



# Science

**LEVEL RED**

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STANDARDS	PAGE REFERENCES
<p><b>6.1 <u>Structure and Function</u>: Living and non-living systems are organized groups of related parts that function together and have characteristics and properties.</b></p>	
<p>6.1P.1 Describe physical and chemical properties of matter and how they can be measured.</p>	<p><b>Student Edition:</b> 70-73, 75, 80-83 <i>Launch Lab</i> 69 <i>Mini Lab</i> 73 <i>Science Online</i> 71-72 <i>Table</i> 1 84 <b>Teacher Wraparound Edition:</b> IM 81; LD 72; ML 73; QD 71; SCB 68E-68F; VL 73, 82</p>
<p>6.1P.2 Compare and contrast the characteristic properties of forms of energy.</p>	<p><b>Student Edition:</b> 162-163, 179-181, 202, 204, 230, <i>Applying Skills</i> 169 <i>Integrate Life Science</i> 164, 180 <i>Integrate Physics</i> 267 <i>National Geographic</i> 165 <b>Teacher Wraparound Edition:</b> BI 160; DI 168; NG 165; QD 179; SCB 160E-160F; SJ 163; TFYI 166; TPK 162</p>

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<p>6.1L.1 Compare and contrast the types and components of cells. Describe the functions and relative complexity of cells, tissues, organs, and organ systems.</p>	<p><b>Student Edition:</b>            478-481, 483-485, 487  <i>Chapter 16 Study Guide</i> 491  <i>Mini Lab</i> 484  <i>National Geographic</i> 486  <i>Section 1 Review</i> 481</p> <p><b>Teacher Wraparound Edition:</b>            A 478; As 484, 487; DI 478-479, 485-486; IL 486;            NG 486; SCB 474E-474F; UA 479</p>
<p>6.1E.1 Describe and compare the properties and composition of the layers of Earth.</p>	<p><b>Student Edition:</b>            289-291  <i>Figure 3</i> 289  <i>Figure 4</i> 290-291  <i>Integrate Chemistry</i> 290  <i>Section 1 Review</i> 297 #4, #6</p> <p><b>Teacher Wraparound Edition:</b>            As 290; CC 289; DI 291; IM 292; R 290; VL 291</p>
<p>6.1E.2 Describe the properties of objects in the solar system. Describe and compare the position of the sun within the solar system, galaxy, and universe.</p>	<p><b>Student Edition:</b>            448-455, 459, 461-463  <i>Applying Skills</i> 455  <i>Integrate Physics</i> 462  <i>Mini Lab</i> 450</p> <p><b>Teacher Wraparound Edition:</b>            A 450; As 463; DI 460; Di 449, 454; IM 453-454;            IP 462; Re 455; SJ 462; VL 449</p>
<p><b>6.2 <u>Interaction and Change:</u> The related parts within a system interact and change.</b></p>	
<p>6.2P.1 Describe and compare types and properties of waves and explain how they interact with matter.</p>	<p><b>Student Edition:</b>            226-235  <i>Figure 7-9</i> 232-233  <i>Integrate Health</i> 234  <i>Integrate Physics</i> 230  <i>Launch Lab</i> 225  <i>Section 1 Review</i> 230  <i>Science Online</i> 235</p> <p><b>Teacher Wraparound Edition:</b>            A 228; CU 235; DI 227, 234; Di 227; IP 230;            SCB 224E</p>

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<p>6.2P.2 Describe the relationships between: electricity and magnetism, static and current electricity, and series and parallel electrical circuits.</p>	<p><b>Student Edition:</b>  198, 201-202, 208-210, 212-214  <i>Figure 7</i> 198  <i>Figure 10</i> 201  <i>Figure 17</i> 208  <i>Lab</i> 215  <i>Launch Lab</i> 193  <b>Teacher Wraparound Edition:</b>  A 202; As 215; IM 198; SCB 192E-192F; SJ 212; VL 213</p>
<p>6.2L.1 Describe the relationships and interactions between and among cells, tissues, organs, and organ systems.</p>	<p><b>Student Edition:</b>  483-485, 487  <i>Applying Skills</i> 487  <i>Figure 7</i> 483  <i>Figure 8</i> 484  <i>Mini Lab</i> 484  <i>National Geographic</i> 486  <b>Teacher Wraparound Edition:</b>  As 484, 487; CU 487; DI 485-486; IL 486; IM 486</p>
<p>6.2L.2 Explain how individual organisms and populations in an ecosystem interact and how changes in populations are related to resources.</p>	<p><b>Student Edition:</b>  618-619, 625, 627-631  <i>Design Your Own Lab</i> 636-637  <i>Mini Lab</i> 628  <i>Section 2 Review</i> 632  <b>Teacher Wraparound Edition:</b>  A 619; As 628; CD 620; DI 621, 631; Di 630; QD 631; SCB 616E; SJ 621, 629; VL 619</p>
<p>6.2E.1 Explain the water cycle and the relationship to landforms and weather.</p>	<p><b>Student Edition:</b>  329, 347-349, 351-352, 357-358  <i>Applying Science</i> 329  <i>National Geographic</i> 346  <b>Teacher Wraparound Edition:</b>  A 346; DI 346; Di 351, 358, 658; NG 346; TPK 348</p>

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<p><b>6.3 <u>Scientific Inquiry</u>: Scientific inquiry is the investigation of the natural world based on observation and science principles that includes proposing questions or hypotheses, and developing procedures for questioning, collecting, analyzing, and interpreting accurate and relevant data to produce justifiable evidence-based explanations.</b></p>	
<p>6.3S.1 Based on observation and science principles propose questions or hypotheses that can be examined through scientific investigation. Design and conduct an investigation that uses appropriate tools and techniques to collect relevant data.</p>	<p><b>Student Edition:</b>  <i>Design Your Own Lab</i> 60-61, 88-89, 244-245, 332-333, 364-365, 488-489, 520-521, 580-581, 636-637  <i>Lab</i> 31  <b>Teacher Wraparound Edition:</b>            AIL 88, 488, 580; As 60, 333, 489, 637</p>
<p>6.3S.2 Organize and display relevant data, construct an evidence-based explanation of the results of an investigation, and communicate the conclusions.</p>	<p><b>Student Edition:</b>  <i>Design Your Own Lab</i> 61, 89, 245, 333, 365, 489, 521, 581, 637  <i>Communicating Your Data</i> 245, 489, 581, 637  <b>Teacher Wraparound Edition:</b>            As 581; CYD 61, 365, 581, 637</p>
<p>6.3S.3 Explain why if more than one variable changes at the same time in an investigation, the outcome of the investigation may not be clearly attributable to any one variable.</p>	<p><b>Student Edition:</b>            18  <i>Lab</i> 32  <b>Teacher Wraparound Edition:</b>            CU 20; IM 18; QD 18</p>
<p><b>6.4 <u>Engineering Design</u>: Engineering design is a process of identifying needs, defining problems, developing solutions, and evaluating proposed solutions.</b></p>	
<p>6.4D.1 Define a problem that addresses a need and identify science principles that may be related to possible solutions.</p>	<p><b>Student Edition:</b>  <i>Design Your Own Lab</i> 464-465, 668-669  <i>Model and Invent Lab</i> 550-551  <b>Teacher Wraparound Edition:</b>            AIL 464, 668; DI 418; IL 538, 600</p>
<p>6.4D.2 Design, construct, and test a possible solution to a defined problem using appropriate tools and materials. Evaluate proposed engineering design solutions to the defined problem.</p>	<p><b>Student Edition:</b>  <i>Communicating Your Data</i> 465, 669  <i>Design Your Own Lab</i> 464-465, 668-669  <i>Model and Invent Lab</i> 550-551  <b>Teacher Wraparound Edition:</b>            A 419; AIL 464, 668; CYD 669; IL 317, 538, 600</p>

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<p>6.4D.3 Describe examples of how engineers have created inventions that address human needs and aspirations.</p>	<p><b>Student Edition:</b>            410-413, 415-418, 420-425, 428-429  <i>Figure 4</i> 412  <i>Integrate Physics</i> 477  <i>National Geographic</i> 419, 648-649  <i>Science Online</i> 478  <i>Time Science and Society</i> 490</p> <p><b>Teacher Wraparound Edition:</b>            CB 490; CC 416, 418, 477; DI 427; Di 417; SJ 411, 649</p>