids, gases).</p>	<p>Student Edition: 638-641 <i>Explore: Inquiry Activity</i> 637 <i>Quick Check</i> 641 <i>Quick Lab</i> 641</p> <p>Teacher Wraparound Edition: AE 636; DIF 640; UV 639</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>Magnetisim</i> Grade 5 Beyond Level Reader: <i>Sonar, Radar, and Lasers</i> Grade 5: On Level Reader: <i>When Energy Changes</i> Grade 5: English Learner Level Reader: <i>When Energy Changes</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 69 <i>Activity Lab Book</i> 306-308, 310 <i>Presentation Toolkit CD-ROM</i> <i>Science Activity DVD</i></p>

STANDARDS	PAGE REFERENCES
<p>PS2 (5-8) INQ+SAE+POC – 7 <i>Use data to draw conclusions about how heat can be transferred (convection, conduction, radiation).</i></p>	
<p>PS2 (5-6) – 7 Students demonstrate an understanding of heat energy by...</p>	
<p>7a identifying real world applications where heat energy is transferred and showing the direction that the heat energy flows.</p>	<p>Student Edition: 626-632 <i>Quick Check</i> 629 <i>Explore: Inquiry Activity</i> 625 <i>Focus on Skills: Skill Builder</i> 634-635</p> <p>Teacher Wraparound Edition: AE 625; DIF 629; DMI 626, 628; FA 633; HA 632; SB 626; WU 624</p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 67, 68 <i>Activity Lab Book</i> 298-300, 303-305 <i>Instructional Navigator CD-ROM</i> <i>Presentation Toolkit CD-ROM</i> <i>Science Activity DVD</i> <i>Visual Literacy</i> 89</p>
<p>PS 3 - The motion of an object is affected by forces.</p>	
<p>PS3 (5-8) INQ+ POC –8 <i>Use data to determine or predict the overall (net effect of multiple forces (e.g., friction, gravitational, magnetic) on the position, speed, and direction of motion of objects.</i></p>	
<p>PS3 (5-6)–8 Students demonstrate an understanding of motion by...</p>	
<p>8a using data or graphs to compare the relative speed of objects.</p>	<p>Student Edition: 574-575 <i>Explore: Inquiry Activity</i> 571 <i>Focus On Skills: Skill Builder</i> 594-595 <i>Quick Lab</i> 575</p> <p>Teacher Wraparound Edition: AE 571</p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 61, 63 <i>Activity Lab Book</i> 271-273, 275, 281-283 <i>Instructional Navigator CD-ROM</i> <i>Presentation Toolkit CD-ROM</i> <i>Science Activity DVD</i></p>

STANDARDS	PAGE REFERENCES
Students demonstrate an understanding of force (e.g., friction, gravitational, magnetic) by...	
<p>8b <u>recognizing that a force is a push or a pull.</u></p>	<p>Student Edition: 584, 586-587</p> <p>Teacher Wraparound Edition: DIF 585; DMI 586; DV 585; UV 585</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Amusement Park Rides</i> Grade 5 Approaching Level Reader: <i>Sir Isaac Newton</i></p> <p>Teacher’s Resources: <i>Reading and Writing</i> 246-248</p>
<p>8c <u>explaining that changes in speed or direction of motion are caused by forces.</u></p>	<p>Student Edition: 585, 586-592</p> <p><i>Focus on Skills: Skill Builder</i> 594-595 <i>Quick Check</i> 585, 592 <i>Quick Lab</i> 586</p> <p>Teacher Wraparound Edition: DIF 591; HA 592</p> <p>Leveled Readers: Grade 5 Beyond Level Reader: <i>Amusement Park Rides</i> Grade 5: On Level Reader: <i>Motion and Energy at Play</i> Grade 5: English Learner Level Reader: <i>Motion and Energy at Play</i> Grade 5 Approaching Level Reader: <i>Sir Isaac Newton</i></p> <p>Teacher’s Resources: <i>Activity Flipchart</i> 63 <i>Activity Lab Book</i> 280, 281-283 <i>Presentation Toolkit</i> CD-ROM</p>

STANDARDS	PAGE REFERENCES
<p>8d showing that electric currents and magnets can exert a force on each other.</p>	<p>Student Edition: 680-681 <i>Be a Scientist: Inquiry Investigation</i> 686-687 <i>Quick Lab</i> 681</p> <p>Teacher Wraparound Edition: DIF 681</p> <p>Leveled Readers: Grade 5 Approaching Level Reader: <i>Magnetism</i> Grade 5: On Level Reader: <i>When Energy Changes</i> Grade 5: English Learner Level Reader: <i>When Energy Changes</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 329 <i>Presentation Toolkit CD-ROM</i></p>
<p>PS3 (5-8) SAE+INQ – Local Assessment Only <i>Experiment, observe, or predict how energy might be transferred by means of waves.</i></p>	
<p>PS3 (5-6) - LA Students demonstrate an understanding of waves by ...</p>	
<p>LAa investigate how vibrations in materials (e.g. pebble in a pond, jump rope, slinky) set up wavelike disturbances that spread away from the source.</p>	<p>Student Edition: 273, 274-275, 639 <i>Quick Lab</i> 275</p> <p>Teacher Wraparound Edition: DMI 274</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 135 <i>Presentation Toolkit CD-ROM</i></p>