



SCIENCE

A CLOSER LOOK

Grade 3
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| STANDARDS | PAGE REFERENCES |
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| 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 |
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| <p>1b identifying, sorting and <u>comparing</u> based on <u>similar and/or different external features.</u></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 |
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| <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 |
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| <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> |

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| <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 |
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| <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> |

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| <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> |

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| <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> |

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| 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 |

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| <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 |
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| <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> |

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| <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> |

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| <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> |

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| <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 |
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| <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 |
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| 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 |
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| <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> |

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| <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> |

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| <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> |

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| <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> |

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| <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 |
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| <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 <i>Students demonstrate an understanding of processes and change over time within earth systems by ...</i></p> | |
| <p>5a observing, recording, <u>comparing</u>, and <u>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 |
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| <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 |
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| <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 |
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| 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 |
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| <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 |
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| <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 |
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| <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> |