

SRA Snapshots Video Science™ : Level A
correlation to
Arizona Science Standard Articulated by Grade Level
Grade 3

SRA Snapshots Video Science™ consists of four interdependent components. Each level has four program DVDs that provide engaging video lessons. The student edition (**SE**) provides student friendly text that reinforces the concepts introduced in the video. The Teacher's Resource Book (**TRB**) provides support activities in a blackline master format. The Teacher's Guide (**TG**) provides lesson planning, differentiated instruction activities, and answers to all student activities in the Student Edition.

KEY:

Reference	Program Component
Video	Video lessons on program DVDs
SE	Student Edition
TRB	Teacher's Resource Book
TG	Teacher's Guide

Strand 1: Inquiry Process

Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.

Concept 1: Observations, Questions, and Hypotheses

Observe, ask questions, and make predictions.

PO 1. Formulate relevant questions about the properties of objects, organisms, and events of the environment using observations and prior knowledge.

Chapter 1, Lesson 1, Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30
Chapter 2, Lesson 3, Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48
Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66
Chapter 4, Lesson 2, Process Skill, SE page 79; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84
Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102
Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120
Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138
Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156
Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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Concept 1: Observations, Questions, and Hypotheses

Observe, ask questions, and make predictions.

PO 2. Predict the results of an investigation based on observed patterns, not random guessing.

Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30
Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48
Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66
Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84
Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102
Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120
Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138
Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156
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<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Participate in planning and conducting investigations and recording data.</p>
<p>PO 1. Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 5, Lesson 3, Video C, Se page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156</p>

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<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Participate in planning and conducting investigations and recording data.</p>
<p>PO 2. Plan a simple investigation (e.g., one plant receives adequate water, one receives too much water, and one receives too little water) based on the formulated question.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Participate in planning and conducting investigations and recording data.</p>
<p>PO 3. Conduct simple investigations (e.g., related to plant life cycles, changing the pitch of a sound, properties of rocks) in life, physical, and Earth and space sciences.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Participate in planning and conducting investigations and recording data.</p>
<p>PO 4. Use metric and U.S. customary units to measure objects.</p>
<p>Chapter 3, Lesson 3, Process Skill, SE page 65 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 The Metric System, SE page 200-201</p>

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<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Participate in planning and conducting investigations and recording data.</p>
<p>PO 5. Record data in an organized and appropriate format (e.g., t-chart, table, list, written log).</p>
<p>Chapter 1, Lesson 2, Math in Science, SE page 13; Process Skill, SE page 13 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 5, Lesson 2, Process Skill, SE page 103; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 3: Analysis and Conclusions</p> <p>Organize and analyze data; compare to predictions.</p>
<p>PO 1. Organize data using the following methods with appropriate labels:</p> <ul style="list-style-type: none"> • Bar graphs • Pictographs • Tally charts.
<p>Chapter 1, Lesson 2, Math in Science, SE page 13; Process Skill, SE page 13 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 5, Lesson 2, Process Skill, SE page 103; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 3: Analysis and Conclusions
Organize and analyze data; compare to predictions.
PO 2. Construct reasonable interpretations of the collected data based on formulated questions.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 3: Analysis and Conclusions
Organize and analyze data; compare to predictions.
PO 3. Compare the results of the investigation to predictions made prior to the investigation.
Chapter 1, Lesson 1, Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, Lesson 3, Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 2, Process Skill, SE page 79; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 3: Analysis and Conclusions
Organize and analyze data; compare to predictions.
PO 4. Generate questions for possible future investigations based on the conclusions of the investigations.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson 2, Process Skill, SE page 167; Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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<p>Concept 3: Analysis and Conclusions</p> <p>Organize and analyze data; compare to predictions.</p>
<p>PO 5. Record questions for further inquiry based on the conclusions of the investigation.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson 2, Process Skill, SE page 167; Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 4: Communication</p> <p>Communicate results of investigations.</p>
<p>PO 1. Communicate investigations and explanations using evidence and appropriate terminology.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson 2, Process Skill, SE page 167; Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 4: Communication</p> <p>Communicate results of investigations.</p>
<p>PO 2. Describe an investigation in ways that enable others to repeat it.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson 2, Process Skill, SE page 167; Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 4: Communication</p> <p>Communicate results of investigations.</p>
<p>PO 3. Communicate with other groups to describe the results of an investigation.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson 2, Process Skill, SE page 167; Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 2: History and Nature of Science</p> <p>Scientific investigation grows from the contributions of many people. History and Nature of Science emphasizes the importance of the conclusion of historical perspectives and the advances that each new development brings to technology and human knowledge. This strand focuses on the human aspects of science and the role that scientists play in the development of various cultures.</p>
<p>Concept 1: History of Science as a Human Endeavor</p> <p>Identify individual and cultural contributions to scientific knowledge.</p>
<p>PO 1. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations (e.g., John Muir [naturalist], supports Strand 4; Thomas Edison [inventor] supports Strand 5; Mae Jemison [engineer, physician, astronaut] supports Strand 6; Edmund Halley [scientist], supports Strand 6).</p>
<p>Chapter 3, Lesson 2 Process Skill, SE page 59 Chapter 4, KnowZone, SE pages 80-81 Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, SE page 105 Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129 Chapter 7, Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151 Chapter 8, KnowZone, SE pages 168-169 Chapter 9, Lesson 2, Video A, SE page 187; Video B, SE page SE page 188; Video C, SE page 189</p>

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<p>Concept 1: History of Science as a Human Endeavor</p> <p>Identify individual and cultural contributions to scientific knowledge.</p>
<p>PO 2. Describe science-related career opportunities.</p>
<p>Chapter 3, Lesson 2, Critical Thinking, SE page 159; Process Skill, SE page 59 Chapter 4, Lesson 1, Critical Thinking, SE page 73; Lesson 3, Critical Thinking, SE page 87 Chapter 5, Lesson 1, Process Skill, SE page 95; Lesson 3, Video A, SE page 105; Critical Thinking, SE page 109 Chapter 6, Lesson 3, Critical Thinking, SE page 131 Chapter 9, Lesson 3, Video C, SE page 195</p>

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<p>Concept 2: Nature of Scientific Knowledge</p> <p>Understand how science is a process for generating knowledge.</p>
<p>PO 1. Describe how, in a system (e.g., terrarium, house) with many components, the components usually influence one another.</p>
<p>Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Lesson 3, Video A, SE page 17; Video B, SE page 18; Video C, SE page 19; Process Skill, SE page 21; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30</p> <p>Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Lesson 3, Video A, SE page 39; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48</p> <p>Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; Lesson 2, Video B, SE page 56; Video C, SE page 57; Lesson 3, Video B, SE page 62; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66</p> <p>Chapter 4, Lesson, 1, Video B, SE page 70; Video C, SE page 71; Lesson 2, Video A, SE page 75; Video B, SE page 76; Video C, SE page 77; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84</p> <p>Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Video C, SE page 93; Lesson 2, Video A, SE page 99; Video B, SE page 100; Video C, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102</p> <p>Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Lesson 2, Video A, SE page 119; Video B, SE page 120; Video C, SE page 121; Lesson 3, Video A, SE page 127; Video B, SE page 128; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120</p> <p>Chapter 7, Lesson 1, Video A, SE page 135; Video B, SE page 136; Video C, SE page 137; Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138</p> <p>Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Lesson 3, Video A, SE page 171; Video B, SE page 172; Video C, SE page 173; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156</p> <p>Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Video C, SE page 181; Lesson 2, Video A, SE page 187; Video B, SE page 188; Video C, SE page 189; Lesson 3, Video A, SE page 193; Video B, SE page 194; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p> <p>Energy Transfer, SE page 203</p> <p>Planet Earth, SE page 204</p> <p>Earth in Space, SE page 205</p>

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<p>Concept 2: Nature of Scientific Knowledge</p> <p>Understand how science is a process for generating knowledge.</p>
<p>PO 2. Explain why a system may not work if a component is defective or missing.</p>
<p>Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Lesson 3, Video A, SE page 17; Video B, SE page 18; Video C, SE page 19; Process Skill, SE page 21; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30</p> <p>Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Lesson 3, Video A, SE page 39; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48</p> <p>Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; Lesson 2, Video B, SE page 56; Video C, SE page 57; Lesson 3, Video B, SE page 62; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66</p> <p>Chapter 4, Lesson, 1, Video B, SE page 70; Video C, SE page 71; Lesson 2, Video A, SE page 75; Video B, SE page 76; Video C, SE page 77; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84</p> <p>Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Video C, SE page 93; Lesson 2, Video A, SE page 99; Video B, SE page 100; Video C, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102</p> <p>Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Lesson 2, Video A, SE page 119; Video B, SE page 120; Video C, SE page 121; Lesson 3, Video A, SE page 127; Video B, SE page 128; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120</p> <p>Chapter 7, Lesson 1, Video A, SE page 135; Video B, SE page 136; Video C, SE page 137; Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138</p> <p>Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Lesson 3, Video A, SE page 171; Video B, SE page 172; Video C, SE page 173; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156</p> <p>Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Video C, SE page 181; Lesson 2, Video A, SE page 187; Video B, SE page 188; Video C, SE page 189; Lesson 3, Video A, SE page 193; Video B, SE page 194; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p> <p>Energy Transfer, SE page 203</p> <p>Planet Earth, SE page 204</p> <p>Earth in Space, SE page 205</p>

<p>Strand 3: Science in Personal and Social Perspectives</p> <p>Science in personal and Social Perspectives emphasizes developing the ability to design a solution to a problem, to understand the relationship between science and technology, and the ways people are involved in both. Students understand the impact of science and technology on human activity and the environment. This strand affords students the opportunity to understand their place in the world—as living creatures, consumers, decision makers, problem solvers, managers, and planners.</p>
<p>Concept 1: Changes in Environments</p> <p>Describe the interactions between human populations, natural hazards, and the environment.</p>
<p>PO 1. Describe the major factors that could impact a human population (e.g., famine, drought, disease, improved transportation, medical breakthroughs).</p>
<p>Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Math in Science, SE page 59</p> <p>Chapter 4, Lesson 1, Process Skill, SE page 73</p> <p>Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, 105</p> <p>Chapter 6, KnowZone, SE pages 124-125; Lesson 3, Video B, SE page 128; Video C, SE page 129</p> <p>Chapter 8, KnowZone, SE pages 168-169</p>

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<p>Concept 1: Changes in Environments</p> <p>Describe the interactions between human populations, natural hazards, and the environment.</p>
<p>PO 2. Describe the beneficial and harmful impacts of natural events and human activities on the environment (e.g., forest fires, flooding, pesticides).</p>
<p>Chapter 2, Lesson 1, Video C, SE page 27; Critical Thinking, SE page 29; Lesson 2, Critical Thinking, SE page 35; Process Skill, SE page 35</p> <p>Chapter 3, Lesson 3, Video B, SE page 62; Critical Thinking, SE page 65</p>

<p>Strand 3: Science in Personal and Social Perspectives</p> <p>Science in personal and Social Perspectives emphasizes developing the ability to design a solution to a problem, to understand the relationship between science and technology, and the ways people are involved in both. Students understand the impact of science and technology on human activity and the environment. This strand affords students the opportunity to understand their place in the world—as living creatures, consumers, decision makers, problem solvers, managers, and planners.</p>
<p>Concept 2: Science and Technology in Society</p> <p>Understand the impact of technology.</p>
<p>PO 1. Identify ways that people use tools and techniques to solve problems.</p>
<p>Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57</p> <p>Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, SE page 105</p> <p>Chapter 6, KnowZone, SE page 124-125; Lesson 3, Video B, SE page 128; Video C, SE page 129; Process Skill, SE page 131</p> <p>Chapter 7, LabTime Hands-On Activity, TRB pages 123-125; TG page 138</p> <p>Chapter 8, Lesson 1, Video C, SE page 187; LabTime Hands-On Activity. TRB ages 141-143, TG page 156</p>

<p>Strand 3: Science in Personal and Social Perspectives</p> <p>Science in personal and Social Perspectives emphasizes developing the ability to design a solution to a problem, to understand the relationship between science and technology, and the ways people are involved in both. Students understand the impact of science and technology on human activity and the environment. This strand affords students the opportunity to understand their place in the world—as living creatures, consumers, decision makers, problem solvers, managers, and planners.</p>
<p>Concept 2: Science and Technology in Society</p> <p>Understand the impact of technology.</p>
<p>PO 2. Describe the development of different technologies (e.g., communication, entertainment, transportation, medicine) in response to resources, needs, and values.</p>
<p>Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Math in Science, SE page 59</p> <p>Chapter 4, Lesson 1, Process Skill, SE page 73</p> <p>Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, 105</p> <p>Chapter 6, KnowZone, SE pages 124-125; Lesson 3, Video B, SE page 128; Video C, SE page 129</p> <p>Chapter 8, KnowZone, SE pages 168-169</p>

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<p>Concept 2: Science and Technology in Society</p> <p>Understand the impact of technology.</p>
<p>PO 3. Design and construct a technological solution to a common problem or need using common materials.</p>
<p>Chapter 5, LabTime Hands-On Activity, TRB pages 87-89, TG page 102</p> <p>Chapter 9, Lesson 2 Process Skill, SE page 191</p>

<p>Strand 4: Life Science</p> <p>Life Science expands students’ biological understanding of life by focusing on the characteristics of living things, the diversity of life, and how organisms and populations change over time in terms of biological adaptation and genetics. This understanding includes the relationship of structures to their functions and life cycles, interrelationships of matter and energy in living organisms, and the interactions of living organisms with their environment.</p>
<p>Concept 1: Characteristics of Organisms</p> <p>Understand that basic structures in plants and animal serve a function.</p>
<p>PO 1. Describe the function of the following plant structure.</p> <ul style="list-style-type: none"> • Roots—absorb nutrients • Stems—provide support • Leaves—synthesize food • Flowers—attract pollinators and produce seeds for reproduction.
<p>Chapter 1, Lesson 1, Video B, SE page 4; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, Lesson 2, Video A, SE page 41; Lesson 3, Video B, SE page 40</p>

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<p>Concept 2: Life Cycles</p> <p>Understand the life cycles of plants and animals.</p>
<p>PO 1. Compare the life cycles of various plants (e.g., conifers, flowering plants, ferns).</p>
<p>Chapter 1, Lesson 3, Video C, SE page 19; Critical Thinking, SE page 21</p>

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<p>Concept 2: Life Cycles</p> <p>Understand the life cycles of plants and animals.</p>
<p>PO 2. Explain how growth, death, and decay are part of the plant life cycles.</p>
<p>Chapter 1, Lesson 3, Video A, SE page 17; Video C, SE page 19</p>

<p>Strand 4: Life Science</p> <p>Life Science expands students’ biological understanding of life by focusing on the characteristics of living things, the diversity of life, and how organisms and populations change over time in terms of biological adaptation and genetics. This understanding includes the relationship of structures to their functions and life cycles, interrelationships of matter and energy in living organisms, and the interactions of living organisms with their environment.</p>
<p>Concept 3: Organisms and Environments</p> <p>Understand the relationships among various organisms and their environment.</p>
<p>PO 1. Identify the living and nonliving components of an ecosystem.</p>
<p>Chapter 1, Lesson 1, Video A, SE page 3; Process Skill, SE page 7 Chapter 2, Lesson 1, Video A, SE page 25; Critical Thinking, SE page 29; Process Skill, SE page 29; Lesson 2, Process Skill, SE page 35</p>

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<p>Concept 3: Organisms and Environments</p> <p>Understand the relationships among various organisms and their environment.</p>
<p>PO 2. Examine an ecosystem to identify microscopic and macroscopic organisms.</p>
<p>Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Process Skill, SE page 29; KnowZone, SE pages 36-37; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48</p>

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<p>Concept 3: Organisms and Environments</p> <p>Understand the relationships among various organisms and their environment.</p>
<p>PO 3. Explain the interrelationship among plants and animals in different environments:</p> <ul style="list-style-type: none"> • Producers—plants • Consumers—animals • Decomposers—fungi, insects, bacteria.
<p>Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video A, SE page 39; Video C, SE page 41; Process Skill, SE page 43</p>

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<p>Concept 3: Organisms and Environments</p> <p>Understand the relationships among various organisms and their environment.</p>
<p>PO 4. Describe how plants and animals cause change in their environment.</p>
<p>Chapter 2, Lesson 1, Video C, SE page 27</p> <p>Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63</p>

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<p>Concept 3: Organisms and Environments</p> <p>Understand the relationships among various organisms and their environment.</p>
<p>PO 5. Describe how environmental factors (e.g., soil composition, range of temperature, quantity and quality of light or water) in the ecosystem may affect a member organism’s ability to grow, reproduce, and thrive.</p>
<p>Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4</p> <p>Chapter 2, Lesson 1, Video A, SE page 25; Video C, SE page 27; Lesson 2, Critical Thinking, SE page 35; Process Skill, SE page 35; Lesson 3, Video A, SE page 37</p> <p>Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62; Critical Thinking, SE page 65</p>

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<p>Concept 4: Diversity, Adaptation, and Behavior</p> <p>Identify plant and animal adaptations.</p>
<p>PO 1. Identify adaptations of plants and animals that allow them to live in specific environments.</p>
<p>Chapter 1, Lesson 3, Video C, SE page 19 Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43</p>

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<p>Concept 4: Diversity, Adaptation, and Behavior</p> <p>Identify plant and animal adaptations.</p>
<p>PO 2. Describe ways that species adapt when introduced into new environments.</p>
<p>Chapter 1, Lesson 1, Critical Thinking, SE page 7 Chapter 3, Lesson 2, Process Skill, SE page 59</p>

<p>Strand 4: Life Science</p> <p>Life Science expands students' biological understanding of life by focusing on the characteristics of living things, the diversity of life, and how organisms and populations change over time in terms of biological adaptation and genetics. This understanding includes the relationship of structures to their functions and life cycles, interrelationships of matter and energy in living organisms, and the interactions of living organisms with their environment.</p>
<p>Concept 4: Diversity, Adaptation, and Behavior</p> <p>Identify plant and animal adaptations.</p>
<p>PO 3. Cite examples of how a species' inability to adapt to changing conditions in the ecosystem led to the extinction of that species.</p>
<p>Chapter 3, Lesson 3, Video C, SE page 63</p>

<p>Strand 5: Physical Science</p> <p>Physical Science affords students the opportunity to increase their understanding of the characteristics of objects and materials they encounter daily. Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. By studying objects and the forces that act upon them, students develop an understanding of the fundamental laws of motion, knowledge of the various ways energy is stored in systems, and the processes by which energy is transferred between systems and surroundings.</p>
<p>Concept 3: Energy and Magnetism</p> <p>Investigate different forms of energy.</p>
<p>PO 1. Demonstrate that light can be:</p> <ul style="list-style-type: none"> • Reflected (with mirrors) • Refracted (with prisms) • Absorbed (by dark surfaces).
<p>Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 3: Energy and Magnetism</p> <p>Investigate different forms of energy.</p>
<p>PO 2. Describe how light behaves on striking objects that are:</p> <ul style="list-style-type: none"> • Transparent (clear plastic) • Translucent (waxed paper) • Opaque (cardboard).
<p>Chapter 9, Lesson 1, Video A, SE page 179; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 3: Energy and Magnetism</p> <p>Investigate different forms of energy.</p>
<p>PO 3. Demonstrate that vibrating objects produce sound.</p>
<p>Chapter 9, Lesson 1, Video C, SE page 181; Critical Thinking, SE page 183; Writing in Science, SE page 183; Process Skill, SE page 183</p>

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<p>Concept 3: Energy and Magnetism</p> <p>Investigate different forms of energy.</p>
<p>PO 4. Demonstrate that the pitch of a sound depends on the rate of the vibration (e.g., a long rubber band has a lower pitch than a short rubber band).</p>
<p>Chapter 9, Lesson 1, Video C, SE page 181; Critical Thinking, SE page 183; Process Skill, SE page 183</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 1: Properties of Earth Materials</p> <p>Identify the basic properties of Earth materials.</p>
<p>PO 1. Identify the layers of the Earth:</p> <ul style="list-style-type: none"> • Crust • Mantle • Core (inner and outer).
<p>See Level B: Chapter 4, Lesson 1, Video A, SE page 69; Video C, SE page 71; Process Skill, SE page 73 Earth's Layers, SE page 204</p>

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<p>Concept 1: Properties of Earth Materials</p> <p>Identify the basic properties of Earth materials.</p>
<p>PO 2. Describe the different types of rocks and how they are formed:</p> <ul style="list-style-type: none"> • Metamorphic • Igneous • Sedimentary.
<p>Level A; Chapter 4, Lesson 2, Video A, SE page 75</p> <p>See also Level B: Chapter 4, Lesson 2, Video B, SE page 76; Video C, SE page 77; Writing in Science, SE page 79; Process Skill, SE page 79; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84</p>

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<p>Concept 1: Properties of Earth Materials</p> <p>Identify the basic properties of Earth materials.</p>
<p>PO 3. Classify rocks based on the following physical properties:</p> <ul style="list-style-type: none"> • Color • Texture.
<p>Level A; Chapter 4, Lesson 2, Video A, SE page 75</p> <p>See also Level B: Chapter 4, Lesson 2, Video B, SE page 76; Video C, SE page 77; Writing in Science, SE page 79; Process Skill, SE page 79; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84</p>

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<p>Concept 1: Properties of Earth Materials</p> <p>Identify the basic properties of Earth materials.</p>
<p>PO 4. Describe fossils as a record of past life forms.</p>
<p>Chapter 4, Lesson 2, Video B, SE page 76; Writing in Science, SE page 79; KnowZone, SE pages 80-81</p>

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<p>Concept 1: Properties of Earth Materials</p> <p>Identify the basic properties of Earth materials.</p>
<p>PO 5. Describe how fossils are formed.</p>
<p>Chapter 4, Lesson 2, Video B, SE page 76; Writing in Science, SE page 79; KnowZone, SE pages 80-81</p>

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<p>Concept 1: Properties of Earth Materials</p> <p>Identify the basic properties of Earth materials.</p>
<p>PO 6. Describe ways humans use Earth materials (e.g., fuel, building materials, growing food).</p>
<p>Chapter 4, Lesson 2, Video A, SE page 75; Video B, SE page 76; Video C, SE page 77; Lesson 3, Video A, SE page 83; Video B, SE page 84</p> <p>Chapter 5, Lesson 1, Video A, SE page 91; Lesson 2, Video A, SE page 99</p> <p>Chapter 9, Lesson 3, Video C, SE page 195</p>

SRA Snapshots Video Science™ : Level B
correlation to
Arizona Science Standard Articulated by Grade Level
Grade 4

SRA Snapshots Video Science™ consists of four interdependent components. Each level has four program DVDs that provide engaging video lessons. The student edition (**SE**) provides student friendly text that reinforces the concepts introduced in the video. The Teacher's Resource Book (**TRB**) provides support activities in a blackline master format. The Teacher's Guide (**TG**) provides lesson planning, differentiated instruction activities, and answers to all student activities in the Student Edition.

KEY:

Reference	Program Component
Video	Video lessons on program DVDs
SE	Student Edition
TRB	Teacher's Resource Book
TG	Teacher's Guide

Strand 1: Inquiry Process

Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.

Concept 1: Observations, Questions, and Hypotheses

Observe, ask questions, and make predictions.

PO 1. Differentiate inferences from observations.

Chapter 1, Lesson 1, Process Skill, SE page 7; Lesson 2, Process Skill, SE page 11; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Chapter 6, Lesson 3, Process Skill, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 3, Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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Concept 1: Observations, Questions, and Hypotheses

Observe, ask questions, and make predictions.

PO 2. Formulate a relevant question through observations that can be tested by an investigation.

Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 1: Observations, Questions, and Hypotheses Observe, ask questions, and make predictions.
PO 3. Formulate predictions in the realm of science based on observed cause and effect relationships.
Chapter 1, Lesson 1, Process Skill, SE page 7; Lesson 2, Process Skill, SE page 11; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Process Skill, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 3, Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 1: Observations, Questions, and Hypotheses Observe, ask questions, and make predictions.
PO 4. Locate information (e.g., book, article, website) related to an investigation.
Chapter 1 KnowZone, SE pages 14-15; Lesson 3 Process Skill, SE page 21 Chapter 2 KnowZone, SE pages 36-37; Lesson 3 Process Skill, SE page 43 Chapter 3 KnowZone, SE pages 52-53; Lesson 2 Process Skill, SE page 59 Chapter 4, Lesson 2 Process Skill, SE page 79; KnowZone, SE pages 86-87 Chapter 5 KnowZone, SE pages 102-103 Chapter 6, Lesson 3 Math in Science, SE page 129; KnowZone, SE pages 130-131 Chapter 7 KnowZone, SE pages 140-141 Chapter 8 KnowZone, SE pages 168-169 Chapter 9 KnowZone, SE pages 196-198

Strand 1: Inquiry Process
Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 2: Scientific Testing (Investigating and Modeling) Participate in planning and conducting investigations and recording data.
PO 1. Demonstrate safe behavior and appropriate procedures (e.g., use and care of technology, materials, organisms) in all science inquiry.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 3, Video C, SE page 193; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Participate in planning and conducting investigations and recording data.</p>
<p>PO 2. Plan a simple investigation that identifies the variables to be controlled.</p>
<p>Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138</p>

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<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Participate in planning and conducting investigations and recording data.</p>
<p>PO 3. Conduct controlled investigations (e.g., related to erosion, plant life cycles, weather, magnetism) in life, physical, and Earth and space sciences.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 1: Inquiry Process</p> <p>Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.</p>
<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Participate in planning and conducting investigations and recording data.</p>
<p>PO 4. Measure using appropriate tools (e.g., ruler, scale, balance) and units of measure (i.e., metric, U.S. customary).</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 5, Lesson 2, Video C, SE page 99; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Process Skill, SE page 147 Chapter 8, Lesson 3, Process Skill, SE page 175 The Metric System, SE pages 200-201</p>

Strand 1: Inquiry Process
Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 2: Scientific Testing (Investigating and Modeling)
Participate in planning and conducting investigations and recording data.
PO 5. Record data in an organized and appropriate format (e.g., t-chart, table, list, written log).
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 1, Math in Science, SE page 117; Lesson 3, Math in Science, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 189; Lesson 3, Math in Science, SE page 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Strand 1: Inquiry Process
Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 3: Analysis and Conclusions
Organize and analyze data; compare to predictions.
PO 1. Organize data obtained in a scientific investigation to identify trends.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 1, Math in Science, SE page 117; Lesson 3, Math in Science, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 189; Lesson 3, Math in Science, SE page 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Strand 1: Inquiry Process
Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 3: Analysis and Conclusions
Organize and analyze data; compare to predictions.
PO 2. Formulate conclusions based upon identified trends in data.
Chapter 1, Lesson 1, Process Skill, SE page 7; Lesson 2, Process Skill, SE page 11; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Process Skill, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 3, Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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<p>Concept 3: Analysis and Conclusions</p> <p>Organize and analyze data; compare to predictions.</p>
<p>PO 3. Determine that data collected is consistent with the formulated question.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 1, Math in Science, SE page 117; Lesson 3, Math in Science, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 189; Lesson 3, Math in Science, SE page 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 3: Analysis and Conclusions</p> <p>Organize and analyze data; compare to predictions.</p>
<p>PO 4. Determine whether the data supports the prediction for an investigation.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 1, Math in Science, SE page 117; Lesson 3, Math in Science, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 189; Lesson 3, Math in Science, SE page 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 3: Analysis and Conclusions</p> <p>Organize and analyze data; compare to predictions.</p>
<p>PO 5. Develop new questions and predictions based upon the data collected in the investigation.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 1: Inquiry Process</p> <p>Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.</p>
<p>Concept 4: Communication</p> <p>Communicate results of investigations.</p>
<p>PO 1. Communicate verbally or in writing the results of an inquiry.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 3, Process Skill, SE page 109; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 1: Inquiry Process</p> <p>Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.</p>
<p>Concept 4: Communication</p> <p>Communicate results of investigations.</p>
<p>PO 2. Choose an appropriate graphic representation for collected data:</p> <ul style="list-style-type: none"> • Bar graph • Line graph • Venn diagram • Model.
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 1, Math in Science, SE page 117; Lesson 3, Math in Science, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 189; Lesson 3, Math in Science, SE page 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 1: Inquiry Process</p> <p>Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.</p>
<p>Concept 4: Communication</p> <p>Communicate results of investigations.</p>
<p>PO 3. Communicate with other groups or individuals to compare the results of a common investigation.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 3, Process Skill, SE page 109; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 2: History and Nature of Science</p> <p>Scientific investigation grows from the contributions of many people. History and Nature of Science emphasizes the importance of the conclusion of historical perspectives and the advances that each new development brings to technology and human knowledge. This strand focuses on the human aspects of science and the role that scientists play in the development of various cultures.</p>
<p>Concept 1: History of Science as a Human Endeavor</p> <p>Identify individual and cultural contributions to scientific knowledge.</p>
<p>PO 1. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations (e.g., Margaret Mead [anthropologist], supports Strand 4; Nikola Tesla [, engineer, inventor] supports Stand 5; Michael Faraday [scientist] supports Strand 5; Benjamin Franklin [scientist], supports Strand 5).</p>
<p>Chapter 4, Lesson 2, Video C, SE page 77 Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 127; Math in Science, SE page 129; KnowZone, SE pages 130-131 Chapter 7, Lesson 3, Video A, SE page 149 Chapter 8 KnowZone, SE pages 168-169 Chapter 9 KnowZone, SE pages 196-197</p>

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<p>Concept 1: History of Science as a Human Endeavor</p> <p>Identify individual and cultural contributions to scientific knowledge.</p>
<p>PO 2. Describe science-related career opportunities.</p>
<p>Chapter 2, Lesson 1, Process Skill, SE page 29; Lesson 3, Process Skill, SE page 43 Chapter 5, Lesson 2, Video C, SE page 99 Chapter 6, Lesson 2, Video C, SE page 121</p>

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<p>Concept 2: Nature of Scientific Knowledge</p> <p>Understand how science is a process for generating knowledge.</p>
<p>PO 1. Explain the role of experimentation in scientific inquiry.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 3, Process Skill, SE page 109; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 2: Nature of Scientific Knowledge</p> <p>Understand how science is a process for generating knowledge.</p>
<p>PO 2. Describe the interaction of components in a system (e.g., flashlight, radio).</p>
<p>Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Process Skill, SE page 29; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Process Skill, SE page 35; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48</p> <p>Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Process Skill, SE page 59; Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63; Critical Thinking, SE page 65</p> <p>Chapter 4, Lesson 2, Video C, SE page 77</p> <p>Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Lesson 2, Video A, SE page 97; Lesson 3, Video C, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102</p> <p>Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Lesson 2, Video A, SE page 119; Video C, SE page 121; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120</p> <p>Chapter 7, Lesson 1, Video C, SE page 137; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138</p> <p>Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 157; Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Lesson 3, Video C, SE page 173; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156</p> <p>Chapter 9, Lesson 1, Video C, SE page 181; Lesson 2, Video C, SE page 187; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 2: Nature of Scientific Knowledge</p> <p>Understand how science is a process for generating knowledge.</p>
<p>PO 3. Explain various ways scientists generate ideas (e.g., observation, experiment, collaboration, theoretical and mathematical models).</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30</p> <p>Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48</p> <p>Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66</p> <p>Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84</p> <p>Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102</p> <p>Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120</p> <p>Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138</p> <p>Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156</p> <p>Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 3: Science in Personal and Social Perspectives</p> <p>Science in personal and Social Perspectives emphasizes developing the ability to design a solution to a problem, to understand the relationship between science and technology, and the ways people are involved in both. Students understand the impact of science and technology on human activity and the environment. This strand affords students the opportunity to understand their place in the world—as living creatures, consumers, decision makers, problem solvers, managers, and planners.</p>
<p>Concept 1: Changes in Environments</p> <p>Describe the interactions between human populations, natural hazards, and the environment.</p>
<p>PO 1. Describe how natural events and human activities have positive and negative impacts on environments (e.g., fire, floods, pollution, dams).</p>
<p>Chapter 2, Lesson 1, Video B, SE page 26; Critical Thinking, SE page 29; Lesson 3, Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43 Chapter 3, Lesson 2, Video C, SE page 57; Critical Thinking, SE page 59; Lesson 3, Video C, SE page 62; Video C, SE page 63; Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66</p>

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<p>Concept 1: Changes in Environments</p> <p>Describe the interactions between human populations, natural hazards, and the environment.</p>
<p>PO 2. Evaluate the consequences of environmental occurrences that happen either rapidly (e.g., fire, flood, tornado) or over a long period of time (e.g., drought, melting ice caps, the greenhouse effect, erosion).</p>
<p>Chapter 4, Lesson 2, Video B, SE page 76; Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; KnowZone, SE pages 86-87 Chapter 5, Lesson 1, Video C, SE page 93; Lesson 2, Video A, SE page 97 Chapter 9, Lesson 3, Video A, SE page 191; Video B, SE page 192; Critical Thinking, SE page 195; Process Skill, SE page 195</p>

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<p>Concept 2: Science and Technology in Society</p> <p>Understand the impact of technology.</p>
<p>PO 1. Describe how science and technology (e.g., computers, air conditioning, medicine) have improved the lives of many people.</p>
<p>Chapter 4, Lesson 3, Video B, SE page 82; Video C, SE page 83 Chapter 5, Lesson 2, Video C, SE page 99; KnowZone, SE pages 102-103 Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 27; KnowZone, SE pages 130-131 Chapter 7, KnowZone, SE pages 140-141 Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169; Lesson 3, Video C, SE page 173 Chapter 9, Lesson 2, Video C, SE page 187; Lesson 3, Video A, SE page 191; Video B, SE page 192; Process Skill, SE page 195; KnowZone, SE pages 196-197</p>

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<p>Concept 2: Science and Technology in Society</p> <p>Understand the impact of technology.</p>
<p>PO 2. Describe benefits (e.g., easy communication, rapid transportation) and risks (e.g., pollution, destruction of natural resources) related to the use of technology.</p>
<p>Chapter 4, Lesson 1, Video B, SE page 70; Lesson 3, Video C, SE page 83 Chapter 5, Lesson 2, Video C, SE page 99; KnowZone, SE pages 102-103 Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 127; Process Skill, SE page 129 Chapter 7, KnowZone, SE pages 140-141 Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169 Chapter 9, Lesson 2, Video C, SE page 187; Process Skill, SE page 189; Lesson 3, Video A, SE page 191; Process Skill, SE page 195; KnowZone, SE pages 196-197</p>

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<p>Concept 2: Science and Technology in Society</p> <p>Understand the impact of technology.</p>
<p>PO 3. Design and construct a technological solution to a common problem or need using common materials.</p>
<p>Chapter 6, Lesson 1 Process Skill, SE page 117 Chapter 9, Lesson 2 Process Skill, SE page 189; ; LabTime Hands-On Activity, TRB pages 159-161, TG page 174</p>

<p>Strand 4: Life Science</p> <p>Life Science expands students' biological understanding of life by focusing on the characteristics of living things, the diversity of life, and how organisms and populations change over time in terms of biological adaptation and genetics. This understanding includes the relationship of structures to their functions and life cycles, interrelationships of matter and energy in living organisms, and the interactions of living organisms with their environment.</p>
<p>Concept 1: Characteristics of Organisms</p> <p>Understand that basic structures in plants and animal serve a function.</p>
<p>PO 1. Compare structures in plants (e.g., roots, stems, leaves, flowers) and animals (e.g., muscles, bones, nerves) that serve different functions in growth and survival.</p>
<p>Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; KnowZone, SE pages 14-15; Lesson 3, Video B, SE page 18; Video C, SE page 19 Chapter 2, KnowZone, SE pages 36-37 Chapter 3, Lesson 1, Video B, SE page 48; KnowZone, SE pages 52-53; Lesson 2, Video B, SE page 56</p>

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<p>Concept 1: Characteristics of Organisms</p> <p>Understand that basic structures in plants and animal serve a function.</p>
<p>PO 2. Classify animals by identifying group characteristics:</p> <ul style="list-style-type: none"> • Vertebrates—mammals, birds, fish, reptiles, amphibians • Invertebrates—insects, arachnids.
<p>Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Process Skill, SE page 13; KnowZone, SE pages 14-15</p>

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<p>Concept 3: Organisms and Environments</p> <p>Understand the relationships among various organisms and their environment.</p>
<p>PO 1. Describe ways various resources (e.g., air, water, plants, animals, soil) are utilized to meet the needs of a population.</p>
<p>Chapter 1, Lesson 1, Video A, SE page 3; Lesson 3, Video B, SE page 18; Video C, SE page 19; Critical Thinking, SE page 21</p> <p>Chapter 2, Lesson 1, Video A, SE page 25; Lesson 2, Video A, SE page 31; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48</p> <p>Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 2, Video A, SE page 55</p>

<p>Strand 4: Life Science</p> <p>Life Science expands students' biological understanding of life by focusing on the characteristics of living things, the diversity of life, and how organisms and populations change over time in terms of biological adaptation and genetics. This understanding includes the relationship of structures to their functions and life cycles, interrelationships of matter and energy in living organisms, and the interactions of living organisms with their environment.</p>
<p>Concept 3: Organisms and Environments</p> <p>Understand the relationships among various organisms and their environment.</p>
<p>PO 2. Differentiate renewable resources from nonrenewable resources.</p>
<p>Chapter 4, Lesson 3, Video B, SE page 82; Video C, SE page 83; KnowZone, SE pages 86-87</p> <p>Chapter 5, Lesson 1, Video C, SE page 93</p> <p>Chapter 9, Lesson 3, Video A, SE page 191; Video B, SE page 192</p>

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<p>Concept 3: Organisms and Environments</p> <p>Understand the relationships among various organisms and their environment.</p>
<p>PO 3. Analyze the effect that limited resources (e.g., natural gas, minerals) may have on an environment.</p>
<p>Chapter 3, Lesson 3, Video C, SE page 63</p> <p>Chapter 4, Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; KnowZone, SE pages 86-87</p> <p>Chapter 5, Lesson 1, Video C, SE page 93</p> <p>Chapter 9, Lesson 3, Video A, SE page 191; Video B, SE page 192; Critical Thinking, SE page 195; Process Skill, SE page 195</p>

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<p>Concept 3: Organisms and Environments</p> <p>Understand the relationships among various organisms and their environment.</p>
<p>PO 4. Describe ways in which resources can be conserved (e.g., reducing, reusing, recycling, finding substitutes).</p>
<p>Chapter 1, Lesson 1, Video C, SE page 5</p> <p>Chapter 2, Lesson 2, Critical Thinking, SE page 29; Lesson 3, Video C, SE page 41; Process Skill, SE page 43</p> <p>Chapter 3, Lesson 2, Critical Thinking, SE page 59; Lesson 3, Video C, SE page 63; Critical thinking, SE page 65; Process Skill, SE page 65</p> <p>Chapter 5, Lesson 1, Video C, SE page 93</p> <p>Chapter 9, Lesson 3, video A, SE page 191; Video B, SE page 192; Critical Thinking, SE page 195</p>

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<p>Concept 4: Diversity, Adaptation, and Behavior</p> <p>Identify plant and animal adaptations.</p>
<p>PO 1. Recognize that successful characteristics of populations are inherited traits that are favorable in a particular environment.</p>
<p>Chapter 1, Lesson 2, Video C, SE page 11; LabTime Hands-On Activity 1, TRB Pages 15-17; TG page 30</p> <p>Chapter 2 KnowZone, SE pages 36-37</p> <p>Chapter 3, Lesson 1, Video C, SE page 49; Lesson 3, Video A, SE page 61; Video B, SE page 62</p>

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<p>Concept 4: Diversity, Adaptation, and Behavior</p> <p>Identify plant and animal adaptations.</p>
<p>PO 2. Give examples of adaptations that allow plants and animals to survive:</p> <ul style="list-style-type: none"> • Camouflage—horned lizards, coyotes • Mimicry—Monarch and Viceroy butterflies • Physical—cactus spines • Mutualism—species of acacia that harbor ants, which repel other harmful insects.
<p>Level B:</p> <p>Chapter 1, Lesson 2, Video C, SE page 11; Critical Thinking, SE page 13; KnowZone, SE pages 14-15; LabTime Hands-On Activity, TRB pages 15-17, TG page 30</p> <p>See also Level C:</p> <p>Chapter 2, Lesson 2, Video B, SE page 32; KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40; LabTime Hands-On Activity, TRB pages 51-53, TG page 66</p>

<p>Strand 5: Physical Science</p> <p>Physical Science affords students the opportunity to increase their understanding of the characteristics of objects and materials they encounter daily. Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. By studying objects and the forces that act upon them, students develop an understanding of the fundamental laws of motion, knowledge of the various ways energy is stored in systems, and the processes by which energy is transferred between systems and surroundings.</p>
<p>Concept 3: Energy and Magnetism</p> <p>Investigate different forms of energy.</p>
<p>PO 1. Demonstrate that electricity flowing in circuits can produce light, heat, sound, and magnetic effects.</p>
<p>Chapter 9, Lesson 1, Video C, SE page 181</p>

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<p>Concept 3: Energy and Magnetism</p> <p>Investigate different forms of energy.</p>
<p>PO 2. Construct series and parallel electric circuits.</p>
<p>Chapter 9, Lesson 1, Video C, SE page 181</p>

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<p>Concept 3: Energy and Magnetism</p> <p>Investigate different forms of energy.</p>
<p>PO 3. Explain the purpose of conductors and insulators in various practical applications.</p>
<p>Chapter 9, Lesson 1, Video B, SE page 180</p>

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<p>Concept 3: Energy and Magnetism</p> <p>Investigate different forms of energy.</p>
<p>PO 4. Investigate the characteristics of magnets (e.g., opposite poles attract, like poles repel, the force between two magnet poles depends on the distance between them).</p>
<p>Chapter 9, Lesson 2, Video A, SE page 185</p>

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<p>Concept 3: Energy and Magnetism</p> <p>Investigate different forms of energy.</p>
<p>PO 5. State cause and effect relationships between magnets and circuitry.</p>
<p>Chapter 9, Lesson 2, Video A, SE page 185; Video B, SE page 186; Video C, SE page 187; Critical Thinking, SE page 189; Process Skill, SE page 189</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 2: Earth's Processes and Systems</p> <p>Understand the processes acting on the Earth and their interaction with the Earth's systems.</p>
<p>PO 1. Identify the Earth processes that cause erosion.</p>
<p>Chapter 4, Lesson 2, Video A, SE page 75</p>

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<p>Concept 2: Earth's Processes and Systems</p> <p>Understand the processes acting on the Earth and their interaction with the Earth's systems.</p>
<p>PO 2. Describe how currents and wind cause erosion and land changes.</p>
<p>Chapter 4, Lesson 2, Video A, SE page 75</p>

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<p>Concept 2: Earth's Processes and Systems</p> <p>Understand the processes acting on the Earth and their interaction with the Earth's systems.</p>
<p>PO 3. Describe the role that water plays in the following processes that alter the Earth's surface features:</p> <ul style="list-style-type: none"> • Erosion • Deposition • Weathering.
<p>Level B:</p> <p>Chapter 4, Lesson 2, Video A, SE page 75; Critical Thinking, SE page 79</p> <p>See also Level C:</p> <p>Chapter 4, Lesson 2, Video A, SE page 77; Video B, SE page 78; Video C, SE page 79; Critical Thinking, SE page 81</p>

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<p>Concept 2: Earth's Processes and Systems</p> <p>Understand the processes acting on the Earth and their interaction with the Earth's systems.</p>
<p>PO 4. Compare rapid and slow processes that change the Earth's surface, including:</p> <ul style="list-style-type: none"> • Rapid—earthquakes, volcanoes, floods • Slow—wind, weathering.
<p>Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71; Lesson 2, Video A, SE page 75</p>

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<p>Concept 2: Earth's Processes and Systems</p> <p>Understand the processes acting on the Earth and their interaction with the Earth's systems.</p>
<p>PO 5. Identify the Earth events that cause changes in atmospheric conditions (e.g., volcanic eruptions, forest fires).</p>
<p>Chapter 2, Lesson 2, Video A, SE page 31</p> <p>Chapter 3, Lesson 3, Video C, SE page 63</p>

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<p>Concept 2: Earth's Processes and Systems</p> <p>Understand the processes acting on the Earth and their interaction with the Earth's systems.</p>
<p>PO 6. Analyze evidence that indicates life and environmental conditions have changed (e.g., tree rings, fish fossils in desert regions, ice cores).</p>
<p>Chapter 1, Lesson 1, Video C, SE page 5; Math in Science, SE page 7; Process Skill, SE page 7 Chapter 4, Lesson 2, Video B, SE page 76; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84</p>

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<p>Concept 3: Changes in Earth and Sky</p> <p>Understand characteristics of weather conditions and climate.</p>
<p>PO 1. Identify the sources of water within an environment (e.g., ground water, surface water, atmospheric water, glaciers).</p>
<p>Chapter 3, Lesson 2, Video A, SE page 55 Chapter 4, Lesson 1, Video A, SE page 69</p>

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<p>Concept 3: Changes in Earth and Sky</p> <p>Understand characteristics of weather conditions and climate.</p>
<p>PO 2. Describe the distribution of water on the Earth's surface.</p>
<p>Chapter 3, Lesson 2, Video A, SE page 55 Chapter 4, Lesson 1, Video A, SE page 69</p>

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<p>Concept 3: Changes in Earth and Sky</p> <p>Understand characteristics of weather conditions and climate.</p>
<p>PO 3. Differentiate between weather and climate as they relate to the southwestern United States.</p>
<p>Chapter 5, Lesson 3, Video A, SE page 105; Video B, SE page 106</p>

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<p>Concept 3: Changes in Earth and Sky</p> <p>Understand characteristics of weather conditions and climate.</p>
<p>PO 4. Measure changes in weather (e.g., precipitation, wind speed, barometric pressure).</p>
<p>Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Lesson 2, Video B, SE page 98; Video C, SE page 99; Process Skill, SE page 101; Lesson 3, Video C, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102</p>

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<p>Concept 3: Changes in Earth and Sky</p> <p>Understand characteristics of weather conditions and climate.</p>
<p>PO 5. Interpret the symbols on a weather map or chart to identify the following:</p> <ul style="list-style-type: none"> • Temperatures • Fronts • Precipitation.
<p>Chapter 5, Lesson 2, Video C, SE page 99; Process Skill, SE page 101; Lesson 3, Video A, SE page 105; Video B, SE page 106</p>

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<p>Concept 3: Changes in Earth and Sky</p> <p>Understand characteristics of weather conditions and climate.</p>
<p>PO 6. Compare weather conditions in various locations (e.g., regions of Arizona, various U.S. cities, coastal vs. interior geographical regions).</p>
<p>Chapter 5, Lesson 2, Video C, SE page 99; Process Skill, SE page 101; Lesson 3, Video B, SE page 106; Video C, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89; TG page 102</p>

SRA Snapshots Video Science™ : Level C
correlation to
Arizona Science Standard Articulated by Grade Level
Grade 5

SRA Snapshots Video Science™ consists of four interdependent components. Each level has four program DVDs that provide engaging video lessons. The student edition (**SE**) provides student friendly text that reinforces the concepts introduced in the video. The Teacher's Resource Book (**TRB**) provides support activities in a blackline master format. The Teacher's Guide (**TG**) provides lesson planning, differentiated instruction activities, and answers to all student activities in the Student Edition.

KEY:

Reference	Program Component
Video	Video lessons on program DVDs
SE	Student Edition
TRB	Teacher's Resource Book
TG	Teacher's Guide

Strand 1: Inquiry Process

Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.

Concept 1: Observations, Questions, and Hypotheses

Formulate predictions, questions, or hypotheses based on observations. Locate appropriate resources.

PO 1. Formulate a relevant question through observations that can be tested by an investigation.

Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Chapter 4, Lesson 2, Process Skill, 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Chapter 9, Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.

Concept 1: Observations, Questions, and Hypotheses

Formulate predictions, questions, or hypotheses based on observations. Locate appropriate resources.

PO 2. Formulate predictions in the realm of science based on observed cause and effect relationships.

Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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Concept 1: Observations, Questions, and Hypotheses
Formulate predictions, questions, or hypotheses based on observations. Locate appropriate resources.
PO 3. Locate information (e.g., book, article, website) related to an investigation.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, Lesson 1, SE page 29; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Strand 1: Inquiry Process
Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 2: Scientific Testing (Investigating and Modeling)
Design and conduct controlled investigations.
PO 1. Demonstrate safe behavior and appropriate procedures (e.g., use and care of technology, materials, organisms) in all science inquiry.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 2, Process Skill, SE page 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 3, Video B, SE page 109; Know Zone, SE pages 104-105; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Strand 1: Inquiry Process
Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 2: Scientific Testing (Investigating and Modeling)
Design and conduct controlled investigations.
PO 2. Plan a simple investigation that identifies the variables to be controlled.
Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 2, Process Skill, 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

<p>Strand 1: Inquiry Process</p> <p>Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.</p>
<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Design and conduct controlled investigations.</p>
<p>PO 3. Conduct simple investigations (e.g., related to forces and motion, Earth processes) based on student-developed questions in life, physical, and Earth and space sciences.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 191</p>

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<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Design and conduct controlled investigations.</p>
<p>PO 4. Measure using appropriate tools (e.g., ruler, scale, balance) and units of measure (i.e., metric, U.S. customary).</p>
<p>Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Lesson 3, Video A, SE page 15; Video B, SE page 16 Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129 Chapter 7, Lesson 2, Video B, SE page 144; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson C, Video C, SE page 165; KnowZone, SE pages 168-169 Chapter 9, Lesson 2 Process Skill, SE page 191</p>

<p>Strand 1: Inquiry Process</p> <p>Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.</p>
<p>Concept 2: Scientific Testing (Investigating and Modeling)</p> <p>Design and conduct controlled investigations.</p>
<p>PO 5. Record data in an organized and appropriate format (e.g., t-chart, table, list, written log).</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

Strand 1: Inquiry Process
Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 3: Analysis and Conclusions
Analyze and interpret data to explain correlations and results; formulate new questions.
PO 1. Analyze data obtained in a scientific investigation to identify trends and form conclusions.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 3: Analysis and Conclusions
Analyze and interpret data to explain correlations and results; formulate new questions.
PO 2. Analyze whether the data is consistent with the proposed explanation that motivated the investigation.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Strand 1: Inquiry Process
Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 3: Analysis and Conclusions
Analyze and interpret data to explain correlations and results; formulate new questions.
PO 3. Evaluate the reasonableness of the outcome of an investigation.
Chapter 1, Lesson 1, Process Skill, SE page 7; Lesson 3, Process Skill, SE page 19; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 3, Process Skill, SE page 87; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 2, Process Skill, SE page 147; Lesson 2, Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 1, Process Skill, SE page 183; Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

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Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 3: Analysis and Conclusions
Analyze and interpret data to explain correlations and results; formulate new questions.
PO 4. Develop new investigations and predictions based on questions that arise from the findings of an investigation.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Strand 1: Inquiry Process
Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 3: Analysis and Conclusions
Analyze and interpret data to explain correlations and results; formulate new questions.
PO 5. Identify possible relationships between variables in simple investigations (e.g., time and distance; incline and mass of object).
Chapter 1, Lesson 3, Process Skill, SE page 19 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 8, Lesson 2, Process Skill, SE page 167; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Strand 1: Inquiry Process
Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.
Concept 4: Communication
Communicate results of investigations.
PO 1. Communicate verbally or in writing the results of an inquiry.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

<p>Strand 1: Inquiry Process Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.</p>
<p>Concept 4: Communication Communicate results of investigations.</p>
<p>PO 2. Choose an appropriate graphic representation for collected data:</p> <ul style="list-style-type: none"> • Bar graph • Line graph • Venn diagram • Model.
<p>Chapter 1, Lesson 1, Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 1: Inquiry Process Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.</p>
<p>Concept 4: Communication Communicate results of investigations.</p>
<p>PO 3. Communicate with other groups or individuals to compare the results of a common investigation.</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 2: History and Nature of Science Scientific investigation grows from the contributions of many people. History and Nature of Science emphasizes the importance of the conclusion of historical perspectives and the advances that each new development brings to technology and human knowledge. This strand focuses on the human aspects of science and the role that scientists play in the development of various cultures.</p>
<p>Concept 1: History of Science as a Human Endeavor Identify individual, cultural, and technological contributions to scientific knowledge.</p>
<p>PO 1. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations (e.g., Percy Lavon Julian [scientist], supports Strand 4; Niels Bohr [scientist] supports Stand 5; Edwin Hubble [scientist] supports Strand 6).</p>
<p>Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Lesson 3, Video A, SE page 15; Video B, SE page 16 Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129 Chapter 7, Lesson 2, Video B, SE page 144; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson C, Video C, SE page 165; KnowZone, SE pages 168-169 Chapter 9, Lesson 2 Process Skill, SE page 191</p>

<p>Strand 2: History and Nature of Science</p> <p>Scientific investigation grows from the contributions of many people. History and Nature of Science emphasizes the importance of the conclusion of historical perspectives and the advances that each new development brings to technology and human knowledge. This strand focuses on the human aspects of science and the role that scientists play in the development of various cultures.</p>
<p>Concept 2: Nature of Scientific Knowledge</p> <p>Understand how science is a process for generating knowledge.</p>
<p>PO 1. Provide examples that support the premise that science is an ongoing process that changes in response to new information and discoveries (e.g., space exploration, medical advances).</p>
<p>Chapter 1, KnowZone, SE page 20-21 Chapter 3, Lesson 2, Video B, SE page 62 Chapter 4, Lesson 2, Video A, SE page 77; Video B, SE page 78; Lesson 3, Video C, SE page 85 Chapter 5, Lesson 1, Video C, SE page 93 Chapter 6, KnowZone, SE pages 118-119; Lesson 3, Video A, SE page 127; Video B, SE page 128; Video C, SE page 129 Chapter 7, KnowZone, SE pages 140-141 Chapter 9, KnowZone, SE pages 184-185</p>

<p>Strand 2: History and Nature of Science</p> <p>Scientific investigation grows from the contributions of many people. History and Nature of Science emphasizes the importance of the conclusion of historical perspectives and the advances that each new development brings to technology and human knowledge. This strand focuses on the human aspects of science and the role that scientists play in the development of various cultures.</p>
<p>Concept 2: Nature of Scientific Knowledge</p> <p>Understand how science is a process for generating knowledge.</p>
<p>PO 2. Explain the cycle by which new scientific knowledge generates new scientific inquiry.</p>
<p>Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 2, Process Skill, 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 2: Nature of Scientific Knowledge</p> <p>Understand how science is a process for generating knowledge.</p>
<p>PO 3. Describe how scientific knowledge is subject to modification and/or changes as new information/technology challenges prevailing theories.</p>
<p>Chapter 1, Lesson 3, Critical Thinking, SE page 19; KnowZone, SE page 20-21 Chapter 2, Lesson 1, Critical Thinking, SE page 29 Chapter 3, Lesson 2, Critical Thinking, SE page 57 Chapter 5, Lesson 1, Video C, SE page 93 Chapter 6, KnowZone, SE pages 118-119 Chapter 7, KnowZone, SE pages 140-141; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151 Chapter 8, Lesson 1, Video C, SE page 159; Lesson 2, Video B, SE page 164; Lesson 3, Video C, SE page 173 Chapter 9, KnowZone, SE pages 184-185</p>

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<p>Concept 2: Nature of Scientific Knowledge</p> <p>Understand how science is a process for generating knowledge.</p>
<p>PO 4. Compare collaborative approaches that scientists use for investigations (e.g., teams, individual with peer review).</p>
<p>Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30</p> <p>Chapter 2, Lesson 3, Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48</p> <p>Chapter 3, Lesson 1, Process Skill, SE page 51; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66</p> <p>Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84</p> <p>Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102</p> <p>Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120</p> <p>Chapter 7, Lesson 3, Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138</p> <p>Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156</p> <p>Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 2: Nature of Scientific Knowledge</p> <p>Understand how science is a process for generating knowledge.</p>
<p>PO 5. Describe qualities of the scientists' habits of mind (e.g., openness, skepticism, integrity, tolerance).</p>
<p>Chapter 1, Lesson 3, Critical Thinking, SE page 19</p> <p>Chapter 2, Lesson 2, Critical Thinking, SE page 35</p> <p>Chapter 3, Lesson 1, Critical Thinking, SE page 51; Lesson 3, Critical Thinking, SE page 65</p> <p>Chapter 4, Lesson 3, Critical Thinking, SE page 87</p> <p>Chapter 5, Lesson 1, Critical Thinking, SE page 95</p> <p>Chapter 7, Lesson 2, Critical Thinking, SE page 147</p> <p>Chapter 8, Lesson 2, Critical Thinking, SE page 167; Lesson 3, Critical Thinking, SE page 175</p> <p>Chapter 9, Lesson 3, Video A, SE page 193; Video B, SE page 194; Video C, SE page 195; , Critical Thinking, SE page 197</p>

<p>Strand 3: Science in Personal and Social Perspectives</p> <p>Science in personal and Social Perspectives emphasizes developing the ability to design a solution to a problem, to understand the relationship between science and technology, and the ways people are involved in both. Students understand the impact of science and technology on human activity and the environment. This strand affords students the opportunity to understand their place in the world—as living creatures, consumers, decision makers, problem solvers, managers, and planners.</p>
<p>Concept 1: Changes in Environments</p> <p>Describe the interactions between human populations, natural hazards, and the environment.</p>
<p>PO 1. Explain the impacts of natural hazards on habitats (e.g., global warming, floods, asteroid or large meteor impacts).</p>
<p>Chapter 4, Lesson 1, Video C, SE page 71; Process Skill, SE page 73; KnowZone, SE pages 74-75</p> <p>Chapter 5, Lesson 3, Video B, SE page 104; Critical Thinking, SE pages 107; KnowZone, SE pages 108-109</p>

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<p>Concept 1: Changes in Environments</p> <p>Describe the interactions between human populations, natural hazards, and the environment.</p>
<p>PO 2. Propose a solution, resource or product that addresses a specific human, animal, or habitat need.</p>
<p>Chapter 9 LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 1: Changes in Environments</p> <p>Describe the interactions between human populations, natural hazards, and the environment.</p>
<p>PO 3. Evaluate the possible strengths and weaknesses of a proposed solution to a specific problem relevant to human, animal, or habitat needs.</p>
<p>Chapter 9 LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

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<p>Concept 2: Science and Technology in Society</p> <p>Develop viable solutions to a need or problem.</p>
<p>PO 1. Describe the relationship between science and technology.</p>
<p>Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 2, Process Skill, SE page 81 Chapter 5, Lesson 3, Process Skill, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 9, Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174 The Metric System, SE pages 200-201</p>

<p>Strand 3: Science in Personal and Social Perspectives</p> <p>Science in personal and Social Perspectives emphasizes developing the ability to design a solution to a problem, to understand the relationship between science and technology, and the ways people are involved in both. Students understand the impact of science and technology on human activity and the environment. This strand affords students the opportunity to understand their place in the world—as living creatures, consumers, decision makers, problem solvers, managers, and planners.</p>
<p>Concept 2: Science and Technology in Society</p> <p>Develop viable solutions to a need or problem.</p>
<p>PO 2. Explain how scientific knowledge, skills, and technological capacities are integral to a variety of careers.</p>
<p>Chapter 1, KnowZone, SE page 20-21 Chapter 3, Lesson 2, Video B, SE page 62 Chapter 4, Lesson 2, Video A, SE page 77; Video B, SE page 78; Lesson 3, Video C, SE page 85 Chapter 5, Lesson 1, Video C, SE page 93 Chapter 6, KnowZone, SE pages 118-119; Lesson 3, Video A, SE page 127; Video B, SE page 128; Video C, SE page 129 Chapter 7, KnowZone, SE pages 140-141 Chapter 9, KnowZone, SE pages 184-185</p>

<p>Strand 3: Science in Personal and Social Perspectives</p> <p>Science in personal and Social Perspectives emphasizes developing the ability to design a solution to a problem, to understand the relationship between science and technology, and the ways people are involved in both. Students understand the impact of science and technology on human activity and the environment. This strand affords students the opportunity to understand their place in the world—as living creatures, consumers, decision makers, problem solvers, managers, and planners.</p>
<p>Concept 2: Science and Technology in Society</p> <p>Develop viable solutions to a need or problem.</p>
<p>PO 3. Design and construct a technological solution to a common problem or need using common materials.</p>
<p>Chapter 9 LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 4: Life Science</p> <p>Life Science expands students’ biological understanding of life by focusing on the characteristics of living things, the diversity of life, and how organisms and populations change over time in terms of biological adaptation and genetics. This understanding includes the relationship of structures to their functions and life cycles, interrelationships of matter and energy in living organisms, and the interactions of living organisms with their environment.</p>
<p>Concept 1: Structure and Function in Living Systems</p> <p>Understand the relationships between structures and functions of organisms.</p>
<p>PO 1. Identify the functions and parts of the skeletal system.</p> <ul style="list-style-type: none"> • Protection—rib cage, cranium • Support—vertebrae • Movement—pelvis, femur, hip.
<p>Chapter 1, Lesson 3, Video B, SE page 16; Video C, SE page 17</p>

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<p>Concept 1: Structure and Function in Living Systems</p> <p>Understand the relationships between structures and functions of organisms.</p>
<p>PO 2. Identify the following types of muscles:</p> <ul style="list-style-type: none"> • Cardiac—heart • Smooth—stomach • Skeletal—biceps.
<p>Chapter 1, Lesson 3, Video B, SE page 16; Video C, SE page 17</p>

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<p>Concept 1: Structure and Function in Living Systems</p> <p>Understand the relationships between structures and functions of organisms.</p>
<p>PO 3. Identify the functions and parts of the nervous system:</p> <ul style="list-style-type: none"> • Control center—brain • Relay mechanism—spinal cord • Transport messages—nerves.
<p>Chapter 1, Lesson 3, Video B, SE page 16; Video C, SE page 17</p>

<p>Strand 4: Life Science Life Science expands students’ biological understanding of life by focusing on the characteristics of living things, the diversity of life, and how organisms and populations change over time in terms of biological adaptation and genetics. This understanding includes the relationship of structures to their functions and life cycles, interrelationships of matter and energy in living organisms, and the interactions of living organisms with their environment.</p>
<p>Concept 1: Structure and Function in Living Systems Understand the relationships between structures and functions of organisms.</p>
<p>PO 4. Distinguish between voluntary and involuntary responses.</p>
<p>Chapter 1, Lesson 3, Video B, SE page 16; Video C, SE page 17</p>

<p>Strand 5: Physical Science Physical Science affords students the opportunity to increase their understanding of the characteristics of objects and materials they encounter daily. Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. By studying objects and the forces that act upon them, students develop an understanding of the fundamental laws of motion, knowledge of the various ways energy is stored in systems, and the processes by which energy is transferred between systems and surroundings.</p>
<p>Concept 1: Properties and Changes of Properties in Matter Understand physical and chemical properties of matter.</p>
<p>PO 1. Identify that matter is made of smaller units called:</p> <ul style="list-style-type: none"> • Molecules (e.g., H₂O, CO₂) • Atoms (e.g., H, N, Na).
<p>Chapter 7, Lesson 1, Video A, SE page 135; Critical Thinking, SE page 139; KnowZone, SE page 140-141</p>

<p>Strand 5: Physical Science Physical Science affords students the opportunity to increase their understanding of the characteristics of objects and materials they encounter daily. Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. By studying objects and the forces that act upon them, students develop an understanding of the fundamental laws of motion, knowledge of the various ways energy is stored in systems, and the processes by which energy is transferred between systems and surroundings.</p>
<p>Concept 1: Properties and Changes of Properties in Matter Understand physical and chemical properties of matter.</p>
<p>PO 2. Distinguish between mixtures and compounds.</p>
<p>Chapter 4, Lesson 2, Video A, SE page 77 Chapter 7, Lesson 2, Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151</p>

<p>Strand 5: Physical Science Physical Science affords students the opportunity to increase their understanding of the characteristics of objects and materials they encounter daily. Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. By studying objects and the forces that act upon them, students develop an understanding of the fundamental laws of motion, knowledge of the various ways energy is stored in systems, and the processes by which energy is transferred between systems and surroundings.</p>
<p>Concept 1: Properties and Changes of Properties in Matter Understand physical and chemical properties of matter.</p>
<p>PO 3. Describe changes of matter:</p> <ul style="list-style-type: none"> • Physical—cutting wood, ripping paper, freezing water • Chemical—burning of wood, rusting of iron, milk turning sour.
<p>Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Process Skill, SE page 153 Chapter 8, Lesson 2, Video C, SE page 165</p>

<p>Strand 5: Physical Science</p> <p>Physical Science affords students the opportunity to increase their understanding of the characteristics of objects and materials they encounter daily. Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. By studying objects and the forces that act upon them, students develop an understanding of the fundamental laws of motion, knowledge of the various ways energy is stored in systems, and the processes by which energy is transferred between systems and surroundings.</p>
<p>Concept 2: Motion and Forces</p> <p>Understand the relationship between force and motion.</p>
<p>PO 1. Describe the following:</p> <ul style="list-style-type: none"> • Gravity • Friction.
<p>Chapter 9, Lesson 1, Video C, SE page 181; Lesson 3, Video B, SE page 194</p>

<p>Strand 5: Physical Science</p> <p>Physical Science affords students the opportunity to increase their understanding of the characteristics of objects and materials they encounter daily. Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. By studying objects and the forces that act upon them, students develop an understanding of the fundamental laws of motion, knowledge of the various ways energy is stored in systems, and the processes by which energy is transferred between systems and surroundings.</p>
<p>Concept 2: Motion and Forces</p> <p>Understand the relationship between force and motion.</p>
<p>PO 2. Describe the various effects forces can have on an object (e.g., cause motion, halt motion, change direction of motion, cause deformation).</p>
<p>Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Video C, SE page 181; Critical Thinking, SE page 183; Process Skill, SE page 183; Lesson 3, video A, SE page 193; Video B, SE page 194; Video C, SE page 195; Critical Thinking, SE page 197; Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 5: Physical Science</p> <p>Physical Science affords students the opportunity to increase their understanding of the characteristics of objects and materials they encounter daily. Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. By studying objects and the forces that act upon them, students develop an understanding of the fundamental laws of motion, knowledge of the various ways energy is stored in systems, and the processes by which energy is transferred between systems and surroundings.</p>
<p>Concept 2: Motion and Forces</p> <p>Understand the relationship between force and motion.</p>
<p>PO 3. Examine forces and motion through investigations using simple machines (e.g., wedge, plane, wheel and axle, pulley, lever).</p>
<p>See Level A: Chapter 7, Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153; Process Skill, SE page 153</p> <p>See also Level B: Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175</p>

<p>Strand 5: Physical Science</p> <p>Physical Science affords students the opportunity to increase their understanding of the characteristics of objects and materials they encounter daily. Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. By studying objects and the forces that act upon them, students develop an understanding of the fundamental laws of motion, knowledge of the various ways energy is stored in systems, and the processes by which energy is transferred between systems and surroundings.</p>
<p>Concept 2: Motion and Forces</p> <p>Understand the relationship between force and motion.</p>
<p>PO 4. Demonstrate effects of variables on an object's motion (e.g., incline angle, friction, applied force).</p>
<p>Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Video C, SE page 181; Lesson 3, Video A, SE page 193; Video B, SE page 194; Video C, SE page 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 2: Earth's Processes and Systems</p> <p>Understand the processes acting on the Earth and their interaction with the Earth's systems.</p>
<p>PO 1. Describe how the Moon's appearance changes during a four-week lunar cycle.</p>
<p>Chapter 6, Lesson 2, Video C, SE page 123</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 2: Earth's Processes and Systems</p> <p>Understand the processes acting on the Earth and their interaction with the Earth's systems.</p>
<p>PO 2. Describe how Earth's rotation results in day and night at any particular location.</p>
<p>Chapter 6, Lesson 2, Video A, SE page 121</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 2: Earth's Processes and Systems</p> <p>Understand the processes acting on the Earth and their interaction with the Earth's systems.</p>
<p>PO 3. Distinguish between revolution and rotation.</p>
<p>Chapter 6, Lesson 2, Video A, SE page 121; Video B, SE page 122; Video C, SE page 123</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 2: Earth's Processes and Systems</p> <p>Understand the processes acting on the Earth and their interaction with the Earth's systems.</p>
<p>PO 4. Describe the role of gravity as an attractive force between celestial objects.</p>
<p>Chapter 6, Lesson 1, Video B, SE page 114; Lesson 2, Video B, SE page 122</p> <p>Chapter 9, Lesson 1, Video B, SE page 180</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 3: Earth in the Solar System</p> <p>Understand the relationships of the Earth and other objects in the solar system.</p>
<p>PO 1. Identify the known planets of the solar system.</p>
<p>Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Critical Thinking, SE page 117; Process Skill, SE page 117; KnowZone, SE pages 118-119</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 3: Earth in the Solar System</p> <p>Understand the relationships of the Earth and other objects in the solar system.</p>
<p>PO 2. Describe the distinguishing characteristics of the known planets in the solar system.</p>
<p>Chapter 6, Lesson 1, Video B, SE page 114; Critical Thinking, SE page 117; Process Skill, SE page 117; KnowZone, SE pages 118-119</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 3: Earth in the Solar System</p> <p>Understand the relationships of the Earth and other objects in the solar system.</p>
<p>PO 3. Describe various objects in the sky (e.g., asteroids, comets, stars, meteors/shooting stars).</p>
<p>Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Process Skill, SE page 117; KnowZone, SE pages 118-119; Lesson 2, Video B, SE page 122; Video C, SE page 123; Critical Thinking, SE page 125 Eclipses, SE page 205</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 3: Earth in the Solar System</p> <p>Understand the relationships of the Earth and other objects in the solar system.</p>
<p>PO 4. Describe the change in position and motion of the following objects in the sky over time:</p> <ul style="list-style-type: none"> • Real motion—Moon, planets • Apparent motion (due to the motion of the Earth)—Sun, Moon, stars.
<p>Chapter 6, Lesson 2, Video A, SE page 121; Video B, SE page 122; Video C, SE page 123; Critical Thinking, SE page 125; Process Skill, SE page 125</p> <p>Earth in Space, SE page 205</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 3: Earth in the Solar System</p> <p>Understand the relationships of the Earth and other objects in the solar system.</p>
<p>PO 5. Explain the apparent motion of the Sun and stars.</p>
<p>Chapter 6, Lesson 2, Video B, SE page 122; Video C, SE page 123</p> <p>Earth in Space, SE page 205</p>

<p>Strand 6: Earth and Space Science</p> <p>Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understanding of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, student can make informed decisions about issues affecting the planets on which they live.</p>
<p>Concept 3: Earth in the Solar System</p> <p>Understand the relationships of the Earth and other objects in the solar system.</p>
<p>PO 6. Describe efforts to explore space (e.g., Apollo missions, space shuttles, Hubble space telescope, space probes).</p>
<p>Chapter 6, KnowZone, SE page 118-119; Lesson 3, Video A, SE page 127; Video B, SE page 128; Video C, SE page 129; Critical Thinking, SE page 131</p>

SRA Snapshots Video Science™: Level A
correlation to
Arizona Science Standard Performance Level Descriptors (AIMS)
Grade 3

SRA Snapshots Video Science™ consists of four interdependent components. Each level has four program DVDs that provide engaging video lessons. The student edition (**SE**) provides student friendly text that reinforces the concepts introduced in the video. The Teacher’s Resource Book (**TRB**) provides support activities in a blackline master format. The Teacher’s Guide (**TG**) provides lesson planning, differentiated instruction activities, and answers to all student activities in the Student Edition.

KEY:	
Reference	Program Component
Video	Video lessons on program DVDs
SE	Student Edition
TRB	Teacher’s Resource Book
TG	Teacher’s Guide

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:

Process

- Differentiate inferences from observations.

Chapter 1, Lesson 1, Process Skill, SE page 7; Lesson 2, Process Skill, SE page 13; Chapter 1 LabTime Hands-On Activity, TRB pages 15-17, TG page 30

Chapter 2, Lesson 3, Process Skill, SE page 43

Chapter 3, LabTime Hands-On Activity, TRB Pages 51-53, TG page 66

Chapter 4, Lesson 2 Process Skill, SE page 79; LabTime Hands-On Activity, TRB pages 69-71, TG page 84

Chapter 5, LabTime Hands-On Activity, TRB pages 87-89, TG page 102

Chapter 6, Lesson 3 Process Skill, SE page 131; LabTime Hands-On Activity, TRB pages 105-107, TG page 120

Chapter 7 LabTime Hands-On Activity, TRB pages 123-125, TG page 138

Chapter 8, Lesson 3 Process Skill, SE page 175; LabTime Hands-On Activity, TRB pages 141-143, TG page 156

Chapter 9, Lesson 1 Process Skill, SE page 183; LabTime Hands-On Activity, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:

Process

- Plan a simple investigation that identifies the variables to be controlled.

Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Analyze data obtained in a scientific investigation to identify trends.
Chapter 1, Lesson 2 Math in Science, SE page 13 Chapter 3, Lesson 3 Process Skill, SE page 65 Chapter 5, Lesson 2 Math in Science, SE page 103; Process Skill, SE page 103 Chapter 6, Lesson 2 Writing in Science. SE page 123 Chapter 7 LabTime Hands-On Activity, TRB pages 123-125; TG page 138 Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity, TRB pages 141-143; TG page 156

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Formulate conclusions based upon identified trends in data.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 2, Process Skill, SE page 59; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Explain the role of experimentation in scientific inquiry.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Evaluate the consequences of environmental occurrences that happen either rapidly (e.g., fire, flood, tornado) or over a long period of time.
Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71; Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Analyze the effect the limited resources (e.g., natural gas, minerals) may have on an environment.
Chapter 4, Lesson 3, Video C, SE page 85
Chapter 9, Lesson 2, Video A, Se page 187; Lesson 3, Video C, SE page 195

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Construct series and parallel electric circuits.
Chapter 9, Lesson 2, Video A, SE page 187; Video B, SE page 188; Video C, SE page 189; Process Skill, SE page 191

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Compare rapid and slow processes that change the Earth’s surface.
Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Analyze evidence that indicates life and environmental conditions have changed.
Chapter 4, Lesson 2, Video B, SE page 76; KnowZone, SE pages 80-81

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Differentiate between weather and climate as they relate to the southwestern United States.
Chapter 5, Lesson 1, Video B, SE page 92; Video C, SE page 93; Critical Thinking, SE page 95; Process Skill, SE page 95; Lesson 3, Video A, SE page 105; Video B, SE page 106; Video C, SE page 107; Critical Thinking, SE page 109; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Measure using appropriate tools (e.g., ruler, scale, balance) and units of measure (i.e., metric, U.S. customary).
Chapter 3, Lesson 3, Process Skill, SE page 65
Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102
Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138
Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156
The Metric System, SE page 200-201

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Describe how natural events and human activities have positive and negative impacts on environments.
Chapter 2, Lesson 1, Video C, SE page 27 Chapter 3, Lesson 1, Video A, SE page 47; Video C, SE page 49; Lesson 3, Video A, SE page 61; Video C, SE page 63; Critical Thinking, SE page 65 Chapter 4, Lesson 3, Video B, SE page 84; Video C, SE page 85 Chapter 5, Lesson 2, Video C, SE page 101 Chapter 9, Lesson 3, Video C, SE page 195

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Describe how science and technology (e.g., computers, air conditioning, medicine) have improved the lives of many people.
Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Math in Science, SE page 59 Chapter 4, Lesson 1, Process Skill, SE page 73 Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, 105 Chapter 6, KnowZone, SE pages 124-125; Lesson 3, Video B, SE page 128; Video C, SE page 129 Chapter 8, KnowZone, SE pages 168-169

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Describe benefits (e.g., easy communications, rapid transportation) and risks (e.g., pollution, destruction of natural resources) related to the use of technology.
Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Math in Science, SE page 59 Chapter 5, KnowZone SE pages 96-97; Lesson 3, Video A, SE page 105 Chapter 6, KnowZone, SE pages 124-125; Lesson 3, Video BC, SE page 128; Video C, 129

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Compare structures in plants (e.g., roots, stems, leaves, flowers) and animals (e.g., muscles, bones, nerves) that serve different functions in growth and survival.
Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40; Lesson C, SE page 41; Writing in Science, SE page 43; Process Skill, SE page 43

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Describe ways various resources (e.g., air, water, plants, animals, soil) are utilized to meet the needs of a population.
Chapter 4, Lesson 2, Video A, SE page 75; Video B, SE page 76; Video C, SE page 77; Lesson 3, Video A, SE page 83; Video B, SE page 84 Chapter 5, Lesson 1, Video A, SE page 91; Lesson 2, Video A, SE page 99 Chapter 9, Lesson 3, Video C, SE page 195

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Recognize that successful characteristics of populations are inherited traits that are favorable in a particular environment.
Chapter 2, Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Demonstrate that electricity flowing in circuits can produce light, heat, sound, and magnetic effects.
Chapter 9, Lesson 2, Video B, SE page 188; Video C, SE page 189; Process Skill, SE page 191

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Describe the role that water plays in the following processes that alter the Earth’s surface features.
Chapter 4, Lesson 1, Video A, SE page 69; Video B, SE page 70; Critical Thinking, SE page 73; LabTime Hands-On Activity, TRB pages 69-71, TG page 84

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Measure changes in weather.
Chapter 5, Lesson 1, Video B, SE page 92; Video C, SE page 93; Writing in Science, SE page 95; Process Skill, SE page 95; Lesson 2, Video B, SE page 100; Math in Science, SE page 103; Process Skill, SE page 103; Lesson 3, Video A, SE page 105; Video B, SE page 106; Video C, SE page 107; Process Skill, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Interpret the symbols on a weather map.
Chapter 5, Lesson 1, Video C, SE page 93; Process Skill, SE page 95; Lesson 3, Video A, SE page 105; Video C, SE page 107

Students at the “Approaches the Standard” level generally know and are able to:
Process
<ul style="list-style-type: none"> Demonstrate safe behavior and appropriate procedures (e.g., use and care of technology, materials, organisms) in all science inquiry.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 5, Lesson 3, Video C, Se page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Students at the “Approaches the Standard” level generally know and are able to:
Content
<ul style="list-style-type: none"> Classify animals by identifiable group characteristics.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Math in Science, SE page 13 Classification, SE page 202

Students at the “Approaches the Standard” level generally know and are able to:
Content
<ul style="list-style-type: none"> Describe ways in which resources can be conserved.
Chapter 3, Lesson 3, Video C, SE page 62 Chapter 4, Lesson 3, Video A, SE page 83; Video C, SE page 85; Process Skill, SE page 87 Chapter 5, Lesson 2, Video C, SE page 101 Chapter 9, Lesson 3, Video C, SE page 195

Students at the “Approaches the Standard” level generally know and are able to:
Content
<ul style="list-style-type: none"> Investigate the characteristics of magnets.
Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145

Students at the “Approaches the Standard” level generally know and are able to:
Content
<ul style="list-style-type: none"> Identify the Earth processes that cause erosion.
Chapter 4, Lesson 1, Video B, SE page 70; LabTime Hands-On Activity, TRB pages 69-71; TG page 84

SRA Snapshots Video Science™ Level B
correlation to
Arizona Science Standard Performance Level Descriptors (AIMS)
Grade 4

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KEY:	
Reference	Program Component
Video	Video lessons on program DVDs
SE	Student Edition
TRB	Teacher’s Resource Book
TG	Teacher’s Guide

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:

Process

- Differentiate inferences from observations.

Chapter 1, Lesson 1, Process Skill, SE page 7; Lesson 2, Process Skill, SE page 11; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Chapter 6, Lesson 3, Process Skill, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 3, Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:

Process

- Plan a simple investigation that identifies the variables to be controlled.

Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Analyze data obtained in a scientific investigation to identify trends.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 1, Math in Science, SE page 117; Lesson 3, Math in Science, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 189; Lesson 3, Math in Science, SE page 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Formulate conclusions based upon identified trends in data.
Chapter 1, Lesson 1, Process Skill, SE page 7; Lesson 2, Process Skill, SE page 11; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Process Skill, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 3, Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Explain the role of experimentation in scientific inquiry.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 3, Process Skill, SE page 109; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Evaluate the consequences of environmental occurrences that happen either rapidly (e.g., fire, flood, tornado) or over a long period of time.
Chapter 4, Lesson 2, Video B, SE page 76; Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; KnowZone, SE pages 86-87 Chapter 5, Lesson 1, Video C, SE page 93; Lesson 2, Video A, SE page 97 Chapter 9, Lesson 3, Video A, SE page 191; Video B, SE page 192; Critical Thinking, SE page 195; Process Skill, SE page 195

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Analyze the effect the limited resources (e.g., natural gas, minerals) may have on an environment.
Chapter 3, Lesson 3, Video C, SE page 63 Chapter 4, Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; KnowZone, SE pages 86-87 Chapter 5, Lesson 1, Video C, SE page 93 Chapter 9, Lesson 3, Video A, SE page 191; Video B, SE page 192; Critical Thinking, SE page 195; Process Skill, SE page 195

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Construct series and parallel electric circuits.
Chapter 9, Lesson 1, Video C, SE page 181

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Compare rapid and slow processes that change the Earth’s surface.
Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71; Lesson 2, Video A, SE page 75

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Analyze evidence that indicates life and environmental conditions have changed.
Chapter 1, Lesson 1, Video C, SE page 5; Math in Science, SE page 7; Process Skill, SE page 7 Chapter 4, Lesson 2, Video B, SE page 76; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Differentiate between weather and climate as they relate to the southwestern United States.
Chapter 5, Lesson 3, Video A, SE page 105; Video B, SE page 106

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Measure using appropriate tools (e.g., ruler, scale, balance) and units of measure (i.e., metric, U.S. customary).
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 5, Lesson 2, Video C, SE page 99; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Process Skill, SE page 147 Chapter 8, Lesson 3, Process Skill, SE page 175 The Metric System, SE pages 200-201

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Describe how natural events and human activities have positive and negative impacts on environments.
Chapter 2, Lesson 1, Video B, SE page 26; Critical Thinking, SE page 29; Lesson 3, Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43 Chapter 3, Lesson 2, Video C, SE page 57; Critical Thinking, SE page 59; Lesson 3, Video C, SE page 62; Video C, SE page 63; Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Describe how science and technology (e.g., computers, air conditioning, medicine) have improved the lives of many people.
Chapter 4, Lesson 3, Video B, SE page 82; Video C, SE page 83 Chapter 5, Lesson 2, Video C, SE page 99; KnowZone, SE pages 102-103 Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 27; KnowZone, SE pages 130-131 Chapter 7, KnowZone, SE pages 140-141 Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169; Lesson 3, Video C, SE page 173 Chapter 9, Lesson 2, Video C, SE page 187; Lesson 3, Video A, SE page 191; Video B, SE page 192; Process Skill, SE page 195; KnowZone, SE pages 196-197

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Describe benefits (e.g., easy communications, rapid transportation) and risks (e.g., pollution, destruction of natural resources) related to the use of technology.
Chapter 4, Lesson 1, Video B, SE page 70; Lesson 3, Video C, SE page 83 Chapter 5, Lesson 2, Video C, SE page 99; KnowZone, SE pages 102-103 Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 127; Process Skill, SE page 129 Chapter 7, KnowZone, SE pages 140-141 Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169 Chapter 9, Lesson 2, Video C, SE page 187; Process Skill, SE page 189; Lesson 3, Video A, SE page 191; Process Skill, SE page 195; KnowZone, SE pages 196-197

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Compare structures in plants (e.g., roots, stems, leaves, flowers) and animals (e.g., muscles, bones, nerves) that serve different functions in growth and survival.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; KnowZone, SE pages 14-15; Lesson 3, Video B, SE page 18; Video C, SE page 19 Chapter 2, KnowZone, SE pages 36-37 Chapter 3, Lesson 1, Video B, SE page 48; KnowZone, SE pages 52-53; Lesson 2, Video B, SE page 56

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Describe ways various resources (e.g., air, water, plants, animals, soil) are utilized to meet the needs of a population.
Chapter 1, Lesson 1, Video A, SE page 3; Lesson 3, Video B, SE page 18; Video C, SE page 19; Critical Thinking, SE page 21 Chapter 2, Lesson 1, Video A, SE page 25; Lesson 2, Video A, SE page 31; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 2, Video A, SE page 55

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Recognize that successful characteristics of populations are inherited traits that are favorable in a particular environment.
Chapter 1, Lesson 2, Video C, SE page 11; LabTime Hands-On Activity 1, TRB Pages 15-17; TG page 30 Chapter 2 KnowZone, SE pages 36-37 Chapter 3, Lesson 1, Video C, SE page 49; Lesson 3, Video A, SE page 61; Video B, SE page 62

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Demonstrate that electricity flowing in circuits can produce light, heat, sound, and magnetic effects.
Chapter 9, Lesson 1, Video C, SE page 181

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Describe the role that water plays in the following processes that alter the Earth’s surface features.
Level B: Chapter 4, Lesson 2, Video A, SE page 75; Critical Thinking, SE page 79 See also Level C: Chapter 4, Lesson 2, Video A, SE page 77; Video B, SE page 78; Video C, SE page 79; Critical Thinking, SE page 81

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Measure changes in weather.
Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Lesson 2, Video B, SE page 98; Video C, SE page 99; Process Skill, SE page 101; Lesson 3, Video C, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Interpret the symbols on a weather map.
Chapter 5, Lesson 2, Video C, SE page 99; Process Skill, SE page 101; Lesson 3, Video A, SE page 105; Video B, SE page 106

Students at the “Approaches the Standard” level generally know and are able to:
Process
<ul style="list-style-type: none"> Demonstrate safe behavior and appropriate procedures (e.g., use and care of technology, materials, organisms) in all science inquiry.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 3, Video C, SE page 193; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Approaches the Standard” level generally know and are able to:
Content
<ul style="list-style-type: none"> Classify animals by identifiable group characteristics.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Process Skill, SE page 13; KnowZone, SE pages 14-15

Students at the “Approaches the Standard” level generally know and are able to:
Content
<ul style="list-style-type: none"> Describe ways in which resources can be conserved.
Chapter 1, Lesson 1, Video C, SE page 5 Chapter 2, Lesson 2, Critical Thinking, SE page 29; Lesson 3, Video C, SE page 41; Process Skill, SE page 43 Chapter 3, Lesson 2, Critical Thinking, SE page 59; Lesson 3, Video C, SE page 63; Critical thinking, SE page 65; Process Skill, SE page 65 Chapter 5, Lesson 1, Video C, SE page 93 Chapter 9, Lesson 3, video A, SE page 191; Video B, SE page 192; Critical Thinking, SE page 195

Students at the “Approaches the Standard” level generally know and are able to:
Content
<ul style="list-style-type: none"> Investigate the characteristics of magnets.
Chapter 9, Lesson 2, Video A, SE page 185

Students at the “Approaches the Standard” level generally know and are able to:
Content
<ul style="list-style-type: none"> Identify the Earth processes that cause erosion.
Chapter 4, Lesson 2, Video A, SE page 75

SRA Snapshots Video Science™: Level C
correlation to
Arizona Science Standard Performance Level Descriptors (AIMS)
Grade 5

SRA Snapshots Video Science™ consists of four interdependent components. Each level has four program DVDs that provide engaging video lessons. The student edition (**SE**) provides student friendly text that reinforces the concepts introduced in the video. The Teacher’s Resource Book (**TRB**) provides support activities in a blackline master format. The Teacher’s Guide (**TG**) provides lesson planning, differentiated instruction activities, and answers to all student activities in the Student Edition.

KEY:	
Reference	Program Component
Video	Video lessons on program DVDs
SE	Student Edition
TRB	Teacher’s Resource Book
TG	Teacher’s Guide

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:

Process

- Formulate questions based on observations.

Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Chapter 4, Lesson 2, Process Skill, 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Chapter 9, Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:

Process

- Generate a hypothesis that can be tested.

Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Chapter 4, Lesson 2, Process Skill, 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Chapter 9, Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Analyze data to identify trends.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Form a logical argument about a correlation between variables or sequence of events.
Chapter 1, Lesson 3, Process Skill, SE page 19 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 8, Lesson 2, Process Skill, SE page 167; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Explain how evidence supports the validity and reliability of a conclusion.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Critique scientific reports from periodicals, television, or other media.
Chapter 1, Lesson 3, Critical Thinking, SE page 19 Chapter 2, Lesson 2, Critical Thinking, SE page 35 Chapter 3, Lesson 1, Critical Thinking, SE page 51; Lesson 3, Critical Thinking, SE page 65 Chapter 4, Lesson 3, Critical Thinking, SE page 87 Chapter 5, Lesson 1, Critical Thinking, SE page 95 Chapter 7, Lesson 2, Critical Thinking, SE page 147 Chapter 8, Lesson 2, Critical Thinking, SE page 167; Lesson 3, Critical Thinking, SE page 175 Chapter 9, Lesson 3, Video A, SE page 193; Video B, SE page 194; Video C, SE page 195; , Critical Thinking, SE page 197

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Process
<ul style="list-style-type: none"> Formulate new questions based on the results of a previous investigation.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Identify matter based on state, density, boiling point, melting point, and solubility.
Chapter 7, Lesson 1, Video A, SE page 135; Video C, SE page 137; Critical Thinking, SE page 139; Process Skill, SE page 139; Lesson 2, Video A, SE page 143; Video B, SE page 144; Process Skill, SE page 147

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Describe how the acceleration of a body is dependent on its mass and the net applied force (Newton’s 2nd Law of Motion).
Chapter 9, Lesson 3, Video B, SE page 194; Critical Thinking, SE page 197

Students at the “Exceeds the Standard” level generally know the skills required at the “Meets” and “Approaches” levels and are able to do:
Content
<ul style="list-style-type: none"> Describe forces as interactions between bodies (Newton’s 3rd Law of Motion).
Chapter 9, Lesson 3, Video C, SE page 195

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Interpret data to determine relationships between variables.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Identify potential investigational error.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Choose an appropriate graphic representation for collected data.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Write clear, step-by-step instructions for conducting investigations or operating equipment.
Chapter 9, Lesson 3 Process Skill, SE page 197

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Apply the scientific processes of prediction, comparison, inference, data organization, and identification of variables to problem solving or decision making situations.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Process
<ul style="list-style-type: none"> Compare solutions to best address an identified need or problem.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Distinguish between dominant and recessive traits in humans.
This concept is not covered at this level.

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Identify matter based on reactivity, pH, and oxidation.
Chapter 7, Lesson 3, Video A, SE page 149; Video B, SE page 150; Critical Thinking, SE page 153; Process Skill, SE page 153

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Identify evidence that a chemical reaction has occurred including formation of precipitate, generation of gas, color change and absorption or release of heat.
Chapter 7, Lesson 2, Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153; Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Classify matter as elements, compounds, or mixtures.
Chapter 4, Lesson 2, Video A, SE page 77 Chapter 7, Lesson 1, Video A, SE page 135; Critical Thinking, SE page 139; KnowZone, SE page 140-141; Lesson 2, Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Identify conditions under which an object will continue in its state of motion (Newton’s 1st Law of Motion).
Chapter 9, Lesson 3, Video A, SE page 193

Students at the “Meets the Standard” level generally know the skills required at the “Approaches” level and are able to:
Content
<ul style="list-style-type: none"> Create position-time and velocity-time graphs from measurements of moving objects.
Chapter 9, Lesson 1, Video A, SE page 179; KnowZone, SE pages 184-185; Lesson 2, Video A, SE page 187; Video B, SE page 188; Video C, SE page 189; Critical Thinking, SE page 191; Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Approaches the Standard” level generally know and are able to:
Process
<ul style="list-style-type: none"> Demonstrate safe behavior and appropriate procedures during scientific inquiry.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 Chapter 4, Lesson 2, Process Skill, SE page 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 Chapter 5, Lesson 3, Video B, SE page 109; Know Zone, SE pages 104-105; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Students at the “Approaches the Standard” level generally know and are able to:
Process
<ul style="list-style-type: none"> Perform measurements using appropriate scientific tools.
Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Lesson 3, Video A, SE page 15; Video B, SE page 16 Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129 Chapter 7, Lesson 2, Video B, SE page 144; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 Chapter 8, Lesson C, Video C, SE page 165; KnowZone, SE pages 168-169 Chapter 9, Lesson 2 Process Skill, SE page 191

Students at the “Approaches the Standard” level generally know and are able to:
Content
<ul style="list-style-type: none"> Explain the purposes of cell division for growth and repair, and reproduction.
Chapter 1, Lesson 1, Video B, SE page 4; Video C, SE page 5; Critical Thinking, SE page 7; Lesson 2, Video A, SE page 9; Lesson 3, Video A, SE page 15; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Students at the “Approaches the Standard” level generally know and are able to:
Content
<ul style="list-style-type: none"> Explain how an organism’s behavior allows it to survive in an environment.
Chapter 2, Lesson 2, Video B, SE page 32; Video C, SE page 33; Critical Thinking, SE page 35; Process Skill, SE page 35; KnowZone, SE pages 36-37; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48