



SCIENCE

A CLOSER LOOK

Grade 1
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STANDARDS	PAGE REFERENCES
<p>Standard 5.2 (Science and Society) All students will develop an understanding of how people of various cultures have contributed to the advancement of science and technology, and how major discoveries and events have advanced science and technology.</p>	
	<p><i>Cultural Contributions</i></p>
<p>Describe how science and technology contributes to solving problems.</p>	<p>Student Edition: 8-9, 232-233 <i>Career in Science</i> 156, 222 <i>Reading in Science</i> 312-313, 346, 378-379, 408-409 <i>Talk about It</i> 347 <i>Writing in Science</i> 422</p> <p>Teacher Wraparound Edition: BR 378; C 9; DR 64, 313, 346, 408; EMI 7; TAI 347</p>
	<p><i>Historical Perspectives</i></p>
<p>Identify scientists and inventors throughout history.</p>	<p>Contemporary scientists are discussed on the following pages:</p> <p>Student Edition: <i>Reading in Science</i> 116, 148, 176, 206-207, 284</p> <p>Teacher Wraparound Edition: C 9; RS 116, 148, 176, 206, 284</p>

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<p>Standard 5.4 (Nature and Process of Technology) All students will understand the interrelationships between science and technology and develop a conceptual understanding of the nature and process of technology.</p>	
<p><i>Nature of Technology</i></p>	
<p>Select and use materials to complete a task.</p>	<p>Student Edition: 6-7, 12-13 <i>Explore</i> 23, 29, 37, 133, 163, 299, 307, 329, 333, 341, 373, 397, 403, 419</p> <p>Teacher Wraparound Edition: BS 345A & 345B; E 23, 29, 37, 133, 163, 299, 307, 329, 333, 341, 373, 397, 403, 419; FS 365A & 365B</p>
<p><i>Technological Design</i></p>	
<p>Design a solution to a problem.</p>	<p>Student Edition: 210-211, 212-213 <i>Explore</i> 373 <i>Quick Lab</i> 211 <i>Think, Talk and Write</i> 183 #2, 213 #1 & #2 <i>Write A Story</i> 184 <i>Writing in Science</i> 184, 214</p> <p>Teacher Wraparound Edition: AR 207; C 331; E 209, 373; FS 233A & 233B; IW 214; OI 315; QL 211; RTL 210; WAI 184, 214</p>
<p>Describe a toy as a system with parts that work together.</p>	<p>Simple machines are discussed on the following pages:</p> <p>Student Edition: 374-377 <i>Explore</i> 373 <i>Quick Lab</i> 376 <i>Reading in Science</i> 378-379 <i>Think, Talk and Write</i> 377 #1 & #2</p> <p>Teacher Wraparound Edition: C 377; DR 378; ELLS 374; FA 377; QL 376; SB 374</p>

STANDARDS	PAGE REFERENCES
<p>Standard 5.5 (Characteristics of Life) All students will gain an understanding of structure, characteristics and basic needs of organisms and will investigate diversity of Life.</p>	
<p><i>Matter, Energy, and Organization in Living Systems</i></p>	
<p>Compare and contrast the essential characteristics that distinguish living from nonliving things.</p>	<p>Student Edition: 21, 24-25 <i>Explore</i> 23 <i>Look and Wonder</i> 22 <i>Quick Lab</i> 25 <i>Read a Photo</i> 25</p> <p>Teacher Wraparound Edition: C 27; DMI 24; E 23; ELLS 24; LW 22; QL 25; SB 24</p>
<p>Describe the basic needs of humans.</p>	<p>Student Edition: 24, 196-197, 198, 202-203 <i>Explore</i> 201 <i>Look and Wonder</i> 194</p> <p>Teacher Wraparound Edition: AE 201; DI 203; E 201; ELLS 202; FA 199; I 200; LW 194; SB 24, 202; T 24, 202</p>
<p><i>Diversity and Biological Evolution</i></p>	
<p>Recognize plants and animals as living things.</p>	<p>Student Edition: 18-19, 22, 24-25, 26-27, 30-31, 32-33 96-97 <i>Explore</i> 2, 23, 29, 141 <i>Writing in Science</i> 34</p> <p>Teacher Wraparound Edition: BR 18; C 27; E 3; T30; TR24-TR27; WU 2</p>
<p>Describe some varied habitats of different animals.</p>	<p>Student Edition: 91, 94, 124-125, 126, 128-129, 130-131, 134-135, 136-137, 138, 150-153 <i>Explore</i> 11, 127, 133, 141 <i>Look and Wonder</i> 132 <i>Quick Lab</i> 130</p> <p>Teacher Wraparound Edition: 150-153 AR 207; C 147; DMI 90; E 11, 127, 133, 141; ELLS 134; FA 147; IW131A; LW 94, 312; QL 130; TR28</p>

STANDARDS	PAGE REFERENCES
Recognize that some organisms that once lived on earth have disappeared, have become extinct .	Student Edition: 147 <i>Reading in Science</i> 148-149 <i>Talk about It</i> 149 Teacher Wraparound Edition: ELLS 148; RS 148; TAI 149
Reproduction and Heredity	
Recognize that humans resemble their parents and describe the ways they resemble one another.	The following pages cover how animals grow and change and can be used to meet this standard. Student Edition: 110-111 <i>Explore</i> 109 <i>Look and Wonder</i> 108 Teacher Wraparound Edition: AE 109; DI 111; DMI 110; E 109; I 108; LW 108; WU 108
Standard 5.6 (Physical Science - Chemistry) All students will gain an understanding of the structure and behavior of matter.	
Structure and Properties of Matter	
Sort objects according to the material from which they are made or their physical properties, and give a rationale for sorting.	Student Edition: Properties of solids, liquids and gases are discussed on pages 308, 316 and 318. 301 <i>Explore</i> 307 <i>Quick Lab</i> 301 <i>Think, Talk and Write</i> 311 #1 Teacher Wraparound Edition: E 307; FA 319; PA 322-323; QL 301; RP 302; TR34
Use magnifiers to observe materials, and describe what more can be seen.	Student Edition: <i>Explore</i> 171 <i>Try It</i> R6 Teacher Wraparound Edition: AE 171; AI 169B; E 171; R6

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<p align="center">Standard 5.7 (Physical Science - Physics) All students will gain an understanding of natural laws as they apply to motion, forces and energy transformations.</p>	
<p align="center"><i>Motion and Forces</i></p>	
<p>Recognize and demonstrate how push and pull force can move objects.</p>	<p>Student Edition: 359, 368-369, 370, 388-391 <i>Explore</i> 367, 373 <i>Look and Wonder</i> 366 <i>Quick Lab</i> 370 <i>Think, Talk and Write</i> 371 #2 Teacher Wraparound Edition: AE 367, 373; E 367, 373; ELLS 368; FA 371; LW 366; QL 370</p>
<p>Recognize and demonstrate objects moving in different ways: Fast and slow In a straight line In a circular path Back and forth</p>	<p>Student Edition: 364-365 <i>Quick Lab</i> 364, 370 <i>Think, Talk and Write</i> 365 #2 Teacher Wraparound Edition: BS 371A & 371B; C 365; FA 365; QL 364</p>
<p align="center"><i>Energy Transformation</i></p>	
<p>Create different sounds and vibrations using a variety of objects.</p>	<p>Student Edition: 395, 404-405, 425 <i>Explore</i> 403 <i>Look and Wonder</i> 402 <i>Quick Lab</i> 405 <i>Read a Photo</i> 405 Teacher Wraparound Edition: AE 403; DMI 404; DV 405; E 403; ELLS 404; LW 402; QL 405; WU 402</p>
<p align="center">Standard 5.8 (Earth Science) All students will gain an understanding of the structure, dynamics and geophysical systems of the Earth.</p>	
<p align="center"><i>Earth's Properties and Materials</i></p>	
<p>Identify the Earth as being made up of rocks and minerals.</p>	<p>Student Edition: 160-161, 186-189 Teacher Wraparound Edition: APK 160; BI 160; SB 164, 172; TR64</p>

STANDARDS	PAGE REFERENCES
Distinguish between rocks (natural) and non-rocks (cement, macadam).	<p>The following examples focus on different types of rocks.</p> <p>Student Edition: 172-173 <i>Explore</i> 171 <i>Look and Wonder</i> 170 <i>Quick Lab</i> 173 <i>Read a Photo</i> 173</p> <p>Teacher Wraparound Edition: AE 171; DMI 172; E 171; LW 170; QL 173; RP 173; TR64</p>
Atmosphere and Weather	
Recognize that water can disappear (evaporate) and collect on cold surfaces (condense).	<p>Student Edition: 236-237, 344-345 <i>Read a Diagram</i> 236</p> <p>Teacher Wraparound Edition: DI 344; DMI 236, 344; DV 344; FA 239; RD 237; SB 236; UV 344</p>
Observe and record weather conditions e.g., cold, warm, hot, sunny, cloudy and rainy around their school.	<p>Student Edition: 230-231 <i>Explore</i> 229 <i>Look and Wonder</i> 228 <i>Quick Lab</i> 232 <i>Write About It</i> 254 <i>Writing in Science</i> 254</p> <p>Teacher Wraparound Edition: BS 239A & 239B; DMI 230, 232, DV 231, 232; E 229; ELLS 224; FA 233, 253; LW 228; QL 232; TR30; UV 231; WAI 254</p>
Describe and illustrate seasonal changes in the weather and how people respond to various conditions.	<p>Student Edition: 242-243, 244-245, 250-251, 252-253, 256-259 <i>Explore</i> 241, 249 <i>Look and Wonder</i> 240, 248 <i>Quick Lab</i> 243 <i>Reading in Science</i> 246 <i>Talk About It</i> 247</p> <p>Teacher Wraparound Edition: AE 249; DI 252; E 241, 249; FA 253; IW 254; LW 248; QL 243; RS 246; T 242, TAI 247; TR32</p>

STANDARDS	PAGE REFERENCES
<p>Standard 5.9 (Astronomy and Space Science) All students will gain an understanding of the origin, evolution, and structure of the universe.</p>	
<p><i>Earth, Moon and Sun Systems</i></p>	
<p>Identify the Sun as a star supplying light and heat to the earth.</p>	<p>Student Edition: 263, 267, 268-269, 286-287, 396, 414 Read a Photo 268 Think Talk and Write 269 #1, #2, 401 #1 Teacher Wraparound Edition: DMI 268, 414; DV 267; LW 396; TR31, TR33</p>
<p>Recognize the difference between day and night.</p>	<p>Student Edition: 266-267, 272-273, 286-289 <i>Explore</i> 265 <i>Writing in Science</i> 276 Teacher Wraparound Edition: AE 265; E 265; WS 276</p>
<p><i>Solar System</i></p>	
<p>Recognize that the Sun is seen during the day and the moon at night.</p>	<p>Student Edition: 266-267, 272-273, 286-289 <i>Explore</i> 265, 279 <i>The Big Idea</i> 262 <i>Write About It</i> 276 <i>Writing in Science</i> 276 Teacher Wraparound Edition: AE 265; APK 262; BI 262; E 265, 279; FA 269; IW 276; WAI 276</p>
<p>Observe that stars are scattered throughout the sky and have different degrees of brightness.</p>	<p>Student Edition: 263, 266-267, 414 Teacher Wraparound Edition: DMI 266; SB 266</p>

STANDARDS	PAGE REFERENCES
Standard 5.10 (Environmental Studies) All students will develop an understanding of the environment as a system of interdependent components affected by human activity and natural phenomena.	
<i>Natural Systems and Interactions</i>	
Identify organisms' basic needs.	Student Edition: 24, 26, 27, 96-97, 202-203, 216-217 <i>Explore</i> 95 <i>Read a Photo</i> 96 <i>Reading in Science</i> 42 <i>Talk About It</i> 43 Teacher Wraparound Edition: DI 97; DMI 26, 96, 202; E 95; ELLS 96; FA 199, 205, RS 42; SB 202; TAI 43
Associate organisms' basic needs with how they meet those needs within their surroundings.	Student Edition: 96-97, 98, 134-135, 198, 202-203, 224-225 <i>Explore</i> 11, 95 <i>Look and Wonder</i> 94 <i>Quick Lab</i> 198 <i>Read a Photo</i> 96 <i>Writing in Science</i> 100 Teacher Wraparound Edition: AE 95; APK 94; AR 225; C 253; 135; DI 203; DV 97; E 11, 95; EMI 97, ES 96, 202; FA 199, 205; LW 94; QL 198; RP 97; TR62-TR63
<i>Human Interactions and Impact</i>	
Identify various needs of humans that are supplied by the natural or constructed environment.	Student Edition: 196-197, 202-203, 216-218 <i>Explore</i> 195, 201 <i>Look and Wonder</i> 200 <i>Read a Photo</i> 198, 203 <i>Think, Talk and Write</i> 199 #1 Teacher Wraparound Edition: APK 200; DI 203; DMI 196, 198, 202; E 195, 201; ELLS 96, 202; HL 99; LW 200; RP 198, 203; TA 295; UV 197