

***SRA Life, Earth, and Physical Science Laboratories***  
**correlation to**  
**Wisconsin’s Model Academic Standards for Science**  
**Grades 6-8**

*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.

**Science Standard A: Science Connections**

**A.8.1 Develop their understanding of the science themes by using the themes to frame questions about science-related issues and problems.**

**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 8, 15

**Science Standard A: Science Connections**

**A.8.2 Describe limitations of science systems and give reasons why specific science themes are included in or excluded from those systems.**

This concept is not covered at this level.

**Science Standard A: Science Connections**

**A.8.3 Defend explanations and models by collecting and organizing evidence that supports them and critique explanations and models by collecting and organizing evidence that conflicts with them.**

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**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

<b>Science Standard A: Science Connections</b>
<b>A.8.4 Collect evidence to show that models developed as explanations for the events were (and are) based on the evidence available to scientists at that time.</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>Science Standard A: Science Connections</b>
<b>A.8.5 Show how models and explanations, based on systems, were changed as new evidence accumulated (the effects of constancy, evolution, change, and measurement should all be part of these explanations).</b>
<b>Life Science Lab, Level A:</b> Cards 2, 5, 49, 59, 64, 69, 86, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 2, 5, 49, 59, 64, 69, 86, 87, 88, 89, 90
<b>Earth Science Lab, Level A:</b> Cards 10, 11, 12, 13, 14, 16, 20, 29, 30, 31, 32, 37, 42, 60, 61, 70, 79, 80, 81, 88 <b>Earth Science Lab, Level B:</b> Cards 10, 11, 12, 13, 14, 16, 20, 29, 30, 31, 32, 37, 42, 60, 61, 70, 79, 80, 81, 88
<b>Physical Science Lab, Level A:</b> Cards 3, 7, 21, 33, 34, 35, 46, 47, 48, 49, 53, 59, 68, 69, 72, 73, 76, 81, 84, 90 <b>Physical Science Lab, Level B:</b> Cards 3, 7, 21, 33, 34, 35, 46, 47, 48, 49, 53, 59, 68, 69, 72, 73, 76, 81, 84, 90

<b>Science Standard A: Science Connections</b>
<b>A.8.6 Use models and explanations to predict actions and events in the natural world.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 1, <i>Examining Cells</i> , pages 77-79; 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 2, <i>Plate Boundaries in Action</i> , pages 77-79; 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 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; 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 6, <i>Making Sound</i> , pages 97-99

<b>Science Standard A: Science Connections</b>
<b>A.8.7 Design real or thought investigations to test the usefulness and limitations of a model.</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 8, 15

<b>Science Standard A: Science Connections</b>
<b>A.8.8 Use the themes of evolution, equilibrium, and energy to predict future events or changes in the natural world.</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 2, <i>Plate Boundaries in Action</i> , pages 77-79; 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 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103
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<b>Science Standard B: Nature of Science</b>
<b>B.8.1 Describe how scientific knowledge and concepts have changed over time in the earth and space, life and environmental, and physical sciences.</b>
<b>Life Science Lab, Level A:</b> Cards 2, 5, 45, 46, 47, 49, 59, 64, 69, 83, 84, 85, 86, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 2, 5, 45, 46, 47, 49, 59, 64, 69, 83, 84, 85, 86, 87, 88, 89, 90
<b>Earth Science Lab, Level A:</b> Cards 10, 16, 20, 31, 37, 42, 51, 54, 59, 60, 61, 70, 79, 80, 81, 88 <b>Earth Science Lab, Level B:</b> Cards 10, 16, 20, 31, 37, 42, 51, 54, 59, 60, 61, 70, 79, 80, 81, 88
<b>Physical Science Lab, Level A:</b> Cards 3, 7, 17, 33, 35, 46, 47, 48, 49, 53, 55, 59, 68, 69, 72, 73, 76, 81, 84, 90 <b>Physical Science Lab, Level B:</b> Cards 3, 7, 17, 33, 35, 46, 47, 48, 49, 53, 55, 59, 68, 69, 72, 73, 76, 81, 84, 90

<b>Science Standard B: Nature of Science</b>
<b>B.8.2 Identify and describe major changes that have occurred over in conceptual models and explanations in the earth and space, life and environmental, and physical sciences and identify the people, cultures, and conditions that led to these developments.</b>
<b>Life Science Lab, Level A:</b> Cards 2, 5, 46, 59 <b>Life Science Lab, Level B:</b> Cards 2, 5, 46, 59
<b>Earth Science Lab, Level A:</b> Cards 10, 68, 72, 78 <b>Earth Science Lab, Level B:</b> Cards 10, 68, 72, 78
<b>Physical Science Lab, Level A:</b> Cards 3, 7, 17, 55 <b>Physical Science Lab, Level B:</b> Cards 3, 7, 17, 55

<b>Science Standard B: Nature of Science</b>
<b>B.8.3 Explain how the general rules of science apply to the development and use of evidence in science investigations, model-making, and applications.</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>Science Standard B: Nature of Science</b>
<b>B.8.4 Describe types of reasoning and evidence used outside of science to draw conclusions about the natural world.</b>
This concept is not covered at this level.

<b>Science Standard B: Nature of Science</b>
<b>B.8.5 Explain ways in which science knowledge is shared, checked, and extended, and show how these processes change over time.</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 1-30

<b>Science Standard B: Nature of Science</b>
<b>B.8.6 Explain the ways in which scientific knowledge is useful and also limited when applied to social issues.</b>
This concept is not covered at this level.

<b>Science Standard C: Science Inquiry</b>
<b>C.8.1 Identify questions they can investigate using resources and equipment they have available.</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>Science Standard C: Science Inquiry</b>
<b>C.8.2 Identify data and locate sources of information including their own records to answer the questions being investigated.</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 9, 15, 16, 22, 24, 25

**Science Standard C: Science Inquiry****C.8.3 Design and safely conduct investigations that provide reliable quantitative or qualitative data, as appropriate, to answer their questions.**

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

**Science Standard C: Science Inquiry****C.8.4 Use inferences to help decide possible results of their investigations, use observations to check their inferences.**

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**Classroom Resource CD-ROM:** Writing Strategy 15, 17

**Science Standard C: Science Inquiry****C.8.5 Use accepted scientific knowledge, models, and theories to explain their results and to raise further questions about their 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

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**Science Standard C: Science Inquiry****C.8.6 State what they have learned from investigations, relating their inferences to scientific knowledge and to data they have collected.**

**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

**Science Standard C: Science Inquiry****C.8.7 Explain their data and conclusions in ways that allow an audience to understand the questions they selected for investigation and the answers they have developed.**

**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

<b>Science Standard C: Science Inquiry</b>
<b>C.8.8 Use computer software and other technologies to organize, process, and present their data.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83

<b>Science Standard C: Science Inquiry</b>
<b>C.8.9 Evaluate, explain, and defend the validity of questions, hypotheses, and conclusions to their investigations.</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>Science Standard C: Science Inquiry</b>
<b>C.8.10 Discuss the importance of their results and implications of their work with peers, teachers, and other adults.</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>Science Standard C: Science Inquiry</b>
<b>C.8.11 Raise further questions which still need to be answered.</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>Science Standard D: Physical Science</b>
<b>PROPERTIES AND CHANGES OF PROPERTIES IN MATTER</b>
<b>D.8.1 Observe, describe, and measure physical and chemical properties of elements and other substance to identify and group them according to properties such as density, melting points, boiling points, conductivity, magnetic attraction, solubility, and reactions to common physical and chemical tests.</b>
Earth Science Lab, Level A: Cards 4, 5, 6, 7, 8 Earth Science Lab, Level B: Cards 4, 5, 6, 7, 8 Earth Science Lab Teacher's Handbook: Hands-On Activity 1, <i>Identifying Minerals with the Mohs Scale</i> , pages 73-75
Physical Science Lab, Level A: Cards 1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 28, 29, 30, 42, 71, 74 Physical Science Lab, Level B: Cards 1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 28, 29, 30, 42, 71, 74

<b>Science Standard D: Physical Science</b>
<b>PROPERTIES AND CHANGES OF PROPERTIES IN MATTER</b>
<b>D.8.2 Use the major ideas of atomic theory and molecular theory to describe physical and chemical interactions among substances, including solids, liquids, and gases.</b>
Physical Science Lab, Level A: Cards 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 17, 18, 19, 20, 21, 27, 28, 29, 30 Physical Science Lab, Level B: Cards 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 17, 18, 19, 20, 21, 27, 28, 29, 30 Physical Science Lab Teacher's Handbook: Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83

<b>Science Standard D: Physical Science</b>
<b>PROPERTIES AND CHANGES OF PROPERTIES IN MATTER</b>
<b>D.8.3 Understand how chemical interactions and behaviors lead to new substances with different properties.</b>
Physical Science Lab, Level A: Cards 9, 11, 27, 28, 29, 30 Physical Science Lab, Level B: Cards 9, 11, 27, 28, 29, 30 Physical Science Lab Teacher's Handbook: Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83

<b>Science Standard D: Physical Science</b>
<b>PROPERTIES AND CHANGES OF PROPERTIES IN MATTER</b>
<b>D.8.4 While conducting investigations, use the science themes to develop explanations of physical and chemical interactions and energy exchanges.</b>
Physical Science Lab, Level A: Cards 5, 6, 7, 8, 9, 10, 11, 12, 13, 27, 28, 29, 30 Physical Science Lab, Level B: Cards 5, 6, 7, 8, 9, 10, 11, 12, 13, 27, 28, 29, 30 Physical Science Lab Teacher's Handbook: Hands-On Activity 2, <i>Chemical Reaction Rates</i> , pages 81-83

<b>Science Standard D: Physical Science</b>
<b>MOTIONS AND FORCES</b>
<b>D.8.5 While conducting investigations, explain the motion of objects by describing the forces acting on them.</b>
Physical Science Lab, Level A: Cards 54, 55, 56, 57, 58, 59 Physical Science Lab, Level B: Cards 54, 55, 56, 57, 58, 59 Physical Science Lab Teacher's Handbook: Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91

<b>Science Standard D: Physical Science</b>
<b>MOTIONS AND FORCES</b>
<b>D.8.6 While conducting investigations, explain the motion of objects using concepts of speed, velocity, acceleration, friction, momentum, and changes over time, among others, and apply these concepts and explanations to real-life situations outside the classroom.</b>
Physical Science Lab, Level A: Cards 50, 51, 52, 53, 58 Physical Science Lab, Level B: Cards 50, 51, 52, 53, 58 Physical Science Lab Teacher's Handbook: Hands-On Activity 4, <i>Reducing Friction</i> , pages 89-91

<b>Science Standard D: Physical Science</b>
<b>MOTIONS AND FORCES</b>
<b>D.8.7 While conducting investigations of common physical and chemical interactions occurring in the laboratory and the outside world, use commonly accepted definitions of energy and the idea of energy conservation.</b>
<b>Physical Science Lab, Level A:</b> Cards 9, 27, 28, 29, 30, 34, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 66, 67, 70, 76, 77, 78, 79, 80, 82, 83
<b>Physical Science Lab, Level B:</b> Cards 9, 27, 28, 29, 30, 34, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 66, 67, 70, 76, 77, 78, 79, 80, 82, 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>Science Standard D: Physical Science</b>
<b>TRANSFER OF ENERGY</b>
<b>D.8.8 Describe and investigate the properties of light, heat, gravity, radio waves, magnetic fields, electrical fields, and sound waves as they interact with material objects in common situations.</b>
<b>Earth Science Lab, Level A:</b> Cards 57, 59
<b>Earth Science Lab, Level B:</b> Cards 57, 59
<b>Physical Science Lab, Level A:</b> Cards 42, 43, 66, 67, 74, 75, 77, 78, 79, 80, 82, 83, 85
<b>Physical Science Lab, Level B:</b> Cards 42, 43, 66, 67, 74, 75, 77, 78, 79, 80, 82, 83, 85

<b>Science Standard D: Physical Science</b>
<b>TRANSFER OF ENERGY</b>
<b>D.8.9 Explain the behaviors of various forms of energy by using the models of energy transmission, both in the laboratory and in real-life situations in the outside world.</b>
<b>Physical Science Lab, Level A:</b> Cards 34, 36, 37, 39, 40, 41, 42, 45, 46, 47, 48, 49, 66, 67, 70, 76, 77, 78, 79, 82, 83
<b>Physical Science Lab, Level B:</b> Cards 34, 36, 37, 39, 40, 41, 42, 45, 46, 47, 48, 49, 66, 67, 70, 76, 77, 78, 79, 82, 83
<b>Physical Science Lab Teacher’s Handbook:</b> 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>Science Standard D: Physical Science</b>
<b>TRANSFER OF ENERGY</b>
<b>D.8.10 Explain how models of the atomic structure of matter have changed over time, including historical models and modern atomic theory.</b>
<b>Physical Science Lab, Level A:</b> Cards 3, 4, 21, 22, 23, 24, 25, 26, 27, 31, 32
<b>Physical Science Lab, Level B:</b> Cards 3, 4, 21, 22, 23, 24, 25, 26, 27, 31, 32

<b>Science Standard E: Earth and Space Science</b>
<b>STRUCTURE OF EARTH SYSTEMS</b>
<b>E.8.1 Using the science themes, explain and predict changes in major features of land, water, and atmospheric systems.</b>
<b>Earth Science Lab, Level A:</b> Cards 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 24, 25, 26, 27, 28, 29, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 82, 83, 84, 85, 86, 87, 88, 89, 90
<b>Earth Science Lab, Level B:</b> Cards 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 24, 25, 26, 27, 28, 29, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 82, 83, 84, 85, 86, 87, 88, 89, 90
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79; 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 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103

<b>Science Standard E: Earth and Space Science</b>
<b>STRUCTURE OF EARTH SYSTEMS</b>
<b>E.8.2 Describe underlying structures of the earth that cause changes in the earth's surface.</b>
<b>Earth Science Lab, Level A:</b> Cards 10, 11, 12, 13, 14, 15, 16, 17, 22, 24, 25, 26, 27, 28, 88
<b>Earth Science Lab, Level B:</b> Cards 10, 11, 12, 13, 14, 15, 16, 17, 22, 24, 25, 26, 27, 28, 88
<b>Earth Science Lab Teacher's Handbook:</b> Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79

<b>Science Standard E: Earth and Space Science</b>
<b>STRUCTURE OF EARTH SYSTEMS</b>
<b>E.8.3 Using the science themes during the process of investigation, describe climate, weather, ocean currents, soil movements and changes in the forces acting on the earth.</b>
<b>Earth Science Lab, Level A:</b> Cards 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 24, 25, 26, 27, 28, 29, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 58, 82, 83, 84, 87, 88, 89, 90
<b>Earth Science Lab, Level B:</b> Cards 9, 10, 11, 12, 13, 14, 15, 16, 17, 22, 24, 25, 26, 27, 28, 29, 36, 37, 38, 39, 40, 41, 43, 44, 45, 46, 47, 48, 49, 52, 53, 54, 55, 56, 57, 58, 82, 83, 84, 87, 88, 89, 90
<b>Earth Science Lab Teacher's Handbook:</b> Hands-On Activity 2, <i>Plate Boundaries in Action</i> , pages 77-79; 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 8, <i>Temperature, Salinity, and Water Density</i> , pages 101-103

<b>Science Standard E: Earth and Space Science</b>
<b>STRUCTURE OF EARTH SYSTEMS</b>
<b>E.8.4 Using the science themes, analyze the influence living organisms have had on the earth's systems, including their impact on the composition of the atmosphere and the weathering of rocks.</b>
<b>Life Science Lab, Level A:</b> Cards 9, 13, 78, 79
<b>Life Science Lab, Level B:</b> Cards 9, 13, 78, 79
<b>Earth Science Lab, Level A:</b> Cards 22, 29
<b>Earth Science Lab, Level B:</b> Cards 22, 29

<b>Science Standard E: Earth and Space Science</b>
<b>EARTH'S HISTORY</b>
<b>E.8.5 Analyze the geologic and life history of the earth, including change over time, using various forms of scientific evidence.</b>
<b>Life Science Lab, Level A:</b> Card 67
<b>Life Science Lab, Level B:</b> Card 67
<b>Earth Science Lab, Level A:</b> Cards 30, 31, 32, 33, 34
<b>Earth Science Lab, Level B:</b> Cards 30, 31, 32, 33, 34

<b>Science Standard E: Earth and Space Science</b>
<b>EARTH'S HISTORY</b>
<b>E.8.6 Describe through investigations the use of the earth's resources by humans in both past and current cultures, particularly how changes in the resources used for the past 100 years are the basis for efforts to conserve and recycle renewable and non-renewable resources.</b>
<b>Life Science Lab, Level A:</b> Cards 84, 85, 86, 87, 88, 89, 90
<b>Life Science Lab, Level B:</b> Cards 84, 85, 86, 87, 88, 89, 90
<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, Level A:</b> Cards 35, 37, 42, 59, 60, 61, 85, 86
<b>Earth Science Lab, Level B:</b> Cards 35, 37, 42, 59, 60, 61, 85, 86
<b>Earth Science Lab Teacher's Handbook:</b> Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91
<b>Physical Science Lab, Level A:</b> Cards 38, 46, 47, 48, 49
<b>Physical Science Lab, Level B:</b> Cards 38, 46, 47, 48, 49

<b>Science Standard E: Earth and Space Science</b>
<b>EARTH IN THE SOLAR SYSTEM</b>
<b>E.8.7 Describe the general structure of the solar system, galaxies, and the universe, explaining the nature of the evidence used to develop current models of the universe.</b>
<b>Earth Science Lab, Level A:</b> Cards 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81
<b>Earth Science Lab, Level B:</b> Cards 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99

<b>Science Standard E: Earth and Space Science</b>
<b>EARTH IN THE SOLAR SYSTEM</b>
<b>E.8.8 Using past and current models of the structure of the solar system, explain the daily, monthly, yearly, and long-term cycles of the earth, citing evidence gained from personal observation as well as evidence used by scientists.</b>
<b>Earth Science Lab, Level A:</b> Cards 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 79, 80, 81
<b>Earth Science Lab, Level B:</b> Cards 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 79, 80, 81
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 7, <i>Sizes in the Solar System</i> , pages 97-99

<b>Science Standard F: Life and Environmental Science</b>
<b>STRUCTURE AND FUNCTION IN LIVING THINGS</b>
<b>F.8.1 Understand the structure and function of cells, organs, tissues, organ systems, and whole organisms.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 44, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58
<b>Life Science Lab, Level B:</b> Cards 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 44, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58
<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

<b>Science Standard F: Life and Environmental Science</b>
<b>STRUCTURE AND FUNCTION IN LIVING THINGS</b>
<b>F.8.2 Show how organisms have adapted structures to match their function, providing means of encouraging individual and group survival within specific environments.</b>
<b>Life Science Lab, Level A:</b> Cards 6, 7, 8, 9, 23, 41, 65, 66
<b>Life Science Lab, Level B:</b> Cards 6, 7, 8, 9, 23, 41, 65, 66

<b>Science Standard F: Life and Environmental Science</b>
<b>STRUCTURE AND FUNCTION IN LIVING THINGS</b>
<b>F.8.3 Differentiate between single-celled and multiple-celled organisms (humans) through investigation, comparing the cell functions of specialized cells for each type of organism.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40
<b>Life Science Lab, Level B:</b> Cards 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40
<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

<b>Science Standard F: Life and Environmental Science</b>
<b>REPRODUCTION AND HEREDITY</b>
<b>F.8.4 Investigate and explain that heredity is comprised of the characteristic traits found in genes within the cell of an organism.</b>
<b>Life Science Lab, Level A:</b> Cards 58, 60, 61, 62, 63, 64
<b>Life Science Lab, Level B:</b> Cards 58, 60, 61, 62, 63, 64

<b>Science Standard F: Life and Environmental Science</b>
<b>REPRODUCTION AND HEREDITY</b>
<b>F.8.5 Show how different structures both reproduce and pass on characteristics of their group.</b>
<b>Life Science Lab, Level A:</b> Cards 58, 60, 61, 62, 63, 64
<b>Life Science Lab, Level B:</b> Cards 58, 60, 61, 62, 63, 64

<b>Science Standard F: Life and Environmental Science</b>
<b>REGULATION AND BEHAVIOR</b>
<b>F.8.6 Understand that an organism is regulated both internally and externally.</b>
<b>Life Science Lab, Level A:</b> Cards 24, 34, 43, 44, 47, 48, 51, 57
<b>Life Science Lab, Level B:</b> Cards 24, 34, 43, 44, 47, 48, 51, 57

<b>Science Standard F: Life and Environmental Science</b>
<b>REGULATION AND BEHAVIOR</b>
<b>F.8.7 Understand that an organism’s behavior evolves through adaptation to its environment.</b>
<b>Life Science Lab, Level A:</b> Cards 24, 36, 43, 83
<b>Life Science Lab, Level B:</b> Cards 24, 36, 43, 83

<b>Science Standard F: Life and Environmental Science</b>
<b>POPULATIONS AND ECOSYSTEMS</b>
<b>F.8.8 Show through investigations how organisms both depend on and contribute to the balance or imbalance of populations and/or ecosystems, which in turn contribute to the total system of life on the planet.</b>
<b>Life Science Lab, Level A:</b> Cards 13, 70, 71, 72, 73, 74, 75, 76, 77
<b>Life Science Lab, Level B:</b> Cards 13, 70, 71, 72, 73, 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>Science Standard F: Life and Environmental Science</b>
<b>DIVERSITY AND ADAPTATIONS OF ORGANISMS</b>
<b>F.8.9 Explain how some of the changes on the earth are contributing to changes in the balance of life and affecting the survival of population growth of certain species.</b>
<b>Life Science Lab, Level A:</b> Cards 85, 86, 87, 88, 89, 90
<b>Life Science Lab, Level B:</b> Cards 85, 86, 87, 88, 89, 90
<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, Level A:</b> Cards 37, 42, 59, 60, 61, 85, 86
<b>Earth Science Lab, Level B:</b> Cards 37, 42, 59, 60, 61, 85, 86
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91

<b>Science Standard F: Life and Environmental Science</b>
<b>DIVERSITY AND ADAPTATIONS OF ORGANISMS</b>
<b>F.8.10 Project how current trends in human resource use and population growth will influence the natural environment, and show how current policies affect those trends.</b>
<b>Life Science Lab, Level A:</b> Cards 84, 87, 88, 89, 90
<b>Life Science Lab, Level B:</b> Cards 84, 87, 88, 89, 90
<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, Level A:</b> Cards 37, 42, 59, 60, 61, 86
<b>Earth Science Lab, Level B:</b> Cards 37, 42, 59, 60, 61, 86
<b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91

<b>Science Standard G: Science Applications</b>
<b>G.8.1 Identify and investigate the skills people need for a career in science or technology and identify the academic courses that a person pursuing such a career would need.</b>
<b>G.8.2 Explain how current scientific and technological discoveries have an influence on the work people do and how some of these discoveries also lead to new careers.</b>
This concept is not covered at this level.

<b>Science Standard G: Science Applications</b>
<b>G.8.3 Illustrate the impact that science and technology have had, both good and bad, on careers, systems, society, environment, and quality of life.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 49, 59, 64, 69, 83, 84, 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 5, 49, 59, 64, 69, 83, 84, 87, 88, 89, 90 <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, Level A:</b> Cards 16, 20, 31, 35, 37, 42, 51, 54, 59, 60, 61, 70, 79, 80, 81, 86, 88 <b>Earth Science Lab, Level B:</b> Cards 16, 20, 31, 35, 37, 42, 51, 54, 59, 60, 61, 70, 79, 80, 81, 86, 88 <b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91
<b>Physical Science Lab, Level A:</b> Cards 33, 35, 46, 47, 48, 49, 68, 69, 70, 71, 72, 73, 76, 81, 84, 90 <b>Physical Science Lab, Level B:</b> Cards 33, 35, 46, 47, 48, 49, 68, 69, 70, 71, 72, 73, 76, 81, 84, 90

<b>Science Standard G: Science Applications</b>
<b>G.8.4 Propose a design (or re-design) of an applied science model or a machine that will have an impact in the community or elsewhere in the world and show how the design (or re-design) might work, including potential side-effects.</b>
This concept is not covered at this level.

<b>Science Standard G: Science Applications</b>
<b>G.8.5 Investigate a specific local problem to which there has been a scientific or technological solution, including proposals for alternative courses of action, the choices that were made, reasons for the choices, any new problems created, and subsequent community satisfaction.</b>
<b>Life Science Lab, Level A:</b> Cards 87, 88, 89, 90 <b>Life Science Lab, Level B:</b> Cards 87, 88, 89, 90 <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, Level A:</b> Cards 37, 42, 59, 60, 61, 86 <b>Earth Science Lab, Level B:</b> Cards 37, 42, 59, 60, 61, 86 <b>Earth Science Lab Teacher’s Handbook:</b> Hands-On Activity 5, <i>What is in the Air?</i> , pages 89-91
<b>Physical Science Lab, Level A:</b> Cards 46, 47, 48, 49 <b>Physical Science Lab, Level B:</b> Cards 46, 47, 48, 49

<b>Science Standard G: Science Applications</b>
<b>G.8.6 Use current texts, encyclopedias, source books, computers, experts, the popular press, or other relevant sources to identify examples of how scientific discoveries have resulted in new technology.</b>
<b>Life Science Lab Teacher’s Handbook:</b> Hands-On Activity 2, <i>Culturing Bacteria</i> , pages 81-83
<b>Classroom Resource CD-ROM:</b> Writing Strategy 9, 25

<b>Science Standard G: Science Applications</b>
<b>G.8.7 Show evidence of how science and technology are interdependent, using some examples drawn from personally conducted investigations.</b>
<b>Life Science Lab, Level A:</b> Cards 5, 49, 59, 64, 69, 83

**Life Science Lab, Level B:** Cards 5, 49, 59, 64, 69, 83

**Earth Science Lab, Level A:** Cards 16, 20, 31, 37, 42, 51, 54, 70, 79, 80, 81, 88

**Earth Science Lab, Level B:** Cards 16, 20, 31, 37, 42, 51, 54, 70, 79, 80, 81, 86

**Physical Science Lab, Level A:** Cards 33, 35, 71, 72, 73, 76, 81, 84, 90

**Physical Science Lab, Level B:** Cards 33, 35, 71, 72, 73, 76, 81, 84, 90

**Science Standard H: Science in Personal and Social Perspectives**

**H.8.1 Evaluate the scientific evidence used in various media (for example, television, radio, Internet, popular press, and scientific journals) to address a social issue, using criteria of accuracy, logic, bias, relevance of data, and credibility of sources.**

This concept is not covered at this level.

**Science Standard H: Science in Personal and Social Perspectives**

**H.8.2 Present a scientific solution to a problem involving earth and space, life and environmental, or physical sciences and participate in a consensus-building discussion to arrive at a group decision.**

**Life Science Lab Teacher's Handbook:** Hands-On Activity 4, *Your Cardiovascular System*, pages 89-91; Hands-On Activity 7, *The Effects of Acid Rain*, pages 101-103

**Earth Science Lab Teacher's Handbook:** Hands-On Activity 5, *What is in the Air?*, pages 89-91

**Science Standard H: Science in Personal and Social Perspectives**

**H.8.3 Understand the consequences of decision affecting personal health and safety.**

**Life Science Lab, Level A:** Cards 45, 46, 49

**Life Science Lab, Level B:** Cards 45, 46, 49