

***SRA Life, Earth, and Physical Science Laboratories***  
**correlation to**  
**Tennessee Science Curriculum Standards**  
**Grade 6**

*SRA Life, Earth, and Physical Science Laboratories* provide core science content in an alternate reading format. Each *SRA Science Lab* contains 180 Science Cards covering key science concepts and vocabulary. Each lab covers 90 different science topics presented at two different reading levels to meet varied student abilities. The *Teacher's Handbook* includes hands-on inquiry activities as well as vocabulary building exercises. The *Classroom Resource CD-ROM* includes Writing Strategies in Science along with tests and vocabulary games.

**Embedded Inquiry 6-8**

**Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.**

**GLE 0607.Inq.6.1 Design and conduct open-ended scientific investigations.**

**Life Science Lab Teacher's Handbook:** Hands-On Activity 1, *Examining Cells*, pages 77-79; Hands-On Activity 2, *Culturing Bacteria*, pages 81-83; Hands-On Activity 3, *Investigating Arthropods*, pages 85-87; Hands-On Activity 4, *Your Cardiovascular System*, pages 89-91; Hands-On Activity 5, *Making Fossils*, pages 93-95; Hands-On Activity 6, *How Much Does Energy Cost?*, pages 97-99; Hands-On Activity 7, *The Effects of Acid Rain*, pages 101-103

**Earth Science Lab Teacher's Handbook:** Hands-On Activity 1, *Identifying Minerals with the Mohs Scale*, pages 73-75; Hands-On Activity 2, *Plate Boundaries in Action*, pages 77-79; Hands-On Activity 3, *Interpreting a Topographic Map*, pages 81-83; Hands-On Activity 4, *Using Sound Waves*, pages 85-87; Hands-On Activity 5, *What is in the Air?*, pages 89-91; Hands-On Activity 6, *Modeling a Tornado*, pages 93-95; Hands-On Activity 7, *Sizes in the Solar System*, pages 97-99; Hands-On Activity 8, *Temperature, Salinity, and Water Density*, pages 101-103

**Physical Science Lab Teacher's Handbook:** Hands-On Activity 1, *Measuring pH of Acids and Bases*, pages 77-79; Hands-On Activity 2, *Chemical Reaction Rates*, pages 81-83; Hands-On Activity 3, *Energy Conversion*, pages 85-87; Hands-On Activity 4, *Reducing Friction*, pages 89-91; Hands-On Activity 5, *Making a Potato Battery*, pages 93-95; Hands-On Activity 6, *Making Sound*, pages 97-99

**Classroom Resource CD-ROM:** Writing Strategy 15

**Embedded Inquiry 6-8**

**Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.**

**GLE 0607.Inq.6.2 Use appropriate tools and techniques to gather, organize, analyze, and interpret data.**

**Life Science Lab Teacher's Handbook:** Hands-On Activity 1, *Examining Cells*, pages 77-79; Hands-On Activity 2, *Culturing Bacteria*, pages 81-83; Hands-On Activity 3, *Investigating Arthropods*, pages 85-87; Hands-On Activity 4, *Your Cardiovascular System*, pages 89-91; Hands-On Activity 5, *Making Fossils*, pages 93-95; Hands-On Activity 6, *How Much Does Energy Cost?*, pages 97-99; Hands-On Activity 7, *The Effects of Acid Rain*, pages 101-103

**Earth Science Lab Teacher's Handbook:** Hands-On Activity 1, *Identifying Minerals with the Mohs Scale*, pages 73-75; Hands-On Activity 2, *Plate Boundaries in Action*, pages 77-79; Hands-On Activity 3, *Interpreting a Topographic Map*, pages 81-83; Hands-On Activity 4, *Using Sound Waves*, pages 85-87; Hands-On Activity 5, *What is in the Air?*, pages 89-91; Hands-On Activity 6, *Modeling a Tornado*, pages 93-95; Hands-On Activity 7, *Sizes in the Solar System*, pages 97-99; Hands-On Activity 8, *Temperature, Salinity, and Water Density*, pages 101-103

**Physical Science Lab Teacher's Handbook:** Hands-On Activity 1, *Measuring pH of Acids and Bases*, pages 77-79; Hands-On Activity 2, *Chemical Reaction Rates*, pages 81-83; Hands-On Activity 3, *Energy Conversion*, pages 85-87; Hands-On Activity 4, *Reducing Friction*, pages 89-91; Hands-On Activity 5, *Making a Potato Battery*, pages 93-95; Hands-On Activity 6, *Making Sound*, pages 97-99

**Classroom Resource CD-ROM:** Writing Strategy 16, 22, 24

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>GLE 0607.Inq.6.3 Synthesize information to determine cause and affect relationships between evidence and explanations.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
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<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99
<b>Classroom Resource CD-ROM:</b> Writing Strategy 7

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>GLE 0607.Inq.6.4 Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i> , pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i> , pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>GLE 0607.Inq.6.5 Communicate scientific understanding using descriptions, explanations, and models.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
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<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99
<b>Classroom Resource CD-ROM:</b> Writing Strategy 1, 2, 12, 20

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0607.Inq.6.1 Design a simple experimental procedure with an identified control and appropriate variables.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15, 23

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0607.Inq.6.2 Select tools and procedures needed to conduct a moderately complex experiment.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
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<b>Classroom Resource CD-ROM:</b> Writing Strategy 15

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0607.Inq.6.3 Interpret and translate data into a table, graph, or diagram.</b>
<p><b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i>, pages 77-79; Hands-On Activity 3, <i>Investigating Arthropods</i>, pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i>, pages 89-91; Hands-On Activity 5, <i>Making Fossils</i>, pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i>, pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i>, pages 101-103</p> <p><b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i>, pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i>, pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i>, pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i>, pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i>, pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i>, pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i>, pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i>, pages 101-103</p> <p><b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i>, pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i>, pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i>, pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i>, pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i>, pages 93-95; Hands-On Activity 6, <i>Making Sound</i>, pages 97-99</p>
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15, 16, 21, 22, 24, 27

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0607.Inq.6.4 Draw a conclusion that establishes a cause and effect relationship that is supported by evidence.</b>
<p><b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i>, pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i>, pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i>, pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i>, pages 89-91; Hands-On Activity 5, <i>Making Fossils</i>, pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i>, pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i>, pages 101-103</p> <p><b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i>, pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i>, pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i>, pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i>, pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i>, pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i>, pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i>, pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i>, pages 101-103</p> <p><b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i>, pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i>, pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i>, pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i>, pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i>, pages 93-95; Hands-On Activity 6, <i>Making Sound</i>, pages 97-99</p>
<b>Classroom Resource CD-ROM:</b> Writing Strategy 7, 18

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0607.Inq.6.5 Identify a faulty interpretation of data that is due to bias or experimental error.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i> , pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i> , pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15, 23

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0607.T/E.6.1 Explore how technology responds to social, political, and economic needs.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90
<b>Earth Science Lab, Level A:</b> Cards 16, 20, 31, 37, 51, 54, 70, 79, 80, 81, 88 <b>Earth Science Lab, Level B:</b> Cards 16, 20, 31, 37, 51, 54, 70, 79, 80, 81, 88 <b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87
<b>Physical Science Lab, Level A:</b> Cards 33, 35, 76, 81, 84, 90 <b>Physical Science Lab, Level B:</b> Cards 33, 35, 76, 81, 84, 90

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0607.T/E.6.2 Know that the engineering design cycle involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.</b>
This concept is not covered.

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0607.T/E.6.3 Compare the intended benefits with the unintended consequences of a new technology.</b>
<b>Physical Science Lab, Level A:</b> Cards 35, 81, 84 <b>Physical Science Lab, Level B:</b> Cards 35, 81, 84

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0607.T/E.6.4 Differentiate between adaptive and assistive bioengineered products.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90
<b>Earth Science Lab, Level A:</b> Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88 <b>Earth Science Lab, Level B:</b> Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88
<b>Physical Science Lab, Level A:</b> Cards 33, 35, 76, 81, 84, 90 <b>Physical Science Lab, Level B:</b> Cards 33, 35, 76, 81, 84, 90

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>SPI 0607.T/E.6.1 Identify the tools and procedures needed to test the design features of a prototype.</b>
<b>SPI 0607.T/E.6.2 Evaluate a protocol to determine if the engineering design process was successfully applied.</b>
This concept is not covered.

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>SPI 0607.T/E.6.3 Distinguish between the intended benefits and the unintended consequences of a new technology.</b>
<b>Physical Science Lab, Level A:</b> Cards 35, 81, 84 <b>Physical Science Lab, Level B:</b> Cards 35, 81, 84

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>SPI 0607.T/E.6.4 Differentiate between adaptive and assistive bioengineered products.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90
<b>Earth Science Lab, Level A:</b> Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88 <b>Earth Science Lab, Level B:</b> Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88
<b>Physical Science Lab, Level A:</b> Cards 33, 35, 76, 81, 84, 90 <b>Physical Science Lab, Level B:</b> Cards 33, 35, 76, 81, 84, 90

<b>Life Science</b>
<b>Standard 2: Interdependence</b>
<b>Conceptual Strand 2: All life is interdependent and interacts with the environment.</b>
<b>GLE 0607.8.1 Examine the roles of consumers, producers, and decomposers in a biological community.</b>
<b>Life Science Lab, Level A:</b> Cards 13, 76, 77 <b>Life Science Lab, Level B:</b> Cards 13, 76, 77 <b>Life Science Lab Teacher's Handbook:</b> Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99;

<b>Life Science</b>
<b>Standard 2: Interdependence</b>
<b>Conceptual Strand 2: All life is interdependent and interacts with the environment.</b>
<b>GLE 0607.8.2 Describe how materials and energy move through an ecosystem.</b>
<b>Life Science Lab, Level A:</b> Cards 13, 74, 75, 76, 77 <b>Life Science Lab, Level B:</b> Cards 13, 74, 75, 76, 77

**Life Science Lab Teacher's Handbook:** Hands-On Activity 6, *How Much Does Energy Cost?*, pages 97-99;

<b>Life Science</b>
<b>Standard 2: Interdependence</b>
<b>Conceptual Strand 2: All life is interdependent and interacts with the environment.</b>
<b>GLE 0607.8.3 Draw conclusions from data about interactions between the biotic and abiotic elements of a particular environment.</b>
<b>Life Science Lab, Level A:</b> Cards 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 84, 86, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 84, 86, 87, 88, 89, 90 <b>Life Science Lab Teacher's Handbook:</b> Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103

<b>Life Science</b>
<b>Standard 2: Interdependence</b>
<b>Conceptual Strand 2: All life is interdependent and interacts with the environment.</b>
<b>GLE 0607.8.4 Analyze the environments and the interdependence among organisms found in the world's major biomes.</b>
<b>Life Science Lab, Level A:</b> Cards 81, 82 <b>Life Science Lab, Level B:</b> Cards 81, 82  <b>Earth Science Lab, Level A:</b> Card 89 <b>Earth Science Lab, Level B:</b> Card 89

<b>Life Science</b>
<b>Standard 2: Interdependence</b>
<b>Conceptual Strand 2: All life is interdependent and interacts with the environment.</b>
<b>SPI 0607.8.1 Classify organisms as producers, consumers, scavengers, or decomposers according to their role in a food chain or food web.</b>
<b>Life Science Lab, Level A:</b> Cards 13, 76, 77 <b>Life Science Lab, Level B:</b> Cards 13, 76, 77 <b>Life Science Lab Teacher's Handbook:</b> Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99;

<b>Life Science</b>
<b>Standard 2: Interdependence</b>
<b>Conceptual Strand 2: All life is interdependent and interacts with the environment.</b>
<b>SPI 0607.8.2 Interpret how materials and energy move through an ecosystem.</b>
<b>Life Science Lab, Level A:</b> Cards 13, 74, 75, 76, 77 <b>Life Science Lab, Level B:</b> Cards 13, 74, 75, 76, 77 <b>Life Science Lab Teacher's Handbook:</b> Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99;

<b>Life Science</b>
<b>Standard 2: Interdependence</b>
<b>Conceptual Strand 2: All life is interdependent and interacts with the environment.</b>
<b>SPI 0607.8.3 Identify the major biotic and abiotic elements of the major biomes.</b>
<b>Life Science Lab, Level A:</b> Cards 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 84, 86, 87, 88, 89, 90
<b>Life Science Lab, Level B:</b> Cards 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 84, 86, 87, 88, 89, 90
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103

<b>Life Science</b>
<b>Standard 2: Interdependence</b>
<b>Conceptual Strand 2: All life is interdependent and interacts with the environment.</b>
<b>SPI 0607.8.4 Identify the environmental conditions and interdependencies among organisms found in the major biomes.</b>
<b>Life Science Lab, Level A:</b> Cards 81, 82
<b>Life Science Lab, Level B:</b> Cards 81, 82
<b>Earth Science Lab, Level A:</b> Card 89
<b>Earth Science Lab, Level B:</b> Card 89

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>GLE 0607.6.1 Analyze data about the major components of the universe.</b>
<b>Earth Science Lab, Level A:</b> Cards 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
<b>Earth Science Lab, Level B:</b> Cards 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>GLE 0607.6.2 Describe the relative distance of objects on the solar system from earth.</b>
<b>Earth Science Lab, Level A:</b> Cards 69, 70, 71, 72, 73, 74, 81
<b>Earth Science Lab, Level B:</b> Cards 69, 70, 71, 72, 73, 74, 81
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>GLE 0607.6.3 Explain how the positional relationships among the earth, moon, and sun control the length of the day, month, and year.</b>
<b>Earth Science Lab, Level A:</b> Cards 62, 64
<b>Earth Science Lab, Level B:</b> Cards 62, 64



<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>GLE 0607.6.4 Describe the different stages in the lunar cycle.</b>
Earth Science Lab, Level A: Cards 63, 64 Earth Science Lab, Level B: Cards 63, 64

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>GLE 0607.6.5 Produce a model to demonstrate how the moon produces tides.</b>
Earth Science Lab, Level A: Card 66 Earth Science Lab, Level B: Card 66  Physical Science Lab, Level A: Card 48 Physical Science Lab, Level B: Card 48

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>GLE 0607.6.6 Illustrate the relationship between the seasons and the earth-sun system.</b>
Earth Science Lab, Level A: Card 62 Earth Science Lab, Level B: Card 62

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>GLE 0607.6.7 Describe the causes of lunar and solar eclipses.</b>
Earth Science Lab, Level A: Card 65 Earth Science Lab, Level B: Card 65

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>SPI 0607.6.1 Use data to draw conclusions about the major components of the universe.</b>
Earth Science Lab, Level A: Cards 68, 69, 70, 71, 72, 73, 74, 75, 76, 77 Earth Science Lab, Level B: Cards 68, 69, 70, 71, 72, 73, 74, 75, 76, 77 Earth Science Lab Teacher's Handbook: Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>SPI 0607.6.2 Explain how the relative distance of planets from the sun affects how objects are viewed from earth.</b>
Earth Science Lab, Level A: Cards 69, 70, 71, 72, 73, 74, 81 Earth Science Lab, Level B: Cards 69, 70, 71, 72, 73, 74, 81 Earth Science Lab Teacher's Handbook: Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>SPI 0607.6.3 Distinguish among a day, month, and year based on the movements of the earth, sun, and moon.</b>
Earth Science Lab, Level A: Cards 62, 64 Earth Science Lab, Level B: Cards 62, 64

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>SPI 0607.6.4 Explain the different phase of the moon using a model of the earth, moon, and sun.</b>
Earth Science Lab, Level A: Cards 63, 64 Earth Science Lab, Level B: Cards 63, 64

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>SPI 0607.6.5 Predict the types of tides that occur when the earth and moon occupy various positions.</b>
Earth Science Lab, Level A: Card 66 Earth Science Lab, Level B: Card 66  Physical Science Lab, Level A: Card 48 Physical Science Lab, Level B: Card 48

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>SPI 0607.6.6 Use a diagram that shows the positions of the earth and sun relationship to explain the four seasons.</b>
Earth Science Lab, Level A: Card 62 Earth Science Lab, Level B: Card 62

<b>Earth and Space Science</b>
<b>Standard 6: The Universe</b>
<b>Conceptual Strand 6: The cosmos is vast and explored well enough to know its basic structure and operational principles.</b>
<b>SPI 0607.6.7 Explain the difference between a solar and a lunar eclipse.</b>
Earth Science Lab, Level A: Card 65 Earth Science Lab, Level B: Card 65

<b>Earth and Space Science</b>
<b>Standard 8: The Atmosphere</b>
<b>Conceptual Strand 8: The earth is surrounded by an active atmosphere and an energy system that controls the distribution of life, local weather, climate, and global temperature.</b>
<b>GLE 0607.9.1 Design and conduct an investigation to determine how the sun drives atmospheric convection.</b>
Earth Science Lab, Level A: Cards 38, 40, 41, 43, 45, 46, 57 Earth Science Lab, Level B: Cards 38, 40, 41, 43, 45, 46, 57
Physical Science Lab, Level A: Card 44 Physical Science Lab, Level B: Card 44

<b>Earth and Space Science</b>
<b>Standard 8: The Atmosphere</b>
<b>Conceptual Strand 8: The earth is surrounded by an active atmosphere and an energy system that controls the distribution of life, local weather, climate, and global temperature.</b>
<b>GLE 0607.9.2 Describe how the sun's energy produces the wind.</b>
Earth Science Lab, Level A: Cards 39, 40, 41, 45, 46, 52, 53, 54 Earth Science Lab, Level B: Cards 39, 40, 41, 45, 46, 52, 53, 54
Physical Science Lab, Level A: Card 44 Physical Science Lab, Level B: Card 44

<b>Earth and Space Science</b>
<b>Standard 8: The Atmosphere</b>
<b>Conceptual Strand 8: The earth is surrounded by an active atmosphere and an energy system that controls the distribution of life, local weather, climate, and global temperature.</b>
<b>GLE 0607.9.3 Investigate the relationship between currents and oceanic temperature differences.</b>
Earth Science Lab, Level A: Card 87 Earth Science Lab, Level B: Card 87 Earth Science Lab Teacher's Handbook: Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
Physical Science Lab, Level A: Card 44 Physical Science Lab, Level B: Card 44

<b>Earth and Space Science</b>
<b>Standard 8: The Atmosphere</b>
<b>Conceptual Strand 8: The earth is surrounded by an active atmosphere and an energy system that controls the distribution of life, local weather, climate, and global temperature.</b>
<b>GLE 0607.9.4 Analyze meteorological data to predict weather.</b>
Earth Science Lab, Level A: Cards 48, 49, 50, 51 Earth Science Lab, Level B: Cards 48, 49, 50, 51

<b>Earth and Space Science</b>
<b>Standard 8: The Atmosphere</b>
<b>Conceptual Strand 8: The earth is surrounded by an active atmosphere and an energy system that controls the distribution of life, local weather, climate, and global temperature.</b>
<b>SPI 0607.9.1 Analyze data to identify events associated with heat convection in the atmosphere.</b>
Earth Science Lab, Level A: Cards 38, 40, 41, 43, 45, 46, 57 Earth Science Lab, Level B: Cards 38, 40, 41, 43, 45, 46, 57
Physical Science Lab, Level A: Card 44 Physical Science Lab, Level B: Card 44

<b>Earth and Space Science</b>
<b>Standard 8: The Atmosphere</b>
<b>Conceptual Strand 8: The earth is surrounded by an active atmosphere and an energy system that controls the distribution of life, local weather, climate, and global temperature.</b>
<b>SPI 0607.9.2 Recognize the connection between the sun and the wind.</b>
Earth Science Lab, Level A: Cards 39, 40, 41, 45, 46, 52, 53, 54 Earth Science Lab, Level B: Cards 39, 40, 41, 45, 46, 52, 53, 54
Physical Science Lab, Level A: Card 44 Physical Science Lab, Level B: Card 44

<b>Earth and Space Science</b>
<b>Standard 8: The Atmosphere</b>
<b>Conceptual Strand 8: The earth is surrounded by an active atmosphere and an energy system that controls the distribution of life, local weather, climate, and global temperature.</b>
<b>SPI 0607.9.3 Describe how temperature differences in the ocean account for currents.</b>
Earth Science Lab, Level A: Card 87 Earth Science Lab, Level B: Card 87 Earth Science Lab Teacher's Handbook: Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
Physical Science Lab, Level A: Card 44 Physical Science Lab, Level B: Card 44

<b>Earth and Space Science</b>
<b>Standard 8: The Atmosphere</b>
<b>Conceptual Strand 8: The earth is surrounded by an active atmosphere and an energy system that controls the distribution of life, local weather, climate, and global temperature.</b>
<b>SPI 0607.9.4 Analyze meteorological data to make predictions about the weather.</b>
Earth Science Lab, Level A: Cards 48, 49, 50, 51 Earth Science Lab, Level B: Cards 48, 49, 50, 51

<b>Physical Science</b>
<b>Standard 10: Energy</b>
<b>Conceptual Strand 10: Various forms of energy are constantly being transformed into other types without any net loss of energy from the system.</b>
<b>GLE 0607.10.1 Compare and contrast the three forms of potential energy.</b>
Physical Science Lab, Level A: Cards 36, 37, 40, 41 Physical Science Lab, Level B: Cards 36, 37, 40, 41

<b>Physical Science</b>
<b>Standard 10: Energy</b>
<b>Conceptual Strand 10: Various forms of energy are constantly being transformed into other types without any net loss of energy from the system.</b>
<b>GLE 0607.10.2 Analyze various types of energy transformations.</b>
Physical Science Lab, Level A: Cards 9, 27, 28, 29, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 54, 66, 67, 70, 76, 77, 79, 80, 83 Physical Science Lab, Level B: Cards 9, 27, 28, 29, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 54, 66, 67, 70, 76, 77, 79, 80, 83 Physical Science Lab Teacher's Handbook: Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99

<b>Physical Science</b>
<b>Standard 10: Energy</b>
<b>Conceptual Strand 10: Various forms of energy are constantly being transformed into other types without any net loss of energy from the system.</b>
<b>GLE 0607.10.3 Explain the principles underlying the Law of Conservation of Energy.</b>
<b>Physical Science Lab, Level A:</b> Cards 9, 37
<b>Physical Science Lab, Level B:</b> Cards 9, 37

<b>Physical Science</b>
<b>Standard 10: Energy</b>
<b>Conceptual Strand 10: Various forms of energy are constantly being transformed into other types without any net loss of energy from the system.</b>
<b>SPI 0607.10.1 Distinguish among gravitational potential energy, elastic potential energy, and chemical potential energy.</b>
<b>Physical Science Lab, Level A:</b> Cards 36, 37, 40, 41
<b>Physical Science Lab, Level B:</b> Cards 36, 37, 40, 41

<b>Physical Science</b>
<b>Standard 10: Energy</b>
<b>Conceptual Strand 10: Various forms of energy are constantly being transformed into other types without any net loss of energy from the system.</b>
<b>SPI 0607.10.2 Differentiate between potential and kinetic energy.</b>
<b>Physical Science Lab, Level A:</b> Cards 36, 37, 39, 40, 41, 42
<b>Physical Science Lab, Level B:</b> Cards 36, 37, 39, 40, 41, 42

<b>Physical Science</b>
<b>Standard 10: Energy</b>
<b>Conceptual Strand 10: Various forms of energy are constantly being transformed into other types without any net loss of energy from the system.</b>
<b>SPI 0607.10.3 Recognize how energy can be transformed from one type to another.</b>
<b>Physical Science Lab, Level A:</b> Cards 9, 27, 28, 29, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 54, 66, 67, 70, 76, 77, 79, 80, 83
<b>Physical Science Lab, Level B:</b> Cards 9, 27, 28, 29, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 54, 66, 67, 70, 76, 77, 79, 80, 83
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99

<b>Physical Science</b>
<b>Standard 10: Energy</b>
<b>Conceptual Strand 10: Various forms of energy are constantly being transformed into other types without any net loss of energy from the system.</b>
<b>SPI 0607.10.4 Explain the Law of Conservation of Energy using data from a variety of energy transformations.</b>
<b>Physical Science Lab, Level A:</b> Cards 9, 37
<b>Physical Science Lab, Level B:</b> Cards 9, 37

***SRA Life, Earth, and Physical Science Laboratories***  
**correlation to**  
**Tennessee Science Curriculum Standards**  
**Grade 7**

*SRA Life, Earth, and Physical Science Laboratories* provide core science content in an alternate reading format. Each *SRA Science Lab* contains 180 Science Cards covering key science concepts and vocabulary. Each lab covers 90 different science topics presented at two different reading levels to meet varied student abilities. The *Teacher's Handbook* includes hands-on inquiry activities as well as vocabulary building exercises. The *Classroom Resource CD-ROM* includes Writing Strategies in Science along with tests and vocabulary games.

**Embedded Inquiry 6-8**

**Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.**

**GLE 0707.Inq.7.1 Design and conduct open-ended scientific investigations.**

**Life Science Lab Teacher's Handbook:** Hands-On Activity 1, *Examining Cells*, pages 77-79; Hands-On Activity 2, *Culturing Bacteria*, pages 81-83; Hands-On Activity 3, *Investigating Arthropods*, pages 85-87; Hands-On Activity 4, *Your Cardiovascular System*, pages 89-91; Hands-On Activity 5, *Making Fossils*, pages 93-95; Hands-On Activity 6, *How Much Does Energy Cost?*, pages 97-99; Hands-On Activity 7, *The Effects of Acid Rain*, pages 101-103

**Earth Science Lab Teacher's Handbook:** Hands-On Activity 1, *Identifying Minerals with the Mohs Scale*, pages 73-75; Hands-On Activity 2, *Plate Boundaries in Action*, pages 77-79; Hands-On Activity 3, *Interpreting a Topographic Map*, pages 81-83; Hands-On Activity 4, *Using Sound Waves*, pages 85-87; Hands-On Activity 5, *What is in the Air?*, pages 89-91; Hands-On Activity 6, *Modeling a Tornado*, pages 93-95; Hands-On Activity 7, *Sizes in the Solar System*, pages 97-99; Hands-On Activity 8, *Temperature, Salinity, and Water Density*, pages 101-103

**Physical Science Lab Teacher's Handbook:** Hands-On Activity 1, *Measuring pH of Acids and Bases*, pages 77-79; Hands-On Activity 2, *Chemical Reaction Rates*, pages 81-83; Hands-On Activity 3, *Energy Conversion*, pages 85-87; Hands-On Activity 4, *Reducing Friction*, pages 89-91; Hands-On Activity 5, *Making a Potato Battery*, pages 93-95; Hands-On Activity 6, *Making Sound*, pages 97-99

**Classroom Resource CD-ROM:** Writing Strategy 15

**Embedded Inquiry 6-8**

**Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.**

**GLE 0707.Inq.7.2 Use appropriate tools and techniques to gather, organize, analyze, and interpret data.**

**Life Science Lab Teacher's Handbook:** Hands-On Activity 1, *Examining Cells*, pages 77-79; Hands-On Activity 2, *Culturing Bacteria*, pages 81-83; Hands-On Activity 3, *Investigating Arthropods*, pages 85-87; Hands-On Activity 4, *Your Cardiovascular System*, pages 89-91; Hands-On Activity 5, *Making Fossils*, pages 93-95; Hands-On Activity 6, *How Much Does Energy Cost?*, pages 97-99; Hands-On Activity 7, *The Effects of Acid Rain*, pages 101-103

**Earth Science Lab Teacher's Handbook:** Hands-On Activity 1, *Identifying Minerals with the Mohs Scale*, pages 73-75; Hands-On Activity 2, *Plate Boundaries in Action*, pages 77-79; Hands-On Activity 3, *Interpreting a Topographic Map*, pages 81-83; Hands-On Activity 4, *Using Sound Waves*, pages 85-87; Hands-On Activity 5, *What is in the Air?*, pages 89-91; Hands-On Activity 6, *Modeling a Tornado*, pages 93-95; Hands-On Activity 7, *Sizes in the Solar System*, pages 97-99; Hands-On Activity 8, *Temperature, Salinity, and Water Density*, pages 101-103

**Physical Science Lab Teacher's Handbook:** Hands-On Activity 1, *Measuring pH of Acids and Bases*, pages 77-79; Hands-On Activity 2, *Chemical Reaction Rates*, pages 81-83; Hands-On Activity 3, *Energy Conversion*, pages 85-87; Hands-On Activity 4, *Reducing Friction*, pages 89-91; Hands-On Activity 5, *Making a Potato Battery*, pages 93-95; Hands-On Activity 6, *Making Sound*, pages 97-99

**Classroom Resource CD-ROM:** Writing Strategy 16, 22, 24

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>GLE 0707.Inq.7.3 Synthesize information to determine cause and affect relationships between evidence and explanations.</b>
<p><b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i>, pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i>, pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i>, pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i>, pages 89-91; Hands-On Activity 5, <i>Making Fossils</i>, pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i>, pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i>, pages 101-103</p> <p><b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i>, pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i>, pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i>, pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i>, pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i>, pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i>, pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i>, pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i>, pages 101-103</p> <p><b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i>, pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i>, pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i>, pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i>, pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i>, pages 93-95; Hands-On Activity 6, <i>Making Sound</i>, pages 97-99</p> <p><b>Classroom Resource CD-ROM:</b> Writing Strategy 7</p>

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>GLE 0707.Inq.7.4 Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.</b>
<p><b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i>, pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i>, pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i>, pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i>, pages 89-91; Hands-On Activity 5, <i>Making Fossils</i>, pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i>, pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i>, pages 101-103</p> <p><b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i>, pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i>, pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i>, pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i>, pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i>, pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i>, pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i>, pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i>, pages 101-103</p> <p><b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i>, pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i>, pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i>, pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i>, pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i>, pages 93-95; Hands-On Activity 6, <i>Making Sound</i>, pages 97-99</p>

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>GLE 0707.Inq.7.5 Communicate scientific understanding using descriptions, explanations, and models.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i> , pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i> , pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99
<b>Classroom Resource CD-ROM:</b> Writing Strategy 1, 2, 12, 20

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0707.Inq.7.1 Design a simple experimental procedure with an identified control and appropriate variables.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15, 23

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0707.Inq.7.2 Select tools and procedures needed to conduct a moderately complex experiment.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i> , pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i> , pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15



<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0707.Inq.7.3 Interpret and translate data into a table, graph, or diagram.</b>
<p><b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i>, pages 77-79; Hands-On Activity 3, <i>Investigating Arthropods</i>, pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i>, pages 89-91; Hands-On Activity 5, <i>Making Fossils</i>, pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i>, pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i>, pages 101-103</p> <p><b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i>, pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i>, pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i>, pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i>, pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i>, pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i>, pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i>, pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i>, pages 101-103</p> <p><b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i>, pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i>, pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i>, pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i>, pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i>, pages 93-95; Hands-On Activity 6, <i>Making Sound</i>, pages 97-99</p>
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15, 16, 21, 22, 24, 27

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0707.Inq.7.4 Draw a conclusion that establishes a cause and effect relationship that is supported by evidence.</b>
<p><b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i>, pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i>, pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i>, pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i>, pages 89-91; Hands-On Activity 5, <i>Making Fossils</i>, pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i>, pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i>, pages 101-103</p> <p><b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i>, pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i>, pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i>, pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i>, pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i>, pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i>, pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i>, pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i>, pages 101-103</p> <p><b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i>, pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i>, pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i>, pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i>, pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i>, pages 93-95; Hands-On Activity 6, <i>Making Sound</i>, pages 97-99</p>
<b>Classroom Resource CD-ROM:</b> Writing Strategy 7, 18

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0707.Inq.7.5 Identify a faulty interpretation of data that is due to bias or experimental error.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i> , pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i> , pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15, 23

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0707.T/E.7.1 Explore how technology responds to social, political, and economic needs.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90
<b>Earth Science Lab, Level A:</b> Cards 16, 20, 31, 37, 51, 54, 70, 79, 80, 81, 88 <b>Earth Science Lab, Level B:</b> Cards 16, 20, 31, 37, 51, 54, 70, 79, 80, 81, 88 <b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87
<b>Physical Science Lab, Level A:</b> Cards 33, 35, 76, 81, 84, 90 <b>Physical Science Lab, Level B:</b> Cards 33, 35, 76, 81, 84, 90

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0707.T/E.7.2 Know that the engineering design cycle involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.</b>
This concept is not covered.

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0707.T/E.7.3 Compare the intended benefits with the unintended consequences of a new technology.</b>
<b>Physical Science Lab, Level A:</b> Cards 35, 81, 84 <b>Physical Science Lab, Level B:</b> Cards 35, 81, 84

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0707.T/E.7.4 Differentiate between adaptive and assistive bioengineered products.</b>
Life Science Lab, Level A: Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90 Life Science Lab, Level B: Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90
Earth Science Lab, Level A: Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88 Earth Science Lab, Level B: Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88
Physical Science Lab, Level A: Cards 33, 35, 76, 81, 84, 90 Physical Science Lab, Level B: Cards 33, 35, 76, 81, 84, 90

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>SPI 0707.T/E.7.1 Identify the tools and procedures needed to test the design features of a prototype.</b>
<b>SPI 0707.T/E.7.2 Evaluate a protocol to determine if the engineering design process was successfully applied.</b>
This concept is not covered.

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>SPI 0707.T/E.7.3 Distinguish between the intended benefits and the unintended consequences of a new technology.</b>
Physical Science Lab, Level A: Cards 35, 81, 84 Physical Science Lab, Level B: Cards 35, 81, 84

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>SPI 0707.T/E.7.4 Differentiate between adaptive and assistive bioengineered products.</b>
Life Science Lab, Level A: Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90 Life Science Lab, Level B: Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90
Earth Science Lab, Level A: Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88 Earth Science Lab, Level B: Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88
Physical Science Lab, Level A: Cards 33, 35, 76, 81, 84, 90 Physical Science Lab, Level B: Cards 33, 35, 76, 81, 84, 90

<b>Life Science</b>
<b>Standard 1: Cells</b>
<b>Conceptual Strand 1: All living things are made of cells that perform functions necessary for life.</b>
<b>GLE 0707.1.1 Make observations and describe the structure and function of organelles found in plant and animal cells.</b>
Life Science Lab, Level A: Card 9 Life Science Lab, Level B: Card 9

<b>Life Science</b>
<b>Standard 1: Cells</b>
<b>Conceptual Strand 1: All living things are made of cells that perform functions necessary for life.</b>
<b>GLE 0707.1.2 Summarize how the different levels of organization (cells, tissues, organs, organ systems, and organism) are integrated within living systems.</b>
Life Science Lab, Level A: Card 44

Life Science Lab, Level B: Card 44

**Life Science**  
**Standard 1: Cells**  
**Conceptual Strand 1: All living things are made of cells that perform functions necessary for life.**  
**GLE 0707.1.3 Illustrate how cell division occurs in sequential stages to maintain the chromosome number of a species.**  
Life Science Lab, Level A: Card 10  
Life Science Lab, Level B: Card 10

**Life Science**  
**Standard 1: Cells**  
**Conceptual Strand 1: All living things are made of cells that perform functions necessary for life.**  
**GLE 0707.1.4 Observe and explain how materials move through simple diffusion.**  
Life Science Lab, Level A: Card 8  
Life Science Lab, Level B: Card 8

**Life Science**  
**Standard 1: Cells**  
**Conceptual Strand 1: All living things are made of cells that perform functions necessary for life.**  
**SPI 07070.1.1 Identify and describe the function of the major plant and animal cell organelles.**  
Life Science Lab, Level A: Card 9  
Life Science Lab, Level B: Card 9

**Life Science**  
**Standard 1: Cells**  
**Conceptual Strand 1: All living things are made of cells that perform functions necessary for life.**  
**SPI 07070.1.2 Interpret information presented in a chart or a description to explain the integrated relationships that exists among cells, tissues, organs, and organ systems.**  
Life Science Lab, Level A: Card 44  
Life Science Lab, Level B: Card 44

**Life Science**  
**Standard 1: Cells**  
**Conceptual Strand 1: All living things are made of cells that perform functions necessary for life.**  
**SPI 07070.1.3 Explain the functions of different organ systems and describe how, collectively, they provide conditions needed for complex multicellular organisms to survive.**  
Life Science Lab, Level A: Cards 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58  
Life Science Lab, Level B: Cards 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58  
Life Science Lab Teacher's Handbook: Hands-On Activity 4, *Your Cardiovascular System*, pages 89-91

<b>Life Science</b>
<b>Standard 1: Cells</b>
<b>Conceptual Strand 1: All living things are made of cells that perform functions necessary for life.</b>
<b>SPI 07070.1.4 Sequence a series of diagrams or descriptions that illustrate chromosome movement during plant cell division.</b>
<b>Life Science Lab, Level A: Card 10</b>
<b>Life Science Lab, Level B: Card 10</b>

<b>Life Science</b>
<b>Standard 1: Cells</b>
<b>Conceptual Strand 1: All living things are made of cells that perform functions necessary for life.</b>
<b>SPI 07070.1.5 Explain how materials move through simple diffusion.</b>
<b>Life Science Lab, Level A: Card 8</b>
<b>Life Science Lab, Level B: Card 8</b>

<b>Life Science</b>
<b>Standard 3: Flow of Matter and Energy</b>
<b>Conceptual Strand 3: Matter and energy flow through the biosphere.</b>
<b>GLE 0707.3.1 Distinguish between the fundamental elements of photosynthesis and respiration.</b>
<b>Life Science Lab, Level A: Cards 16, 17</b>
<b>Life Science Lab, Level B: Cards 16, 17</b>

<b>Life Science</b>
<b>Standard 3: Flow of Matter and Energy</b>
<b>Conceptual Strand 3: Matter and energy flow through the biosphere.</b>
<b>GLE 0707.3.2 Investigate the exchange of oxygen and carbon dioxide between living things and the environment.</b>
<b>Life Science Lab, Level A: Cards 16, 17</b>
<b>Life Science Lab, Level B: Cards 16, 17</b>

<b>Life Science</b>
<b>Standard 3: Flow of Matter and Energy</b>
<b>Conceptual Strand 3: Matter and energy flow through the biosphere.</b>
<b>SPI 0707.3.1 Compare the chemical compounds that make up the reactants and products of photosynthesis and respiration.</b>
<b>Life Science Lab, Level A: Cards 16, 17</b>
<b>Life Science Lab, Level B: Cards 16, 17</b>

<b>Life Science</b>
<b>Standard 3: Flow of Matter and Energy</b>
<b>Conceptual Strand 3: Matter and energy flow through the biosphere.</b>
<b>SPI 0707.3.2 Interpret a diagram or scenario to explain how oxygen and carbon dioxide are exchanged between living things and the environment.</b>
<b>Life Science Lab, Level A: Cards 16, 17</b>
<b>Life Science Lab, Level B: Cards 16, 17</b>

<b>Life Science</b>
<b>Standard 4: Heredity</b>
<b>Conceptual Strand 4: Plants and animals reproduce and transmit hereditary information between generations.</b>
<b>GLE 0707.4.1 Compare and contrast the fundamental features of sexual and asexual reproduction.</b>
Life Science Lab, Level A: Cards 60, 61
Life Science Lab, Level B: Cards 60, 61

<b>Life Science</b>
<b>Standard 4: Heredity</b>
<b>Conceptual Strand 4: Plants and animals reproduce and transmit hereditary information between generations.</b>
<b>GLE 0707.4.2 Demonstrate an understanding of sexual reproduction in flowering plants.</b>
Life Science Lab, Level A: Cards 20, 22
Life Science Lab, Level B: Cards 20, 22

<b>Life Science</b>
<b>Standard 4: Heredity</b>
<b>Conceptual Strand 4: Plants and animals reproduce and transmit hereditary information between generations.</b>
<b>GLE 0707.4.3 Explain the relationship among genes, chromosomes, and inherited traits.</b>
Life Science Lab, Level A: Cards 62, 63, 64
Life Science Lab, Level B: Cards 62, 63, 64

<b>Life Science</b>
<b>Standard 4: Heredity</b>
<b>Conceptual Strand 4: Plants and animals reproduce and transmit hereditary information between generations.</b>
<b>GLE 0707.4.4 Predict the probably appearance of offspring based on the genetic characteristics of the parents.</b>
Life Science Lab, Level A: Cards 62, 63
Life Science Lab, Level B: Cards 62, 63

<b>Life Science</b>
<b>Standard 4: Heredity</b>
<b>Conceptual Strand 4: Plants and animals reproduce and transmit hereditary information between generations.</b>
<b>SPI 0707.4.1 Classify methods of reproduction as sexual or asexual.</b>
Life Science Lab, Level A: Cards 60, 61
Life Science Lab, Level B: Cards 60, 61

<b>Life Science</b>
<b>Standard 4: Heredity</b>
<b>Conceptual Strand 4: Plants and animals reproduce and transmit hereditary information between generations.</b>
<b>SPI 0707.4.2 Match flower parts with their reproductive functions.</b>
Life Science Lab, Level A: Cards 20, 22
Life Science Lab, Level B: Cards 20, 22

<b>Life Science</b>
<b>Standard 4: Heredity</b>
<b>Conceptual Strand 4: Plants and animals reproduce and transmit hereditary information between generations.</b>
<b>SPI 0707.4.3 Describe the relationship among chromosomes, genes, and inherited traits.</b>
Life Science Lab, Level A: Cards 62, 63, 64
Life Science Lab, Level B: Cards 62, 63, 64

<b>Life Science</b>
<b>Standard 4: Heredity</b>
<b>Conceptual Strand 4: Plants and animals reproduce and transmit hereditary information between generations.</b>
<b>SPI 0707.4.4 Interpret a Punnett square to predict possible genetic combinations passed from parents to offspring during sexual reproduction.</b>
<b>Life Science Lab, Level A:</b> Cards 62, 63
<b>Life Science Lab, Level B:</b> Cards 62, 63

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>GLE 0707.7.1 Describe the physical properties of minerals.</b>
<b>Earth Science Lab, Level A:</b> Cards 3, 4, 5
<b>Earth Science Lab, Level B:</b> Cards 3, 4, 5
<b>Earth Science Lab Teacher's Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>GLE 0707.7.2 Summarize the basic events that occur during the rock cycle.</b>
<b>Earth Science Lab, Level A:</b> Cards 6, 7, 8, 9
<b>Earth Science Lab, Level B:</b> Cards 6, 7, 8, 9

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>GLE 0707.7.3 Analyze the characteristics of the earth's layers and the location of the major plates.</b>
<b>Earth Science Lab, Level A:</b> Cards 1, 2, 10, 11, 12, 13, 14, 15, 16, 17
<b>Earth Science Lab, Level B:</b> Cards 1, 2, 10, 11, 12, 13, 14, 15, 16, 17
<b>Earth Science Lab Teacher's Handbook:</b> Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>GLE 0707.7.4 Explain how earthquakes, mountain building, volcanoes, and sea floor spreading are associated with movements of the earth's major plates.</b>
<b>Earth Science Lab, Level A:</b> Cards 12, 13, 14, 15, 16, 17, 88
<b>Earth Science Lab, Level B:</b> Cards 12, 13, 14, 15, 16, 17, 88
<b>Earth Science Lab Teacher's Handbook:</b> Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>GLE 0707.7.5 Differentiate between renewable and nonrenewable resources in terms of their use by man.</b>
Life Science Lab, Level A: Card 84 Life Science Lab, Level B: Card 84
Earth Science Lab, Level A: Card 35 Earth Science Lab, Level B: Card 35
Physical Science Lab, Level A: Cards 38, 46, 47, 48, 49 Physical Science Lab, Level B: Cards 38, 46, 47, 48, 49

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>GLE 0707.7.6 Evaluate how human activities affect the earth's land, oceans, and atmosphere.</b>
Life Science Lab, Level A: Cards 84, 85, 86, 87, 88, 89, 90 Life Science Lab, Level B: Cards 84, 85, 86, 87, 88, 89, 90 Life Science Lab Teacher's Handbook: Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
Earth Science Lab, Level A: Cards 29, 35, 37, 42, 59, 60, 61, 85, 86 Earth Science Lab, Level B: Cards 29, 35, 37, 42, 59, 60, 61, 85, 86 Earth Science Lab Teacher's Handbook: Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>SPI 0707.7.1 Use a table of physical properties to classify minerals.</b>
Earth Science Lab, Level A: Cards 3, 4, 5 Earth Science Lab, Level B: Cards 3, 4, 5 Earth Science Lab Teacher's Handbook: Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>SPI 0707.7.2 Describe the three different rock types.</b>
Earth Science Lab, Level A: Cards 6, 7, 8, 9 Earth Science Lab, Level B: Cards 6, 7, 8, 9

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>SPI 0707.7.3 Identify the major processes that drive the rock cycle.</b>
Earth Science Lab, Level A: Cards 6, 7, 8, 9 Earth Science Lab, Level B: Cards 6, 7, 8, 9



<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>SPI 0707.7.4 Differentiate between the characteristics of the earth's three layers.</b>
Earth Science Lab, Level A: Cards 1, 2, 10, 11, 12, 13, 14 Earth Science Lab, Level B: Cards 1, 2, 10, 11, 12, 13, 14 Earth Science Lab Teacher's Handbook: Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>SPI 0707.7.5 Explain that lithospheric plates on the scale of continents and oceans constantly move at rates of centimeters per year.</b>
Earth Science Lab, Level A: Cards 10, 11, 12, 13, 14, 15, 16, 17 Earth Science Lab, Level B: Cards 10, 11, 12, 13, 14, 15, 16, 17 Earth Science Lab Teacher's Handbook: Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>SPI 0707.7.6 Describe the relationship between plate movements and earthquakes, mountain building, volcanoes, and sea floor spreading.</b>
Earth Science Lab, Level A: Cards 12, 13, 14, 15, 16, 17, 88 Earth Science Lab, Level B: Cards 12, 13, 14, 15, 16, 17, 88 Earth Science Lab Teacher's Handbook: Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79

<b>Earth and Space Science</b>
<b>Standard 7: The Earth</b>
<b>Conceptual Strand 7: Major geologic events that occur over eons or brief moments in time continually shape and reshape the surface of the Earth, resulting in continuous global change.</b>
<b>SPI 0707.7.7 Analyze and evaluate the impact of man's use of earth's land, ocean, and atmospheric resources.</b>
Life Science Lab, Level A: Cards 84, 85, 86, 87, 88, 89, 90 Life Science Lab, Level B: Cards 84, 85, 86, 87, 88, 89, 90 Life Science Lab Teacher's Handbook: Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103  Earth Science Lab, Level A: Cards 29, 35, 37, 42, 59, 60, 61, 85, 86 Earth Science Lab, Level B: Cards 29, 35, 37, 42, 59, 60, 61, 85, 86 Earth Science Lab Teacher's Handbook: Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>GLE 0707.11.1 Identify six types of simple machines.</b>
Physical Science Lab, Level A: Cards 63, 64 Physical Science Lab, Level B: Cards 63, 64

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>GLE 0707.11.2 Apply the equation for work in experiments with simple machines to determine how they affect the amount of force needed to do work.</b>
Physical Science Lab, Level A: Cards 62, 63, 64, 65
Physical Science Lab, Level B: Cards 62, 63, 64, 65

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>GLE 0707.11.3 Distinguish between speed and velocity.</b>
Physical Science Lab, Level A: Card 51
Physical Science Lab, Level B: Card 51

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>GLE 0707.11.4 Investigate and draw conclusions about how Newton’s Laws of Motion explain an object’s movement.</b>
Physical Science Lab, Level A: Cards 55, 56
Physical Science Lab, Level B: Cards 55, 56

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>GLE 0707.11.5 Compare and contrast the basic parts of a wave.</b>
Physical Science Lab, Level A: Cards 77, 78
Physical Science Lab, Level B: Cards 77, 78
Physical Science Lab Teacher’s Handbook: Hands-On Activity 6, <i>Making Sound</i> , pages 97-99

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>GLE 0707.11.6 Investigate the types and fundamental properties of waves.</b>
Physical Science Lab, Level A: Cards 77, 78, 79, 80, 82, 83
Physical Science Lab, Level B: Cards 77, 78, 79, 80, 82, 83
Physical Science Lab Teacher’s Handbook: Hands-On Activity 6, <i>Making Sound</i> , pages 97-99

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>SPI 0707.11.1 Differentiate between the six simple machines.</b>
Physical Science Lab, Level A: Cards 63, 64
Physical Science Lab, Level B: Cards 63, 64

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>SPI 0707.11.2 Apply the equation for work to compare the amount of effort needed to do work using different simple machines.</b>
Physical Science Lab, Level A: Cards 62, 63, 64, 65 Physical Science Lab, Level B: Cards 62, 63, 64, 65

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>SPI 0707.11.3 Using given equations, solve basic problems pertaining to distance, time, speed, and velocity.</b>
Physical Science Lab, Level A: Card 51 Physical Science Lab, Level B: Card 51

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>SPI 0707.11.4 Identify and explain how Newton’s laws of motion relate to the movement of objects.</b>
Physical Science Lab, Level A: Cards 55, 56 Physical Science Lab, Level B: Cards 55, 56

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>SPI 0707.11.5 Compare and contrast the different parts of a wave.</b>
Physical Science Lab, Level A: Cards 77, 78 Physical Science Lab, Level B: Cards 77, 78 Physical Science Lab Teacher’s Handbook: Hands-On Activity 6, <i>Making Sound</i> , pages 97-99

<b>Physical Science</b>
<b>Standard 11: Motion</b>
<b>Conceptual Strand 11: Objects move in ways that can be observed, described, predicted, and measured.</b>
<b>SPI 0707.11.6 Differentiate between transverse and longitudinal waves in terms of how they are produced and transmitted.</b>
Physical Science Lab, Level A: Cards 77, 78, 79, 80, 82, 83 Physical Science Lab, Level B: Cards 77, 78, 79, 80, 82, 83 Physical Science Lab Teacher’s Handbook: Hands-On Activity 6, <i>Making Sound</i> , pages 97-99

***SRA Life, Earth, and Physical Science Laboratories***  
**correlation to**  
**Tennessee Science Curriculum Standards**  
**Grade 8**

*SRA Life, Earth, and Physical Science Laboratories* provide core science content in an alternate reading format. Each *SRA Science Lab* contains 180 Science Cards covering key science concepts and vocabulary. Each lab covers 90 different science topics presented at two different reading levels to meet varied student abilities. The *Teacher's Handbook* includes hands-on inquiry activities as well as vocabulary building exercises. The *Classroom Resource CD-ROM* includes Writing Strategies in Science along with tests and vocabulary games.

**Embedded Inquiry 6-8**

**Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.**

**GLE 0807.Inq.8.1 Design and conduct open-ended scientific investigations.**

**Life Science Lab Teacher's Handbook:** Hands-On Activity 1, *Examining Cells*, pages 77-79; Hands-On Activity 2, *Culturing Bacteria*, pages 81-83; Hands-On Activity 3, *Investigating Arthropods*, pages 85-87; Hands-On Activity 4, *Your Cardiovascular System*, pages 89-91; Hands-On Activity 5, *Making Fossils*, pages 93-95; Hands-On Activity 6, *How Much Does Energy Cost?*, pages 97-99; Hands-On Activity 7, *The Effects of Acid Rain*, pages 101-103

**Earth Science Lab Teacher's Handbook:** Hands-On Activity 1, *Identifying Minerals with the Mohs Scale*, pages 73-75; Hands-On Activity 2, *Plate Boundaries in Action*, pages 77-79; Hands-On Activity 3, *Interpreting a Topographic Map*, pages 81-83; Hands-On Activity 4, *Using Sound Waves*, pages 85-87; Hands-On Activity 5, *What is in the Air?*, pages 89-91; Hands-On Activity 6, *Modeling a Tornado*, pages 93-95; Hands-On Activity 7, *Sizes in the Solar System*, pages 97-99; Hands-On Activity 8, *Temperature, Salinity, and Water Density*, pages 101-103

**Physical Science Lab Teacher's Handbook:** Hands-On Activity 1, *Measuring pH of Acids and Bases*, pages 77-79; Hands-On Activity 2, *Chemical Reaction Rates*, pages 81-83; Hands-On Activity 3, *Energy Conversion*, pages 85-87; Hands-On Activity 4, *Reducing Friction*, pages 89-91; Hands-On Activity 5, *Making a Potato Battery*, pages 93-95; Hands-On Activity 6, *Making Sound*, pages 97-99

**Classroom Resource CD-ROM:** Writing Strategy 15

**Embedded Inquiry 6-8**

**Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.**

**GLE 0807.Inq.8.2 Use appropriate tools and techniques to gather, organize, analyze, and interpret data.**

**Life Science Lab Teacher's Handbook:** Hands-On Activity 1, *Examining Cells*, pages 77-79; Hands-On Activity 2, *Culturing Bacteria*, pages 81-83; Hands-On Activity 3, *Investigating Arthropods*, pages 85-87; Hands-On Activity 4, *Your Cardiovascular System*, pages 89-91; Hands-On Activity 5, *Making Fossils*, pages 93-95; Hands-On Activity 6, *How Much Does Energy Cost?*, pages 97-99; Hands-On Activity 7, *The Effects of Acid Rain*, pages 101-103

**Earth Science Lab Teacher's Handbook:** Hands-On Activity 1, *Identifying Minerals with the Mohs Scale*, pages 73-75; Hands-On Activity 2, *Plate Boundaries in Action*, pages 77-79; Hands-On Activity 3, *Interpreting a Topographic Map*, pages 81-83; Hands-On Activity 4, *Using Sound Waves*, pages 85-87; Hands-On Activity 5, *What is in the Air?*, pages 89-91; Hands-On Activity 6, *Modeling a Tornado*, pages 93-95; Hands-On Activity 7, *Sizes in the Solar System*, pages 97-99; Hands-On Activity 8, *Temperature, Salinity, and Water Density*, pages 101-103

**Physical Science Lab Teacher's Handbook:** Hands-On Activity 1, *Measuring pH of Acids and Bases*, pages 77-79; Hands-On Activity 2, *Chemical Reaction Rates*, pages 81-83; Hands-On Activity 3, *Energy Conversion*, pages 85-87; Hands-On Activity 4, *Reducing Friction*, pages 89-91; Hands-On Activity 5, *Making a Potato Battery*, pages 93-95; Hands-On Activity 6, *Making Sound*, pages 97-99

**Classroom Resource CD-ROM:** Writing Strategy 16, 22, 24

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>GLE 0807.Inq.8.3 Synthesize information to determine cause and affect relationships between evidence and explanations.</b>
<p><b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i>, pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i>, pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i>, pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i>, pages 89-91; Hands-On Activity 5, <i>Making Fossils</i>, pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i>, pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i>, pages 101-103</p> <p><b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i>, pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i>, pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i>, pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i>, pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i>, pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i>, pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i>, pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i>, pages 101-103</p> <p><b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i>, pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i>, pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i>, pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i>, pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i>, pages 93-95; Hands-On Activity 6, <i>Making Sound</i>, pages 97-99</p> <p><b>Classroom Resource CD-ROM:</b> Writing Strategy 7</p>

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>GLE 0807.Inq.8.4 Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.</b>
<p><b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i>, pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i>, pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i>, pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i>, pages 89-91; Hands-On Activity 5, <i>Making Fossils</i>, pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i>, pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i>, pages 101-103</p> <p><b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i>, pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i>, pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i>, pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i>, pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i>, pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i>, pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i>, pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i>, pages 101-103</p> <p><b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i>, pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i>, pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i>, pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i>, pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i>, pages 93-95; Hands-On Activity 6, <i>Making Sound</i>, pages 97-99</p>

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>GLE 0807.Inq.8.5 Communicate scientific understanding using descriptions, explanations, and models.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i> , pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i> , pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99
<b>Classroom Resource CD-ROM:</b> Writing Strategy 1, 2, 12, 20

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0807.Inq.8.1 Design a simple experimental procedure with an identified control and appropriate variables.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15, 23

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0807.Inq.8.2 Select tools and procedures needed to conduct a moderately complex experiment.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i> , pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i> , pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0807.Inq.8.3 Interpret and translate data into a table, graph, or diagram.</b>
<p><b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i>, pages 77-79; Hands-On Activity 3, <i>Investigating Arthropods</i>, pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i>, pages 89-91; Hands-On Activity 5, <i>Making Fossils</i>, pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i>, pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i>, pages 101-103</p> <p><b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i>, pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i>, pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i>, pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i>, pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i>, pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i>, pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i>, pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i>, pages 101-103</p> <p><b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i>, pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i>, pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i>, pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i>, pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i>, pages 93-95; Hands-On Activity 6, <i>Making Sound</i>, pages 97-99</p>
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15, 16, 21, 22, 24, 27

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0807.Inq.8.4 Draw a conclusion that establishes a cause and effect relationship that is supported by evidence.</b>
<p><b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i>, pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i>, pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i>, pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i>, pages 89-91; Hands-On Activity 5, <i>Making Fossils</i>, pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i>, pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i>, pages 101-103</p> <p><b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i>, pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i>, pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i>, pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i>, pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i>, pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i>, pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i>, pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i>, pages 101-103</p> <p><b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i>, pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i>, pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i>, pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i>, pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i>, pages 93-95; Hands-On Activity 6, <i>Making Sound</i>, pages 97-99</p>
<b>Classroom Resource CD-ROM:</b> Writing Strategy 7, 18

<b>Embedded Inquiry 6-8</b>
<b>Conceptual Strand: Understandings about scientific inquiry and the ability to conduct inquiry are essential for living in the 21<sup>st</sup> century.</b>
<b>SPI 0807.Inq.8.5 Identify a faulty interpretation of data that is due to bias or experimental error.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83; Hands-On Activity 3, <i>Investigating Arthropods</i> , pages 85-87; Hands-On Activity 4, <i>Your Cardiovascular System</i> , pages 89-91; Hands-On Activity 5, <i>Making Fossils</i> , pages 93-95; Hands-On Activity 6, <i>How Much Does Energy Cost?</i> , pages 97-99; Hands-On Activity 7, <i>The Effects of Acid Rain</i> , pages 101-103
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75; Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79; Hands-On Activity 3, <i>Interpreting a Topographic Map</i> , pages 81-83; Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87; Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91; Hands-On Activity 6, <i>Modeling a Tornado</i> , pages 93-95; Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99; Hands-On Activity 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
<b>Physical Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79; Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83; Hands-On Activity 3, <i>Energy Conversion</i> , pages 85-87; Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91; Hands-On Activity 5, <i>Making a Potato Battery</i> , pages 93-95; Hands-On Activity 6, <i>Making Sound</i> , pages 97-99
<b>Classroom Resource CD-ROM:</b> Writing Strategy 15, 23

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0807.T/E.8.1 Explore how technology responds to social, political, and economic needs.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90
<b>Earth Science Lab, Level A:</b> Cards 16, 20, 31, 37, 51, 54, 70, 79, 80, 81, 88 <b>Earth Science Lab, Level B:</b> Cards 16, 20, 31, 37, 51, 54, 70, 79, 80, 81, 88 <b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 4, <i>Using Sound Waves</i> , pages 85-87
<b>Physical Science Lab, Level A:</b> Cards 33, 35, 76, 81, 84, 90 <b>Physical Science Lab, Level B:</b> Cards 33, 35, 76, 81, 84, 90

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0807.T/E.8.2 Know that the engineering design cycle involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.</b>
This concept is not covered.

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0807.T/E.8.3 Compare the intended benefits with the unintended consequences of a new technology.</b>
<b>Physical Science Lab, Level A:</b> Cards 35, 81, 84 <b>Physical Science Lab, Level B:</b> Cards 35, 81, 84



<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>GLE 0807.T/E.8.4 Differentiate between adaptive and assistive bioengineered products.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90
<b>Earth Science Lab, Level A:</b> Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88 <b>Earth Science Lab, Level B:</b> Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88
<b>Physical Science Lab, Level A:</b> Cards 33, 35, 76, 81, 84, 90 <b>Physical Science Lab, Level B:</b> Cards 33, 35, 76, 81, 84, 90

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>SPI 0807.T/E.8.1 Identify the tools and procedures needed to test the design features of a prototype.</b> <b>SPI 0807.T/E.8.2 Evaluate a protocol to determine if the engineering design process was successfully applied.</b>
This concept is not covered.

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>SPI 0807.T/E.8.3 Distinguish between the intended benefits and the unintended consequences of a new technology.</b>
<b>Physical Science Lab, Level A:</b> Cards 35, 81, 84 <b>Physical Science Lab, Level B:</b> Cards 35, 81, 84

<b>Embedded Technology and Engineering 6-8</b>
<b>Conceptual Strand: Society benefits when engineers apply scientific discoveries to design materials and processes that develop into enabling technologies.</b>
<b>SPI 0807.T/E.8.4 Differentiate between adaptive and assistive bioengineered products.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 5, 49, 59, 64, 69, 83, 87, 88, 89, 90
<b>Earth Science Lab, Level A:</b> Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88 <b>Earth Science Lab, Level B:</b> Cards 16, 20, 31, 37, 51, 54, 70, 78, 79, 80, 88
<b>Physical Science Lab, Level A:</b> Cards 33, 35, 76, 81, 84, 90 <b>Physical Science Lab, Level B:</b> Cards 33, 35, 76, 81, 84, 90

<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>GLE 0807.5.1 Identify various criteria used to classify organisms into groups.</b>
<b>Life Science Lab, Level A:</b> Cards 2, 3 <b>Life Science Lab, Level B:</b> Cards 2, 3

<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>GLE 0807.5.2 Use a simple classification key to identify an unknown organism.</b>

<b>Life Science Lab, Level A:</b> Cards 2, 3 <b>Life Science Lab, Level B:</b> Cards 2, 3
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<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>GLE 0807.5.3 Analyze how structural, behavioral, and physiological adaptations within a population of organisms enable it to survive in a particular environment.</b>
<b>Life Science Lab, Level A:</b> Cards 23, 24, 41, 43, 65, 66
<b>Life Science Lab, Level B:</b> Cards 23, 24, 41, 43, 65, 66

<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>GLE 0807.5.4 Explain why variation within a population of living things can enhance the chances for group survival.</b>
<b>Life Science Lab, Level A:</b> Cards 23, 24, 41, 43, 65, 66
<b>Life Science Lab, Level B:</b> Cards 23, 24, 41, 43, 65, 66

<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>GLE 0807.5.5 Describe the importance of maintaining the earth's biodiversity.</b>
<b>Life Science Lab, Level A:</b> Cards 40, 65, 66, 68, 71, 81, 82, 86
<b>Life Science Lab, Level B:</b> Cards 40, 65, 66, 68, 71, 81, 82, 86

<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>GLE 0807.5.6 Investigate fossils in sedimentary rock layers to gather evidence for changing life forms.</b>
<b>Life Science Lab, Level A:</b> Card 67
<b>Life Science Lab, Level B:</b> Card 67
<b>Life Science Lab Teacher's Handbook:</b> Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91
<b>Earth Science Lab, Level A:</b> Cards 33, 34
<b>Earth Science Lab, Level B:</b> Cards 33, 34

<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>SPI 0807.5.1 Analyze structural, behavioral, and physiological adaptations to predict which organisms are likely to survive in a particular environment.</b>
<b>Life Science Lab, Level A:</b> Cards 23, 24, 41, 43, 65, 66
<b>Life Science Lab, Level B:</b> Cards 23, 24, 41, 43, 65, 66

<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>SPI 0807.5.2 Use a simple classification key to identify an unknown organism.</b>
<b>Life Science Lab, Level A:</b> Cards 2, 3
<b>Life Science Lab, Level B:</b> Cards 2, 3

<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>SPI 0807.5.3 Analyze data on levels of variation within a population to make predictions about survival under particular environmental conditions.</b>
<b>Life Science Lab, Level A:</b> Cards 23, 24, 41, 43, 65, 66
<b>Life Science Lab, Level B:</b> Cards 23, 24, 41, 43, 65, 66

<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>SPI 0807.5.4 Identify several reasons for the importance of maintaining the earth's biodiversity.</b>
<b>Life Science Lab, Level A:</b> Cards 40, 65, 66, 68, 71, 81, 82, 86
<b>Life Science Lab, Level B:</b> Cards 40, 65, 66, 68, 71, 81, 82, 86

<b>Life Science</b>
<b>Standard 5: Biodiversity and Change</b>
<b>Conceptual Strand 5: A rich variety of complex organisms have developed in response to a continually changing environment.</b>
<b>SPI 0807.5.5 Compare fossils found in sedimentary rock to determine their relative age.</b>
<b>Life Science Lab, Level A:</b> Card 67
<b>Life Science Lab, Level B:</b> Card 67
<b>Life Science Lab Teacher's Handbook:</b> Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91
<b>Earth Science Lab, Level A:</b> Cards 33, 34
<b>Earth Science Lab, Level B:</b> Cards 33, 34

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>GLE 0807.9.1 Understand that all matter is made up of atoms.</b>
<b>Physical Science Lab, Level A:</b> Cards 3, 4, 5
<b>Physical Science Lab, Level B:</b> Cards 3, 4, 5

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>GLE 0807.9.2 Explain that matter has properties that are explained by the structure and arrangement of its atoms.</b>
<b>Physical Science Lab, Level A:</b> Cards 1, 2, 3, 4, 5, 6, 7, 21, 22, 23, 24, 25, 26
<b>Physical Science Lab, Level B:</b> Cards 1, 2, 3, 4, 5, 6, 7, 21, 22, 23, 24, 25, 26

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>GLE 0807.9.3 Interpret data from an investigation to differentiate between physical and chemical changes.</b>
<b>Physical Science Lab, Level A:</b> Cards 8, 9, 27, 28, 29
<b>Physical Science Lab, Level B:</b> Cards 8, 9, 27, 28, 29
<b>Physical Science Lab Teacher's Handbook:</b> Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>GLE 0807.9.4 Distinguish among elements, compounds, and mixtures.</b>
<b>Physical Science Lab, Level A:</b> Cards 10, 11, 12, 13
<b>Physical Science Lab, Level B:</b> Cards 10, 11, 12, 13

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>GLE 0807.9.5 Apply the chemical properties of the atmosphere to illustrate a mixture of gases.</b>
<b>Life Science Lab, Level A:</b> Card 89
<b>Life Science Lab, Level B:</b> Card 89
<b>Earth Science Lab, Level A:</b> Cards 36, 37, 42
<b>Earth Science Lab, Level B:</b> Cards 36, 37, 42
<b>Physical Science Lab, Level A:</b> Card 7
<b>Physical Science Lab, Level B:</b> Card 7

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>GLE 0807.9.6 Use the periodic table to determine the characteristics of an element.</b>
<b>Physical Science Lab, Level A:</b> Cards 17, 18, 19, 20
<b>Physical Science Lab, Level B:</b> Cards 17, 18, 19, 20

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>GLE 0807.9.7 Explain the Law of Conservation of Mass.</b>
<b>Physical Science Lab, Level A:</b> Cards 9, 27
<b>Physical Science Lab, Level B:</b> Cards 9, 27
<b>Physical Science Lab Teacher's Handbook:</b> Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>GLE 0807.9.8 Interpret the events represented by a chemical equation.</b>
<b>Physical Science Lab, Level A:</b> Cards 9, 27, 28, 29
<b>Physical Science Lab, Level B:</b> Cards 9, 27, 28, 29
<b>Physical Science Lab Teacher's Handbook:</b> Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>GLE 0807.9.9 Explain the basic difference between acids and bases.</b>
<b>Physical Science Lab, Level A:</b> Cards 14, 15, 16
<b>Physical Science Lab, Level B:</b> Cards 14, 15, 16
<b>Physical Science Lab Teacher's Handbook:</b> Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.1 Recognize that all matter consists of atoms.</b>
<b>Physical Science Lab, Level A:</b> Cards 3, 4, 5
<b>Physical Science Lab, Level B:</b> Cards 3, 4, 5

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.2 Identify the common outcome of all chemical changes.</b>
<b>Physical Science Lab, Level A:</b> Cards 9, 27, 28, 29
<b>Physical Science Lab, Level B:</b> Cards 9, 27, 28, 29
<b>Physical Science Lab Teacher's Handbook:</b> Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.3 Classify common substances as elements or compounds based on their symbols or formulas.</b>
<b>Physical Science Lab, Level A:</b> Cards 10, 11
<b>Physical Science Lab, Level B:</b> Cards 10, 11

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.4 Differentiate between a mixture and a compound.</b>
<b>Physical Science Lab, Level A:</b> Cards 11, 12, 13
<b>Physical Science Lab, Level B:</b> Cards 11, 12, 13

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.5 Describe the chemical makeup of the atmosphere.</b>
<b>Life Science Lab, Level A:</b> Card 89
<b>Life Science Lab, Level B:</b> Card 89
<b>Earth Science Lab, Level A:</b> Cards 36, 37, 42
<b>Earth Science Lab, Level B:</b> Cards 36, 37, 42
<b>Physical Science Lab, Level A:</b> Card 7
<b>Physical Science Lab, Level B:</b> Card 7

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.6 Compare the particle arrangement and type of particle motion associated with different states of matter.</b>
<b>Physical Science Lab, Level A:</b> Cards 5, 6, 42
<b>Physical Science Lab, Level B:</b> Cards 5, 6, 42

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.7 Apply the relationship between mass and volume to determine the density of a substance.</b>
<b>Physical Science Lab, Level A:</b> Card 2
<b>Physical Science Lab, Level B:</b> Card 2

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.8 Interpret the results of an investigation to determine whether a physical or chemical change has occurred.</b>
Physical Science Lab, Level A: Cards 8, 9, 27, 28, 29
Physical Science Lab, Level B: Cards 8, 9, 27, 28, 29
Physical Science Lab Teacher's Handbook: Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.9 Use the periodic table to determine the properties of an element.</b>
Physical Science Lab, Level A: Cards 17, 18, 19, 20
Physical Science Lab, Level B: Cards 17, 18, 19, 20

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.10 Identify the reactants and products of a chemical reaction.</b>
Physical Science Lab, Level A: Cards 9, 27, 28, 29
Physical Science Lab, Level B: Cards 9, 27, 28, 29
Physical Science Lab Teacher's Handbook: Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.11 Recognize that in a chemical reaction the mass of the reactants is equal to the mass of the products (Law of Conservation of Mass).</b>
Physical Science Lab, Level A: Cards 9, 27
Physical Science Lab, Level B: Cards 9, 27
Physical Science Lab Teacher's Handbook: Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83

<b>Physical Science</b>
<b>Standard 9: Matter</b>
<b>Conceptual Strand 9: The composition and structure of matter is known, and it behaves according to principles that are generally understood.</b>
<b>SPI 0807.9.12 Identify the basic properties of acids and bases.</b>
Physical Science Lab, Level A: Cards 14, 15, 16
Physical Science Lab, Level B: Cards 14, 15, 16
Physical Science Lab Teacher's Handbook: Hands-On Activity 1, <i>Measuring pH of Acids and Bases</i> , pages 77-79

<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>GLE 0807.12.1 Investigate the relationship between magnetism and electricity.</b>
<b>Physical Science Lab, Level A:</b> Cards 74, 75, 76
<b>Physical Science Lab, Level B:</b> Cards 74, 75, 76

<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>GLE 0807.12.2 Design an investigation to change the strength of an electromagnet.</b>
<b>Physical Science Lab, Level A:</b> Card 76
<b>Physical Science Lab, Level B:</b> Card 76

<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>GLE 0807.12.3 Compare and contrast the Earth's magnetic field to that of a magnet and an electromagnet.</b>
<b>Physical Science Lab, Level A:</b> Cards 74, 75, 76
<b>Physical Science Lab, Level B:</b> Cards 74, 75, 76

<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>GLE 0807.12.4 Identify factors that influence the amount of gravitational force between objects.</b>
<b>Physical Science Lab, Level A:</b> Cards 57, 59
<b>Physical Science Lab, Level B:</b> Cards 57, 59

<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>GLE 0807.12.5 Recognize that gravity is the force that controls the motion of objects in the solar system.</b>
<b>Physical Science Lab, Level A:</b> Card 59
<b>Physical Science Lab, Level B:</b> Card 59

<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>SPI 0807.12.1 Recognize that magnetism can be produced using a magnet.</b>
<b>Physical Science Lab, Level A:</b> Cards 74, 75, 76
<b>Physical Science Lab, Level B:</b> Cards 74, 75, 76



<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>SPI 0807.12.2 Demonstrate the basic principles of an electromagnet.</b>
<b>Physical Science Lab, Level A: Card 76</b>
<b>Physical Science Lab, Level B: Card 76</b>

<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>SPI 0807.12.3 Distinguish among the Earth’s magnetic field, a magnet, and the fields that surround a magnet and an electromagnet.</b>
<b>Physical Science Lab, Level A: Cards 74, 75, 76</b>
<b>Physical Science Lab, Level B: Cards 74, 75, 76</b>

<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>SPI 0807.12.4 Distinguish between mass and weight using appropriate measuring instruments and units.</b>
<b>Physical Science Lab, Level A: Card 57</b>
<b>Physical Science Lab, Level B: Card 57</b>

<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>SPI 0807.12.5 Determine the relationships among the mass of objects, the distance between these objects, and the amount of gravitational attraction.</b>
<b>Physical Science Lab, Level A: Cards 57, 59</b>
<b>Physical Science Lab, Level B: Cards 57, 59</b>

<b>Physical Science</b>
<b>Standard 12: Forces of Nature</b>
<b>Conceptual Strand 12: Everything in the universe exerts a gravitational force on everything else; there is interplay between magnetic fields and electrical circuits.</b>
<b>SPI 0807.12.6 Illustrate how gravity controls the motion of objects in the solar system.</b>
<b>Physical Science Lab, Level A: Card 59</b>
<b>Physical Science Lab, Level B: Card 59</b>