



SCIENCE

A CLOSER LOOK

Grade 3
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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 (K-4) - INQ+POC -1 <i>Sort/classify different living things using similar and different characteristics. Describe why organisms belong to each group or cite evidence about how they are alike or not alike.</i>	
LS1 (3-4) -1 Students demonstrate an understanding of classification of organisms by ...	
1a <u>citing evidence to distinguish</u> between living and non-living things.	Student Edition: 22-23 <i>Explore 21</i> Teacher Wraparound Edition: AE 21;DI 23, 25; ELLS 24; SB 22; WU 20 Teacher’s Resources: <i>Activity Lab Book 4-6</i> <i>Reading and Writing 3-4</i> <i>Visual Literacy 1-2</i>

STANDARDS	PAGE REFERENCES
<p>1b identifying, sorting and <u>comparing</u> based on similar and/or different external features.</p>	<p>Student Edition: 32-38, 44-47, 54-60 <i>Explore</i> 31, 43, 53 <i>Focus on Skills</i> 50-51 <i>Lesson Review</i> 39, 49 <i>Writing in Science</i> 62</p> <p>Teacher Wraparound Edition: AE 31, 53; DI 33, 45, 55, 59; DMI 38, 44; HA 38, 60; IR 50; SB 32; UV 38; WU 30, 52</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Amazing Invertebrates!</i> Grade 3 English Learner Level Reader <i>Amazing Invertebrates!</i> Grade 3 Beyond Level Reader <i>Claws and Wings and Other Neat Things</i> Grade 3 Approaching Level Reader <i>Cool Cats</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 8-10, 20-25 <i>Visual Literacy</i> 4, 7-8</p>

STANDARDS	PAGE REFERENCES
<p>1c recording and <u>analyzing</u> observations/data about external features (e.g., within a grouping, which characteristics are the same and which are different).</p>	<p>Student Edition: 32-38, 44-47, 54-60 <i>Explore</i> 31, 53 <i>Focus on Skills</i> 50-51 <i>Lesson Review</i> 49 <i>Reading in Science</i> 131 <i>Writing in Science</i> 62</p> <p>Teacher Wraparound Edition: AE 31, 53; DI 33, 45, 55, 59; HA 38; IR 50; WU 30, 52</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Amazing Invertebrates!</i> Grade 3 English Learner Level Reader <i>Amazing Invertebrates!</i> Grade 3 Beyond Level Reader <i>Claws and Wings and Other Neat Things</i> Grade 3 Approaching Level Reader <i>Cool Cats</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 8-10, 20-25 <i>Reading and Writing</i> 21-22, 54-55 <i>Visual Literacy</i> 4, 7-8</p>
<p>1d <u>citing evidence</u> (e.g., prior knowledge, data) <u>to draw conclusions explaining why organisms are grouped/not grouped together</u> (e.g. mammal, bird, and fish).</p>	<p>Student Edition: 32-38, 44-47, 54-60 <i>Explore</i> 31, 53 <i>Reading in Science</i> 28-29</p> <p>Teacher Wraparound Edition: AE 53; DI 59; DMI 38, 59; HA 38; UV 38, 59</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Amazing Invertebrates!</i> Grade 3 English Learner Level Reader <i>Amazing Invertebrates!</i> Grade 3 Beyond Level Reader <i>Claws and Wings and Other Neat Things</i> Grade 3 Approaching Level Reader <i>Cool Cats</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 8-9, 23-25 <i>Reading and Writing</i> 7-8</p>

STANDARDS	PAGE REFERENCES
<p>LS1 (K-4) SAE -2 <i>Identify the basic needs of plants and animals in order to stay alive. (i.e., water, air, food, space).</i></p>	
<p>LS1 (3-4)-2 Students demonstrate understanding of structure and function-survival requirements by...</p>	
<p>2a observing that plants need water, air, food, light and <u>space</u> to grow <u>and reproduce</u>; observing that animals need water, air, food, and shelter/space to grow <u>and reproduce</u>.</p>	<p>Student Edition: 24-25, 34-37, 46-48, 70-71 <i>Be a Scientist</i> 40-41 <i>Explore</i> 69 <i>Focus on Skills</i> 78-79 <i>Lesson Review</i> 27, 39, 49</p> <p>Teacher Wraparound Edition: AE 69; CE 36; DI 47; DMI 34, 46; ELLS 46; FA 27; HA 26, 48; IM 40; WU 42</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Growing a Garden</i> Grade 3 Beyond Level Reader <i>Why We Need the Sun</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 29, 31-33 <i>Reading and Writing</i> 3-5, 9-11, 13-15 <i>Visual Literacy</i> 3, 6</p>

STANDARDS	PAGE REFERENCES
<p>LS1 (K-4) POC –3 <i>Predict, sequence or compare the life stages of organisms – plants and animals (e.g., put images of life stages of an organism in order, predict the next stage in sequence, compare two organisms).</i></p>	
<p>LS1 (3-4)–3 <i>Students demonstrate an understanding of reproduction by ...</i></p>	
<p>3a observing changes and recording data to scientifically <u>draw</u> and label the stages in the life cycle of a familiar plant and animal.</p>	<p>Student Edition: 74-76, 82-86 <i>Chapter Review</i> 99 <i>Explore</i> 81</p> <p>Teacher Wraparound Edition: DI 17; ELLS 85; FA 87; HA 76, 86</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Animal Life Cycles</i> Grade 3 English Learner Level Reader <i>Animal Life Cycles</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 34-35 <i>Visual Literacy</i> 9-12</p>
<p>3b sequencing the life cycle of a plant or animal when given a set of <u>data</u>/pictures.</p>	<p>Student Edition: 74-76, 82-86 <i>Quick Lab</i> 85</p> <p>Teacher Wraparound Edition: DMI 74; HA 76</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Animal Life Cycles</i> Grade 3 English Learner Level Reader <i>Animal Life Cycles</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 36-37 <i>Visual Literacy</i> 9-12</p>

STANDARDS	PAGE REFERENCES
<p>3c <u>comparing the life cycles of 2 plants or 2 animals when given a set of data/pictures.</u></p>	<p>Student Edition: 74-76, 82-86 <i>Chapter Review</i> 99 <i>Lesson Review</i> 77 <i>Quick Lab</i> 85</p> <p>Teacher Wraparound Edition: DI 84; ELLS 85; FA 87; HA 76, 86</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Animal Life Cycles</i> Grade 3 English Learner Level Reader <i>Animal Life Cycles</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 37 <i>Visual Literacy</i> 9-12</p>

STANDARDS	PAGE REFERENCES
<p>LS1 (K-4) FAF –4 <i>Identify and explain how the physical structures of an organism (plants or animals) allow it to survive in its habitat/environment (e.g., roots for water; nose to smell fire).</i></p>	
<p>LS1 (3-4)–4 Students demonstrate understanding of structure and function-survival requirements by...</p>	
<p>4a identifying and explaining <u>how</u> the physical structure/characteristic of an organism allows it to survive and <u>defend itself</u> (e.g. of a characteristic – the coloring of a fiddler crab allows it to camouflage itself in the sand and grasses of its environment so that it will be protected from predators).</p>	<p>Student Edition: 34-37, 46-48, 134-142 <i>Be a Scientist</i> 144-145 <i>Explore</i> 43, 133 <i>Literature</i> 103 <i>Quick Lab</i> 35, 47, 137 <i>Reading in Science</i> 130</p> <p>Teacher Wraparound Edition: DI 35, 47, 103, 135; FA 39, 49; IW 144; SB 7, 32; WU 132</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Amazing Invertebrates!</i> Grade 3 English Learner Level Reader <i>Amazing Invertebrates!</i> Grade 3 Approaching Level Reader <i>California Condor</i> Grade 3 Beyond Level Reader <i>Claw and Wings and Other Neat Things</i> Grade 3 Approaching Level Reader <i>Cool Cats</i> Grade 3 On Level Reader <i>Natural Defenses</i> Grade 3 English Learner Level Reader <i>Natural Defenses</i> Grade 3 Beyond Level Reader <i>Predator and Prey</i> Grade 3 On Level Reader <i>The Way Eyes See It</i> Grade 3 English Learner Level Reader <i>The Way Eyes See It</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 10-11, 16-17, 19, 53-60 <i>Reading and Writing</i> 9-11, 13-15, 44, 56-58 <i>Visual Literacy</i> 3, 5-6, 19-20</p>

STANDARDS	PAGE REFERENCES
<p>4b analyzing the structures needed for survival of <u>populations</u> of plants and animals in a <u>particular</u> habitat/environment (e.g. populations of desert plants and animals require structures that enable them to obtain/conserves/ retain water).</p>	<p>Student Edition: 134-142 <i>Be a Scientist</i> 144-145 <i>Chapter Review</i> 147 <i>Explore</i> 133 <i>Quick Lab</i> 137</p> <p>Teacher Wraparound Edition: AE 133; DI 103, 137; DMI 136, 138, 140; ELLS 139, 141; FA 143; WU 132</p> <p>Leveled Readers: Grade 3 Beyond Level Reader <i>Claws and Wings and Other Neat Things</i> Grade 3 Approaching Level Reader <i>Cool Cats</i> Grade 3 Approaching Level Reader <i>Living Communities</i> Grade 3 Beyond Level Reader <i>Predator and Prey</i> Grade 3 On Level Reader <i>The Way Eyes See It</i> Grade 3 English Learner Level Reader <i>The Way Eyes See It</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 53-60 <i>Reading and Writing</i> 56-58 <i>Visual Literacy</i> 20</p>

STANDARDS	PAGE REFERENCES
LS2 - Matter cycles and energy flows through an ecosystem.	
LS2 (K-4) SAE –5 <i>Recognize that energy is needed for all organisms to stay alive and grow or identify where a plant or animal gets its energy.</i>	
LS2 (3-4) –5 Students demonstrate an understanding of energy flow in an ecosystem by ...	
5a <u>identifying sources of energy for survival of organisms (i.e. light or food).</u>	Student Edition: 24, 36-37, 46, 110-113 <i>Be a Scientist</i> 40-41 <i>Explore</i> 107 <i>Focus on Skills</i> 116-117 <i>Lesson Review</i> 27, 39, 115 Teacher Wraparound Edition: CE 36; DI 37, 47, 112; DMI 34, 46; ELLS 46; FA 27; HA 26; IM 40; WU 42 Leveled Readers: Grade 3 On Level Reader <i>Coral Reefs</i> Grade 3 English Learner Level Reader <i>Coral Reefs</i> Grade 3 On Level Reader <i>Energy for Your Body</i> Grade 3 English Learner Level Reader <i>Energy for Your Body</i> Grade 3 Approaching Level Reader <i>Growing a Garden</i> Grade 3 Approaching Level Reader <i>Sun Stories</i> Grade 3 On Level Reader <i>What Your Body Is Made Of</i> Grade 3 English Learner Level Reader <i>What Your Body Is Made Of</i> Grade 3 Beyond Level Reader <i>Why We Need the Sun</i> Teacher’s Resources: <i>Activity Lab Book</i> 42-43, 46-48 <i>Visual Literacy</i> 3, 16

STANDARDS	PAGE REFERENCES
<p>LS2 (K-4) SAE –6 Describe ways plants and animals depend on each other (e.g., shelter, nesting, food).</p>	
<p>LS2 (3-4)–6 Students demonstrate an understanding of food webs in an ecosystem by ...</p>	
<p>6a <u>demonstrating in a food web that all animals' food begins with the sun.</u></p>	<p>Student Edition: 110-113 <i>Focus on Skills</i> 116-117</p> <p>Teacher Wraparound Edition: DI 112; DMI 110</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Coral Reefs</i> Grade 3 English Learner Level Reader <i>Coral Reefs</i> Grade 3 Approaching Level Reader <i>Living Communities</i> Grade 3 Beyond Level Reader <i>Predator and Prey</i> Grade 3 Beyond Level Reader <i>Why We Need the Sun</i></p> <p>Teacher's Resources: <i>Activity Lab Book</i> 46-48 <i>Reading and Writing</i> 46-48 <i>Visual Literacy</i> 15-16</p>

STANDARDS	PAGE REFERENCES
<p>6b using information about organisms to <u>design a habitat and explain how the habitat provides for the needs of the organisms that live there</u></p>	<p>Student Edition: 108-114, 120-128 <i>Chapter Review</i> 147 <i>Explore</i> 107, 119 <i>Focus on Skills</i> 116-117 <i>Lesson Review</i> 115, 129</p> <p>Teacher Wraparound Edition: DI 111, 112, 121, 122, 126; ELLS 125; FA 115, 169; HA 114; UV 109; WU 106, 118</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Cool Cats</i> Grade 3 On Level Reader <i>Coral Reefs</i> Grade 3 English Learner Level Reader <i>Coral Reefs</i> Grade 3 Approaching Level Reader <i>Living Communities</i> Grade 3 Beyond Level Reader <i>Predator and Prey</i> Grade 3 Beyond Level Reader <i>Wetlands</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 42-43, 46-51 <i>Reading and Writing</i> 46-48, 50-52 <i>Visual Literacy</i> 15-18</p>

STANDARDS	PAGE REFERENCES
<p>6c <u>explaining the way that plants and animals in that habitat depend on each other.</u></p>	<p>Student Edition: 108-114, 120-128, 166-167 <i>Chapter Review</i> 147 <i>Explore</i> 107 <i>Focus on Skills</i> 116-117 <i>Lesson Review</i> 115</p> <p>Teacher Wraparound Edition: DI 111, 112, 121, 122, 167; FA 115; HA 114; UV 109; WU 106</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Cool Cats</i> Grade 3 On Level Reader <i>Coral Reefs</i> Grade 3 English Learner Level Reader <i>Coral Reefs</i> Grade 3 Approaching Level Reader <i>Living Communities</i> Grade 3 Beyond Level Reader <i>Predator and Prey</i> Grade 3 Beyond Level Reader <i>Wetlands</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 42-43, 46-51 <i>Reading and Writing</i> 46-48, 50-52 <i>Visual Literacy</i> 15-18</p>

STANDARDS	PAGE REFERENCES
<p>LS3 - Groups of organisms show evidence of change over time (structures, behaviors, and biochemistry).</p>	
<p>LS3 (K-4) SAE –7 <i>Using information (data or scenario), explain how changes in the environment can cause organisms to respond (e.g., survive there and reproduce, move away, die).</i></p>	
<p>LS3 (3-4) –7 Students demonstrate an understanding of equilibrium in an ecosystem by ...</p>	
<p>7a explaining what plants or animals might do if their environment changes (e.g., changing food supply or habitat due to fire, human impact, sudden weather-related changes).</p>	<p>Student Edition: 152-155, 162-168, 174-175 <i>Explore</i> 161 <i>Lesson Review</i> 169 <i>Quick Lab</i> 155, 167</p> <p>Teacher Wraparound Edition: AE 161; AM 163; DI 163, 165, 175; ELLS 164; HA 168, 178; UV 111</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>California Condor</i> Grade 3 On Level Reader <i>Coral Reefs</i> Grade 3 English Learner Level Reader <i>Coral Reefs</i> Grade 3 Beyond Level Reader <i>Predator and Prey</i> Grade 3 Beyond Level Reader <i>Wetlands</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 64, 68-71 <i>Reading and Writing</i> 67-69, 73 <i>Visual Literacy</i> 22-24</p>

STANDARDS	PAGE REFERENCES
<p>7b <u>explaining how the balance of the ecosystem can be disturbed (e.g., how does overpopulation of a species affect the rest of the ecosystem).</u></p>	<p>Student Edition: 154-155, 162-168, 174-175 <i>Lesson Review</i> 169</p> <p>Teacher Wraparound Edition: AM 163; DI 155, 163; DMI 162, 166, 174; HA 178; UV 163; WU 160</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Coral Reefs</i> Grade 3 English Learner Level Reader <i>Coral Reefs</i> Grade 3 Beyond Level Reader <i>Predator and Prey</i> Grade 3 Beyond Level Reader <i>Wetlands</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 64 <i>Reading and Writing</i> 63-64, 67-69, 73 <i>Visual Literacy</i> 22-23</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 (K-4) FAF -8 <i>Identify what the physical structures of humans do (e.g., sense organs – eyes, ears, skin, etc.) or compare physical structures of humans to similar structures of animals.</i></p>	
<p>LS4 (3-4)-8 Students demonstrate an understanding of human body systems by ...</p>	
<p>8a <u>showing connections between external and internal body structures (i.e., organs and systems) and how they help humans survive.</u></p>	<p>Student Edition: <i>Health Handbook</i> R14-R23</p> <p>Teacher Wraparound Edition: APK R16, R17, R20; DI R14, R17, R19, R20, R23; DMI R14, R18, R19, R22; ELLS R18</p> <p>Leveled Readers: Grade 3 English Learner Level Reader <i>Energy for Your Body</i> Grade 3 On Level Reader <i>Energy for Your Body</i> Grade 3 English Learner Level Reader <i>The Way Eyes See It</i> Grade 3 On Level Reader <i>The Way Eyes See It</i> Grade 3 English Learner Level Reader <i>What Your Body Is Made Of</i> Grade 3 On Level Reader <i>What Your Body Is Made Of</i></p>

STANDARDS	PAGE REFERENCES
<p>8b <u>comparing and analyzing external features and characteristics</u> of humans and other animals.</p>	<p>Student Edition: 24-26, 60 <i>Literature</i> 103</p> <p>Teacher Wraparound Edition: DMI 60; HA 60</p> <p>Leveled Readers: Grade 3 On Level Reader <i>The Way Eyes See It</i> Grade 3 English Learner Level Reader <i>The Way Eyes See It</i></p> <p>Teacher’s Resources: <i>Reading and Writing</i> 44</p>
<p>LS4 (K-4) POC -9 <i>Distinguish between characteristics of humans that are inherited from parents (i.e., hair color, height, skin color, eye color) and others that are learned (e.g., riding a bike, singing a song, playing a game, reading)</i></p>	
<p>LS4 (3-4) –9 Students demonstrate an understanding of human heredity by ...</p>	
<p>9a <u>identifying similarities that are inherited from a biological parent.</u></p>	<p>Student Edition: 92-93 <i>Explore</i> 91 <i>Lesson Review</i> 95 <i>Quick Lab</i> 93</p> <p>Teacher Wraparound Edition: AE 91; ELLS 93; FA 95; HA 94; WU 90</p> <p>Leveled Readers: Grade 3 Beyond Level Reader <i>What Makes You Special?</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 38-41 <i>Reading and Writing</i> 36-38 <i>Visual Literacy</i> 13-14</p>
<p>9b <u>identifying that some behaviors are learned and some behaviors are instinctive.</u></p>	<p>Student Edition: 94</p> <p>Teacher Wraparound Edition: DMI 94; ELLS 93; EMI 94; FA 95; HA 94; SB 92</p> <p>Teacher’s Resources: <i>Visual Literacy</i> 14</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 (K-4) INQ –1 <i>Given certain earth materials (soils, rocks or minerals) use physical properties to sort, classify, and describe them.</i>	
ESS1 (3-4) –1 Students demonstrate an understanding of earth materials by ...	
1a describing, comparing, and sorting rocks, soils, and minerals by similar or different physical properties (e.g., size, shape, color, texture, smell, weight, <u>temperature</u> , <u>hardness</u> , <u>composition</u>).	Student Edition: 228-233, 240-243 <i>Explore</i> 227 <i>Focus on Skills</i> 246-247 <i>Quick Lab</i> 231, 243 <i>Writing in Science</i> 236 Teacher Wraparound Edition: AE 227; APK 226; DI 229, 241, 243; HA 244; SB 228 Leveled Readers: Grade 3 On Level Reader <i>Gems</i> Grade 3 English Learner Level Reader <i>Gems</i> Teacher’s Resources: <i>Activity Lab Book</i> 91-101 <i>Reading and Writing</i> 102-104, 106-110 <i>Visual Literacy</i> 33, 36

STANDARDS	PAGE REFERENCES
<p>1b recording and <u>analyzing</u> observations/data about physical properties (e.g., <u>within a grouping</u>, which characteristics are the same and which are different).</p>	<p>Student Edition: 228-233, 240-243 <i>Explore</i> 227 <i>Focus on Skills</i> 246-247 <i>Quick Lab</i> 231, 243</p> <p>Teacher Wraparound Edition: AE 227; APK 226; DI 229, 241, 243; HA 244; SB 228</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Gems</i> Grade 3 English Learner Level Reader <i>Gems</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 91-101 <i>Reading and Writing</i> 102-104, 106-110 <i>Visual Literacy</i> 33, 36</p>
<p>1c <u>citing evidence</u> (e.g., prior knowledge, data) to <u>support</u> why rocks, soils, or <u>minerals</u> are <u>classified/not classified</u> together.</p>	<p>Student Edition: 228-233, 240-243 <i>Focus on Skills</i> 246-247 <i>Lesson Review</i> 235 <i>Quick Lab</i> 231, 243</p> <p>Teacher Wraparound Edition: APK 226; DMI 234; ELLS 242</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Gems</i> Grade 3 English Learner Level Reader <i>Gems</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 94, 98-101 <i>Visual Literacy</i> 33</p>

STANDARDS	PAGE REFERENCES
<p>1d <u>identifying the four basic materials of the earth (water, soil, rocks, air).</u></p>	<p>Student Edition: 192-193, 228-234, 240-244, 260-261 <i>Explore</i> 191, 239 <i>Focus on Skills</i> 246-247 <i>Lesson Review</i> 235, 267</p> <p>Teacher Wraparound Edition: AE 239; DI 193, 231, 241; DMI 192, 244, 260; HA 244</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Amazing Earth</i> Grade 3 On Level Reader <i>Gems</i> Grade 3 English Learner Level Reader <i>Gems</i> Grade 3 English Learner Level Reader <i>Water, Water, Everywhere</i> Grade 3 On Level Reader <i>Water, Water, Everywhere</i> Grade 3 Beyond Level Reader <i>Wetlands</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 76-79, 95-101 <i>Reading and Writing</i> 83-84, 102-104, 108-110, 118-120 <i>Visual Literacy</i> 27, 33-36</p>

STANDARDS	PAGE REFERENCES
<p>ESS1 (K-4) INQ –2 <i>Use results from an experiment to draw conclusions about how water interacts with earth materials (e.g., percolation, erosion, frost heaves).</i></p>	
<p>ESS1 (3-4)–2 Students demonstrate an understanding of processes and change over time within earth systems by ...</p>	
<p>2a <u>conducting investigations and using observational data to describe how water moves rocks and soils.</u></p>	<p>Student Edition: 208, 214-217 <i>Explore</i> 213 <i>Lesson Review</i> 219 <i>Quick Lab</i> 217</p> <p>Teacher Wraparound Edition: AE 213; DI 215; DMI 216; ELLS 216; EMI 217; FA 219; HA 208, 218; WU 212</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Amazing Earth</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 87-90 <i>Reading and Writing</i> 93-95 <i>Visual Literacy</i> 31</p>

STANDARDS	PAGE REFERENCES
<p>ESS 1 (K-4) NOS –3 <i>Explain how the use of scientific tools helps to extend senses and gather data about weather. (i.e., weather/wind vane: direction; wind sock: wind intensity; anemometer: speed; thermometer: temperature; meter sticks/rulers: snow depth; rain gauges: rain amount in inches).</i></p>	
<p>ESS 1(3-4) –3 Students demonstrate an understanding of how the use of scientific tools helps to extend senses and gather data by...</p>	
<p>3a <u>explaining</u> how the use of scientific tools helps to extend senses and gather data about weather (i.e., weather/wind vane: direction; wind sock: wind intensity; anemometer: speed; thermometer: temperature; meter sticks/rulers: snow depth; rain gauges: rain amount in inches).</p>	<p>Student Edition: 280-284 <i>Focus on Skills</i> 286-287 <i>Quick Lab</i> 283</p> <p>Teacher Wraparound Edition: DI 283; DMI 284; FA 285</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Watching the Weather</i> Grade 3 English Learner Level Reader <i>Watching the Weather</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 117-120 <i>Reading and Writing</i> 126-128 <i>Visual Literacy</i> 41</p>
<p>3b <u>selecting</u> appropriate tools for a given task and <u>describing</u> the information they will provide</p>	<p>Student Edition: 280-284 <i>Focus on Skills</i> 286-287 <i>Quick Lab</i> 283</p> <p>Teacher Wraparound Edition: DI 283; FA 285</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Watching the Weather</i> Grade 3 English Learner Level Reader <i>Watching the Weather</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 117-120 <i>Reading and Writing</i> 126-128 <i>Visual Literacy</i> 41</p>

STANDARDS	PAGE REFERENCES
<p>ESS1 (K-4) INQ+SAE –4 <i>Explain how wind, water, or ice shape and reshape the earth.</i></p>	
<p>ESS1 (3-4) –4 <i>Students demonstrate an understanding of processes and change over time within earth systems by ...</i></p>	
<p>4a <u>investigating local landforms and how wind, water, or ice have shaped and reshaped them (e.g. severe weather).</u></p>	<p>Student Edition: 194-197, 214-217 <i>Explore</i> 213 <i>Focus on Skills</i> 200-201 <i>Lesson Review</i> 219 <i>Quick Lab</i> 195, 217</p> <p>Teacher Wraparound Edition: AE 191, 213; DI 194, 217; ELLS 216; EMI 217; FA 219; HA 218; WU 190, 212</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Amazing Earth</i> Grade 3 Approaching Level Reader <i>Bad Weather</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 78-82, 87-90 <i>Reading and Writing</i> 83-85, 93-95 <i>Visual Literacy</i> 27-28, 31</p>
<p>4b <u>using or building models to simulate the effects of how wind and water shape and reshape the land (e.g., erosion, sedimentation, deposition, glaciation).</u></p>	<p>Student Edition: 214-217 <i>Explore</i> 213 <i>Lesson Review</i> 219 <i>Quick Lab</i> 217</p> <p>Teacher Wraparound Edition: AE 213; DI 215; HA 218</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Amazing Earth</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 87-90 <i>Reading and Writing</i> 93-95 <i>Visual Literacy</i> 31</p>

STANDARDS	PAGE REFERENCES
<p>4c <u>identifying sudden and gradual changes that affect the Earth (e.g. sudden change = flood; gradual change = erosion caused by oceans).</u></p>	<p>Student Edition: 204-208, 214-218 <i>Chapter Review</i> 223 <i>Explore</i> 203, 213 <i>Lesson Review</i> 209, 219 <i>Math in Science</i> 221 <i>Quick Lab</i> 207, 217 <i>Reading in Science</i> 210-211 <i>Writing in Science</i> 220</p> <p>Teacher Wraparound Edition: AE 213; DI 205, 215; DMI 208, 216; FA 209, 219; HA 208, 218; SB 214; WU 202, 212</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Amazing Earth</i> Grade 3 Approaching Level Reader <i>Bad Weather</i> Grade 3 On Level Reader <i>How Earthquakes and Volcanoes Shape Earth</i> Grade 3 English Learner Level Reader <i>How Earthquakes and Volcanoes Shape Earth</i> Grade 3 Beyond Level Reader <i>Volcano!</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 83-84, 86-90 <i>Math in Science</i> 7-8 <i>Reading and Writing</i> 87-89, 93-95, 97-98 <i>Visual Literacy</i> 29, 31-32</p>

STANDARDS	PAGE REFERENCES
<p>ESS1 (K-4) POC –5 <i>Based on data collected from daily weather observations, describe weather changes or weather patterns.</i></p>	
<p>ESS1 (3-4) –5 Students demonstrate an understanding of processes and change over time within earth systems by ...</p>	
<p>5a observing, recording, <u>comparing, and analyzing</u> weather data <u>to describe weather changes or weather patterns.</u></p>	<p>Student Edition: 280-284 <i>Explore</i> 303 <i>Focus on Skills</i> 286-287 <i>Lesson Review</i> 285 <i>Quick Lab</i> 283</p> <p>Teacher Wraparound Edition: AE 303; DI 283; FA 285; IM 311; IR 286; WU 278</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Watching the Weather</i> Grade 3 English Learner Level Reader <i>Watching the Weather</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 117-120, 125-127 <i>Math in Science</i> 11-12 <i>Visual Literacy</i> 42</p>

STANDARDS	PAGE REFERENCES
<p>5b <u>describing water as it changes into vapor in the air and reappears as a liquid when it's cooled.</u></p>	<p>Student Edition: 292-295 <i>Explore</i> 289 <i>Quick Lab</i> 293</p> <p>Teacher Wraparound Edition: AE 289; CE 294; DI 293, 295; DMI 294; ELLS 292</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Bad Weather</i> Grade 3 On Level Reader <i>Water, Water, Everywhere</i> Grade 3 English Learner Level Reader <i>Water, Water, Everywhere</i> Grade 3 Beyond Level Reader <i>Why We Need the Sun</i></p> <p>Teacher's Resources: <i>Activity Lab Book</i> 121-124 <i>Reading and Writing</i> 130-132 <i>Visual Literacy</i> 44</p>
<p>5c <u>explaining how this cycle of water relates to weather and the formation of clouds.</u></p>	<p>Student Edition: 292-295 <i>Explore</i> 289 <i>Quick Lab</i> 293</p> <p>Teacher Wraparound Edition: AE 289; CE 294; DI 295; DMI 294</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Bad Weather</i> Grade 3 On Level Reader <i>Water, Water, Everywhere</i> Grade 3 English Learner Level Reader <i>Water, Water, Everywhere</i> Grade 3 Beyond Level Reader <i>Why We Need the Sun</i></p> <p>Teacher's Resources: <i>Activity Lab Book</i> 121-124 <i>Reading and Writing</i> 130-132 <i>Visual Literacy</i> 44</p>

STANDARDS	PAGE REFERENCES
<p>ESS1 (K-4) FAF -6 <i>Given information about earth materials explain how their characteristics lend themselves to specific uses</i></p>	
<p>ESS1 (3-4)-6 Students demonstrate an understanding of properties of earth materials by...</p>	
<p>6a <u>determining and supporting explanations of their uses (e.g., <u>best soils</u> to grow plants, <u>best building material for a specific purpose</u>, <u>determining which rock size will best prevent erosion</u>).</u></p>	<p>Student Edition: 234, 242-243 <i>Focus on Skills</i> 246-247 <i>Writing in Science</i> 236</p> <p>Teacher Wraparound Edition: EMI 242; FA 245</p> <p>Leveled Readers: Grade 3 On Level Learner Level Reader <i>Gems</i> Grade 3 English Learner Reader <i>Gems</i> Grade 3 Approaching Level Reader <i>Mighty Metals</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 99-101 <i>Reading and Writing</i> 108-109</p>
<p>ESS2 - The earth is part of a solar system, made up of distinct parts that have temporal and spatial interrelationships.</p>	
<p>ESS2 (3-4)-7 Students demonstrate an understanding of temporal or positional relationships between or among the Earth, sun, and moon by ...</p>	
<p>7a observing that the sun, moon, <u>and stars</u> appear to move slowly across the sky.</p>	<p>Student Edition: 329, 350 <i>Be a Scientist</i> 334-335 <i>Explore</i> 317, 337</p> <p>Teacher Wraparound Edition: FA 351; UV 329; WU 336</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Sun Stories</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 129-130, 141-142 <i>Reading and Writing</i> 151</p>

STANDARDS	PAGE REFERENCES
<p>7b observing that the moon looks slightly different from day to day, <u>but looks the same again in about 4 weeks.</u></p>	<p>Student Edition: 328-331 <i>Be a Scientist</i> 334-335 <i>Explore</i> 327 <i>Quick Lab</i> 331</p> <p>Teacher Wraparound Edition: DI 329; ELLS 331; FA 333; IW 334</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 133-140 <i>Reading and Writing</i> 151-153 <i>Visual Literacy</i> 49-50</p>
<p>7c recognizing that the rotation of the Earth on its axis every 24 hours produces the day/night cycle.</p>	<p>Student Edition: 318-319 <i>Quick Lab</i> 319</p> <p>Teacher Wraparound Edition: DI 319; DMI 318; SB 318</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 132 <i>Reading and Writing</i> 145 <i>Visual Literacy</i> 47</p>

STANDARDS	PAGE REFERENCES
<p>ESS2 (3-4)-8 Students demonstrate an understanding of characteristics of the solar system by ...</p>	
<p>8a <u>recognizing that: the sun is the center of our solar system; the Earth is one of several planets that orbits the sun; and the moon orbits the Earth.</u></p>	<p>Student Edition: 328, 338-341 <i>Explore</i> 337 <i>Focus on Skills</i> 344-345</p> <p>Teacher Wraparound Edition: AE 337; DI 320, 339; HA 342; WU 336</p> <p>Leveled Readers: Grade 3 On Level Reader <i>A Trip Through the Solar System</i> Grade 3 English Learner Reader <i>A Trip Through the Solar System</i> Grade 3 Approaching Level Reader <i>Sun Stories</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 141-143, 145-147 <i>Reading and Writing</i> 155-157 <i>Visual Literacy</i> 51-52</p>
<p>8b <u>recognizing that it takes approximately 365 days for the Earth to orbit the sun.</u></p>	<p>Student Edition: 320</p> <p>Teacher Wraparound Edition: FA 323</p> <p>Teacher’s Resources: <i>Assessment</i> 98 <i>Reading and Writing</i> 145</p>

STANDARDS	PAGE REFERENCES
<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 (3-4)-9 Students demonstrate understanding of processes and change over time within the system of the universe (Scale, Distances, Star Formation, Theories, Instrumentation) by...</p>	
<p>9a <u>recognizing that throughout history people have identified patterns of stars that we call constellations.</u></p>	<p>Student Edition: 349-350 <i>Lesson Review</i> 351 <i>Quick Lab</i> 349</p> <p>Teacher Wraparound Edition: DMI 348; FA 351</p> <p>Teacher's Resources: <i>Activity Lab Book</i> 151 <i>Reading and Writing</i> 159-161 <i>Visual Literacy</i> 54</p>

STANDARDS	PAGE REFERENCES
Physical Science	
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).	
PS1 (K-4) INQ –1 <i>Collect and organize data about physical properties in order to classify objects or draw conclusions about objects and their characteristic properties (e.g., temperature, color, size, shape, weight, texture, flexibility).</i>	
PS1 (3-4)–1 Students demonstrate an understanding of characteristic properties of matter by ...	
1a identifying, comparing, and sorting objects by similar or different physical properties (e.g., size, shape, color, texture, smell, weight, <u>temperature</u> , <u>flexibility</u>).	Student Edition: 364-367, 384-387 <i>Chapter Review</i> 393 <i>Explore</i> 363, 383, 407 <i>Lesson Review</i> 369, 389 <i>Quick Lab</i> 367, 387 Teacher Wraparound Edition: AE 363, 383; DI 366, 385; DMI 366; ELLS 367, 387; FA 369; HA 368 Leveled Readers: Grade 3 On Level Reader <i>Gems</i> Grade 3 English Learner Level Reader <i>Gems</i> Grade 3 Approaching Level Reader <i>Mighty Metals</i> Grade 3 Beyond Level Reader <i>What Sinks and Floats</i> Teacher’s Resources: <i>Activity Lab Book</i> 152-155, 163-166 <i>Reading and Writing</i> 169-171, 179-181 <i>Visual Literacy</i> 55-56, 59

STANDARDS	PAGE REFERENCES
<p>1b <u>citing evidence (e.g., prior knowledge, data) to support conclusions about why objects are grouped/not grouped together</u></p>	<p>Student Edition: 364-367, 384-387 <i>Explore</i> 383 <i>Lesson Review</i> 389, 413 <i>Quick Lab</i> 367, 387</p> <p>Teacher Wraparound Edition: ELLS 367; FA 369</p> <p>Leveled Readers: Grade 3 On Level Reader <i>Gems</i> Grade 3 English Learner Level Reader <i>Gems</i> Grade 3 Approaching Level Reader <i>Mighty Metals</i> Grade 3 Beyond Level Reader <i>What Sinks and Floats</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 155, 163-164, 166 <i>Visual Literacy</i> 56</p>

STANDARDS	PAGE REFERENCES
Students demonstrate an understanding of physical changes by ...	
<p>1c <u>observing and describing physical changes (e.g. freezing, thawing, torn piece of paper).</u></p>	<p>Student Edition: 398-402, 408-409 <i>Be a Scientist</i> 422-423 <i>Explore</i> 397, 407 <i>Focus on Skills</i> 404-405 <i>Quick Lab</i> 401</p> <p>Teacher Wraparound Edition: AE 397, 407; DI 399, 409; ELLS 411; FA 403, 413; HA 402; WU 406</p> <p>Leveled Readers: Grade 3 Beyond Level Reader <i>Chocolate</i> Grade 3 Approaching Level Reader <i>Glassmaking</i> Grade 3 Approaching Level Reader <i>Mighty Metals</i> Grade 3 On Level Reader <i>Water, Water, Everywhere</i> Grade 3 English Learner Level Reader <i>Water, Water, Everywhere</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 167-176, 182-185 <i>Reading and Writing</i> 188-190, 192-194 <i>Visual Literacy</i> 61, 63</p>

STANDARDS	PAGE REFERENCES
<p>PS1 (K-4) POC –2 <i>Make a prediction about what might happen to the state of common materials when heated or cooled or categorize materials as solid, liquid, or gas.</i></p>	
<p>PS1 (3-4) –2 Students demonstrate an understanding of states of matter by ...</p>	
<p>2a describing properties of solids, liquids, <u>and</u> <u>gases</u>.</p>	<p>Student Edition: 384-388 <i>Explore</i> 383 <i>Lesson Review</i> 389 <i>Quick Lab</i> 387 <i>Writing in Science</i> 390</p> <p>Teacher Wraparound Edition: AE 383; DI 385; WU 382</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Glassmaking</i> Grade 3 On Level Reader <i>Water, Water, Everywhere</i> Grade 3 English Learner Level Reader <i>Water, Water, Everywhere</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 163-166 <i>Reading and Writing</i> 179-180 <i>Visual Literacy</i> 59-60</p>

STANDARDS	PAGE REFERENCES
<p>2b identifying and comparing solids, liquids, <u>and gases</u>.</p>	<p>Student Edition: 384-388 <i>Explore</i> 383 <i>Lesson Review</i> 389 <i>Quick Lab</i> 387</p> <p>Teacher Wraparound Edition: AE 383; DI 385; ELLS 387; WU 382</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Glassmaking</i> Grade 3 On Level Reader <i>Water, Water, Everywhere</i> Grade 3 English Learner Level Reader <i>Water, Water, Everywhere</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 163-166 <i>Reading and Writing</i> 179-180 <i>Visual Literacy</i> 59-60</p>
<p>2c making logical predictions about the changes in the state of matter when adding or taking away heat (e.g., ice melting, <u>water boiling</u> or freezing, <u>condensation/evaporation</u>).</p>	<p>Student Edition: 398-401 <i>Explore</i> 383, 397 <i>Focus on Skills</i> 404-405 <i>Quick Lab</i> 401</p> <p>Teacher Wraparound Edition: AE 397; FA 389, 403; HA 402; WU 396</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Glassmaking</i> Grade 3 On Level Reader <i>Water, Water, Everywhere</i> Grade 3 English Learner Level Reader <i>Water, Water, Everywhere</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 167-173 <i>Reading and Writing</i> 188-190 <i>Visual Literacy</i> 61</p>

STANDARDS	PAGE REFERENCES
<p>PS1 (K-4) SAE –3 <i>Use measures of weight (data) to demonstrate that the whole equals the sum of its parts.</i></p>	
<p>PS1 (3-4)–3 Students demonstrate an understanding of conservation of matter by ...</p>	
<p>3a <u>measuring the weight of objects to prove that all matter has weight.</u></p>	<p>Student Edition: 376-378, 447 <i>Focus on Skills</i> 380-381 <i>Quick Lab</i> 377 <i>Science Handbook</i> R6 Teacher Wraparound Edition: ELLS 377; EMI R6; IM 380 Leveled Readers: Grade 3 Beyond Level Reader <i>What Sinks and Floats</i> Teacher’s Resources: <i>Activity Lab Book</i> 159-162 <i>Visual Literacy</i> 58</p>
<p>3b <u>using measures of weight to prove that the whole equals the sum of its parts.</u></p>	<p>Student Edition: 376-377 <i>Focus on Skills</i> 380-381 <i>Quick Lab</i> 377 Teacher Wraparound Edition: DMI 376; IM 380 Teacher’s Resources: <i>Activity Lab Book</i> 159-162</p>
<p>3c <u>showing that the weight of an object remains the same despite a change in its shape.</u></p>	<p>Student Edition: <i>Focus on Skills</i> 380-381 Leveled Readers: Grade 3 Beyond Level Reader <i>What Sinks and Floats</i> Teacher’s Resources: <i>Activity Lab Book</i> 160-162</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 (K-4) SAE -4 <i>Given a specific example or illustration (e.g., simple closed circuit, rubbing hands together), predict the observable effects of energy (i.e., light bulb lights, a bell rings, hands warm up (e.g., a test item might ask, “what will happen when...?”).</i></p>	
<p>PS2 (3-4)-4 Students demonstrate an understanding of energy by...</p>	
<p>4a <u>experimenting to identify and classify different pitches and volumes of sounds produced by different objects.</u></p>	<p>Student Edition: 492-493 <i>Explore</i> 489 <i>Lesson Review</i> 495 <i>Quick Lab</i> 493 Teacher Wraparound Edition: WU 488 Leveled Readers: Grade 3 Approaching Level Reader <i>The Sounds of Music</i> Teacher’s Resources: <i>Activity Lab Book</i> 216-217, 219</p>
<p>4b <u>using data to explain what causes sound to have different pitch or volume</u></p>	<p>Student Edition: 492-493 <i>Explore</i> 489 <i>Lesson Review</i> 495 <i>Quick Lab</i> 493 Teacher Wraparound Edition: DI 493; FA 495 Leveled Readers: Grade 3 Approaching Level Reader <i>The Sounds of Music</i> Teacher’s Resources: <i>Reading and Writing</i> 233-234 <i>Visual Literacy</i> 77</p>

STANDARDS	PAGE REFERENCES
<p>4c <u>describing or showing that heat can be produced in many ways (e.g. electricity, friction, burning).</u></p>	<p>Student Edition: 480-481 <i>Lesson Review</i> 485 <i>Quick Lab</i> 481</p> <p>Teacher Wraparound Edition: WU 478</p> <p>Leveled Readers: Grade 3 Approaching Level Reader <i>Bad Weather</i> Grade 3 On Level Reader <i>Water, Water, Everywhere</i> Grade 3 English Learner Level Reader <i>Water, Water, Everywhere</i> Grade 3 Beyond Level Reader <i>Why We Need the Sun</i></p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 212</p>
<p>4d <u>drawing, diagramming, building, and explaining a complete electrical circuit.</u></p>	<p>Student Edition: 515 <i>Explore</i> 511</p> <p>Teacher Wraparound Edition: DI 515; ELLS 514; FA 517</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 228-229 <i>Visual Literacy</i> 82</p>
<p>4e <u>using experimental data to classify a variety of materials as conductors or insulators</u></p>	<p>Student Edition: 484, 516 <i>Focus on Skills</i> 486-487 <i>Quick Lab</i> 516</p> <p>Teacher Wraparound Edition: FA 485</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 213-215, 231 <i>Visual Literacy</i> 76</p>

STANDARDS	PAGE REFERENCES
<p>PS2 (K-4) SAE – 5 <i>Use observations of light in relation to other objects/substances to describe the properties of light (can be reflected, refracted, or absorbed).</i></p>	
<p>PS2 (3-4)-5 Students demonstrate an understanding of energy by...</p>	
<p>5a investigating <u>observable effects of light</u> using a variety of light sources (e.g., light travels in a straight line until it interacts with an object, blocked light rays produce shadows).</p>	<p>Student Edition: 500-503 <i>Explore</i> 499 <i>Lesson Review</i> 507 Teacher Wraparound Edition: AE 499; EMI 501, 503; UV 501; WU 498 Teacher’s Resources: <i>Activity Lab Book</i> 224-226 <i>Visual Literacy</i> 79</p>
<p>5b <u>predicting, describing, and investigating how light rays are reflected, refracted, or absorbed</u></p>	<p>Student Edition: 500-503 <i>Explore</i> 499 Teacher Wraparound Edition: EMI 501, 503; UV 501; WU 498 Teacher’s Resources: <i>Activity Lab Book</i> 224-225 <i>Assessment</i> 154 <i>Reading and Writing</i> 237-239</p>
<p>PS2 (K-4) SAE+INQ – 6 <i>Experiment, observe, or predict how heat might move from one object to another.</i></p>	
<p>PS2 (3-4)–6 Students demonstrate an understanding of energy by...</p>	
<p>6a describing <u>how heat moves from warm objects to cold objects until both objects are the same temperature.</u></p>	<p>Student Edition: 480-483 <i>Quick Lab</i> 481 Teacher Wraparound Edition: DI 483; ELLS 482 Teacher’s Resources: <i>Activity Lab Book</i> 212 <i>Reading and Writing</i> 229</p>

STANDARDS	PAGE REFERENCES
<p>6b showing that heat moves from one object to another causing temperature change (e.g., when land heats up it warms the air).</p>	<p>Student Edition: 480-483 <i>Quick Lab</i> 481</p> <p>Teacher Wraparound Edition: DI 483; ELLS 482</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 212 <i>Visual Literacy</i> 75</p>
<p>PS 3 - The motion of an object is affected by forces.</p>	
<p>PS3 (K-4)-INQ+SAE –7 <i>Use data to predict how a change in force (greater/less) might affect the position, direction of motion, or speed of an object (e.g., ramps and balls).</i></p>	
<p>PS3 (3-4)–7 Students demonstrate an understanding of motion by...</p>	
<p>7a <u>predicting the direction and describing the motion of objects (of different weights, shapes, sizes, etc.) if a force is applied to it.</u></p>	<p>Student Edition: 436-437, 444-447 <i>Be a Scientist</i> 450-451 <i>Explore</i> 443 <i>Lesson Review</i> 439 <i>Quick Lab</i> 447</p> <p>Teacher Wraparound Edition: ELLS 436, 445; EMI 445; SB 444; WU 442</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 190-197 <i>Reading and Writing</i> 212-214 <i>Visual Literacy</i> 68-70</p>
<p>7b <u>describing change in position relative to other objects or background.</u></p>	<p>Student Edition: 434-435 <i>Explore</i> 433</p> <p>Teacher Wraparound Edition: AE 433; APK 432; DI 435; DMI 434; WU 432</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 186-188 <i>Reading and Writing</i> 206</p>

STANDARDS	PAGE REFERENCES
Students demonstrate an understanding of force (e.g., push-pull, gravitational) by...	
<p>7c <u>investigating and describing that different amounts of force can change direction/speed of an object in motion.</u></p>	<p>Student Edition: 444-448 <i>Be a Scientist</i> 450-451 <i>Explore</i> 443</p> <p>Teacher Wraparound Edition: AE 443; DMI 444; ELLS 445; EMI 445; FA 449; HA 448</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 190-192, 194-197 <i>Reading and Writing</i> 212 <i>Visual Literacy</i> 70</p>
<p>7d <u>conducting experiments to demonstrate that different objects fall to earth unless something is holding them up</u></p>	<p>Student Edition: 378, 447 <i>Quick Lab</i> 447</p> <p>Teacher Wraparound Edition: FA 449</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 193</p>
<p>PS3 (K-4) INQ+ SAE –8 <i>Use observations of magnets in relation to other objects to describe the properties of magnetism (i.e., attract or repel certain objects or has no effect)</i></p>	
<p>PS3 (3-4)–8 Students demonstrate an understanding of (magnetic) force by ...</p>	
<p>8a <u>using prior knowledge and investigating to predict whether or not an object will be attracted to a magnet.</u></p>	<p>Student Edition: 367, 446 <i>Be a Scientist</i> 450-451</p> <p>Teacher Wraparound Edition: AM 366; EMI 367</p>
<p>8b <u>describing what happens when like and opposite poles of a magnet are placed near each other.</u></p>	<p>Student Edition: 446</p> <p>Teacher Wraparound Edition: DI 447; EMI 446</p>
<p>8c <u>exploring relative strength of magnets (e.g., size of magnets, number of magnets, properties of materials).</u></p>	<p>Student Edition: <i>Be a Scientist</i> 450-451</p> <p>Teacher’s Resources: <i>Activity Lab Book</i> 194-197</p>