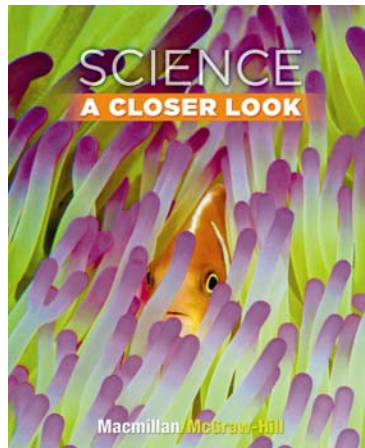
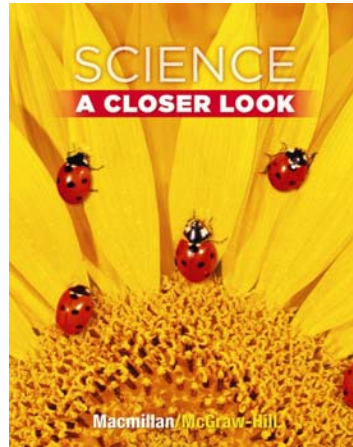
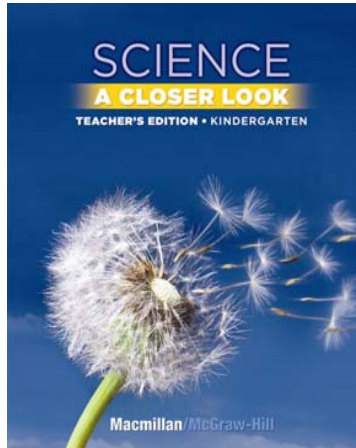




Macmillan/McGraw-Hill

Elementary Science
Core Curriculum
Grades K-4



SCIENCE

A CLOSER LOOK

Grades K-4

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STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
STANDARD 4: The Physical Setting					
Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.					
Key Idea 1:					
The Earth and celestial phenomena can be described by principles of relative motion and perspective.					
PERFORMANCE INDICATOR 1.1 Describe patterns of daily, monthly, and seasonal changes in their environment.					
<p>1.1a Natural cycles and patterns include:</p> <ul style="list-style-type: none"> • Earth spinning around once every 24 hours (rotation), resulting in day and night • Earth moving in a path around the Sun (revolution), resulting in one Earth year • the length of daylight and darkness varying with the seasons • weather changing from day to day and through the seasons • the appearance of the Moon changing as it moves in a path around Earth to complete a single cycle 	<p>Flipbook: <i>Unit D</i> 40-43</p> <p>TWE: AQ 187, 193, 195; BR 185, 191; BS 182, 196; FA 187, 195; SF 168-169, 186, 192, 194; TT 193, 195; TTr 193; UP 168F; UV 180, 192, 194</p>	<p>SE: 242, 244, 250, 253, 272-275</p> <p><i>Quick Lab</i> 273</p> <p><i>Read a Diagram</i> 274</p> <p>Flipbook: <i>Be a Scientist</i> 40</p> <p>TWE: AL 275; BS 275A-275B; DI 274; DMI 272, 274; DV 274; ELLS 272; FA 275; QL 273; RD 274; SB 272; SYP TR68-TR69; URS 275; UV 273</p>	<p>SE: 254-257, 262-263, 268-271</p> <p><i>Explore</i> 223</p> <p><i>Look and Wonder</i> 222</p> <p><i>Math in Science</i> 265</p> <p><i>Quick Lab</i> 256</p> <p>Flipbook: <i>Be a Scientist</i> 38</p> <p>TWE: AE 223; BS 273A-273B DI 262, 269, 270; DMI 254, 268; E 223; EMI 269; LW 222; MS 265; QL 256; SB 254; UV 256, 270</p>	<p>SE: 294-295, 318-321, 328-331</p> <p><i>Be a Scientist</i> 334-335</p> <p><i>Focus on Skills</i> 286-287</p> <p><i>Literature</i> 274-275</p> <p><i>Quick Lab</i> 319</p> <p>TWE: AE 303, 327; DMI 318; FA 333; UV 321</p>	<p>SE: 360-364, 372-373</p> <p><i>Explore</i> 359</p> <p><i>Focus on Skills</i> 376-377</p> <p><i>Quick Check</i> 361</p> <p><i>Quick Lab</i> 363, 373</p> <p>TWE: TR 54; DMI 360, 362, 364; ELL 373</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
<p>1.1b Humans organize time into units based on natural motions of Earth:</p> <ul style="list-style-type: none"> • second, minute, hour • week, month 	<p>TWE: SF 192; UP 168F</p>	<p>SE: 273-274 <i>Math in Science</i> 277 <i>Read a Diagram</i> 274</p> <p>Flipbook: <i>Be a Scientist</i> 40</p> <p>TWE: BS 275A-275B; DI 274; DMI 274; RD 274; SB 272; SYP TR70-TR71; TAI 277</p>	<p>SE: 254-255, 270-271 <i>Math in Science</i> 265</p> <p>Flipbook: <i>Be a Scientist</i> 38</p> <p>TWE: BS 273A-273B; DI 270; DMI 270; MS 265; SB 254</p>	<p>SE: 318-320, 331 <i>Be a Scientist</i> 334-335 <i>Math in Science</i> 325 <i>Math Link</i> 323</p> <p>TWE: AE 327; DI 319, 329; IM 325; IW 334</p>	<p>SE: 360 <i>Quick Check</i> 361</p> <p>TWE: TR 45; SB 360</p>
<p>1.1c The Sun and other stars appear to move in a recognizable pattern both daily and seasonally.</p>	<p>Flipbook: <i>Unit D</i> 43</p> <p>TWE: AQ 193; CT 190; FA 195; IM 196; SF 192, 194, TTr 193; UV 194</p>	<p>SE: 266, 272-274</p> <p>Flipbook: <i>Be a Scientist</i> 40</p> <p>TWE: BS 275A-275B; DI 274; DMI 272; SB 272</p>	<p>SE: 262-263, 272 <i>Quick Lab</i> 272 <i>Reading in Science</i> 280-281</p> <p>TWE: AR 281; QL 272; RD 262; UV 272</p>	<p>SE: 318-319, 350 <i>Explore</i> 317</p> <p>TWE: DMI 350; FA 351; UV 350</p>	<p>SE: 361-364, 380-381, 396-397 <i>Quick Lab</i> 363, 397 <i>Read a Diagram</i> 362</p> <p>TWE: DMI 364, 396; IW 400</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
Key Idea 2:					
Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.					
PERFORMANCE INDICATOR 2.1 Describe the relationship among air, water, and land on Earth.					
2.1a Weather is the condition of the outside air at a particular moment.	Flipbook: <i>Unit D</i> 38, 40 TWE: AQ 181; BR 171; BS 182; TTr 175; UP 168F; UV 180	SE: 230-231 TWE: APK 228; DMI 230; FA 233; SB 230; SYP TR68; UV 231	SE: 224 <i>Explore</i> 223 <i>Look and Wonder</i> 222 TWE: E 223; EMI 225; FA 227; LW 222; WU 222	SE: 280-281 <i>Focus on Skills</i> 286-287 <i>Lesson Review</i> 285 TWE: DI 281; DMI 280; ELLS 282	SE: 316 TWE: TR 52; DMI 316
2.1b Weather can be described and measured by: <ul style="list-style-type: none"> • temperature • wind speed and direction • form and amount of precipitation • general sky conditions (cloudy, sunny, partly cloudy) 	Flipbook: <i>Unit D</i> 38-39 TWE: AQ 173, 175; BS 176; SF 168-169, 174; UV 174, 180	SE: 231-233 <i>Explore</i> 229 <i>Quick Lab</i> 232 Flipbook: <i>Focus on Skills</i> 32 TWE: AE 229; DMI 232; DV 232; E 229; FS 233A-233B; QL 232; UV 231	SE: 224-227, 238 <i>Explore</i> 237 <i>Math in Science</i> 229 <i>Quick Lab</i> 226 TWE: AE 223; DI 225, 239; DMI 224, 226; E 237; MS 229; QL 226; URS 227; UV 225	SE: 280-283 <i>Focus on Skills</i> 286-287 <i>Quick Lab</i> 283 TWE: DI 283; DMI 280, 282; ELLS 282; FA 285; WU 278	SE: 316-318 <i>Math in Science</i> 321 <i>Quick Check</i> 317, 318 <i>Writing in Science</i> 320 TWE: DMI 318; FA 319

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
<p>2.1c Water is recycled by natural processes on Earth.</p> <ul style="list-style-type: none"> • evaporation: changing of water (liquid) into water vapor (gas) • condensation: changing of water vapor (gas) into water (liquid) • precipitation: rain, sleet, snow, hail • runoff: water flowing on Earth's surface • groundwater: water that moves downward into the ground 	<p>Flipbook: <i>Unit E</i> 51</p> <p>TWE: BR 231; DV 232; MR 233; RS 232; SF 232; TTr 235; UV 232</p>	<p>SE: 236-237</p> <p><i>Quick Lab</i> 238</p> <p><i>The Water Cycle</i> 236</p> <p><i>Think, Talk, and Write</i> 239 #2</p> <p>TWE: DI 237; DMI 236; EMI 237; FA 239; QL 238; RD 237; SB 236; SYP TR68; WU 234</p>	<p>SE: 165, 232-235</p> <p><i>Look and Wonder</i> 230</p> <p><i>Read a Diagram</i> 234-235</p> <p>TWE: AE 231; AM 233; DI 233; DMI 232; DV 233; LW 230; RD 234; URS 235; UV 233</p>	<p>SE: 292-295</p> <p><i>Explore</i> 289</p> <p><i>Lesson Review</i> 299</p> <p><i>Quick Lab</i> 293</p> <p>TWE: AE 289; CE 294; DI 295; DMI 294; EMI 293; WU 288</p>	<p>SE: 324-330</p> <p><i>Art Link</i> 331</p> <p><i>Explore</i> 323</p> <p><i>Focus on Skills</i> 332-333</p> <p><i>Quick Check</i> 325</p> <p><i>Read a Diagram</i> 327</p> <p>TWE: TR 52; AM 327; DMI 324, 326; UV 325</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
<p>2.1d Erosion and deposition result from the interaction among air, water, and land.</p> <ul style="list-style-type: none"> • interaction between air and water breaks down earth materials • pieces of earth material may be moved by air, water, wind, and gravity • pieces of earth material will settle or deposit on land or in the water in different places • soil is composed of broken-down pieces of living and nonliving earth material 	<p>Flipbook: <i>Unit C 33</i></p> <p>TWE: AQ 149; BS 144; SF 148; UV 148</p>	<p>SE: 180-183 <i>Explore 179</i> <i>Look and Wonder 178</i> <i>Quick Lab 183</i> <i>Think, Talk, and Write 183</i> <i>Writing in Science 184</i></p> <p>TWE: AE 179; APK 178; DI 181; DMI 180, 182; FA 183; LAI 184; LW 178; QL 182; RP 181; SB 180; SSL 183; UV 182</p>	<p>SE: 172-175 <i>Art Link 175</i> <i>Explore 171</i> <i>Look and Wonder 170</i> <i>Read a Diagram 173</i> <i>Think, Talk, and Write 175</i></p> <p>TWE: AE 171; AL 175; DI 174; DMI 172, 174; E 171; ELLS 172; FA 175; LW 170; RD 173; SB 172; URS 175; UV 174; WU 170</p>	<p>SE: 214-217, 240-241 <i>Explore 213, 239</i> <i>Quick Lab 217</i></p> <p>TWE: DI 215; DMI 214, 216; HA 218; UV 216</p>	<p>SE: 226-231, 264-265 <i>Explore 225, 263</i> <i>Math in Science 235</i> <i>Quick Check 227, 231, 265</i> <i>Read a Photo 229</i> <i>Writing in Science 234</i></p> <p>TWE: TR 49; DMI 226, 264</p>
<p>2.1e Extreme natural events (floods, fires, earthquakes, volcanic eruptions, hurricanes, tornadoes, and other severe storms) may have positive or negative impacts on living things.</p>	<p>Flipbook: <i>Unit C 32</i></p> <p>TWE: AQ 143; CT 138; SF 142; UV 142</p>	<p>SE: <i>Writing in Science 184</i></p> <p>TWE: AE 229; LAI 184</p>	<p>SE: 174-175, 181, 241 <i>Art Link 175</i> <i>Reading in Science 176-177</i></p> <p>TWE: AL 175; DMI 174; RS 176-177; UV 174</p>	<p>SE: 162-163, 204-208, 296-298 <i>Explore 161</i> <i>Reading in Science 300-301</i></p> <p>TWE: DI 163; DMI 296; HA 208, 298; WU 160</p>	<p>SE: 215, 220, 238-242 <i>Be a Scientist 244-245</i> <i>Quick Check 220</i> <i>Quick Lab 241</i> <i>Read a Photo 239</i></p> <p>TWE: TR 49; DIF 239; HA 242</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
Key Idea 3:					
Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.					
PERFORMANCE INDICATOR 3.1 Observe and describe properties of materials, using appropriate tools.					
3.1a Matter takes up space and has mass. Two objects cannot occupy the same place at the same time.	Flipbook: <i>Unit E 47-51</i> TWE: AQ 233; BR 213; CT 218, 224; PA 238; SF 210-211	SE: 301, 308-309 <i>Look and Wonder</i> 314 <i>Quick Lab</i> 319 TWE: APK 296; LW 314; PA 322-323; URS 303; QL 318	SE: 296, 310, 312 <i>Read a Photo</i> 296 <i>Think, Talk, and Write</i> 299 #2 TWE: DMI 296; DV 297; PA 318-319; SB 296; RP 297	SE: 364-365 <i>Lesson Review</i> 369 TWE: DI 365	SE: 412-413 <i>Quick Check</i> 413 TWE: TR 56; DMI 412
3.1b Matter has properties (color, hardness, odor, sound, taste, etc.) that can be observed through the senses.	Flipbook: <i>Unit E 48-50</i> TWE: AQ 221; BMW 219; BR 213, 225; CT 218, 224; TT 235; UV 226	SE: 300-301, 310-311 <i>Explore</i> 299, 307, 315 <i>Look and Wonder</i> 298, 306 <i>Quick Lab</i> 301 TWE: AE 299; DMI 300; E 299, 307, 315; ELLS 300, 308; FA 303, 311; LW 298, 306; QL 301; UV 301	SE: 296-299, 302-303, 310, 312 <i>Explore</i> 295, 301 <i>Quick Lab</i> 298 TWE: AE 295; DMI 302; DI 297; DV 298; E 295, 301; ELLS 296; QL 298; SB 302; URS 305; UV 298, 303	SE: 228-229, 364-365 <i>Explore</i> 363, 383 <i>Quick Lab</i> 231, 387 <i>Writing in Science</i> 390 TWE: APK 362; DI 229; WU 362	SE: 412-413 <i>Writing Link</i> 417 <i>Writing in Science</i> 418 TWE: DMI 412; UV 413

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
3.1c Objects have properties that can be observed, described, and/or measured: length, width, volume, size, shape, mass or weight, temperature, texture, flexibility, reflectiveness of light.	Flipbook: <i>Unit E 51-52</i> TWE: AQ 233, 235; BMW 213, 219; CT 218; EC TR8; IW TR7; M TR7; SF 234; T TR8; TT 235	SE: 302-303, 317 <i>Explore 307</i> <i>Math in Science 305</i> <i>Quick Lab 311</i> Flipbook: <i>Focus on Skills 45</i> TWE: AE 307; DI 302, 317; DMI 302; EMI 309; FS 319A-319B; MS 305; QL 310	SE: 297, 304-305 <i>Quick Lab 298, 304, 313</i> <i>Read a Photo 311</i> TWE: DI 311; FA 299, 305; QL 298, 304, 312; RP 304, 311	SE: 364-365, 374-378 <i>Explore 227, 373</i> <i>Focus on Skills 380-381</i> <i>Quick Lab 377</i> <i>Writing in Science 390</i> TWE: AE 227; DI 481; IW 390	SE: 413, 422-426 <i>Explore 421</i> <i>Focus on Skills 428-429</i> <i>Math in Science 419</i> <i>Quick Lab 425</i> <i>Scientific Writing 427</i> TWE: TR57; DMI 422; ELL 425; IM 419

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
3.1d Measurements can be made with standard metric units and nonstandard units. (Note: Exceptions to the metric system usage are found in meteorology.)	TWE: BMW 33, 99 127, 199, 213, 231, 243, 269; BS 272; C 229; SF 234; SH TR7-TR8	SE: <i>Explore</i> 299, 307, 341 <i>Measurements</i> R2-R5 <i>Quick Lab</i> 311 Flipbook: <i>Focus on Skills</i> 45 TWE: AE 307; E 299, 307, 341; FS 319A-319B; M R2-R5; QL 310	SE: 297, 304-305 <i>Explore</i> 309 <i>Math in Science</i> 315 <i>Measurements</i> R2-R4 <i>Quick Lab</i> 298, 304, 365, 403 <i>Read a Photo</i> 304, 311 Flipbook: <i>Be a Scientist</i> 59 <i>Focus on Skills</i> 56 TWE: AE 309; BS 419A-419B; DI 297; E 309; IM 419A; FA 305; FS 403A-403B; MS 315; QL 298, 304, 365, 402; RP 304, 311	SE: 374-378, R2-R6 <i>Explore</i> 373 <i>Focus on Skills</i> 380-381 <i>Quick Lab</i> 377 TWE: AE 373; DI 375; DMI 374, R3; FA 379	SE: 422-423 <i>Explore</i> 421 <i>Focus On Skills</i> 428-429 TWE: TR57; SB 422

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
3.1e The material(s) an object is made up of determine some specific properties of the object (sink/float, conductivity, magnetism). Properties can be observed or measured with tools such as hand lenses, metric rulers, thermometers, balances, magnets, circuit testers, and graduated cylinders.	Flipbook: <i>Unit E</i> 49, 52 <i>Unit F</i> 59 TWE: AQ 221, 235, 271; BS 272; BW 269; CT 268; DW 273; SF 234; TT 271; UV 220, 234; WT 237	SE: 382-383 <i>Explore</i> 307, 341, 381 <i>Math in Science</i> 387, 423 <i>Quick Lab</i> 311, 335 TWE: AE 307, 381; DI 383; E 307, 341, 381; ELLS 382; MS 387, 423; QL 310, 335	SE: <i>Explore</i> 187, 301, 385 <i>Look and Wonder</i> 384 <i>Read a Chart</i> 387 Flipbook: <i>Be a Scientist</i> 54, 59 TWE: AE 385; BS 419A-419B; E 187, 301, 385; FA 299; LW 384; RC 387	SE: 228-229, 366-367, 502-503, 516 <i>Explore</i> 227 <i>Focus on Skills</i> 380-381 <i>Math Link</i> 369 TWE: AE 227; DI 481; EMI 367, 503; IM 380	SE: 252-253, 413, 422-425 <i>Explore</i> 251 <i>Quick Check</i> 253 <i>Quick Lab</i> 425 <i>Real World Reading in Science</i> 438-439 TWE: DIF 253; DMI 252;
3.1f Objects and/or materials can be sorted or classified according to their properties.	Flipbook: <i>Unit E</i> 49, 51-52 <i>Unit F</i> 59 TWE: AQ 221, 235, 271; BMW 219, 249, 257; BS 254, 260; BW 269; CT 262, 268; TT 221, 233, 235; UV 220, 234, 270; VR 210J	SE: 294-295, 334-335, 337 <i>Explore</i> 307, 333 <i>Quick Lab</i> 301, 335, 343 TWE: AE 333; AR 295; DMI 334; E 307, 333; ELLS 294; QL 301, 335, 343; UV 336	SE: 302-303 <i>Explore</i> 187, 295, 301 <i>Quick Lab</i> 298, 313 <i>Read a Chart</i> 387 Flipbook: <i>Be a Scientist</i> 54 <i>Focus on Skills</i> 26 TWE: BS 389A-389B; DI 387; E 187, 295, 301; ELLS 296; FS 191A-191B; QL 298, 312; RC 387; UV 303	SE: <i>Explore</i> 383 <i>Math Link</i> 413 <i>Quick Lab</i> 231, 243, 367 TWE: ELLS 367; EMI 367; IW 390	SE: 252-253, 432-435 <i>Explore</i> 431 <i>Quick Check</i> 435 <i>Quick Lab</i> 435 <i>Real World Reading in Science</i> 438-439 TWE: DIF 253; FA 437

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
<p>3.1g Some properties of an object are dependent on the conditions of the present surroundings in which the object exists. For example:</p> <ul style="list-style-type: none"> • temperature - hot or cold • lighting - shadows, color • moisture - wet or dry 	<p>Flipbook: <i>Unit E</i> 50-51</p> <p>TWE: AQ 227, 233; BR 231; CT 230; PA 238; SF 210-211, 232; TT 227; UV 226, 232</p>	<p>SE: 342-343 <i>Explore</i> 341, 397 <i>Look and Wonder</i> 340</p> <p>Flipbook: <i>Be a Scientist</i> 50</p> <p>TWE: AE 341; BS 345A-345B; DMI 342; E 341, 397; LW 340; SB 342</p>	<p>SE: 327, 332-335 <i>Explore</i> 331 <i>Look and Wonder</i> 330 <i>Quick Lab</i> 344</p> <p>Flipbook: <i>Be a Scientist</i> 46</p> <p>TWE: AE 331, 399; BS 329C-329D; DI 333; DMI 332, 334; E 331; FA 335; LW 330; QL 344; WU 330</p>	<p>SE: 398-401, 482-483 <i>Explore</i> 383, 397 <i>Quick Lab</i> 127</p> <p>TWE: APK 396; DI 366, 375; DMI 482; HA 402</p>	<p>SE: 413, 450-452, 458-459, 534 <i>Quick Check</i> 451 <i>Real World Reading in Science</i> 454-455</p> <p>TWE: DMI 450, 452; EMI 451</p>
PERFORMANCE INDICATOR 3.2 Describe chemical and physical changes, including changes in states of matter.					
<p>3.2a Matter exists in three states: solid, liquid, gas.</p> <ul style="list-style-type: none"> • solids have a definite shape and volume • liquids do not have a definite shape but have a definite volume • gases do not hold their shape or volume 	<p>Flipbook: <i>Unit E</i> 51</p> <p>TWE: AQ 233; BR 231; CT 230; DV 232; ELLS 233; SF 232; SV 210E; TT 233; UV 232</p>	<p>SE: 294-295, 300-301, 308-309, 316-323 <i>Explore</i> 299, 315</p> <p>TWE: DI 309; DMI 308, 316, 318; DV 309, 317-318; E 299, 315; FA 319; PA 322-323; SB 308, 316</p>	<p>SE: 302-303, 310-313, 317-319 <i>Quick Lab</i> 313</p> <p>TWE: DMI 302; DI 303, 311; DV 303, 311; FA 313; PA 318-319; QL 312; SB 302; URS 313; UV 303</p>	<p>SE: 384-387 <i>Explore</i> 383 <i>Lesson Review</i> 389 <i>Quick Lab</i> 387</p> <p>TWE: DMI 384, 386; HA 388</p>	<p>SE: 414-415 <i>Quick Check</i> 415 <i>Quick Lab</i> 415</p> <p>TWE: TR56; DMI 414; ELL 415</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
3.2b Temperature can affect the state of matter of a substance.	<p>Flipbook: <i>Unit E</i> 50-51</p> <p>TWE: AQ 227, 233; BPK 232; ELLS 233; PA 238; SF 226, 232; TT 233; UV 226</p>	<p>SE: 295, 330-331, 342-345 <i>Explore</i> 341, 397</p> <p>TWE: AE 329, 341, 397; DMI 342, 344; DV 330; E 341, 397; RP 343; SB 342; WR 328</p>	<p>SE: 327, 332-335 <i>Explore</i> 331 <i>Look and Wonder</i> 330</p> <p>Flipbook: <i>Be a Scientist</i> 46</p> <p>TWE: AE 331; BS 329C-329D; DI 333; DMI 332, 334; E 331; FA 335; LW 330; SB 332; URS 335; WU 330</p>	<p>SE: 398-402 <i>Explore</i> 397 <i>Focus on Skills</i> 404-405</p> <p>TWE: AE 397; HA 402; WU 396</p>	<p>SE: 324-327, 446-449, 534 <i>Explore</i> 323 <i>Quick Check</i> 449 <i>Quick Lab</i> 449</p> <p>TWE: TR56; DMI 446</p>
3.2c Changes in the properties or materials of objects can be observed and described.	<p>Flipbook: <i>Unit E</i> 48-51</p> <p>TWE: AQ 215, 221, 227, 233; BR 219, 231; BS 216, 222, 228; CT 212, 224, 230; DV 214; MR 233; TT 215, 221; UV 220, 232</p>	<p>SE: 330-331, 344 <i>Explore</i> 329, 341 <i>Look and Wonder</i> 340 <i>Quick Lab</i> 331, 343</p> <p>Flipbook: <i>Be a Scientist</i> 50</p> <p>TWE: AE 341; BS 345A-345B; DI 344; E 329, 341; FA 331; LW 340; QL 330, 343; URS 331</p>	<p>SE: 328-329, 349 <i>Quick Lab</i> 328 <i>Read a Chart</i> 328</p> <p>TWE: DMI 328; QL 328; RC 328</p>	<p>SE: 408-409, 418-420 <i>Be a Scientist</i> 422-423 <i>Explore</i> 407, 417 <i>Quick Lab</i> 419</p> <p>TWE: AE 407; DMI 408; HA 420; WU 416</p>	<p>SE: 414-415, 446-452 <i>Explore</i> 445 <i>Quick Lab</i> 415, 449 <i>Read a Diagram</i> 451 <i>Real World Reading in Science</i> 454-455</p> <p>TWE: DIF 414, 447; FA 453</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
Key Idea 4: Energy exists in many forms, and when these forms change energy is conserved.					
PERFORMANCE INDICATOR 4.1 Describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy.					
4.1a Energy exists in various forms: heat, electric, sound, chemical, mechanical, light.	Flipbook: <i>Unit F 58</i> TWE: BS 266; DI 265; SF 264; UV 154	SE: 398-399, 404-405, 412-413, 420-421, 424-427 TWE: DMI 398; DV 413; PA 426-427; RD 413; SB 398; URS 421	SE: 400-401, 406, 416, 422-423 <i>Quick Lab</i> 407 TWE: DI 401; DV 401; QL 407; SB 400, 406, 422	SE: 456, 480, 490, 500, 514 <i>Focus on Skills</i> 460-461 <i>Quick Lab</i> 457 TWE: DI 457; DMI 514	SE: 504-507, 530, 540-541, 552-553, 564-565 <i>Quick Lab</i> 507 TWE: DIF 507; DMI 506; ELL 506
4.1b Energy can be transferred from one place to another.	Flipbook: <i>Unit F 58</i> TWE: BS 266; SF 264	SE: 398-399, 404-405, 420-421 TWE: DMI 398, 404; DV 405; FA 421; URS 421; UV 399	SE: 400-401, 407, 422, 425 <i>Look and Wonder</i> 420 <i>Quick Lab</i> 407 Flipbook: <i>Be a Scientist</i> 59 TWE: BS 419A-419B; DMI 416, 424; DI 401; DV 424; EMI 407; FA 425; LW 420; QL 407; SB 400, 406, 422	SE: 480-483, 490-491, 500-501 <i>Focus on Skills</i> 460-461 <i>Quick Lab</i> 481 TWE: DI 483; IR 460; UV 491	SE: 508, 530, 532-533, 541-543, 566-567 <i>Explore</i> 539 TWE: DIF 532, 541; DMI 566

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
4.1c Some materials transfer energy better than others (heat and electricity).	Flipbook: <i>Unit E</i> 49 TWE: AQ 221; TT 221	SE: 420-421 <i>Explore</i> 397, 411 <i>Quick Lab</i> 399 <i>Reading in Science</i> 346-347 TWE: AE 397, 411; E 397, 411; FA 421; RS 346-347; QL 399	SE: 400-401, 422 <i>Quick Lab</i> 403 Flipbook: <i>Be a Scientist</i> 59 TWE: BS 419A-419B; DI 401, 423; QL 402; SB 422; UV 401	SE: 484, 491, 502-503, 516 <i>Be a Scientist</i> 496-497 <i>Focus on Skills</i> 486-487 TWE: DMI 502; EMI 503; FA 485; WU 498	SE: 533 <i>Be a Scientist</i> 573 <i>Explore</i> 529 <i>Focus on Skills</i> 536-537 <i>Quick Check</i> 533 TWE: AE 529; HA 534
4.1d Energy and matter interact: water is evaporated by the Sun's heat; a bulb is lighted by means of electrical current; a musical instrument is played to produce sound; dark colors may absorb light, light colors may reflect light.	Flipbook: <i>Unit E</i> 51 <i>Unit F</i> 58 TWE: AQ 233; BS 102, 266; ELLS 233; MR 233; SF 264; UV 154	SE: 414-415 <i>Explore</i> 403, 419 <i>Look and Wonder</i> 396, 410 <i>Quick Lab</i> 405, 414, 421 TWE: AE 403, 419; DMI 414; E 403, 419; LW 396, 410; QL 405, 414, 420	SE: 332-333 <i>Explore</i> 331, 399, 421 <i>Quick Lab</i> 403 <i>Read a Diagram</i> 333, 406-407, 422 <i>Reading in Science</i> 426-427 Flipbook: <i>Be a Scientist</i> 59 TWE: BS 419A-419B; DI 333; E 331, 399, 421; QL 402; RD 333, 423; SB 332	SE: 398-402, 482-483, 500-503 <i>Explore</i> 397, 499, 511 <i>Quick Lab</i> 481 TWE: DMI 398; FA 389; UV 481	SE: 508, 530, 532-534, 540-545, 544-558, 566-567 <i>Be a Scientist</i> 560-561 <i>Explore</i> 539 <i>Read a Diagram</i> 567 <i>Real World Writing in Science</i> 548 TWE: DMI 540; FA 509; HA 508, 558; SB 530

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
4.1e Electricity travels in a closed circuit.	See <i>Science A Closer Look Grade 1</i> © 2008.	SE: <i>Explore</i> 419 TWE: AE 419; E 419; SYP TR79	SE: 422-423 <i>Explore</i> 421 <i>Read a Diagram</i> 422 TWE: AE 421; DMI 422; E 421; ELLS 422; RD 423; URS 425; WU 420	SE: 515 <i>Explore</i> 511 <i>Lesson Review</i> 517 TWE: AM 515; DI 515; ELLS 514; FA 517	SE: 566-569 <i>Quick Lab</i> 569 <i>Read a Diagram</i> 567 TWE: DIF 567; DMI 566, 568
4.1f Heat can be released in many ways, for example, by burning, rubbing (friction), or combining one substance with another.	See <i>Science A Closer Look Grade 1</i> © 2008.	SE: 400-401 TWE: DI 400, DMI 400, DV 400	SE: 401 TWE: EMI 401; UV 401	SE: 420, 458, 480-481, 514 <i>Quick Lab</i> 481 TWE: DMI 458, 514; FA 421; WU 478	SE: 450-451, 487, 530-531, 532, 534 TWE: HA 498
4.1g Interactions with forms of energy can be either helpful or harmful.	See <i>Science A Closer Look Grade 1</i> © 2008.	SE: 406-407, 421 <i>Reading in Science</i> 408-409 TWE: DMI 420; RS 408; UV 406	SE: <i>Health Handbook</i> R16 <i>Read a Diagram</i> 406-407 <i>Reading in Science</i> 426-427 TWE: AR 427; DI 401; RD 407; SB 406; URS 411; UV R16	SE: 494, 504-505 <i>Health Link</i> 485, 517 <i>Reading in Science</i> 508-509 <i>Writing Link</i> 495, 507, 517 TWE: DMI 494; IW 496	SE: 506-508, 542-543, 546, 568-570, 580-584 <i>Quick Lab</i> 569 <i>Social Studies Link</i> 509 TWE: FA 547, 570, 585

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
PERFORMANCE INDICATOR 4.2 Observe the way one form of energy can be transferred into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy).					
<p>4.2a Everyday events involve one form of energy being changed to another.</p> <ul style="list-style-type: none"> • animals convert food to heat and motion • the Sun's energy warms the air and water 	<p>Flipbook: <i>Unit A</i> 8, 13 <i>Unit C</i> 34</p> <p>TWE: AQ 57, 155; MR 233; SF 34; UV 154</p>	<p>SE: 104-105, 144-145, 236</p> <p><i>Explore</i> 397</p> <p><i>Quick Lab</i> 399</p> <p>Flipbook: <i>Focus on Skills</i> 58</p> <p>TWE: AE 397; E 397; ELLS 398; FS 401A-401B; QL 399; SB 104, 236; SYP TR79; WU 396</p>	<p>SE: 96-97</p> <p><i>Read a Diagram</i> 234-235, 406-407</p> <p>Flipbook: <i>Be a Scientist</i> 59</p> <p>TWE: BS 419A-419B; DI 423; DMI 96; PA 430-431; RD 234, 407; SB 96, 406; SYP TR60-TR61</p>	<p>SE: 458, 480-481, 490, 514</p> <p><i>Quick Lab</i> 127, 457</p> <p>TWE: DMI 514; FA 421, 459; HA 458</p>	<p>SE: 104, 151, 156, 326-327, 448-449, 508, 530, 532-533</p> <p><i>Quick Check</i> 327</p> <p><i>Read a Diagram</i> 508</p> <p>TWE: DMI 104, 156, 508</p>
<p>4.2b Humans utilize interactions between matter and energy.</p> <ul style="list-style-type: none"> • chemical to electrical, light, and heat: battery and bulb • electrical to sound (e.g., doorbell buzzer) • mechanical to sound (e.g., musical instruments, clapping) • light to electrical (e.g., solar-powered calculator) 	<p>Flipbook: <i>Unit C</i> 34 <i>Unit F</i> 58</p> <p>TWE: A 267; AQ 155; BS 266; SF 154, 264; UV 154</p>	<p>SE: 398-399, 405, 414-415, 420-421</p> <p><i>Explore</i> 419</p> <p><i>Look and Wonder</i> 402</p> <p><i>Quick Lab</i> 421</p> <p>TWE: AE 419; DMI 398, 404, 414; E 419; ELLS 398; FA 421; LW 402; QL 420; SYP TR79</p>	<p>SE: 422-423</p> <p><i>Explore</i> 421</p> <p><i>Read A Diagram</i> 406-407, 422</p> <p><i>Reading in Science</i> 426-427</p> <p>TWE: DI 401, 423; E 421; FA 411, 425; PA 430-431; RS 426-427; SB 422; URS 425</p>	<p>SE: 490, 514-515</p> <p><i>Explore</i> 511</p> <p><i>Reading in Science</i> 256-257, 508-509</p> <p><i>Writing in Science</i> 518</p> <p>TWE: DMI 514; FA 517; HA 254; WAI 522; WU 488</p>	<p>SE: 506-508, 546, 566-569, 580-584</p> <p><i>Explore</i> 539</p> <p><i>Quick Lab</i> 569, 580</p> <p><i>Real World Reading in Science</i> 510-511, 586-587</p> <p>TWE: DIF 569, 580; ELL 581; HA 546</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
Key Idea 5: Energy and matter interact through forces that result in changes in motion.					
PERFORMANCE INDICATOR 5.1 Describe the effects of common forces (pushes and pulls) of objects, such as those caused by gravity, magnetism, and mechanical forces.					
5.1a The position of an object can be described by locating it relative to another object or the background (e.g., on top of, next to, over, under, etc.).	Flipbook: <i>Unit F 55</i> TWE: DV 250; ELLS 251; TT 251	SE: 362-363 <i>Explore 361</i> TWE: AE 361; APK 360; DI 363; DMI 362; E 361; ELLS 362; RP 363; SB 362	SE: 362 <i>Explore 361</i> <i>Look and Wonder 360</i> TWE: AE 361; DI 363; DMI 362; E 361; LW 360; SB 362; UV 363	SE: 434 <i>Explore 433</i> TWE: APK 432; DI 435; DMI 434	SE: 484 TWE: TR60
5.1b The position or direction of motion of an object can be changed by pushing or pulling.	Flipbook: <i>Unit F 53, 56</i> TWE: A 255; AQ 253; BS 246, 272; CT 248; DV 252; DW 255, 273; FA 253; IM 246; SF 252; UV 252	SE: 368-369, 382 <i>Explore 367, 373,</i> 381 TWE: AE 367; DI 369; DMI 368; DV 369; E 367, 373, 381; ELLS 368; SB 368	SE: 369-370, 372 <i>Look and Wonder 366</i> <i>Read a Diagram</i> 372-373 TWE: DI 369, 372; DMI 368; DV 370; FA 373; LW 366; RP 372; UV 369	SE: 444-445 <i>Be a Scientist 450-451</i> <i>Explore 443</i> <i>Lesson Review 449</i> TWE: APK 442; ELLS 445; WU 442	SE: 486-487, 494-495 <i>Explore 493</i> <i>Quick Check 495</i> TWE: EMI 495; FA 489

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
5.1c The force of gravity pulls objects toward the center of Earth.	Flipbook: <i>Unit F 57</i> TWE: AQ 259; BMW 257; BS 260; CT 256; DV 258; SF 258; TM 256; TT 259; UV 258	SE: 369 <i>Read a Photo</i> 369 <i>Social Studies Link</i> 371 <i>Think, Talk, and Write</i> 371 #1 TWE: DMI 368; DV 369; FA 371; PA 390-391; RP 369; SSL 371	SE: 370 <i>Explore</i> 39 <i>Look and Wonder</i> 38 <i>Reading in Science</i> 374 TWE: AE 39; AM 375; AR 375; BR 374; DMI 370; DV 371; E 39; FA 373; LW 38; UV 370	SE: 378, 447 <i>Quick Lab</i> 447 TWE: DMI 446; FA 449	SE: 426, 488 TWE: HA 488
5.1d The amount of change in the motion of an object is affected by friction.	See <i>Science A Closer Look Grade 1</i> © 2008.	SE: 371 <i>Quick Lab</i> 370 <i>Social Studies Link</i> 371 TWE: DV 370; FA 371; QL 370; SSL 371	SE: 371 <i>Quick Lab</i> 371 <i>Read a Diagram</i> 372-373 TWE: DI 372; DV 371; FA 373; QL 370; RD 372; URS 373	SE: 448 <i>Lesson Review</i> 449 TWE: DMI 448; HA 448	SE: 487, 495, 498 <i>Quick Check</i> 487 <i>Quick Lab</i> 487, 498 <i>Writing in Science</i> 500 <i>Math in Science</i> 501 TWE: DIF 487; FA 489, 499

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
5.1e Magnetism is a force that may attract or repel certain materials.	<p>Flipbook: <i>Unit F 59</i></p> <p>TWE: AQ 271; B 273; BMW 269; BR 269; BS 272; BW 269; CT 268; SF 270; UV 270</p>	<p>SE: 382-385 <i>Explore 381</i> <i>Look and Wonder 380</i> <i>Quick Lab 384</i> <i>Read a Chart 383</i></p> <p>TWE: AE 381; DI 383; DMI 382, 384; E 381; ELLS 382; FA 385; LW 380; QL 384; RC 383; UV 384</p>	<p>SE: 386, 388 <i>Quick Lab 388</i></p> <p>TWE: DMI 386; FA 389; ELLS 386; SB 386; QL 388; URS 389; UV 388</p>	<p>SE: 367, 446 <i>Be a Scientist 450-451</i></p> <p>TWE: AM 366; DMI 366, 446; EMI 367, 446</p>	<p>SE: 576-579 <i>Explore 575</i> <i>Quick Check 577</i></p> <p>TWE: EMI 576</p>
5.1f Mechanical energy may cause change in motion through the application of force and through the use of simple machines such as pulleys, levers, and inclined planes.	<p>Flipbook: <i>Unit F 54</i></p> <p>TWE: AQ 245; B 247; BMW 243; BS 246; CT 242; IM 246; SF 244, 250; UV 244</p>	<p>SE: 374-377 <i>Explore 373</i> <i>Look and Wonder 372</i> <i>Quick Lab 376</i> <i>Reading in Science 378-379</i> <i>Think, Talk, and Write 377</i></p> <p>TWE: AE 373; AL 377; DI 375; DMI 374, 376; DV 375-376; E 373; LW 372; QL 376; RP 375; RS 378-379; SB 374</p>	<p>SE: 378-381 <i>Look and Wonder 376</i> <i>Quick Lab 380</i> <i>Read a Photo 378</i> <i>Think, Talk, and Write 381</i></p> <p>TWE: DI 379; DMI 378, 380; ELLS 378; LW 376; QL 380; RP 379; SB 378; URS 381; UV 380</p>	<p>SE: 464-469 <i>Explore 463</i> <i>Quick Lab 469</i> <i>Writing Link 471</i></p> <p>TWE: AE 463; DI 467; DMI 464; HA 470</p>	<p>SE: 506, 514-519 <i>Be a Scientist 522-523</i> <i>Explore 513</i> <i>Quick Lab 514</i></p> <p>TWE: DIF 515, 519; DMI 514; EMI 517; FA 521</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
PERFORMANCE INDICATOR 5.2 Describe how forces can operate across distances.					
5.2a The forces of gravity and magnetism can affect objects through gases, liquids, and solids.	Flipbook: <i>Unit F 57</i> TWE: AQ 259; DV 258; DW 273; SF 258	SE: 369 <i>Quick Lab 384</i> <i>Read a Photo 369</i> <i>Think, Talk, and Write 385 #1</i> Flipbook: <i>Be a Scientist 54</i> TWE: BS 371A-371B; FA 371; QL 384; RP 369	SE: 370 <i>Reading in Science 374</i> TWE: AM 375; DMI 370, 386; DR 374; DV 372	SE: 446-447 <i>Be a Scientist 450-451</i> TWE: ELLS 446; EMI 446	Can be incorporated into the following: SE: 228, 488, 494 <i>Focus on Skills 490-491</i> TWE: AM 488
5.2b The force of magnetism on objects decreases as distance increases.	TWE: BS 272; DW 273	TWE: IW 386	SE: 386, 389	SE: <i>Be a Scientist 450-451</i> TWE: IM 450	Can be incorporated into the following: SE: 576-579 <i>Explore 575</i> TWE: GI 575

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
STANDARD 4: The Living Environment					
Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.					
Key Idea 1:					
Living things are both similar to and different from each other and from nonliving things.					
PERFORMANCE INDICATOR 1.1 Describe the characteristics of and variations between living and nonliving things.					
1.1a Animals need air, water, and food in order to live and thrive.	Flipbook: <i>Unit B</i> 16, 24 TWE: AQ 73, 109; BS 82; BW 71; CT 70; DI 109; DV 72; M 77; TT 75; UV 72	SE: 96, 104 <i>Look and Wonder</i> 102 <i>Writing in Science</i> 100 TWE: DI 97; DMI 96; ELLS 96; EMI 97; LW 102	SE: 56, 77, 90 <i>Look and Wonder</i> 94 <i>Think, Talk, and Write</i> 59 #2 TWE: AE 89; DI 25; DMI 56; LW 94; UV 91	SE: 24-25, 46-48 <i>Lesson Review</i> 49 TWE: DI 47; DMI 46; ELLS 46; FA 27; HA 26; WU 42	SE: 22-23, 78, 100-104 <i>Read a Table</i> 23 TWE: DMI 22
1.1b Plants require air, water, nutrients, and light in order to live and thrive.	Flipbook: <i>Unit A</i> 8 TWE: AQ 35; BS 38; CT 32, 40; DI 35; DV 34; SF 34; TT 75; UV 34	SE: 24, 26-27, 145 <i>Explore</i> 59 <i>Think, Talk, and Write</i> 27 #2 Flipbook: <i>Be a Scientist</i> 11 TWE: BS 71A-71B; DI 26; DMI 26; E 59; WU 22	SE: 25-26 <i>Explore</i> 23 <i>Read a Diagram</i> 26 TWE: AE 23; DI 25; DMI 24; E 23; FA 27; RD 26; SB 24	SE: 24-25, 34-37 <i>Be a Scientist</i> 40-41 <i>Writing Link</i> 39 TWE: DMI 34; FA 27; IM 40; UV 36	SE: 22-23, 48-49, 50-51 <i>Read a Table</i> 23 TWE: DMI 22, 48, 50

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
1.1c Nonliving things do not live and thrive.	Flipbook: <i>Unit A</i> 9 <i>Unit B</i> 17 TWE: AQ 37, 75; TT 37, UV 36, 74	SE: 25 <i>Explore</i> 23 <i>Look and Wonder</i> 22 <i>Quick Lab</i> 25 TWE: DMI 24; E 23; LW 22; QL 25; SB 24	SE: 188 <i>Look and Wonder</i> 22 TWE: LW 22	SE: 23 <i>Explore</i> 21 TWE: AE 21; DI 23	SE: <i>Quick Check</i> 23 <i>Read a Table</i> 23 TWE: DIF 23; DMI 22
1.1d Nonliving things can be human-created or naturally occurring.	Flipbook: <i>Unit A</i> 9 <i>Unit B</i> 17 <i>Unit C</i> 29 TWE: AQ 75; BR 127; BS 130; CT 126; DI 75; DV 36; UV 128	SE: 25, 177 <i>Look and Wonder</i> 22 <i>Quick Lab</i> 25 <i>Read a Photo</i> 25 TWE: ELLS 24; LW 22; QL 25	SE: 164-165, 188-189 <i>Look and Wonder</i> 22 TWE: DI 165; LW 22; UV 189	SE: 23 <i>Explore</i> 21 TWE: AE 21; DI 25	Can be incorporated into the following: SE: <i>Quick Check</i> 23 <i>Read a Table</i> 23 TWE: DIF 23; DMI 22

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
PERFORMANCE INDICATOR 1.2 Describe the life processes common to all living things.					
1.2a Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die.	Flipbook: <i>Unit A</i> 10 <i>Unit B</i> 23-24 TWE: AQ 43, 109; BS 44, 110; CT 104; DI 43; SF 42; UV 106	SE: 26-27, 54-55, 60-61, 110-115 <i>Look and Wonder</i> 58 <i>Quick Lab</i> 113 <i>Read a Diagram</i> 60-61 TWE: DI 114; DMI 26, 54, 60, 110, 112; DV 111; ELLS 110; FA 115; QL 113; RD 61; SB 54, 110; UV 111	SE: 24-27, 34-35 <i>Quick Lab</i> 63 <i>Read a Diagram</i> 62-63 Flipbook: <i>Be a Scientist</i> 10 TWE: AM 63; BS 65A-65B; DMI 24, 62; FA 35; RD 34, 63; QL 63	SE: 22-25 <i>Explore</i> 21 <i>Lesson Review</i> 27 TWE: DI 23; FA 27; WU 20	SE: 22-23, 48-51, 100-104, 110 <i>Read a Table</i> 23 TWE: DIF 23; DMI 22
Key Idea 2: Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring.					
PERFORMANCE INDICATOR 2.1 Recognize that traits of living things are both inherited and acquired or learned.					
2.1a Some traits of living things have been inherited (e.g., color of flowers and number of limbs of animals).	Flipbook: <i>Unit A</i> 11-12 <i>Unit B</i> 23-24 TWE: AQ 49, 51; CT 46; SF 48, 50; UV 48, 50, 106, 108	SE: 61 <i>Explore</i> 109 <i>Look and Wonder</i> 108 TWE: AE 109; DMI 60; E 109; ELLS 54; LW 108	SE: 40-41 <i>Think, Talk, and Write</i> 43 <i>Writing in Science</i> 74 TWE: DI 41; DMI 40; DV 41; ELLS 40; FA 43; RP 41; SB 40; WS 74	SE: 92-93 <i>Explore</i> 91 <i>Lesson Review</i> 95 <i>Look and Wonder</i> 90 TWE: ELLS 93; FA 95; HA 94; UV 92	SE: 66-67, 114-116 <i>Quick Check</i> 67 <i>Quick Lab</i> 116 TWE: DIF 67; DMI 66, 116

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
2.1b Some characteristics result from an individual's interactions with the environment and cannot be inherited by the next generation (e.g., having scars; riding a bicycle).	TWE: AQ 109; CT 104	SE: 110-111 <i>Quick Lab</i> 113 <i>Read a Diagram</i> 112-113 TWE: DI 111; DMI 112; QL 113; RD 112	SE: 43 TWE: AM 71; EMI 42; URS 43	SE: 94 <i>Explore</i> 91 <i>Lesson Review</i> 95 TWE: DMI 94; ELLS 93; EMI 94; FA 95; HA 94	SE: 116
PERFORMANCE INDICATOR 2.2 Recognize that for humans and other living things there is genetic continuity between generations.					
2.2a Plants and animals closely resemble their parents and other individuals in their species.	Flipbook: <i>Unit A</i> 11-12 <i>Unit B</i> 23-24 TWE: AQ 49, 51, 107; DV 108; TT 107, 109; TTr 49; UV 48, 50, 106	SE: 61, 110-115 <i>Look and Wonder</i> 108 TWE: AE 109; DMI 60; DV 111; ELLS 54; LW 108	SE: 40-41 <i>Think, Talk, and Write</i> 43 TWE: DI 41; DMI 40; DV 41; ELLS 40; FA 43; SB 40	SE: 92-93 <i>Look and Wonder</i> 90 <i>Quick Lab</i> 93 <i>Social Studies Link</i> 95 TWE: APK 90; EMI 94; UV 22, 92; WU 90	SE: 66-67, 114-116 <i>Quick Check</i> 67 TWE: DIF 67; DMI 66
2.2b Plants and animals can transfer specific traits to their offspring when they reproduce.	Flipbook: <i>Unit A</i> 11 <i>Unit B</i> 23 TWE: AQ 51; BS 110; UV 48, 50, 106	SE: 61 <i>Explore</i> 109 <i>Look and Wonder</i> 108 TWE: AE 109; DMI 60; E 109; ELLS 54; LW 108	SE: 40-41 <i>Writing in Science</i> 74 TWE: DI 41; EMI 42; RP 41; SB 40; WS 74	SE: 92-93 <i>Explore</i> 91 <i>Look and Wonder</i> 90 <i>Quick Lab</i> 93 <i>Social Studies Link</i> 95 TWE: APK 90; UV 92; WU 90	SE: 66-67, 114-116 <i>Quick Check</i> 67 <i>Quick Lab</i> 116 TWE: DIF 67; DMI 66, 116

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
Key Idea 3: Individual organisms and species change over time.					
PERFORMANCE INDICATOR 3.1 Describe how the structures of plants and animals complement the environment of the plant or animal.					
<p>Understandings:</p> <p>3.1a Each animal has different structures that serve different functions in growth, survival, and reproduction.</p> <ul style="list-style-type: none"> wings, legs, or fins enable some animals to seek shelter and escape predators the mouth, including teeth, jaws, and tongue, enables some animals to eat and drink eyes, nose, ears, tongue, and skin of some animals enable the animals to sense their surroundings claws, shells, spines, feathers, fur, scales, and color of body covering enable some animals to protect themselves from predators and other environmental conditions, or enable them to obtain food 	<p>Flipbook: <i>Unit B</i> 18-22</p> <p>TWE: A 103; AQ 81, 87, 93, 95, 101; BR 91, 99; BS 102; BW 99; CT 78, 90; SF 80, 86, 100; TT 81, 87, 101; TM 98; UV 80, 94, 100</p>	<p>SE: 98-99, 105-107</p> <p><i>Explore</i> 95</p> <p><i>Look and Wonder</i> 102</p> <p><i>Quick Lab</i> 99</p> <p><i>Think, Talk, and Write</i> 107</p> <p>Flipbook: <i>Be a Scientist</i> 16</p> <p>TWE: BS 107A-107B; DI 105; DMI 98, 106; DV 98; E 95; FA 99; LW 102; QL 98; RP 106; UV 98, 105</p>	<p>SE: 56-59, 70-73</p> <p><i>Explore</i> 69</p> <p><i>Look and Wonder</i> 54, 68</p> <p><i>Quick Lab</i> 59, 73</p> <p><i>Think, Talk, and Write</i> 59 #3, 73</p> <p><i>Writing in Science</i> 74</p> <p>TWE: AE 69; DI 71; DMI 70, 72; DV 71; E 69; ELLS 70; FA 73; LW 54, 68; PA 78-79; QL 58, 72; RP 71; SB 70; UV 72; WS 74</p>	<p>SE: 44-48, 56-60</p> <p><i>Explore</i> 43</p> <p><i>Literature</i> 102-103</p> <p><i>Quick Lab</i> 47</p> <p><i>Writing in Science</i> 62</p> <p>TWE: DI 47, 57, 59; FA 49; HA 494, 506</p>	<p>SE: 80-82, 92-94, 142, 143, 166-169</p> <p><i>Explore</i> 165</p> <p><i>Focus on Skills</i> 172-173</p> <p><i>Quick Lab</i> 80, 169</p> <p><i>Read a Photo</i> 167</p> <p>TWE: AE 165; DIF 83, 167; DMI 166; HA 170</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
<p>Continued from cell above:</p> <ul style="list-style-type: none"> • some animals have parts that are used to produce sounds and smells to help the animal meet its needs • the characteristics of some animals change as seasonal conditions change (e.g., fur grows and is shed to help regulate body heat; body fat is a form of stored energy and it changes as the seasons change) 	<p>Flipbook: <i>Unit B</i> 18-22</p> <p>TWE: A 103; AQ 81, 87, 93, 95, 101; BR 91, 99; BS 102; BW 99; CT 78, 90; SF 80, 86, 100; TT 81, 87, 101; TM 98; UV 80, 94, 100</p>	<p>SE: 98-99, 105-107 <i>Explore</i> 95 <i>Look and Wonder</i> 102 <i>Quick Lab</i> 99 <i>Think, Talk, and Write</i> 107</p> <p>Flipbook: <i>Be a Scientist</i> 16</p> <p>TWE: BS 107A-107B; DI 105; DMI 98, 106; DV 98; E 95; FA 99; LW 102; QL 98; RP 106; UV 98, 105</p>	<p>SE: 56-59, 70-73 <i>Explore</i> 69 <i>Look and Wonder</i> 54, 68 <i>Quick Lab</i> 59, 73 <i>Think, Talk, and Write</i> 59 #3, 73 <i>Writing in Science</i> 74</p> <p>TWE: AE 69; DI 71; DMI 70, 72; DV 71; E 69; ELLS 70; FA 73; LW 54, 68; PA 78-79; QL 58, 72; RP 71; SB 70; UV 72; WS 74</p>	<p>SE: 44-48, 56-60 <i>Explore</i> 43 <i>Literature</i> 102-103 <i>Quick Lab</i> 47 <i>Writing in Science</i> 62</p> <p>TWE: DI 47, 57, 59; FA 49; HA 494, 506</p>	<p>SE: 80-82, 92-94, 142, 143, 166-169 <i>Explore</i> 165 <i>Focus on Skills</i> 172-173 <i>Quick Lab</i> 80, 169 <i>Read a Photo</i> 167</p> <p>TWE: AE 165; DIF 83, 167; DMI 166; HA 170</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
<p>3.1b Each plant has different structures that serve different functions in growth, survival, and reproduction. • roots help support the plant and take in water and nutrients</p> <ul style="list-style-type: none"> • leaves help plants utilize sunlight to make food for the plant • stems, stalks, trunks, and other similar structures provide support for the plant • some plants have flowers • flowers are reproductive structures of plants that produce fruit which contains seeds • seeds contain stored food that aids in germination and the growth of young plants 	<p>Flipbook: <i>Unit A 7, 10</i></p> <p>TWE: AQ 29, 43; BR 27; BS 30, 38; CT 26; ELLS 29; SF 28, 34, 42; TT 29; UV 28, 42; WOI 43</p>	<p>SE: 32-33, 38-39, 54-55 <i>Explore 29, 37</i> <i>Look and Wonder 28, 36</i> <i>Quick Lab 32, 56</i> <i>Read a Diagram 56, 60-61</i></p> <p>Flipbook: <i>Focus on Skills 19</i></p> <p>TWE: DI 31, 39, 61; DMI 32, 38, 54; E 29, 37; ELLS 54; FA 33; LW 28, 36; QL 32, 56; RD 56, 61; SB 54; TI 131B</p>	<p>SE: 26-27, 30, 32-33, 42-43, 130 <i>Explore 23, 29</i> <i>Look and Wonder 38</i> <i>Quick Lab 26, 32, 42</i> <i>Read a Diagram 26</i> <i>Think, Talk, and Write 27 #2</i></p> <p>TWE: AE 23, 29; DMI 32, 130; E 23, 29; FA 27; LW 38; QL 26, 32, 42; RD 26; SB 30; UV 32, 42</p>	<p>SE: 32-37, 70-76 <i>Explore 31</i> <i>Quick Lab 35, 73</i></p> <p>TWE: DMI 34; EMI 113; FA 39, 77; UV 36; WU 68</p>	<p>SE: 48-53, 61-65, 178 <i>Be a Scientist 57</i> <i>Explore 45</i> <i>Quick Check 49, 51</i> <i>Quick Lab 53</i> <i>Read a Photo 179</i></p> <p>TWE: AE 45; DIF 49; HA 178; SB 48; UV 48</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
<p>3.1c In order to survive in their environment, plants and animals must be adapted to that environment.</p> <ul style="list-style-type: none"> • seeds disperse by a plant's own mechanism and/or in a variety of ways that can include wind, water, and animals • leaf, flower, stem, and root adaptations may include variations in size, shape, thickness, color, smell, and texture • animal adaptations include coloration for warning or attraction, camouflage, defense mechanisms, movement, hibernation, and migration 	<p>Flipbook: <i>Unit B</i> 18, 19, 21, 22 <i>Review Together</i> 26</p> <p>TWE: AQ 35, 81, 87, 95, 101, 121; BR 85; BS 102; DV 100; SF 86, 100, 120; TT 87, 101; UV 86, 100, 121</p>	<p>SE: 38-39, 57, 68-69, 129-131 <i>Explore</i> 37, 127 <i>Look and Wonder</i> 36, 86, 126 <i>Think, Talk, and Write</i> 57 #2 <i>Writing in Science</i> 138</p> <p>TWE: AE 37; DI 39, 129; DMI 68, 128, 130; E 37, 127; ELLS 38; LW 36, 86, 126; RP 106; SB 68; UV 105; WS 138</p>	<p>SE: 32, 42-43, 47, 70-73 <i>Explore</i> 69, 129 <i>Look and Wonder</i> 68 <i>Quick Lab</i> 73 <i>Read a Diagram</i> 34 <i>Think, Talk, and Write</i> 73 <i>Writing in Science</i> 74</p> <p>TWE: AE 69; AM 71; DI 34, 71; DMI 42, 70, 72; DV 71; E 69, 129; ELLS 70; FA 73; LW 68; QL 72; RP 71; RS 74; SB 70; UV 42, 72; WU 68</p>	<p>SE: 72-76, 134-142 <i>Explore</i> 31, 133 <i>Literature</i> 102-103 <i>Quick Lab</i> 137</p> <p>TWE: AE 31, 133; DI 135; DMI 134; ELLS 139; FA 143</p>	<p>SE: 48-49, 65, 166-169, 178 <i>Art Link</i> 179 <i>Explore</i> 45, 165 <i>Focus on Skills</i> 172-173 <i>Quick Lab</i> 64, 169 <i>Read a Photo</i> 167, 178</p> <p>TWE: DIF 167; HA 178</p>

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
	PERFORMANCE INDICATOR 3.2 Observe that differences within a species may give individuals an advantage in surviving and reproducing.				
3.2a Individuals within a species may compete with each other for food, mates, space, water, and shelter in their environment.	Flipbook: <i>Unit B</i> 15 <i>Review Together</i> 26 TWE: AQ 67, 121; SF 120; UV 121	SE: 147 <i>Think, Talk, and Write</i> 147 #1 TWE: DI 105, 145; DMI 146; URS 131	SE: 98-99, 107 <i>Explore</i> 103 <i>Look and Wonder</i> 102 TWE: AE 103; AM 71; DMI 98; E 103; LW 102	SE: 153, 155 TWE: DI 153; ELLS 154	SE: 155
3.2b All individuals have variations, and because of these variations, individuals of a species may have an advantage in surviving and reproducing.	Flipbook: <i>Unit B</i> 18, 19, 21, 22 TWE: AQ 81, 87, 95, 101; SF 80; UV 86	SE: 129 <i>Look and Wonder</i> 126 TWE: DMI 128; LW 126; UV 146	SE: 42-43 <i>Look and Wonder</i> 68 <i>Read a Photo</i> 71 <i>Writing in Science</i> 74 TWE: DMI 42; LW 68; RP 71; SB 40; WS 74	TWE: TR43 SB 134	Can be incorporated into the following: SE: 66-67, 114-116 <i>Quick Check</i> 67 TWE: TR43; DIF 67; SB 166

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
Key Idea 4: The continuity of life is sustained through reproduction and development.					
PERFORMANCE INDICATOR 4.1 Describe the major stages in the life cycles of selected plants and animals.					
4.1a Plants and animals have life cycles. These may include beginning of a life, development into an adult, reproduction as an adult, and eventually death.	Flipbook: <i>Unit A</i> 10 TWE: AQ 43; BS 110; BW 41; DI 43; SF 42; TT 43; UV 42	SE: 60-61, 110-115 TWE: DI 61, 114; DMI 60, 110, 112; DV 61, 111; ELLS 110; FA 115; RS 61, 112; SB 110; SYP TR61	SE: 34-35, 62-65 <i>Quick Lab</i> 63 <i>Read a Diagram</i> 34, 62-63 TWE: DI 34, 64; DMI 34, 62, 64; ELLS 62; FA 35, 65; QL 63; RD 34, 63; URS 35; UV 64	SE: 70-76, 82-86 <i>Quick Lab</i> 85 TWE: APK 68; DMI 74; FA 87; HA 76, 86	SE: 65, 110, 112-115 TWE: DIF 65
4.1b Each kind of plant goes through its own stages of growth and development that may include seed, young plant, and mature plant.	Flipbook: <i>Unit A</i> 10 TWE: AQ 43; BW 41; DI 43; SF 42; TT 43; UV 42	SE: 60-63 TWE: DI 61; DMI 60, 62; FA 63; RS 61; UV 62	SE: 34-35 <i>Read a Diagram</i> 34 TWE: DI 34; DMI 34; FA 35; RD 34; URS 35	SE: 70-76 <i>Lesson Review</i> 77 TWE: DI 74, 75; HA 76	SE: 62-65, 68 <i>Explore</i> 59 <i>Quick Lab</i> 64 TWE: DIF 65; DMI 64; FA 68
4.1c The length of time from beginning of development to death of the plant is called its life span.	TWE: BS 110; SF 42	TWE: SYP TR59	SE: 35	The following activity can be expanded to include plants: SE: <i>Math in Science</i> 89	SE: 111 TWE: TR43; DIF 111

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
4.1d Life cycles of some plants include changes from seed to mature plant.	Flipbook: <i>Unit A 10</i> TWE: AQ 43; DI 43; SF 42; TT 43; UV 42	SE: 60-61 TWE: DI 61; DMI 60; RD 61	SE: 34-35 <i>Read a Diagram 34</i> TWE: DMI 34; FA 35; RD 34; URS 35	SE: 70-75 <i>Lesson Review 77</i> TWE: DI 74, 75; HA 76	SE: 62-65 <i>Explore 59</i> <i>Quick Lab 64</i> TWE: DIF 65; DMI 64; FA 68
4.1e Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.	Flipbook: <i>Unit B 23-24</i> TWE: AQ 107, 109; BS 110; TT 109	SE: 110-115 <i>Explore 109</i> TWE: DI 114; DMI 110, 112; DV 111; E 109; FA 115; RD 112; SB 110; SYP TR61; UV 111, 114	SE: 62-65 <i>Quick Lab 63</i> <i>Read a Diagram 62-63</i> TWE: DI 64; DMI 62, 64; ELLS 62; FA 65; RD 63; QL 63; UV 64	SE: 82-86 <i>Explore 81</i> <i>Literature 16-17</i> <i>Quick Lab 85</i> <i>Writing Link 87</i> TWE: DI 17; DV 84; ELLS 85; FA 87; HA 86	SE: 110, 112-115 <i>Quick Check 111,</i> 113 <i>Read a Photo 113</i> <i>Writing Link 117</i> TWE: TR43; DMI 112; ELL 112; FA 117; UV 111, 113
4.1f Each kind of animal goes through its own stages of growth and development during its life span.	Flipbook: <i>Unit B 24</i> TWE: AQ 107, 109; BS 110; TT 109	SE: 110-115 <i>Explore 109</i> TWE: DI 114; DMI 110, 112; DV 111; E 109; FA 115; RD 112; SB 110; SYP TR61; UV 111, 114	SE: 62-65 <i>Quick Lab 63</i> <i>Read a Diagram 62-63</i> TWE: DI 64; DMI 62, 64; ELLS 62; FA 65; RD 63; QL 63; UV 64	SE: 82-86 <i>Lesson Review 87</i> <i>Quick Lab 85</i> TWE: DI 84; ELLS 85; FA 87; HA 86	SE: 110-115 <i>Quick Check 113</i> <i>Read a Photo 113</i> <i>Writing Link 117</i> TWE: DIF 111, 113; FA 117; UV 111, 113

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
4.1g The length of time from an animal's birth to its death is called its life span. Life spans of different animals vary.	TWE: BS 110	TWE: DI 111	SE: <i>Read a Diagram</i> 62-63 TWE: AM 63; RD 63	SE: <i>Math in Science</i> 89	SE: 111 TWE: TR43; DIF 111
PERFORMANCE INDICATOR 4.2 Describe evidence of growth, repair, and maintenance, such as nails, hair, and bone, and the healing of cuts and bruises.					
4.2a Growth is the process by which plants and animals increase in size.	Flipbook: <i>Unit A</i> 10 <i>Unit B</i> 23 TWE: AQ 43, 107; BS 44, 110; DV 108; UV 42, 106	SE: 60-61, 110-115 <i>Quick Lab</i> 113 <i>Think, Talk, and Write</i> 115 TWE: DI 111, 114; ELLS 60; QL 113; RD 61; UV 111	SE: 34-35, 62-65 Flipbook: <i>Be a Scientist</i> 10 TWE: BS 65A-65B; FA 35, 65; URS 35; UV 64	SE: 82-85 <i>Explore</i> 81 <i>Quick Lab</i> 85 <i>Writing in Science</i> 88 <i>Writing Link</i> 87 TWE: AE 81; APK 80; DMI 82; WU 80	SE: 23, 64, 110 TWE: DMI 64, 110
4.2b Food supplies the energy and materials necessary for growth and repair.	Flipbook: <i>Unit A</i> 10 <i>Unit B</i> 24 TWE: AQ 43, 107, 109; BS 44, 110; CT 40; SF 108	SE: 112, 144-145 TWE: DI 97	SE: 96 <i>Health Handbook</i> R11 <i>Look and Wonder</i> 94 <i>Read a Diagram</i> 98, 130 TWE: APK 94, R11; DMI 98, R11; ELLS 96; LW 94; RD 131; SB 96	SE: 24, 36, 456, R18 <i>Quick Lab</i> 457 TWE: DMI 24, R18	SE: 23, 48, 64, 104 TWE: DMI 104

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
Key Idea 5: Organisms maintain a dynamic equilibrium that sustains life.					
PERFORMANCE INDICATOR 5.1 Describe basic life functions of common living specimens (e.g., guppies, mealworms, gerbils).					
5.1a All living things grow, take in nutrients, breathe, reproduce, and eliminate waste.	Flipbook: <i>Unit A</i> 7 <i>Unit B</i> 16, 24 TWE: AQ 29, 73, 109; BS 110; SF 28; TT 29; UV 28	SE: 110-115 <i>Explore</i> 109 Flipbook: <i>Be a Scientist</i> 11, 16 TWE: BS 71A-71B, 107A-107B; DI 114; DMI 110, 112; DV 111; E 109; FA 115; RD 112; SB 110; SYP TR61; UV 111, 114	SE: 24-27, 34-35, 62-65 <i>Quick Lab</i> 63 <i>Read a Diagram</i> 34, 62-63 Flipbook: <i>Be a Scientist</i> 10 TWE: AM 63; BS 65A-65B; DI 34, 64; DMI 24, 34, 62, 64; ELLS 62; FA 35, 65; RD 34, 63; QL 63	SE: 22-25 <i>Explore</i> 21 <i>Lesson Review</i> 27 TWE: DI 23; FA 27; WU 20	SE: 22-23, 48-51, 100-104, 110 <i>Read a Table</i> 23 TWE: DIF 23; DMI 22
5.1b An organism's external physical features can enable it to carry out life functions in its particular environment.	Flipbook: <i>Unit A</i> 7 <i>Unit B</i> 18, 19, 22 TWE: AQ 29, 35, 81, 87, 93, 101; BR 85; CT 78; IM 88; SF 28, 72, 86, 92, 94, 100; TT 87; UV 28, 72	SE: 68-71, 88-93, 98 <i>Look and Wonder</i> 66 Flipbook: <i>Be a Scientist</i> 11 TWE: BS 71A-71B; DMI 68, 70, 90, 92, 98; FA 71; LW 66; RP 69; URS 71; UV 90	SE: 42-43, 56-57, 70-73 <i>Look and Wonder</i> 38, 54, 68 <i>Quick Lab</i> 42, 73 <i>Read a Diagram</i> 58 <i>Writing in Science</i> 74 TWE: AE 69; DMI 42, 70; LW 38, 54, 68; QL 42, 72; RD 58; SB 70; UV 72; WS 74; WU 68	SE: 44-48, 134-142 <i>Be a Scientist</i> 144-145 <i>Explore</i> 43 <i>Literature</i> 102-103 <i>Quick Lab</i> 47 TWE: AE 133; DI 103; DMI 45; FA 49	SE: 166-169, 178 <i>Explore</i> 165 <i>Focus on Skills</i> 172-173 <i>Quick Lab</i> 169 TWE: AE 165; DIF 167; DMI 166, 168, 178; HA 178; SB 166

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
PERFORMANCE INDICATOR 5.2 Describe some survival behaviors of common living specimens.					
5.2a Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate, and leaves form and grow.	TWE: AQ 49; TC TR44	SE: 70-71, 242-243 <i>Explore</i> 241 <i>Look and Wonder</i> 240 Flipbook: <i>Be a Scientist</i> 11 TWE: AE 59, 241; E 241; BS 71A-71B; DMI 70; LW 240; SYP TR59, TR62	SE: 34, 42-43, 47 <i>Explore</i> 29 <i>Quick Lab</i> 42 TWE: APK 38; E 29; QL 42; SB 40	SE: 22-23, 70-71, 164-165 <i>Be a Scientist</i> 40-41 <i>Focus on Skills</i> 78-79 <i>Literature</i> 274-275 TWE: AE 69, 161; DI 275; ELLS 274	SE: 176-178 <i>Explore</i> 175 <i>Math in Science</i> 181 <i>Quick Check</i> 177 <i>Writing in Science</i> 180 TWE: TR46; ELL 177; SB 176
5.2b Animals respond to change in their environment, (e.g., perspiration, heart rate, breathing rate, eye blinking, shivering, and salivating).	TWE: BS 102; CT 98; E TR5; SF 100	SE: 98 TWE: AM 98	SE: 73 TWE: SB 70; URS 73	SE: 22, 44, 164-165 <i>Explore</i> 43 <i>Literature</i> 274-275 TWE: AE 43; DI 275; DMI 164; ELLS 274	SE: 101, 168 <i>Explore</i> 39 TWE: DMI 100
5.2c Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment.	TWE: BS 102	SE: 98, 130 TWE: AM 98; SYP TR60	TWE: SB 70; UKWLC 73	SE: 44, 494, 504-506, R21 TWE: DMI R21; HA 494, 506	SE: 101 <i>Literature: Ranger Rick</i> 478-479 TWE: DMI 100

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
5.2d Some animals, including humans, move from place to place to meet their needs.	Flipbook: <i>Unit B 21</i> TWE: AQ 95, 121; BS 102; SF 120; TT 81	SE: 146-147 <i>Explore 141</i> <i>Think, Talk, and Write 147</i> TWE: DMI 146; E 141; UV 146	SE: 72, 123, 137 <i>Quick Lab 137</i> TWE: DMI 72; QL 137; UV 72	SE: 44-45, 141, 164 <i>Literature 274-275</i> <i>Social Studies Link 143</i> TWE: DI 140; DMI 45, 164	SE: 168, 188 <i>Literature: Ranger Rick 478-479</i> TWE: AR 479
5.2e Particular animal characteristics are influenced by changing environmental conditions including: fat storage in winter, coat thickness in winter, camouflage, shedding of fur.	TWE: AQ 81; BR 99; CT 98; DV 100; SF 86; TT87	SE: <i>Writing in Science 138</i> TWE: WS 138	SE: 131-132 <i>Read a Chart 123</i> <i>Read a Photo 71</i> TWE: FA 133; RC 123; RP 71; UV 132	SE: 134-142 <i>Be a Scientist 144-145</i> <i>Explore 133</i> TWE: AE 133; DI 135; DMI 134; ELLS 139, 141; FA 143; IW 144	SE: 168 <i>Focus on Skills 172-173</i> TWE: DIF 169; DMI 168
5.2f Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating.	Flipbook: <i>Unit B 22</i> TWE: B 89; BS 102; E TR5; SF 92; ST 89; UV 100	SE: 146-147 <i>Explore 141</i> TWE: DMI 146; E 141; ELLS 146; UV 146	SE: 72, 123 TWE: DMI 130; FA 133; UV 72	SE: 44-45, 48, 139, 141, 164-165 <i>Literature 274-275</i> <i>Social Studies Link 143</i> TWE: BR 274; DMI 48, 164	SE: 168, 188 <i>Literature: Ranger Rick 478-479</i> <i>Quick Check 169</i> TWE: AR 479

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
5.2g The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight.	TWE: AQ 121; BS 38; IM 38	SE: 144-147 TWE: DI 145; DMI 146; DV 145; ELLS 146; EMI 145; URS 147; UV 146	SE: 106-107 <i>Explore</i> 103 <i>Look and Wonder</i> 102 <i>Read a Photo</i> 104, 204-205 <i>Reading in Science</i> 126-127 TWE: DMI 106; E 103; ELLS 126; FA 109; LW 102; RP 105, 205; RS 126-127	SE: 24-25, 108-113, 164-168, 174-175 <i>Be a Scientist</i> 40-41 TWE: DMI 24, 166; FA 27; HA 114; UV 109	SE: 155, 186-187, 189 <i>Literature: Ranger Rick</i> 124-125 <i>Quick Check</i> 187 TWE: AR 125
PERFORMANCE INDICATOR 5.3 Describe the factors that help promote good health and growth in humans.					
5.3a Humans need a variety of healthy foods, exercise, and rest in order to grow and maintain good health.	TWE: HH TR11-TR12	SE: <i>Health Handbook</i> R12-R15 TWE: DI R13; ELLS R14; HF R12-R13; HL R14-R15	SE: <i>Health Handbook</i> R12-R15 TWE: ELLS R14; ER R15; HF R12-R13; HL R14- R15	SE: R23-R26 <i>Health Link</i> 27 TWE: APK R24, R26; DI R24, R26; DMI R24, R25; HA 234	SE: R24-R26 TWE: APK R26; DIF R26

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
5.3b Good health habits include hand washing and personal cleanliness; avoiding harmful substances (including alcohol, tobacco, illicit drugs); eating a balanced diet; engaging in regular exercise.	TWE: HH TR10-TR12; STi TR9	SE: <i>Health Handbook</i> R12-R15 TWE: DI R13; ELLS R14; HF R12-R13; HL R14-R15	SE: <i>Health Handbook</i> R12- R15 TWE: ELLS R14; ER R15; HF R12-R13; HL R14- R15	SE: R23-R26 <i>Health Link</i> 27, 323, 517 TWE: APK R24, R26; DI R24, R26; DMI R24, R25	SE: R23, R26 TWE: DMI R23
Key Idea 6: Plants and animals depend on each other and their physical environment.					
PERFORMANCE INDICATOR 6.1 Describe how plants and animals, including humans, depend upon each other and the nonliving environment.					
6.1a Green plants are producers because they provide the basic food supply for themselves and animals.	Flipbook: <i>Unit A</i> 13 TWE: AQ 57; SF 34	SE: 144-145 <i>Think, Talk, and</i> <i>Write</i> 147 #2 TWE: DI 145; FA 147; RD 144; SYP TR63	SE: 26-27, 96-98 <i>Explore</i> 95 <i>Read a Diagram</i> 130 TWE: DMI 96; E 95; RD 131; SB 96, 130; SYP TR56; URS 27	SE: 110 <i>Focus on Skills</i> 116- 117 TWE: DI 33, 111; FA 115; HA 114	SE: 150 TWE: TR45; DMI 150

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
6.1b All animals depend on plants. Some animals (predators) eat other animals (prey).	Flipbook: <i>Unit B 16</i> TWE: AQ 73, 95; BS 82; CT 152	SE: 144-145 <i>Quick Lab 144</i> TWE: DI 145; DMI 144; EMI 145; QL 144; RD 144; SYP TR63	SE: 26-27, 96-99 <i>Explore 95</i> <i>Quick Lab 97</i> TWE: AE 95; APK 94; DMI 96, 98; DV 97; E 95; ELLS 96; QL 97; SB 96; URS 99; UV 97	SE: 110-113 <i>Explore 107</i> <i>Focus on Skills</i> 116-117 <i>Writing Link 115</i> TWE: AE 107; DI 33; FA 115; HA 114; WU 106	SE: 50, 150-154 TWE: TR45; DMI 150, 155; UV 154
6.1c Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain.	See <i>Science A Closer Look Grade 1</i> © 2008.	SE: 144-145 <i>Art Link 147</i> <i>Quick Lab 144</i> TWE: AL 147; DI 145; DMI 144; DV 145; EMI 145; RD 144	SE: 96-97 <i>Explore 95</i> <i>Quick Lab 97</i> TWE: AE 95; DMI 96; DV 97; E 95; ELLS 96; QL 97; SB 96; URS 99; UV 97	SE: 110-113 <i>Focus on Skills</i> 116-117 TWE: DI 111, 112; FA 115; UV 111	SE: 152-153 <i>Read a Diagram 152</i> TWE: DMI 152; ELL 155; EMI 153
6.1d Decomposers are living things that play a vital role in recycling nutrients.	Flipbook: <i>Unit C 29</i> TWE: SF 34, 128	SE: 174-175 Flipbook: <i>Be a Scientist 30</i> TWE: BS 213A-213B; DMI 174; UV 174	SE: 97, 198-199 <i>Look and Wonder 194</i> TWE: DMI 198; LW 194; URS 199	SE: 111, 114 <i>Quick Lab 114</i> TWE: DMI 114; FA 115	SE: 150, 151 <i>Quick Lab 151</i> TWE: TR45

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
6.1e An organism's pattern of behavior is related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment.	Flipbook: <i>Unit B</i> 15 <i>Review Together</i> 26 TWE: AQ 67, 121; SF 120; UV 121	SE: 142-145, 245 <i>Explore</i> 127, 141, 241 <i>Look and Wonder</i> 140 TWE: AE 141, 241; APK 140; DI 143; DMI 142, 146, 244; E 127, 141, 241; ELLS 146; FA 147; LW 140; UV 143, 146	SE: 72, 106-107, 123 <i>Explore</i> 103 <i>Look and Wonder</i> 102 <i>Read a Photo</i> 104, 204-205 <i>Reading in Science</i> 126-127 TWE: DMI 106 130; E 103; ELLS 126; FA 109, 133; LW 102; RP 105, 205; RS 126-127; UV 72	SE: 139, 141, 164-165 <i>Literature</i> 274-275 <i>Social Studies Link</i> 143 TWE: BR 274; DI 140; DMI 164	SE: 116, 143, 155, 168 <i>Quick Lab</i> 116 TWE: TR45
6.1f When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations.	TWE: AQ 121	SE: 146-147 TWE: DMI 146; ELLS 146; SYP TR62; URS 147; UV 146	SE: 104, 106-107 <i>Explore</i> 103 <i>Look and Wonder</i> 102 <i>Read a Photo</i> 104 TWE: APK 102; DMI 104, 106; E 103; FA 109; LW 102; RP 105	SE: 139, 141, 164-168, 174-175 <i>Literature</i> 274-275 TWE: BR 274; DI 165; DMI 164; UV 175	SE: 188-189 <i>Explore</i> 183 <i>Reading and Science</i> 192-193 TWE: DMI 188; TR47

STANDARDS	PAGE REFERENCES				
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PERFORMANCE INDICATOR 6.2 Describe the relationship of the Sun as an energy source for living and nonliving cycles.					
6.2a Plants manufacture food by utilizing air, water, and energy from the Sun.	Flipbook: <i>Unit A 7</i> TWE: SF 28, 34; UV 28	SE: 26-27, 32-33, 144-145 TWE: DI 145; DMI 26, 32; FA 33; RD 144; SYP TR56-TR57	SE: 25-27, 96-97 <i>Read a Diagram</i> 26, 130 TWE: APK 94; DMI 96; FA 27; RD 26, 131; SB 96, 130; UV 97	SE: 24-25, 32, 36-37 <i>Be a Scientist</i> 40-41 <i>Lesson Review</i> 39 TWE: DI 37; DMI 36; FA 39; UV 37	SE: 24, 50-51, 150 <i>Art Link</i> 55 <i>Quick Check</i> 51 TWE: TR41; DIF 51; DMI 50, 150
6.2b The Sun's energy is transferred on Earth from plants to animals through the food chain.	Flipbook: <i>Unit A 7, 13</i> TWE: SF 28, 34, 56; UV 56	SE: 144-145 TWE: DMI 145; RD 144; SYP TR62	SE: 96-97 <i>Read a Diagram</i> 98 TWE: DMI 96; RD 98; SB 96, 130; URS 99; UV 97	SE: 110-111 <i>Focus on Skills</i> 116-117 TWE: APK 106; DI 112; DMI 110	SE: 152-153 <i>Explore</i> 149 TWE: TR45; DIF 153; DMI 152; EMI 153; UV153
6.2c Heat energy from the Sun powers the water cycle (see Physical Science Key Idea 2).	TWE: AQ 233; MR 233	SE: 236-237 TWE: DI 237; DMI 236; FA 239; RD 237; SB 236; SYP TR68	SE: 234 <i>Read a Diagram</i> 234-235 <i>Think, Talk, and Write</i> 235 #1 TWE: FA 235; RD 234	SE: 294-295 TWE: FA 299; TR52	SE: 314, 324, 326 <i>Focus on Skills</i> 332-333 <i>Quick Check</i> 325 TWE: TR52

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Key Idea 7:					
Human decisions and activities have had a profound impact on the physical and living environments.					
PERFORMANCE INDICATOR 7.1 Identify ways in which humans have changed their environment and the effects of those changes.					
7.1a Humans depend on their natural and constructed environments.	Flipbook: <i>Review Together</i> 60 TWE:	SE: 202 <i>Explore</i> 201 <i>Look and Wonder</i> 200 TWE: DI 203; E 201; LW 200; SB 202	SE: 104-105, 212 <i>Explore</i> 103 <i>Look and Wonder</i> 102 <i>Writing in Science</i> 100 TWE: AE 103; DI 105; DMI 104; E 103; LW 102; PA 212-213; WS 100	SE: 234, 244, 252-253, 260-263 <i>Quick Lab</i> 265 <i>Reading in Science</i> 414-415 <i>Social Studies Link</i> 49 TWE: DI 33; ELLS 242; IR 486	SE: 54, 232, 278-280, 288-290 <i>Quick Check</i> 232 TWE: DMI 54, 288, 289
7.1b Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities.	Flipbook: <i>Unit C</i> 34, 36 TWE: AQ 155, 163; IM 164; SF 162	SE: 205, 398-399 <i>Look and Wonder</i> 208 TWE: LW 208; URS 147; SYP TR67	SE: 105, 202-205 <i>Explore</i> 103 <i>Look and Wonder</i> 102 <i>Reading in Science</i> 126-127 <i>Think, Talk, and Write</i> 109 TWE: AE 102; DI 105, 205; DMI 204; E 103; FA 109; RS 126-127; UV 203	SE: 154-155, 218, 252-253 <i>Focus on Skills</i> 158-159 <i>Reading in Science</i> 414-415 TWE: APK 150; DI 155; DMI 154, 218; FA 157	SE: 186-187, 232, 278, 296-297 <i>Math in Science</i> 159 <i>Quick Check</i> 232 <i>Reading in Science</i> 118-119, 146-147 TWE: DMI 186, 296; SB 297

STANDARDS	PAGE REFERENCES				
	Grade K	Grade 1	Grade 2	Grade 3	Grade 4
7.1c Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms.	Flipbook: <i>Unit C</i> 34, 36 TWE: BS 158; IM 164; L 159; SF 154	SE: 146-147, 204-205 <i>Look and Wonder</i> 208 TWE: DMI 146, 204; LW 208; URS 147, 205	SE: 104-107, 204-205 <i>Look and Wonder</i> 102 <i>Reading in Science</i> 126-127 <i>Think, Talk, and Write</i> 109 TWE: AE 102; AM 107; DI 105; E 103; LW 102; RP 205; RS 126-127; UV 106	SE: 154-156, 168, 218, 264-266 <i>Careers in Science</i> 184, 426 <i>Focus on Skills</i> 158- 159 TWE: DI 155, 175; DMI 168, 218	SE: 186-190, 296-300 <i>Literature: Ranger</i> <i>Rick</i> 124-125 <i>Math in Science</i> 159 <i>Read a Photo</i> 187 <i>Reading in Science</i> 118-119, 302-303 <i>Writing in Science</i> 96 TWE: HA 233; UV 187