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**Science Standards  
Grades 6-8**

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<p><b>Sixth Grade: Focus on Patterns; Scale, Proportion, and Quantity; Systems and System Models; Energy and Matter</b></p> <p>By the end of sixth grade, students apply their understanding of how matter and energy relate to atoms, the solar system, and ecosystems. Students will develop an understanding of the nature of matter and the role of energy transformation. Students will also deepen their understanding of scales, patterns, and properties of matter, the solar system, and ecosystems. Student investigations focus on collecting and making sense of observational data and measurements using the <u>science and engineering practices</u>: ask questions and define problems, develop and use models, plan and carry out investigations, analyze and interpret data, use mathematics and computational thinking, construct explanations and design solutions, engage in argument from evidence, and obtain, evaluate, and communicate information. While individual lessons may include connections to any of the crosscutting concepts, the standards in sixth grade focus on helping students understand phenomena through <u>patterns; scale, proportion, and quantity; systems and system models; and energy and matter.</u></p> <p>Physical Sciences: Students develop an understanding of forces and energy and how energy can transfer from one object to another or be converted from one form to another. They also develop an understanding of the nature of matter.</p>			
<p><b>6.P1U1.1</b> Analyze and interpret data to show that changes in states of matter are caused by different rates of movement of atoms in solids, liquids, and gases (Kinetic Theory).</p>	<p><b>Unit 3</b> <b>Student Edition:</b> 37, 40, 42 <i>Investigation</i> 37-39, 41-42 <i>Lab</i> 34-36 <i>Review</i> 50 (#1) <i>Three-Dimensional Thinking</i> 43 <b>Teacher Edition:</b> DIF 42; TT 37</p>	<p><b>Unit 1</b> <b>Student Edition:</b> 46-50, 66-68 <i>Explain the Phenomenon</i> 32-33 <i>Three-Dimensional Thinking</i> 47, 49, 50, 68 <i>Lesson Review</i> 54 <i>Investigation</i> 67 <b>Teacher Edition:</b> FA 47, 49</p>	<p>See <i>Inspire Science</i> Grade 6 or 7 © 2020.</p>

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<b>6.P1U1.2</b> Plan and carry out an investigation to demonstrate that variations in temperature and/or pressure affect changes in state of matter.	<b>Unit 3</b> <b>Student Edition:</b> <i>Investigation</i> 37-39, 41-42 <i>Lab</i> 34-36 <i>Review</i> 52 (#4, #5) <i>Three-Dimensional Thinking</i> 48 <b>Teacher Edition:</b> DIF 42; TT 37	<b>Unit 1</b> <b>Student Edition:</b> 46-50, 66-68 <i>Explain the Phenomenon</i> 32-33 <i>Go Online</i> 46 <i>Three-Dimensional Thinking</i> 49, 50 <i>Lesson Review</i> 52-54 <i>Investigation</i> 67 <i>STEM Module Project</i> 97-104 <b>Teacher Edition:</b> 47; IP 48	See <i>Inspire Science</i> Grade 6 or 7 © 2020.
<b>6.P1U1.3</b> Develop and use models to represent that matter is made up of smaller particles called atoms.	See <i>Inspire Science</i> Grade 7 © 2020.	<b>Unit 1</b> <b>Student Edition:</b> 19-23 <i>A Closer Look</i> 20, 93 <b>Teacher Edition:</b> 19; BI 20	See <i>Inspire Science</i> Grade 7 © 2020.

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<b>6.P2U1.4</b> Develop and use a model to predict how forces act on objects at a distance.	See <i>Inspire Science Grade 8</i> © 2020.	See <i>Inspire Science Grade 8</i> © 2020.	<b>Student Edition:</b> <b>Unit 2:</b> <i>Analyze &amp; Conclude</i> 183 <i>Go Online</i> 184 <i>Investigation</i> 83-84 <i>Summarize It!</i> 214 <i>Three-Dimensional Thinking</i> 85, 184 <b>Teacher Edition:</b> <b>Unit 2:</b> FA 85, 184 <b>Unit 4:</b> DIAL 61
<b>6.P4U2.5</b> Analyze how humans use technology to store (potential) and/or use (kinetic) energy.	<b>Unit 3</b> <b>Student Edition:</b> <i>A Closer Look</i> 87 <i>STEM Module Project</i> 91-98	<b>Unit 3</b> <b>Student Edition:</b> 12-14 <i>Lab</i> 12-13 <b>Teacher Edition:</b> IP 13	<b>Student Edition:</b> <b>Unit 2:</b> <i>It's Your Turn</i> 157 <b>Teacher Edition:</b> <b>Unit 2:</b> IYT 157

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<b>Earth and Space Sciences: Students develop an understanding of the scale and properties of objects in the solar system and how forces (gravity) and energy cause observable patterns in the Sun-Earth-Moon system.</b>			
<b>6.E1U1.6</b> Investigate and construct an explanation demonstrating that radiation from the Sun provides energy and is absorbed to warm the Earth's surface and atmosphere.	<b>Unit 3</b> <b>Student Edition:</b> 65, 151, 153, 156, 158 <i>Investigation</i> 150 <i>Lab</i> 152-153, 154-155, 156-158 <i>STEM Module Project</i> 91-98, 253-258 <i>Three-Dimensional Thinking</i> 151, 159-160 <b>Teacher Edition:</b> ESC 65	See <i>Inspire Science Grade 6</i> © 2020.	<b>Student Edition:</b> <b>Unit 4:</b> <i>Investigation</i> 63-64 <i>Three-Dimensional Thinking</i> 65
<b>6.E2U1.7</b> Use ratios and proportions to analyze and interpret data related to scale, properties, and relationships among objects in our solar system.	See <i>Inspire Science Grade 8</i> © 2020.	See <i>Inspire Science Grade 8</i> © 2020.	<b>Student Edition:</b> <b>Unit 4:</b> <i>LAB</i> 151-153 <i>STEM Module Project</i> 163, 166-167 <i>Three-Dimensional Thinking</i> 153 <b>Teacher Edition:</b> <b>Unit 4:</b> DIBL 129; DYM 166; Ext 153; MC 152

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<b>6.E2U1.8</b> Develop and use models to explain how constellations and other night sky patterns appear to move due to Earth’s rotation and revolution.	See <i>Inspire Science</i> Grade 8 © 2020.	See <i>Inspire Science</i> Grade 8 © 2020.	<b>Student Edition:</b> <b>Unit 4:</b> 60-62 <i>Investigation 62</i> <b>Teacher Edition:</b> <b>Unit 4:</b> I 62
<b>6.E2U1.9</b> Develop and use models to construct an explanation of how eclipses, moon phases, and tides occur within the Sun-Earth-Moon system.	See <i>Inspire Science</i> Grade 8 © 2020.	See <i>Inspire Science</i> Grade 8 © 2020.	<b>Student Edition:</b> <b>Unit 4:</b> <i>Explain the Phenomenon 78-79, 94-95</i> <i>LAB 83-85, 99-100</i> <i>STEM Module Project 111-118</i> <b>Teacher Edition:</b> <b>Unit 4:</b> C 78; DI 85, 100; ELS 78; Ext 85; GA 84; RC 79
<b>6.E2U1.10</b> Use a model to show how the tilt of Earth’s axis causes variations in the length of the day and gives rise to seasons.	See <i>Inspire Science</i> Grade 8 © 2020.	See <i>Inspire Science</i> Grade 8 © 2020.	<b>Student Edition:</b> <b>Unit 4:</b> 68 <i>STEM Module Project 117</i> <i>Summarize It! 72</i> <i>Three-Dimensional Thinking 66</i> <b>Teacher Edition:</b> <b>Unit 4:</b> DI 68; VL 66, 68

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<b>Life Sciences: Students develop an understanding of how energy from the Sun is transferred through ecosystems.</b>			
<b>6.L2U3.11</b> <b>Use evidence to construct an argument regarding the impact of human activities on the environment and how they positively and negatively affect the competition for energy and resources in ecosystems.</b>	<b>Unit 2</b> <b>Student Edition:</b> <i>Investigation 77-78</i> <i>Three-Dimensional Thinking 78</i> <b>Unit 4</b> 10, 14, 15-16, 18, 21, 41, 47, 49, 51, 68, 96, 98 <i>A Closer Look 44</i> <i>Close Reading 20, 42, 98</i> <i>Encounter the Phenomenon 3</i> <i>Green Science 52</i> <i>Investigation 13-14, 17-18, 23, 40-41</i> <i>Lab 11-12, 15, 49-50, 97</i> <i>Review 30-31 (#1-#2), 56 (#1)</i> <i>Science &amp; Society 48</i> <i>STEM Module Project 105-110</i> <i>Three-Dimensional Thinking 21, 22, 42</i> <b>Teacher Edition:</b> DIF 16	<b>Unit 4</b> <b>Student Edition:</b> 76-80 <i>Lab 76-77</i> <i>Investigation 78</i> <i>Three-Dimensional Thinking 79</i> <i>Stem Module Project 123-130</i> <b>Teacher Edition:</b> 76, 77, 78, 79	<b>Student Edition:</b> <b>Unit 4:</b> <i>Explain the Phenomenon 8-9, 30-31</i> <i>Investigation 18-19, 20-22, 34-35</i> <i>Real-World Connection 26</i> <i>STEM Module Project 45-50</i> <i>Three-Dimensional Thinking 36</i> <b>Teacher Edition:</b> <b>Unit 4:</b> DIBL 22; PRO 22; R 9, 31

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	Grade 6	Grade 7	Grade 8
<p><b>6.L2U3.12</b> Engage in argument from evidence to support a claim about the factors that cause species to change and how humans can impact those factors.</p>	See <i>Inspire Science</i> Grade 8 © 2020.	See <i>Inspire Science</i> Grade 8 © 2020.	<p><b>Student Edition:</b> <b>Unit 1:</b> <i>Explain the Phenomenon</i> 60-61, 82-83, 104-105 <b>Unit 4:</b> <i>It's Your Turn</i> 37 <i>STEM Module Project</i> 45-50 <i>Three-Dimensional Thinking</i> 36 <b>Teacher Edition:</b> <b>Unit 1:</b> R 61, 105</p>
<p><b>6.L2U1.13</b> Develop and use models to demonstrate the interdependence of organisms and their environment including biotic and abiotic factors.</p>	See <i>Inspire Science</i> Grade 7 © 2020.	<p><b>Unit 4</b> <b>Student Edition:</b> 76-80, 90-98 <i>Encounter the Phenomenon</i> 71, 87 <i>Explain the Phenomenon</i> 72-73, 88-89 <i>Investigation</i> 75, 90, 91 <i>Lab</i> 76-77, 92-94 <i>Careers in Science</i> 99 <i>STEM Module Project</i> 123-130 <b>Teacher Edition:</b> 85, 94, 103; DI 95, 98; EX 94</p>	See <i>Inspire Science</i> Grade 7 © 2020.

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<b>6.L2U1.14</b> <b>Construct a model that shows the cycling of matter and flow of energy in ecosystems.</b>	<b>Unit 3</b> <b>Student Edition:</b> 108, 111, 116, 131-133 <i>Investigation</i> 128-129, 133 <i>Lab</i> 114-115 <i>Review</i> 118 (#1) <i>STEM Module Project</i> 137-140 <i>Three-Dimensional Thinking</i> 108, 111, 113, 116 <b>Teacher Edition:</b> DIF 111; ELS 100I	<b>Unit 4</b> <b>Student Edition:</b> 30-38, 48-54 <i>Science Probes</i> 25, 43 <i>Encounter the Phenomenon</i> 27 <i>Explain the Phenomenon</i> 28-29, 46-47 <i>Investigation</i> 30 <i>Lab</i> 34-35, 36-37 <i>Three-Dimensional Thinking</i> 35 <i>Lesson Review</i> 40-42, 56-58 <i>STEM Module Project</i> 59-64 <b>Teacher Edition:</b> 30, 31, 48; DI 31, 53; EL 37, 50; EX 35, 37	See <i>Inspire Science</i> Grade 6 or 7 © 2020.

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<p><b>Seventh Grade: Focus on Patterns; Cause and Effect; Structure and Function</b></p> <p>By the end of seventh grade, students will explore how forces cause changes in motion and how energy is transferred in geologic, atmospheric, and environmental processes. Students investigate force and motion in a wide variety of systems, model how heat energy drives cycles in weather and climate, and explain the structure and function of cells. Student investigations focus on collecting and making sense of observational data and measurements using the <b>science and engineering practices</b>: ask questions and define problems, develop and use models, plan and carry out investigations, analyze and interpret data, use mathematics and computational thinking, construct explanations and design solutions, engage in argument from evidence, and obtain, evaluate, and communicate information. While individual lessons may include connections to any of the crosscutting concepts, the standards in seventh grade focus on helping students understand phenomena through <b>patterns</b>, <b>cause and effect</b>, and <b>structure and function</b>.</p> <p><b>Physical Sciences:</b> Students will explore how cause and effect take place within and between a wide variety of force and motion systems from forces on individual objects to the forces that shape our Earth.</p>			
<p><b>7.P2U1.1</b> Collect and analyze data demonstrating how electromagnetic forces can be attractive or repulsive and can vary in strength.</p>	<p>See <i>Inspire Science</i> Grade 8 © 2020.</p>	<p>See <i>Inspire Science</i> Grade 8 © 2020.</p>	<p><b>Student Edition:</b> <b>Unit 2:</b> <i>Investigation</i> 240-241 <i>LAB</i> 238-239, 243-245, 254-255 <b>Teacher Edition:</b> <b>Unit 2:</b> Ext 239, 244; IS 245; Pro 241</p>

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	Grade 6	Grade 7	Grade 8
<p><b>7.P2U1.2</b> Develop and use a model to predict how forces act on objects at a distance.</p>	See <i>Inspire Science</i> Grade 8 © 2020.	See <i>Inspire Science</i> Grade 8 © 2020.	<p><b>Student Edition:</b> <b>Unit 2:</b> <i>Analyze &amp; Conclude</i> 183 <i>Go Online</i> 184 <i>Investigation</i> 83-84 <i>Summarize It!</i> 214 <i>Three-Dimensional Thinking</i> 85, 184</p> <p><b>Teacher Edition:</b> <b>Unit 2:</b> FA 85, 184 <b>Unit 4:</b> DIAL 61</p>
<p><b>7.P3U1.3</b> Plan and carry out an investigation that can support an evidence-based explanation of how objects on Earth are affected by gravitational force.</p>	See <i>Inspire Science</i> Grade 8 © 2020.	See <i>Inspire Science</i> Grade 8 © 2020.	Using Unit 4, Module: Exploring the Universe, Lesson 1: Gravity and the Universe; Unit 2, Module: Forces and Motion, Lesson 4: Gravitational Force; Unit 2, Module: Mechanical Energy, Lesson 1: Kinetic Energy & Lesson 2: Potential Energy as springboards for discussion, the students could plan and carry out an investigation.

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<b>7.P3U1.4</b> Use non-algebraic mathematics and computational thinking to explain Newton’s laws of motion.	See <i>Inspire Science</i> Grade 8 © 2020.	See <i>Inspire Science</i> Grade 8 © 2020.	<b>Student Edition:</b> <b>Unit 2:</b> <i>Investigation</i> 41-42, 65-66 <i>LAB</i> 50-51, 68-69 <i>Math Connection</i> 44 <i>Three-Dimensional Thinking</i> 52, 70 <b>Teacher Edition:</b> <b>Unit 2:</b> DIBL 52; FA 70

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<b>Earth and Space Sciences: Students develop an understanding of the patterns of energy flow along with matter cycling within and among Earth's systems.</b>			
<b>7.E1U1.5</b> <b>Construct a model that shows the cycling of matter and flow of energy in the atmosphere, hydrosphere, and geosphere.</b>	<b>Unit 3</b> <b>Student Edition:</b> 108, 111, 116, 131-133 <i>Investigation</i> 128-129, 133 <i>Lab</i> 114-115 <i>Review</i> 118 (#1) <i>STEM Module Project</i> 137-140 <i>Three-Dimensional Thinking</i> 108, 111, 113, 116 <b>Teacher Edition:</b> DIF 111; ELS 100I	<b>Unit 2</b> <b>Student Edition:</b> 102-120 <i>Explain the Phenomenon</i> 98-99 <i>Three-Dimensional Thinking</i> 104, 106, 110, 117, 120 <i>Investigation</i> 118-119 <i>Lesson Review</i> 122 <i>STEM Module Project</i> 125-130 <b>Teacher Edition:</b> 97; 104; EL 119 <b>Unit 4</b> <b>Student Edition:</b> 48-54 <i>Explain the Phenomenon</i> 46-47 <i>Lab</i> 51-52 <i>A Closer Look</i> 55 <i>Lesson Review</i> 56 <b>Teacher Edition:</b> 51; DI 53	See <i>Inspire Science</i> Grade 6 or 7 © 2020.

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<p><b>7.E1U1.6</b>  <b>Construct a model to explain how the distribution of fossils and rocks, continental shapes, and seafloor structures provides evidence of the past plate motions.</b></p>	<p>See <i>Inspire Science</i> Grade 7 © 2020.</p>	<p><b>Unit 2</b>  <b>Student Edition:</b>            12, 13-15, 17  <i>Explain the Phenomenon</i> 8-9, 26-27  <i>Investigation</i> 10, 11, 19  <i>Lab</i> 12-13, 15-16  <i>Careers in Science</i> 18  <i>Lesson Review</i> 20-22  <i>Encounter the Phenomenon</i> 26-27  <i>Stem Module Project</i> 125-130  <b>Teacher Edition:</b>            12, 13; DI 14, 17; EX 13; ETP 7; FA 14; LSC 15; VL 17</p>	<p>See <i>Inspire Science</i> Grade 7 © 2020.</p>
<p><b>7.E1U2.7</b>  <b>Analyze and interpret data to construct an explanation for how advances in technology has improved weather prediction.</b></p>	<p><b>Unit 3</b>  <b>Student Edition:</b>            217, 222  <i>A Closer Look</i> 165, 191, 223  <i>Encounter the Phenomenon</i> 143, 171  <i>Lab</i> 217-221  <b>Teacher Edition:</b>            ASK 223</p>	<p>See <i>Inspire Science</i> Grade 6 © 2020.</p>	<p>See <i>Inspire Science</i> Grade 6 © 2020.</p>

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<b>Life Sciences: Students develop an understanding of the structure and function of cells.</b>			
<b>7.L1U1.8</b> Obtain, evaluate, and communicate information to provide evidence that all living things are made of cells, cells come from existing cells, and cells are the basic structural and functional unit of all living things.	<b>Unit 1</b> <b>Student Edition:</b> 12, 16-17, 19 <i>Investigation 16</i> <i>Review 28 (#5)</i> <i>STEM Module Project 49-52</i> <b>Teacher Edition:</b> VL 19	See <i>Inspire Science Grade 6</i> © 2020.	See <i>Inspire Science Grade 6</i> © 2020.
<b>7.L1U1.9</b> Construct an explanation to demonstrate the relationship between major cell structures and cell functions (plant and animal).	<b>Unit 1</b> <b>Student Edition:</b> 23, 34-35, 38-39, 40-41, 44 <i>Investigation 40</i> <i>Lab 34, 42-43</i> <i>Review 27 (#2, #3), 46-48 (#1-#6)</i> <i>STEM Module Project 49-52</i> <i>Three-Dimensional Thinking 41</i> <b>Teacher Edition:</b> DIF 35, 39, 41, 44	<b>Unit 4</b> <b>Student Edition:</b> 10-20 <i>Investigation 10</i> <i>Lesson Review 24</i> <b>Teacher Edition:</b> 11, 15, 19; VL 11	<b>Student Edition:</b>  <b>Teacher Edition:</b>

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	Grade 6	Grade 7	Grade 8
<b>7.L1U1.10</b> Develop and use a model to explain how cells, tissues, and organ systems maintain life (animals).	<b>Unit 1</b> <b>Student Edition:</b> 44, 62-63, 65, 66, 68, 70 <i>Encounter the Phenomenon</i> 59 <i>Investigation</i> 62, 65, 67 <i>Lab</i> 68-69 <i>Review</i> 73 (#2, #3) <i>STEM Module Project</i> 165-170 <i>Three-Dimensional Thinking</i> 44 <b>Teacher Edition:</b> ELS 54I	See <i>Inspire Science</i> Grade 6 © 2020.	See <i>Inspire Science</i> Grade 6 © 2020.
<b>7.L1U1.11</b> Construct an explanation for how organisms maintain internal stability and evaluate the effect of the external factors on organisms' internal stability.	<b>Unit 1</b> <b>Student Edition:</b> 22, 108, 109, 126 <i>Lab</i> 108-109 <i>Review</i> 113 (#3), 114 (#5), 134 (#1) <b>Teacher Edition:</b> ASK 22, 108	See <i>Inspire Science</i> Grade 6 © 2020.	See <i>Inspire Science</i> Grade 6 © 2020.

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	Grade 6	Grade 7	Grade 8
<b>7.L2U1.12</b> <b>Construct an explanation for how some plant cells convert light energy into food energy.</b>	<b>Unit 1</b> <b>Student Edition:</b> 40, 111 <i>Lab 42-43</i> <i>Review 46 (#1)</i> <i>Three-Dimensional Thinking 111</i> <b>Teacher Edition:</b> DIF 111	<b>Unit 4</b> <b>Student Edition:</b> 10-15, 20 <i>Encounter the Phenomenon 7</i> <i>Explain the Phenomenon 8-9</i> <i>Lab 12-14</i> <i>Lesson Review 22-24</i> <b>Teacher Edition:</b> 7, 11; DI 15; IS 14	See <i>Inspire Science</i> Grade 6 or 7 © 2020.

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	Grade 6	Grade 7	Grade 8
<p><b>Eighth Grade: Focus on Cause and Effect; Energy and Matter; Stability and Change</b></p> <p>By the end of eighth grade, students will describe how stability and change and the process of cause and effect influence changes in the natural world. Students will apply energy principles to chemical reactions, explore changes within Earth and understand how genetic information is passed down to produce variation among the populations. Student investigations focus on collecting and making sense of observational data and measurements using the science and engineering practices: ask questions and define problems, develop and use models, plan and carry out investigations, analyze and interpret data, use mathematics and computational thinking, construct explanations and design solutions, engage in argument from evidence, and obtain, evaluate, and communicate information. While individual lessons may include connections to any of the crosscutting concepts, the standards in eighth-grade focus on helping students understand phenomena through cause and effect, energy and matter, and stability and change.</p>			
<p><b>Physical Sciences: Students apply stability and change to explore chemical properties of matter and chemical reactions to further understand energy and matter</b></p>			
<p><b>8.P1U1.1</b> Develop and use a model to demonstrate that atoms and molecules can be combined or rearranged in chemical reactions to form new compounds with the total number of each type of atom conserved.</p>	<p>See <i>Inspire Science</i> Grade 7 © 2020.</p>	<p><b>Unit 1</b> <b>Student Edition:</b> 142-152 <i>Encounter the Phenomenon</i> 139 <i>Explain the Phenomenon</i> 140-141 <i>Lab</i> 142-143, 145-146 <i>Investigation</i> 147, 148-149, 151 <i>Lesson Review</i> 154-156 <i>STEM Module Project</i> 177-182 <b>Teacher Edition:</b> 137, 144, 147, 149; DI 149, 150, 152; GQ 139; IP 149</p>	<p>See <i>Inspire Science</i> Grade 7 © 2020.</p>

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<p><b>8.P1U1.2</b> Obtain and evaluate information regarding how scientists identify substances based on unique physical and chemical properties.</p>	<p>See <i>Inspire Science</i> Grade 7 © 2020.</p>	<p><b>Unit 1</b> <b>Student Edition:</b> 82-92, 114-132 <i>Lab</i> 80-82, 119-121, 126-127, 129-131 <i>A Closer Look</i> 93 <i>Encounter the Phenomenon</i> 111 <i>Explain the Phenomenon</i> 112-113 <i>Investigation</i> 124 <i>Three-Dimensional Thinking</i> 132 <i>Lesson Review</i> 134-136 <i>Module Wrap-Up</i> 183 <b>Teacher Edition:</b> 82, 85, 90, 125, 131; DI 128; EX 87, 130; IP 118</p>	<p>See <i>Inspire Science</i> Grade 7 © 2020.</p>
<p><b>8.P4U1.3</b> Construct an explanation on how energy can be transferred from one energy store to another.</p>	<p><b>Unit 3</b> <b>Student Edition:</b> 59-61, 63, 65, 67 <i>Investigation</i> 67 <i>Lab</i> 58-59, 62-63, 65 <i>Review</i> 68-70 (#1-#4) <i>STEM Module Project</i> 91-98 <i>Three-Dimensional Thinking</i> 60, 61 <b>Teacher Edition:</b> DIF 61, 65</p>	<p><b>Unit 1</b> <b>Student Edition:</b> 37-40, 162-172 <i>Lab</i> 38-39, 168-171 <i>Three-Dimensional Thinking</i> 40 <i>Investigation</i> 162 <i>Read a Scientific Text</i> 167 <i>How It Works</i> 173 <i>STEM Module Project</i> 177-182 <b>Teacher Edition:</b> 37, 162, 163; IP 165</p>	<p><b>Student Edition:</b> <b>Unit 2:</b> <i>Analyze &amp; Conclude</i> 148 <i>Go Online</i> 148 <i>It's Your Turn</i> 157 <i>LAB</i> 130-131, 151-152 <i>Three-Dimensional Thinking</i> 153 <b>Teacher Edition:</b> <b>Unit 2:</b> DIAL 149; Ext 152; FA 153; ISOS 148; IYT 157</p>

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	Grade 6	Grade 7	Grade 8
<b>8.P4U1.4</b> Develop and use mathematical models to explain wave characteristics and interactions.	<b>Unit 1</b> <b>Student Edition:</b> 151, 154 <i>Investigation</i> 151-153	See <i>Inspire Science</i> Grade 8 © 2020.	<b>Student Edition:</b> <b>Unit 3:</b> <i>Analyze &amp; Conclude</i> 18 <i>Investigation</i> 130 <i>LAB</i> 10-11, 24-26, 90-91, 98-99, 114-115 <i>Math Connection</i> 20, 27 <i>Summarize It!</i> 120 <i>Three-Dimensional Thinking</i> 30, 44, 93, 97, 118 <b>Teacher Edition:</b> <b>Unit 3:</b> Ext 91; FA 44, 93, 97, 118; MC 20
<b>8.P4U2.5</b> Develop a solution to increase efficiency when transferring energy from one source to another.	<b>Unit 3</b> <b>Student Edition:</b> <i>A Closer Look</i> 87 <i>Engineering Lab</i> 84-85 <i>Investigation</i> 81 <i>STEM Module Project</i> 91-98 <i>Three-Dimensional Thinking</i> 83 <b>Teacher Edition:</b> ASK 87	<b>Unit 1</b> <b>Student Edition:</b> <i>STEM Module Project</i> 177-182 <b>Teacher Edition:</b> CYP 182	See <i>Inspire Science</i> Grade 6 or 7 © 2020.

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	Grade 6	Grade 7	Grade 8
<b>Earth and Space Sciences: Students explore natural and human-induced cause-and-effect changes in Earth systems over time.</b>			
<b>8.E1U1.6</b> Analyze and interpret data about the Earth’s geological column to communicate relative ages of rock layers and fossils.	See <i>Inspire Science</i> Grade 8 © 2020.	See <i>Inspire Science</i> Grade 8 © 2020.	<b>Student Edition:</b> <b>Unit 1:</b> <i>Go Online</i> 21 <i>Investigation</i> 19-21, 34-35, 38 <i>STEM Module Project</i> 49-50 <i>Three-Dimensional Thinking</i> 36, 39 <b>Teacher Edition:</b> DI 38; FA 36; GO 36, 39; SEP 21
<b>8.E1U3.7</b> Obtain, evaluate, and communicate information about data and historical patterns to predict natural hazards and other geological events.	See <i>Inspire Science</i> Grade 7 © 2020.	<b>Unit 2</b> <b>Student Edition:</b> 140-161, 170-186, 196-220 <i>Encounter the Phenomenon</i> 137, 193 <i>Explain the Phenomenon</i> 138-139, 168-169, 194-195 <i>Investigation</i> 140-141, 155-157, 158-159, 159, 170-171, 176-177, 182, 183-184, 197-199, 202-205, 210-211, 213 <i>Three-Dimensional Thinking</i> 141 <i>Lab</i> 145-148, 178-181 <i>Lesson Review</i> 163-164, 189 <i>STEM Module Project</i> 225-230 <b>Teacher Edition:</b> DI 184; IS 148; VL 171	<b>Student Edition:</b> <b>Unit 1:</b> <i>Investigation</i> 38 <i>Three-Dimensional Thinking</i> 39 <b>Teacher Edition:</b> <b>Unit 1:</b> FA 39; GO 39

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<b>8.E1U3.8</b> Construct and support an argument about how human consumption of limited resources impacts the biosphere.	<b>Unit 4</b> <b>Student Edition:</b> 10, 13, 14, 16-17, 40, 43, 91 <i>A Closer Look</i> 44 <i>Investigation</i> 13-14, 40-41, 43, 88-90 <i>Lab</i> 11-12, 15 <i>Review</i> 30 (#1) <i>STEM Module Project</i> 105-110 <i>Three-Dimensional Thinking</i> 22 <b>Teacher Edition:</b> DIF 14, 16	<b>Unit 4</b> <b>Student Edition:</b> 117-118, 172-173 <i>Lesson Review</i> 122 <b>Teacher Edition:</b> 117; DI 117, 173	<b>Student Edition:</b> <b>Unit 4:</b> <i>STEM Module Project</i> 45-48 <i>Three-Dimensional Thinking</i> 36 <b>Teacher Edition:</b> <b>Unit 4:</b> GO 36
<b>Life Sciences: Students develop an understanding of patterns and how genetic information is passed from generation to generation. They also develop the understanding of how traits within populations change over time.</b>			
<b>8.L3U1.9</b> Construct an explanation of how genetic variations occur in offspring through the inheritance of traits or through mutations.	<b>Unit 2</b> <b>Student Edition:</b> 35, 36 <i>Lab</i> 34-35 <b>Teacher Edition:</b> ASK 34	See <i>Inspire Science</i> Grade 6 © 2020.	<b>Student Edition:</b> <b>Unit 1:</b> <i>Revisit the Phenomenon</i> 125 <i>STEM Module Project</i> 118 <i>Three-Dimensional Thinking</i> 91

LEARNING STANDARDS	PAGE REFERENCES		
	Grade 6	Grade 7	Grade 8
<b>8.L3U3.10</b> Communicate how advancements in technology have furthered the field of genetic research and use evidence to support an argument about the positive and negative effects of genetic research on human lives.	<b>Unit 2</b> <b>Student Edition:</b> <i>A Closer Look</i> 37 <i>STEM Career Connection</i> 23	See <i>Inspire Science Grade 8</i> © 2020.	<b>Student Edition:</b> <b>Unit 1:</b> <i>Investigation</i> 112-113 <i>It's Your Turn</i> 111 <b>Teacher Edition:</b> <b>Unit 1:</b> GO 112; IYT 111
<b>8.L4U1.11</b> Develop and use a model to explain how natural selection may lead to increases and decreases of specific traits in populations over time.	See <i>Inspire Science Grade 8</i> © 2020.	See <i>Inspire Science Grade 8</i> © 2020.	<b>Student Edition:</b> <b>Unit 1:</b> <i>Encounter the Phenomenon</i> 59 <i>Go Online</i> 91 <i>LAB</i> 95-96 <i>STEM Module Project</i> 120-124 <b>Teacher Edition:</b> <b>Unit 1:</b> LO 59
<b>8.L4U1.12</b> Gather and communicate evidence on how the process of natural selection provides an explanation of how new species can evolve.	See <i>Inspire Science Grade 8</i> © 2020.	See <i>Inspire Science Grade 8</i> © 2020.	<b>Student Edition:</b> <b>Unit 1:</b> <i>Encounter the Phenomenon</i> 59 <i>LAB</i> 95-96 <i>STEM Module Project</i> 119-124 <b>Teacher Edition:</b> <b>Unit 1:</b> DIAL 54I; Ext 96