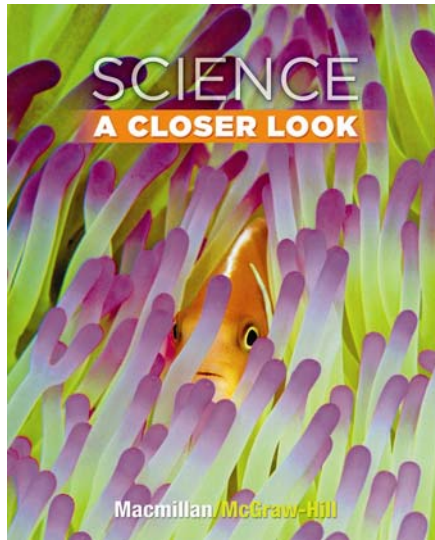




Macmillan/McGraw-Hill

Third Grade Science
Grade Level
Content Expectations



SCIENCE

A CLOSER LOOK

Grade 3
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STANDARDS	PAGE REFERENCES
<p>SCIENCE PROCESSES Inquiry Process</p>	
<p><i>K-7 Standard S.IP: Develop an understanding that scientific inquiry and reasoning involves observing, questioning, investigating, recording, and developing solutions to problems.</i></p>	
<p>S.IP.E.1 Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.</p>	
<p>S.IP.03.11 Make purposeful observation of the natural world using the appropriate senses.</p>	<p>Student Edition: <i>Art Link</i> 285 <i>Be a Scientist</i> 40-41, 496-497 <i>Explore</i> 21, 31, 43, 53, 69, 81, 107, 151, 239, 327, 499 <i>Focus on Skills</i> 344-345, 486-487 <i>Quick Lab</i> 35, 73, 114, 231, 401 Teacher Wraparound Edition: AE 213, 227, 397, 499; EMI 503; HA 402; WU 80, 396</p>
<p>S.IP.03.12 Generate questions based on observations.</p>	<p>Student Edition: <i>Be a Scientist</i> 41, 145, 269, 335, 423, 451, 497 Teacher Wraparound Edition: AE 161, 213, 239, 407, 443, 463; HA 448</p>

STANDARDS	PAGE REFERENCES
<p>S.IP.03.13 Plan and conduct simple and fair investigations.</p>	<p>Student Edition: 4-11 <i>Be a Scientist</i> 40-41, 144-145, 268-269, 334-335, 422-423, 450-451, 496-497 <i>Explore</i> 69, 119, 133, 151, 239, 317 <i>Focus on Skills</i> 78-79, 246-247, 486-487 <i>Quick Lab</i> 412</p> <p>Teacher Wraparound Edition: AE 161, 443, 463; DI 375; EMI 503; HA 10, 402, 448; IW 246; SB 4</p>
<p>S.IP.03.14 Manipulate simple tools that aid observation and data collection (for example: hand lens, balance, ruler, meter stick, measuring cup, thermometer, spring scale, stop watch/timer).</p>	<p>Student Edition: 374-377, R7-R8 <i>Be a Scientist</i> 40-41, 144-145 <i>Explore</i> 161, 213, 239, 397 <i>Focus on Skills</i> 380-381 <i>Math Link</i> 379, 449 <i>Quick Lab</i> 127, 231, 377, 438, 469</p> <p>Teacher Wraparound Edition: AE 227; DI 283, 375, 481, R5, R7; EMI 435; IM 380, 391</p>
<p>S.IP.03.15 Make accurate measurements with appropriate units (centimeters, meters, Celsius, grams, seconds, minutes) for the measurement tool.</p>	<p>Student Edition: 374-377, R2-R6 <i>Be a Scientist</i> 40-41 <i>Explore</i> 161, 317, 373, 397 <i>Focus on Skills</i> 246-247, 380-381 <i>Math Link</i> 379, 449 <i>Quick Lab</i> 127, 339, 377, 438, 481</p> <p>Teacher Wraparound Edition: DI 375, 481, R5; EMI 435, 447; HA 402; IM 13, 380, 391; WU 372</p>
<p>S.IP.03.16 Construct simple charts and graphs from data and observations.</p>	<p>Student Edition: R10-R13 <i>Be a Scientist</i> 40-41, 450-451 <i>Explore</i> 21, 53, 317 <i>Focus on Skills</i> 78-79, 158-159, 286-287 <i>Math in Science</i> 89 <i>Math Link</i> 39, 61, 95, 157, 209, 439, 449</p> <p>Teacher Wraparound Edition: DI 59, 283, R13; EMI 261, 503; HA 38; IM 40, 78, 89, 158, 450; IR 286</p>

STANDARDS	PAGE REFERENCES
Inquiry Analysis and Communication	
<i>K-7 Standard S.IA: Develop an understanding that scientific inquiry and investigations require analysis and communication of findings, using appropriate technology.</i>	
S.IA.E.1 Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.	
<p>S.IA.03.11 Summarize information from charts and graphs to answer scientific questions.</p>	<p>Student Edition: <i>Be a Scientist</i> 40-41, 450-451 <i>Explore</i> 21, 53, 303, 317 <i>Focus on Skills</i> 12-13, 78-79, 158-159, 286-287</p> <p>Teacher Wraparound Edition: DI R13; IM 40, 450; IR 286</p>
<p>S.IA.03.12 Share ideas about science through purposeful conversation in collaborative groups.</p>	<p>Student Edition: <i>Be a Scientist</i> 40-41, 144-145, 268-269, 334-335, 450-451 <i>Explore</i> 337 <i>Reading in Science</i> 29, 97, 131, 211, 353, 371, 415</p> <p>Teacher Wraparound Edition: AE 191, 363; EMI 5, 263, 448, 503; IM 450; IR 29; IW 246, 472</p>
<p>S.IA.03.13 Communicate and present findings of observations and investigations.</p>	<p>Student Edition: <i>Be a Scientist</i> 40-41, 144-145, 268-269, 334-335, 450-451 <i>Chapter Review</i> 393 <i>Explore</i> 91 <i>Focus on Skills</i> 116-117 <i>Health Link</i> 245, 485 <i>Writing in Science</i> 390</p> <p>Teacher Wraparound Edition: DI 481, 501, 513; EMI 503; HA 60, 168, 494, 506; IR 29, 116, 286, 486; IW 426</p>

STANDARDS	PAGE REFERENCES
<p>S.IA.03.14 Develop research strategies and skills for information gathering and problem solving.</p>	<p>Student Edition: <i>Art Link</i> 115 <i>Focus on Skills</i> 158-159 <i>Health Link</i> 485 <i>Math Link</i> 285 <i>Social Studies Link</i> 49, 129, 143, 169, 255, 333, 379, 421, 471 <i>Writing Link</i> 27, 179, 351</p> <p>Teacher Wraparound Edition: DI 241, 481, 493, 501, 513; HA 10, 38, 60, 208, 298, 494; IR 486; IW 426, 518</p>
<p>S.IA.03.15 Compare and contrast sets of data from multiple trials of a science investigation to explain reasons for differences.</p>	<p>Student Edition: <i>Be a Scientist</i> 334-335 <i>Explore</i> 191, 373 <i>Focus on Skills</i> 158-159 <i>Quick Lab</i> 207</p>
<p>Reflection and Social Implications</p>	
<p><i>K-7 Standard S.RS: Develop an understanding that claims and evidence for their scientific merit should be analyzed. Understand how scientists decide what constitutes scientific knowledge. Develop an understanding of the importance of reflection on scientific knowledge and its application to new situations to better understand the role of science in society and technology.</i></p>	
<p>S.RS.E.1 Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science throughout history and within society.</p>	
<p>S.RS.03.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.</p>	<p>Student Edition: <i>Art Link</i> 285, 389, 459 <i>Chapter Review</i> 99, 425 <i>Explore</i> 173, 259, 289 <i>Focus on Skills</i> 116-117, 200-201 <i>Quick Lab</i> 55, 195, 217, 319 <i>Social Studies Link</i> 129</p> <p>Teacher Wraparound Edition: CE 294; DI 37, 55, 59, 233, 241, 291, 305, 493; HA 26, 48, 76, 198, 342, 412</p>

STANDARDS	PAGE REFERENCES
<p>S.RS.03.14 Use data/samples as evidence to separate fact from opinion.</p>	<p>Student Edition: 4-11 <i>Reading in Science</i> 180-181 <i>Writing in Science</i> 170, 518 Teacher Wraparound Edition: IW 170, 518</p>
<p>S.RS.03.15 Use evidence when communicating scientific ideas.</p>	<p>Student Edition: <i>Be a Scientist</i> 40-41, 144-145, 268-269, 334-335, 422-423, 450-451, 496-497 <i>Focus on Skills</i> 158-159, 286-287, 460-461, 486-487 <i>Health Link</i> 245 <i>Writing Link</i> 299 Teacher Wraparound Edition: AE 417; DI 9, 501; EMI 503; HA 60, 168, 218, 322, 506; IR 29, 286, 404, 486</p>
<p>S.RS.03.16 Identify technology used in everyday life.</p>	<p>Student Edition: 262-263, 464-470 <i>Chapter Review</i> 521 <i>Quick Lab</i> 469 <i>Reading in Science</i> 300-301, 440-441 <i>Writing in Science</i> 472 <i>Writing Link</i> 471, 517 Teacher Wraparound Edition: DI 262, 263, 467, 468; FA 471, 517; HA 470; IR 441; SB 464</p>
<p>S.RS.03.17 Identify current problems that may be solved through the use of technology.</p>	<p>Student Edition: <i>Chapter Review</i> 475 <i>Reading in Science</i> 210-211, 440-441, 508-509 Teacher Wraparound Edition: DI 261; IR 211</p>

STANDARDS	PAGE REFERENCES
<p>S.RS.03.18 Describe the effect humans and other organisms have on the balance of the natural world.</p>	<p>Student Edition: 152-156, 163, 218, 264-266 <i>Explore</i> 151 <i>Quick Lab</i> 155 <i>Reading in Science</i> 28-29 <i>Writing in Science</i> 220</p> <p>Teacher Wraparound Edition: AE 151; DI 155, 175; DMI 152, 159, 218; ELLS 264; FA 157; SB 5, 260</p>
<p>S.RS.03.19 Describe how people have contributed to science throughout history and across cultures.</p>	<p>Student Edition: 3-11 <i>Reading in Science</i> 96-97, 130-131, 352-353, 370-371, 440-441</p> <p>Teacher Wraparound Edition: CE 466; DI 481, 513; SB 444, 480</p>
<p>PHYSICAL SCIENCE Force and Motion</p>	
<p>K-7 Standard P.FM: <i>Develop an understanding that the position and/or motion of an object is relative to a point of reference. Understand forces affect the motion and speed of an object and that the net force on an object is the total of all of the forces acting on it. Understand the Earth pulls down on objects with a force called gravity. Develop an understanding that some forces are in direct contact with objects, while other forces are not in direct contact with objects.</i></p>	
<p>P.FM.E.2 Gravity- Earth pulls down on all objects with a force called gravity. With very few exceptions, objects fall to the ground no matter where the object is on the Earth.</p>	
<p>P.FM.03.22 Identify the force that pulls objects towards the Earth.</p>	<p>Student Edition: 378, 447 <i>Quick Lab</i> 447</p> <p>Teacher Wraparound Edition: DMI 446; ELLS 446</p>
<p>P.FM.E.3 Force- A force is either a push or a pull. The motion of objects can be changed by forces. The size of the change is related to the size of the force. The change is also related to the weight (mass) of the object on which the force is being exerted. When an object does not move in response to a force, it is because another force is being applied by the environment.</p>	
<p>P.FM.03.35 Describe how a push or a pull is a force.</p>	<p>Student Edition: 444-447 <i>Be a Scientist</i> 450-451 <i>Explore</i> 443 <i>Lesson Review</i> 449</p> <p>Teacher Wraparound Edition: AE 443; HA 448; WU 442</p>

STANDARDS	PAGE REFERENCES
<p>P.FM.03.36 Relate a change in motion of an object to the force that caused the change of motion.</p>	<p>Student Edition: 444-448 <i>Explore</i> 443 <i>Lesson Review</i> 449</p> <p>Teacher Wraparound Edition: DMI 444; EMI 445; HA 448; WU 442</p>
<p>P.FM.03.37 Demonstrate how the change in motion of an object is related to the strength of the force acting upon the object and to the mass of the object.</p>	<p>Student Edition: 444-447 <i>Explore</i> 443 <i>Quick Lab</i> 447</p> <p>Teacher Wraparound Edition: AE 443; ELLS 445</p>
<p>P.FM.03.38 Demonstrate when an object does not move in response to a force, it is because another force is acting on it.</p>	<p>Student Edition: 445, 448</p> <p>Teacher Wraparound Edition: DMI 444; EMI 445; FA 449; HA 448</p>
<p>P.FM.E.4 Speed- An object is in motion when its position is changing. The speed of an object is defined by how far it travels divided by the amount of time it took to travel that far.</p>	
<p>P.FM.03.41 Compare and contrast the motion of objects in terms of direction.</p>	<p>Student Edition: 436-437 <i>Lesson Review</i> 439</p> <p>Teacher Wraparound Edition: DI 437; ELLS 436; EMI 437</p>
<p>P.FM.03.42 Identify changes in motion (change direction, speeding up, slowing down).</p>	<p>Student Edition: 444-445, 448</p> <p>Teacher Wraparound Edition: DMI 444; ELLS 445; EMI 445</p>
<p>P.FM.03.43 Calculate the speed of an object based on the distance it travels divided by the amount of time it took to travel that distance.</p>	<p>Student Edition: 438 <i>Quick Lab</i> 438</p> <p>Teacher Wraparound Edition: FA 439; HA 438</p>

STANDARDS	PAGE REFERENCES
ENERGY	
<p><i>K-7 Standard P.EN: Develop an understanding that there are many forms of energy (such as heat, light, sound, and electrical) and that energy is transferable by convection, conduction, or radiation. Understand energy can be in motion, called kinetic; or it can be stored, called potential. Develop an understanding that as temperature increases, more energy is added to a system. Understand nuclear reactions in the sun produce light and heat for the Earth.</i></p>	
<p>P.EN.E.1 Forms of Energy- Heat, electricity, light, and sound are forms of energy.</p>	
<p>P.EN.03.11 Identify light and sound as forms of energy.</p>	<p>Student Edition: 490, 492, 500 <i>Chapter Review</i> 521 Teacher Wraparound Edition: DMI 500; TR62, TR63</p>
<p>P.EN.E.2 Light Properties- Light travels in straight lines. Shadows result from light not being able to pass through an object. When light travels at an angle from one substance to another (air and water), it changes direction.</p>	
<p>P.EN.03.21 Demonstrate that light travels in a straight line and that shadows are made by placing an object in a path of light.</p>	<p>Student Edition: 500-503 <i>Explore</i> 317, 499 <i>Lesson Review</i> 507 Teacher Wraparound Edition: AE 317; DMI 500, 502; EMI 503</p>
<p>P.EN.03.22 Demonstrate what happens to light when it travels from water to air. (straw half in water looks bent).</p>	<p>Student Edition: 503-504 Teacher Wraparound Edition: DI 505</p>
<p>P.EN.E.3 Sound- Vibrating objects produce sound. The pitch of sound varies by changing the rate of vibration.</p>	
<p>P.EN.03.31 Relate sounds to their sources of vibrations (for example: a musical note produced by a vibrating guitar string, the sounds of a drum made by the vibrating drum head).</p>	<p>Student Edition: 490-493 <i>Be a Scientist</i> 496-497 <i>Explore</i> 489 <i>Lesson Review</i> 495 <i>Quick Lab</i> 493 Teacher Wraparound Edition: DI 491; WU 488</p>

STANDARDS	PAGE REFERENCES
<p>P.EN.03.32 Distinguish the effect of fast or slow vibrations as pitch.</p>	<p>Student Edition: 493 <i>Music Link</i> 495 <i>Quick Lab</i> 493</p> <p>Teacher Wraparound Edition: DI 493; DMI 492</p>
<p>Properties of Matter</p>	
<p>K-7 Standard P.PM: Develop an understanding that all matter has observable attributes with physical and chemical properties that are described, measured, and compared. Understand that states of matter exist as solid, liquid, or gas; and have physical and chemical properties. Understand all matter is composed of combinations of elements, which are organized by common attributes and characteristics on the Periodic Table. Understand that substances can be classified as mixtures or compounds and according to their physical and chemical properties.</p>	
<p>P.PM.E.5 Conductive and Reflective Properties- Objects vary to the extent they absorb and reflect light energy and conduct heat and electricity.</p>	
<p>P.PM.03.51 Demonstrate how some materials are heated more than others by light that shines on them.</p>	<p>Student Edition: 480-481 <i>Quick Lab</i> 481</p>
<p>P.PM.03.52 Explain how we need light to see objects: light from a source reflects off objects and enters our eyes.</p>	<p>Student Edition: 500-501, 504-506 <i>Lesson Review</i> 507</p> <p>Teacher Wraparound Edition: DMI 506; UV 506</p>

STANDARDS	PAGE REFERENCES
LIFE SCIENCE	
Organization of Living Things	
<p><i>K-7 Standard L.OL: Develop an understanding that plants and animals (including humans) have basic requirements for maintaining life which include the need for air, water and a source of energy. Understand that all life forms can be classified as producers, consumers, or decomposers as they are all part of a global food chain where food/energy is supplied by plants which need light to produce food/energy. Develop an understanding that plants and animals can be classified by observable traits and physical characteristics. Understand that all living organisms are composed of cells and they exhibit cell growth and division. Understand that all plants and animals have a definite life cycle, body parts, and systems to perform specific life functions.</i></p>	
<p>L.OL.E.3 Structures and Functions- Organisms have different structures that serve different functions in growth, survival, and reproduction.</p>	
<p>L.OL.03.31 Describe the function of the following plant parts: flower, stem, root and leaf.</p>	<p>Student Edition: 32-37, 72-73 <i>Chapter Review</i> 65 <i>Lesson Review</i> 39 <i>Quick Lab</i> 35 Teacher Wraparound Edition: DI 35; DMI 34, 36, 72; FA 39; UV 36; WU 68</p>
<p>L.OL.03.32 Identify and compare structures in animals used for controlling body temperature, support, movement, food-getting, and protection (for example: fur, wings, teeth, claws).</p>	<p>Student Edition: 46-48 <i>Explore</i> 43 <i>Lesson Review</i> 49 <i>Literature</i> 103 <i>Quick Lab</i> 47 Teacher Wraparound Edition: AM 45; DI 47; DMI 45; ELLS 103; FA 49; WU 52</p>
<p>L.OL.E.4 Classification- Organisms can be classified on the basis of observable characteristics.</p>	
<p>L.OL.03.41 Classify plants on the basis of observable physical characteristics (roots, leaves, stems, and flowers).</p>	<p>Student Edition: 38 <i>Math Link</i> 39 Teacher Wraparound Edition: DMI 38; HA 38; UV 38</p>

STANDARDS	PAGE REFERENCES
<p>L.OL.03.42 Classify animals on the basis of observable physical characteristics (backbone, skin, shell, limbs, scales).</p>	<p>Student Edition: 54-60 <i>Chapter Review</i> 65 <i>Explore</i> 53 <i>Focus on Skills</i> 50-51 <i>Lesson Review</i> 61 <i>Quick Lab</i> 55</p> <p>Teacher Wraparound Edition: AE 53; APK 52; DI 55, 59; DMI 58, 59, 60; FA 61; HA 60; IR 50; UV 59</p>
EVOLUTION	
<p><i>K-7 Standard L.EV: Develop an understanding that plants and animals have observable parts and characteristics that help them survive and flourish in their environments. Understand that fossils provide evidence that life forms have changed over time and were influenced by changes in environmental conditions. Understand that life forms either change (evolve) over time or risk extinction due to environmental changes and describe how scientists identify the relatedness of various organisms based on similarities in anatomical features.</i></p>	
<p>L.EV.E.1 Environmental Adaptation- Different kinds of organisms have characteristics that help them to live in different environments.</p>	
<p>L.EV.03.11 Relate characteristics and functions of observable parts in a variety of plants that allow them to live in their environment (for example: leaf shape, thorns, odor, color).</p>	<p>Student Edition: 134-142 <i>Chapter Review</i> 147 <i>Lesson Review</i> 143 <i>Quick Lab</i> 137</p> <p>Teacher Wraparound Edition: DI 138; DMI 136, 140; FA 143</p>
<p>L.EV.03.12 Relate characteristics and functions of observable body parts to the ability of animals to live in their environment (for example: sharp teeth, claws, color, body covers).</p>	<p>Student Edition: 134-142 <i>Be a Scientist</i> 144-145 <i>Chapter Review</i> 147 <i>Explore</i> 133 <i>Lesson Review</i> 143 <i>Literature</i> 103 <i>Writing in Science</i> 62</p> <p>Teacher Wraparound Edition: AE 133; DI 103, 135, 137, 138; DMI 136, 138, 140; ELLS 139, 141; FA 143; IW 144; WU 132</p>

STANDARDS	PAGE REFERENCES
<p>EARTH SCIENCE</p>	
<p>Earth Systems</p>	
<p><i>K-7 Standard E.ES: Develop an understanding of the warming of the Earth by the sun as the major source of energy for phenomenon on Earth and how the sun's warming relates to weather, climate, seasons, and the water cycle. Understand how human interaction and use of natural resources affects the environment.</i></p>	
<p>E.ES.E.4 Natural Resources- The supply of many natural resources is limited. Humans have devised methods for extending their use of natural resources through recycling, reuse, and renewal.</p>	
<p>E.ES.03.41 Identify natural resources (metals, fuels, fresh water, farmland, and forests).</p>	<p>Student Edition: 244, 252-253, 260-261, 264-266 <i>Chapter Review</i> 271 <i>Lesson Review</i> 267 <i>Reading in Science</i> 256-257, 414-415 <i>Writing in Science</i> 518 Teacher Wraparound Edition: DI 153, 261; DMI 244, 260; ELLS 242; EMI 253; HA 266</p>
<p>E.ES.03.42 Classify renewable (fresh water, farmland, forests) and non-renewable (fuels, metals) resources.</p>	<p>Student Edition: 253, 260-261 <i>Chapter Review</i> 271 <i>Reading in Science</i> 256-257 <i>Writing in Science</i> 518 Teacher Wraparound Edition: DMI 252; ELLS 252, 256</p>
<p>E.ES.03.43 Describe ways humans are protecting, extending, and restoring resources (recycle, reuse, reduce, renewal).</p>	<p>Student Edition: 156, 254, 266 <i>Careers in Science</i> 184 <i>Chapter Review</i> 183, 271 <i>Lesson Review</i> 157, 267 <i>Quick Lab</i> 265 <i>Reading in Science</i> 256-257 <i>Writing in Science</i> 518 Teacher Wraparound Edition: DI 265; FA 255; HA 156, 254, 266, 516; IW 184, 426; SB 5</p>

STANDARDS	PAGE REFERENCES
<p>E.ES.03.44 Recognize that paper, metal, glass, and some plastics can be recycled.</p>	<p>Student Edition: 156 <i>Focus on Skills</i> 158-159 <i>Reading in Science</i> 415</p> <p>Teacher Wraparound Edition: DMI 156; IW 426</p>
<p>E.ES.E.5 Human Impact- Humans depend on their natural and constructed environment. Humans change environments in ways that are helpful or harmful for themselves and other organisms.</p>	
<p>E.ES.03.51 Describe ways humans are dependent on the natural environment (forests, water, clean air, earth materials) and constructed environments (homes, neighborhoods, shopping malls, factories, and industry).</p>	<p>Student Edition: 244, 252-253, 260-263 <i>Chapter Review</i> 271 <i>Explore</i> 107 <i>Health Link</i> 245 <i>Reading in Science</i> 256-257, 414-415 <i>Social Studies Link</i> 49</p> <p>Teacher Wraparound Edition: AE 107; DI 33, 112, 153, 261, 262; ELLS 242; IR 486; WU 118</p>
<p>E.ES.03.52 Describe helpful or harmful effects of humans on the environment (garbage, habitat destruction, land management, renewable and non-renewable resources).</p>	<p>Student Edition: 154-155, 218, 264-266 <i>Be a Scientist</i> 268-269 <i>Careers in Science</i> 184 <i>Chapter Review</i> 183 <i>Lesson Review</i> 157 <i>Quick Lab</i> 155 <i>Reading in Science</i> 28-29 <i>Writing in Science</i> 220</p> <p>Teacher Wraparound Edition: DI 155, 175; FA 157; HA 156; IW 184; SB 260</p>

STANDARDS	PAGE REFERENCES
Solid Earth	
<i>K-7 Standard E.SE: Develop an understanding of the properties of earth materials and how those properties make materials useful. Understand gradual and rapid changes in earth materials and features of the surface of Earth. Understand magnetic properties of Earth.</i>	
E.SE.E.1 Earth Materials- Earth materials that occur in nature include rocks, minerals, soils, water, and the gases of the atmosphere. Some Earth materials have properties which sustain plant and animal life.	
E.SE.03.13 Recognize and describe different types of earth materials (mineral, rock, clay, boulder, gravel, sand, soil).	Student Edition: 228-234, 240-243 <i>Explore</i> 227, 239 <i>Focus on Skills</i> 246-247 <i>Lesson Review</i> 235 <i>Quick Lab</i> 231, 243 <i>Reading in Science</i> 414-415 Teacher Wraparound Edition: AE 227, 239; DI 229, 233, 241, 243; ELLS 242; FA 235, 245; HA 244; SB 228
E.SE.03.14 Recognize that rocks are made up of minerals.	Student Edition: 228-233 <i>Lesson Review</i> 235 <i>Reading in Science</i> 414 Teacher Wraparound Edition: DI 231
E.SE.E.2 Surface Changes- The surface of Earth changes. Some changes are due to slow processes, such as erosion and weathering, and some changes are due to rapid processes, such as landslides, volcanic eruptions, and earthquakes.	
E.SE.03.22 Identify and describe natural causes of change in the Earth's surface (erosion, glaciers, volcanoes, landslides, and earthquakes).	Student Edition: 204-208, 214-217 <i>Chapter Review</i> 223 <i>Explore</i> 203, 213 <i>Lesson Review</i> 209, 219 <i>Quick Lab</i> 207, 217 <i>Reading in Science</i> 210-211 Teacher Wraparound Edition: DI 205, 215, 217; DMI 214; ELLS 210, 216; EMI 217; FA 209, 219; HA 208, 218; WU 212

STANDARDS	PAGE REFERENCES
<p>E.SE.E.3 Using Earth Materials- Some Earth materials have properties that make them useful either in their present form or designed and modified to solve human problems. They can enhance the quality of life as in the case of materials used for building or fuels used for heating and transportation.</p>	
<p>E.SE.03.31 Identify Earth materials used to construct some common objects (for example: bricks, buildings, roads, glass).</p>	<p>Student Edition: 234, 367, 409, 411 <i>Chapter Review</i> 271 <i>Literature</i> 359 <i>Reading in Science</i> 414 <i>Writing in Science</i> 236 Teacher Wraparound Edition: DI 359; ELLS 367; FA 235; IR 422</p>
<p>E.SE.03.32 Describe how materials taken from the Earth can be used as fuels for heating and transportation.</p>	<p>Student Edition: 252-253 <i>Lesson Review</i> 255 <i>Reading in Science</i> 256 <i>Writing in Science</i> 518 Teacher Wraparound Edition: DI 253; EMI 253; UV 253</p>