

SRA Snapshots Video Science™: Level A
correlation to
Arkansas Science Curriculum Framework
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: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.3.1 Communicate observations orally, in writing, and in graphic organizers: • T-charts • Pictographs • Venn diagrams • Bar graphs • Frequency tables.
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.3.2 Develop questions that guide 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, 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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.3.3 Conduct <i>scientific investigations</i> individually and in teams: • <i>Lab activities</i> • <i>Field studies.</i>
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.3.4 Communicate the results of <i>scientific investigations</i> (e.g., age-appropriate graphs, charts, and writings).
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.3.5 Estimate and measure length, mass, temperature, and elapsed time using International System of Units (SI).
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.3.6 Collect and analyze measurable and <i>empirical evidence</i> as a team and/or as individuals.
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.3.7 Make and explain predictions based on prior knowledge.
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 Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Scientific Equipment and Technology
NS.1.3.8 Use simple equipment, age-appropriate tools, technology, and mathematics in <i>scientific investigations</i> (e.g., balances, hand lenses, microscopes, rulers, thermometers, calculators, computers).
Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57 Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, SE page 105 Chapter 6, KnowZone, SE page 124-125; Lesson 3, Video B, SE page 128; Video C, SE page 129; Process Skill, SE page 131 Chapter 7, LabTime Hands-On Activity, TRB pages 123-125; TG page 138 Chapter 8, Lesson 1, Video C, SE page 187; LabTime Hands-On Activity. TRB ages 141-143, TG page 156

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Scientific Equipment and Technology
NS.1.3.9 Apply lab safety rules as they relate to specific lab activities.
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

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Characteristics
LS.2.3.1 Classify animals as vertebrates and <i>invertebrates</i> according to their structure.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Classification, SE page 202

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.3.2 Identify major parts and functions of the following systems: • Respiratory • Muscular.
See Level C:
Chapter 1, Lesson 3, Video B, SE page 16; Video C, SE page 17

Strand 2: Life Science
Standard 2: Life Cycles, Reproduction, and Heredity: Students shall demonstrate and apply knowledge of life cycles, reproduction, and heredity using appropriate safety procedures, equipment, and technology.
Life Cycles
LS.3.3.3 Differentiate among <i>complete metamorphosis</i> , <i>incomplete metamorphosis</i> , and <i>embryonic development</i> .
Chapter 1, Lesson 3, Video A, SE page 17; Video B, SE page 18; Process Skill, SE page 21

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Physical Properties
PS.5.3.1 Compare and contrast objects based on two or more properties.
Chapter 8, Lesson 1, Video B, SE page 158; Video C, SE page 159; Lesson 2, Process Skill, SE page 167; KnowZone, SE pages 168-169; Lesson 3, Video B, SE page 172; Video C, SE page 173

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Physical Properties
PS.5.3.2 Demonstrate physical changes in <i>matter</i> .
Chapter 8, Lesson 2, Video B, SE page 164; Critical Thinking, SE page 167; Process Skill, SE page 167

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Physical Properties
PS.5.3.3 Determine the <i>mass</i> of solids.
Chapter 8, Lesson 1, Video A, SE page 157; Video C, SE page 159

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
States of Matter
PS.5.3.4 Compare and contrast solids and liquids.
Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Process Skills 161

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.
Motion and Forces
PS.6.3.1 Identify characteristics of wave motion: • <i>Amplitude</i> • <i>Frequency</i>.
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

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.
Motion and Forces
PS.6.3.2 Investigate the relationship between sound and wave motion.
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

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.
Motion and Forces
PS.6.3.3 Determine the impact of the following <i>variables</i> on pitch: • Length • Mass • Tension • State of matter.
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

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Light
PS.7.3.1 Classify materials as those which can <i>reflect</i> , <i>refract</i> , or absorb light.
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

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Heat
PS.7.3.2 Calculate a change in <i>temperature</i> using the Celsius scale.
Chapter 5, Lesson 3, Video A, SE page 105

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Electricity
PS.7.3.3 Identify methods of producing <i>electricity</i> relative to Arkansas:
• Hydroelectric • Coal • Oil • Natural gas • Nuclear • Solar • Wind.
Chapter 9, Lesson 2, Video A, SE page 187; Lesson 3, Video B, SE page 194; Video C, SE page 195

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Magnetism
PS.7.3.4 Differentiate between magnets and non-magnets.
Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Critical Thinking, SE page 147; Process Skill, SE page 147

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Magnetism
PS.7.3.5 Describe the effect of distance on attraction and repulsion.
Chapter 7, Lesson 2, Video B, SE page 144

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Magnetism
PS.7.3.6 Construct a magnet by the “Touch/Stroke” method.
Level A: Chapter 7, Lesson 2, Differentiated Instruction Options, Activities for All, TG page 132 See also Level B: Chapter 9, Lesson 2, Differentiated Instruction Options, Remediation, TG page 168

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using safety procedures, equipment, and technology.
Properties of the Earth
ESS.8.3.1 Distinguish among Earth’s materials:
• Rocks • Minerals • Fossils • Soils.
Chapter 4, Lesson 2, Video A, SE page 75; Video B, SE page 76; Video C, SE page 77; Critical Thinking, SE page 79; Process Skill, SE page 79; KnowZone, SE pages 80-81

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using safety procedures, equipment, and technology.
Properties of the Earth
ESS.8.3.2 Classify rocks by their properties, including but not limited to: • Size • Shape • Color • Texture • Patterns.
Chapter 4, Lesson 2, Video A, SE page 75

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using safety procedures, equipment, and technology.
Properties of the Earth
ESS.8.3.3 Identify the three categories of rocks: • <i>Metamorphic</i> • <i>Igneous</i> • <i>Sedimentary.</i>
Chapter 4, Lesson 2, Video A, SE page 75

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using safety procedures, equipment, and technology.
Properties of the Earth
ESS.8.3.4 Identify the <i>physical properties</i> of minerals: • Hardness • Color • Luster • Streak.
Chapter 4, Lesson 2, Video A, SE page 75

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using safety procedures, equipment, and technology.
Properties of the Earth
ESS.8.3.5 Identify areas in Arkansas that are the main source of the following minerals: • Bauxite • Novaculite • Quartz crystal • Diamond • Bromine.
Chapter 4, Lesson 2, Video A, SE page 75

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using safety procedures, equipment, and technology.
Properties of the Earth
ESS.8.3.6 Describe the layers of Earth: • Crust • Mantle • Inner core • Outer core.
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

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using safety procedures, equipment, and technology.
Natural Resources
ESS.8.3.7 Identify common uses of rocks and minerals.
Chapter 4, Lesson 2, Video A, SE page 75; Video B, SE page 76

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using safety procedures, equipment, and technology.
Weather
ESS.8.3.8 Chart <i>precipitation</i> levels over time.
Chapter 5, Lesson 1, Video B, SE page 92; Lesson 2, Video B, SE page 100; Process Skill, SE page 103

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using safety procedures, equipment, and technology.
Weather
ESS.8.3.9 Demonstrate safety procedures related to severe weather.
Chapter 5, Lesson 3, Video B, SE page 106; Video C, SE page 107; Critical Thinking, SE page 109; Writing in Science, SE page 109

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using safety procedures, equipment, and technology.
Weather
ESS.8.3.10 Construct and read a rain gauge.
Chapter 5, Lesson 2, Video B, SE page 100; Process Skill, SE page 103; Lesson 3, Video A, SE page 105

Strand 4: Earth and Space Science
Standard 9: Earth’s History: Changes in Earth and Sky: Students shall demonstrate knowledge of Earth’s history using appropriate safety procedures, equipment, and technology.
Weather
ESS.9.3.1 Analyze the effect of wind and water on Earth’s surface.
Chapter 4, Lesson 1, Video B, SE page 70 Chapter 5, Lesson 2, Video A, SE page 99; Video B, SE page 100; Video C, SE page 101

Strand 4: Earth and Space Science
Standard 10: Objects in the Universe: Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.
Solar System
ESS.10.3.1 Demonstrate how the planets <i>orbit</i> the sun.
Chapter 6, Lesson 2, Video A, SE page 119; Video B, SE page 120; Video C, SE page 121

Strand 4: Earth and Space Science
Standard 10: Objects in the Universe: Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.
Solar System
ESS.10.3.2 Demonstrate the <i>orbit</i> of Earth and its moon around the sun.
Chapter 9, Lesson 1, Video B, SE page 114; Video C, SE page 115; Critical Thinking, SE page 117

Strand 4: Earth and Space Science
Standard 10: Objects in the Universe: Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.
Solar System
ESS.10.3.3 Relate Earth's rotation to the day/night cycle.
Chapter 6, Lesson 1, Video A, SE page 113; Process Skill, SE page 117

SRA Snapshots Video Science™: Level B
correlation to
Arkansas Science Curriculum Framework 2005
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
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TRB	Teacher’s Resource Book
TG	Teacher’s Guide

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.4.1 Communicate observations orally, in writing, and in graphic organizers: • T-charts • Pictographs • Venn diagrams • Bar graphs • Frequency tables • Line graphs.
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: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.4.2 Refine questions that guide 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, 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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.4.3 Conduct <i>scientific investigations</i> individually and in teams • <i>Lab activities</i> • <i>Field studies.</i>
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.4.5 Communicate the designs, procedures, and results of <i>scientific investigations</i> (e.g., age-appropriate graphs, charts, and writings).
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.4.6 Estimate and measure length, <i>mass</i> , <i>temperature</i> , capacity/volume, and elapsed time using International System of Units (SI).
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 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, 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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.4.7 Collect and interpret measurable <i>empirical evidence</i> in teams and as individuals.
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, 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

Strand 1: Nature of Science
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Inquiry and Process Skills
NS.1.4.8 Develop a <i>hypothesis</i> based on prior knowledge and observations.
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.4.9 Identify <i>variables</i> that affect investigations.
Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.4.10 Identify patterns and trends in data.
Chapter 1, Lesson 1, Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 3, Lesson 3, Math in Science, SE page 65 Chapter 4, Lesson 1, Math in Science, SE page 73 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, math in Science, SE page 147 Chapter 9, Lesson 3, Process Skill, SE page 195 The Metric System, SE pages 200-201

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.4.11 Generate conclusions based on evidence.
Chapter 1, Lesson 1, Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, Lesson 2, Process Skill, SE page 35; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Chapter 3, Lesson 1, Process Skill, SE page 51; 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 2, Process Skill, SE page 123; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 Chapter 7, Lesson 1, Process Skill, SE page 139; 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 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Inquiry and Process Skills
NS.1.4.12 Evaluate the quality and feasibility of an idea or project.
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Scientific Equipment and Technology
NS.1.4.13 Use simple equipment, age-appropriate tools, technology, and mathematics in <i>scientific investigations</i> (e.g., balances, hand lenses, microscopes, rulers, <i>thermometers</i> , calculators, computers).
Chapter 1, Lesson 1, Video A, SE page 3 Chapter 4, Lesson 2, Video C, SE page 77 Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 127; KnowZone, SE pages 105-107; 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 Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169 Chapter 9 KnowZone, SE pages 196-197

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Scientific Equipment and Technology
NS.1.4.14 Apply lab safety rules as they relate to specific science <i>lab activities</i> .
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

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate procedures, equipment, and technology.
Characteristics
LS.2.4.1 Classify <i>vertebrates</i> into major subgroups: • Mammals • Birds • Fish • Amphibians • Reptiles.
Chapter 1, Lesson 2, Video B, SE page 10; Process Skill, SE page 13

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate procedures, equipment, and technology.
Characteristics
LS.2.4.2 Classify some <i>invertebrates</i> according to their structure: • Mollusks • Segmented worms • Arthropods.
Chapter 1, Lesson 2, Video A, SE page 9; Process Skill, SE page 13; KnowZone, SE pages 14-15

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate procedures, equipment, and technology.
Structure and Function
L.S.2.4.3 Identify major parts and functions of the following systems: • Digestive • Circulatory • Nervous.
See Level C: Chapter 1, Lesson 3, Video B, SE page 16; Video C, SE page 17

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
L.S.4.4.1 Recognize <i>environmental adaptations</i> of plants and animals.
Chapter 1, Lesson 2, Video B, SE page 11; Critical thinking, SE page 13; KnowZone, SE page 14-15; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 Chapter 2, KnowZone, SE pages 36-37 Chapter 3, KnowZone, SE pages 52-53; Lesson 2, Video A, SE page 55; Video B, SE page 56

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
L.S.4.4.2 Illustrate the interdependence of organisms in an <i>ecosystem</i> .
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; Process Skill, SE page 35; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43; Lesson Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; Process Skill, SE page 51

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Physical Properties
PS.5.4.1 Demonstrate multiple ways to classify objects.
Chapter 4, Lesson 2, Video B, SE page 76; Video C, SE page 77; Process Skill, SE page 79; Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83 Chapter 7, Lesson 1, Video B, SE page 136; Video C, SE page 137; Lesson 3, Video B, SE page 150

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Physical Properties
PS.5.4.2 Demonstrate <i>chemical changes in matter</i> .
Level B: Chapter 7, Lesson 3, Video C, SE page 151; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 See also Level A: Chapter 8, Lesson 2, Video C, SE page 165 See also Level C: 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

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
States of Matter
PS.5.4.3 Compare and contrast gases to solids and liquids.
Chapter 7, Lesson 1, Video C, SE page 137; Critical Thinking, SE page 139; Process Skill, SE page 139

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate procedures, equipment, and technology.
Motion and Forces
PS.6.4.1 Investigate the relationship between force and direction.
Level B: Chapter 8, Lesson 3, Video A, SE page 171
See also Level A: Chapter 7, Lesson 1, Video A, SE page 135
See also Level C: Chapter 9, Lesson 1, Video A, SE page 179; Lesson 3, video A, SE page 193; Video B, SE page 194; Video C, SE page 195; Process Skill, SE page 197

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate procedures, equipment, and technology.
Motion and Forces
PS.6.4.2 Investigate the relationship between <i>force</i> and <i>mass</i> .
See Level C: Chapter 9, Lesson 3, Video B, SE page 194

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Heat
PS.7.4.1 Interpret trends in temperature over time using the Celsius scale.
See Level A: Chapter 5, Lesson 3, Video A, SE page 105
See also Level C: Chapter 8, Lesson 2, Video C, SE page 165; Critical Thinking, SE page 167; KnowZone, SE pages 168-169

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Electricity
PS.7.4.2 Classify electrical <i>conductors</i> and electrical <i>insulators</i> .
Chapter 9, Lesson 1, Video B, SE page 180

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Electricity
PS.7.4.3 Construct simple circuits from circuit diagrams.
Level B: Chapter 9, Lesson 1, Video C, SE page 181 See also Level A: Chapter 9, Lesson 2, Video B, SE page 188; Process Skill, SE page 191 See also Level C: Chapter 8, Lesson 3, Video A, SE page 171

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Properties of the Earth
ESS.8.4.1 Locate natural divisions of Arkansas: • Ozark Plateau • Ouachita Mountains • Crowley’s Ridge • Mississippi Alluvial Plain (Delta) • Coastal Plain • Arkansas River Valley.
See Level A: Chapter 4, Lesson 1, Video A, SE page 69

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Natural Resources
ESS.8.4.2 Analyze the impact of using <i>natural resources</i> .
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

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Natural Resources
ESS.8.4.3 Differentiate between renewable and non-renewable resources.
Chapter 3, Lesson 3, Video C, SE page 63 Chapter 5, Lesson 3, 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

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Natural Resources
ESS.8.4.4 Evaluate the impact of water pollution.
Chapter 3, Lesson 3, Video C, SE page 63; Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66
Chapter 5, Lesson 1, Video C, SE page 93

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Natural Resources
ESS.8.4.5 Evaluate the impact of Arkansas’ <i>natural resources</i> on the economy, including but not limited to: • Farming • Timber • Tourism • Hunting • Fishing.
This concept is not covered at this level.

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Natural Resources
ESS.8.4.6 Evaluate the human use of Arkansas’ <i>natural resources</i> on the <i>environment</i> , including but not limited to: • Mining • Clear cutting • Dredging.
Chapter 4, Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; Process Skill, SE page 85

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Weather
ESS.8.4.7 Describe the processes of the <i>water cycle</i> : • <i>Precipitation</i> • <i>Evaporation</i> • <i>Condensation.</i>
Chapter 5, Lesson 1, Video A, SE page 91; Critical Thinking, SE page 95

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Weather
ESS.8.4.8 Organize weather data into tables or charts to identify trends and patterns.
See Level A: Chapter 5, Lesson 2, Process Skill, SE page 103
See also Level C: Chapter 5, Lesson 3, Process Skill, SE page 107

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Weather
ESS.8.4.9 Demonstrate safety procedures related to severe weather.
Level B: Chapter 5, Lesson 3, Video C, SE page 107 See also Level A: Chapter 5, Lesson 3, Video B, SE page 106; Video C, SE page 107; Critical Thinking, SE page 109 See also Level C: Chapter 5, Lesson 3, Video B, SE page 104; Critical Thinking, SE page 107; KnowZone, SE page 108-109

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Weather
ESS.8.4.10 Describe weather-related natural disasters.
See Level A: Chapter 5, Lesson 3, Video B, SE page 106; Video C, SE page 107; Process Skill, SE page 109 See also Level C: Chapter 5, Lesson 3, Video B, SE page 104; Critical Thinking, SE page 107; KnowZone, SE pages 108-109

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Structure and Properties: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Weather
ESS.8.4.11 Construct and read instruments to collect weather data: • <i>Barometer</i> • <i>Weather vane</i> • <i>Anemometer.</i>
Level B: Chapter 5, Lesson 2, Video C, SE page 99 See also Level A: Chapter 5, Lesson 3, Video A, SE page 105; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Strand 4: Earth and Space Science
Standard 9: Earth’s History: Changes in Earth and Sky: Students shall demonstrate and apply knowledge of Earth’s history using appropriate safety procedures, equipment, and technology.
Weather
ESS.9.4.1 Analyze changes to Earth’s surface: • <i>Erosion</i> • <i>Glaciation</i> • <i>Weathering</i> • <i>Earthquakes</i> • <i>Volcanic activity.</i>
Chapter 4, Lesson 1, Video A, SE page 69; Video B, SE page 70; Video C, SE page 71; Lesson 2, Video A, SE page 75

SRA Snapshots Video Science™: Level C
correlation to
Arkansas Science Curriculum Framework
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: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Processes of Science
NS.1.5.1 Make accurate observations.
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: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Processes of Science
NS.1.5.2 Identify and define components of <i>experimental design</i> used to produce <i>empirical evidence</i> : • <i>Hypothesis</i> • <i>Replication</i> • <i>Sample size</i> • <i>Appropriate use of control</i> • <i>Use of standardized variables.</i>
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Processes of Science
NS.1.5.3 Calculate mean, median, mode, and range from scientific data using <i>SI units</i> .
Chapter 4, Lesson 1, Math in Science, SE page 73 Chapter 5, Lesson 2, Math in Science, SE page 101

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Processes of Science
NS.1.5.4 Interpret scientific data using: • Data tables/charts • Bar graphs • Circle graphs • Line graphs • <i>Stem and leaf plots</i> • Venn diagrams.
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

Strand 1: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Processes of Science
NS.1.5.5 Communicate results and conclusions from 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, 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: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Processes of Science
NS.1.5.6 Develop and implement strategies for long-term, accurate data collection.
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: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Characteristics of Science
NS.1.5.7 Summarize the characteristics of science.
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: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Characteristics of Science
NS.1.5.8 Explain the role of observation in the development of a theory.
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: Nature of Science
Standard 1: Characteristics and Processes of Science: Students shall demonstrate and apply knowledge of the characteristics and processes of science using appropriate safety procedures, equipment, and technology.
Characteristics of Science
NS.1.5.9 Define and give examples of hypotheses.
Chapter 1, Lesson 2, Process Skill, SE page 13 Chapter 3, , Process Skill, SE page 51; Lesson 3, Process Skill, SE page 65 Chapter 4, Lesson 2, Process Skill, SE page 81 Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, , Process Skill, SE page 147 Chapter 9, Lesson 3, Process Skill, SE page 197

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.1 Compare the <i>cell theory</i> to the characteristics of a scientific <i>theory</i> .
Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Critical Thinking, SE page 7

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.2 Examine cells on a microscopic level.
Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.3 Describe the similarities of basic <i>cell</i> functions in all <i>organisms</i> .
Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Process Skill, SE page 7

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.4 Model and identify the parts of animal <i>cells</i> and plant <i>cells</i> : • <i>Cell wall</i> • <i>Cell membrane</i> • <i>Nucleus</i> • <i>Cytoplasm</i> • <i>Chloroplast</i>.
Chapter 1, Lesson 1, Video C, SE page 5; Critical Thinking, SE page 7; Process Skill, SE page 7; Lesson 2, Video B, SE page 10; Critical Thinking, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.5 Compare and contrast plant and animal <i>cells</i> .
Chapter 1, Lesson 2, Video A, SE page 9

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.6 Conduct investigations to separate plant pigments from the <i>cell</i> .
This concept is not covered at this level.

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.7 Identify the role of chlorophyll in the process of photosynthesis.
Level C: Chapter 1, Lesson 2, Video A, SE page 9
See also Level B: Chapter 2, Lesson 2, Video A, SE page 31; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.8 Explain and illustrate photosynthesis.
Level C: Chapter 1, Lesson 2, Video A, SE page 9 Chapter 7, Lesson 3, Video A, SE page 149
See also Level B: Chapter 2, Lesson 2, Video A, SE page 31; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.9 Explain <i>cellular respiration</i> .
This concept is not covered at this level.

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.10 Conduct investigations demonstrating the process of <i>cellular respiration</i> .
This concept is not covered at this level.

Strand 2: Life Science
Standard 2: Living Systems: Characteristics, Structure, and Function: Students shall demonstrate and apply knowledge of living systems using appropriate safety procedures, equipment, and technology.
Structure and Function
LS.2.5.11 Investigate careers, scientists, and historical breakthroughs related to <i>cells</i> .
Chapter 1, Lesson 1, Video C, SE page 5; Critical Thinking, SE page 7; KnowZone, SE pages 20-21

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
L.S.4.5.1 Distinguish among and model: • <i>Organisms</i> • <i>Populations</i> • <i>Communities</i> • <i>Ecosystems</i> • <i>Biosphere.</i>
Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Lesson 2, Video A, SE page 53; Video B, SE page 54; Video C, SE page 55

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
L.S.4.5.2 Identify the transfer of energy using <i>energy</i> pyramids: • Terrestrial • Aquatic.
Level C: Chapter 3, Lesson 1, Video C, SE page 49 Energy Transfer, SE page 203 See also Level A: Chapter 2, Lesson 2, Video B, SE page 32; Video C, SE page 33; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Energy Transfer, SE page 203 See also Level C: Chapter 2, Lesson 2, Video A, SE page 39; Video B, SE page 40; Process Skill, SE page 43 Energy Transfer, SE page 203

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
L.S.4.5.3 Design food webs in specific <i>habitats</i> to show the flow of <i>energy</i> within <i>communities</i> : • Terrestrial • Aquatic.
Level C: Chapter 3, Lesson 1, Video C, SE page 49 Energy Transfer, SE page 203 See also Level A: Chapter 2, Lesson 2, Video B, SE page 32; Video C, SE page 33; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 Energy Transfer, SE page 203 See also Level C: Chapter 2, Lesson 2, Video A, SE page 39; Video B, SE page 40; Process Skill, SE page 43 Energy Transfer, SE page 203

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
L.S.4.5.4 Evaluate food webs under conditions of stress: • Overgrazing • Overpopulation • Natural disaster • Introduction of non-native <i>species</i> • Human impact/urban development.
Level C Chapter 3, Lesson 1, Video B, SE page 48; Video C, SE page 49; Lesson 3, Video A, SE page 61; Video B, SE page 62 See also Level A: Chapter 1, Lesson 2, Critical Thinking, SE page 35; Process Skill, SE page 35; Lesson 3, Video B, SE page 62; Critical Thinking, SE page 65 See also Level B: Chapter 2, Lesson 1, Process Skill, SE page 35; Lesson 2, 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 A, SE page 61; Video B, SE page 62; Video C, SE page 63; Critical Thinking, SE page 65

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
L.S.4.5.5 Examine the role of <i>limiting factors</i> on the <i>carrying capacity</i> of an <i>ecosystem</i> : • Food • Space • Water • Shelter.
Level C: Chapter 3, Lesson 1, Video B, SE page 48; Video C, SE page 49; Critical Thinking, SE page 51; Process Skill, SE page 51; Lesson 3, Video A, SE page 61; Video B, SE page 62; Critical Thinking, SE page 65 See also Level A: Chapter 2, Lesson 2, Critical thinking, SE page 35; Process Skill, SE page 35; Lesson 3, Video B, SE page 62 See also Level B: Chapter 2, Lesson 1, Video C, SE page 26; Critical Thinking, SE page 29 Chapter 3, Lesson 3, Video B, SE page 62

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
L.S.4.5.6 Describe and diagram the nitrogen cycle in <i>ecosystems</i> .
Chapter 3, Lesson 1, Video A, SE page 49

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.7 Describe and diagram the <i>carbon cycle</i> in <i>ecosystems</i> .
Chapter 3, Lesson 1, Video A, SE page 49

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.8 Describe and diagram the <i>carbon dioxide-oxygen cycle</i> in <i>ecosystems</i> .
Chapter 3, Lesson 1, Video A, SE page 49

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.9 Conduct investigations demonstrating the role of the <i>carbon-dioxide-oxygen cycle</i> in <i>ecosystems</i> .
Chapter 3, Lesson 1, Video A, SE page 49

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.10 Analyze the concept of conservation of <i>mass</i> as related to the amount of <i>matter</i> in an <i>ecosystem</i> .
This concept is not covered at this level.

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.11 Create <i>ecosystems</i> in which plants can exist without animals.
This concept is not covered at this level.

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.12 Conduct investigations in which plants are encouraged to thrive.
Chapter 1, Lesson 3, Video A, SE page 17; Video B, SE page 18; Video C, SE page 19; Process Skill, SE page 21

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.13 Construct, compare, and contrast <i>environments</i> in <i>open</i> and <i>closed</i> aquaria.
See Level A: Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.14 Categorize <i>organisms</i> by the function they serve in <i>ecosystems</i> and food webs: • Predator/prey • Parasitism • Producer/consumer/decomposer • Scavenger • Herbivore/carnivore/omnivore.
Chapter 2, Lesson 3, Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.15 Conduct <i>field studies</i> identifying and categorizing <i>organisms</i> in a given area of an ecosystem.
Chapter 2, Lesson 1, Video B, SE page 26; Process Skill, SE page 29

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.16 Evaluate positive and negative human effects on <i>ecosystems</i> .
Chapter 2, Lesson 1, Video C, SE page 27 Chapter 3, Lesson 3, Video B, SE page 62; Video C, SE page 63; Critical Thinking, SE page 65 Chapter 4, Lesson 2, Video A, SE page 77; Video B, SE page 78 Chapter 5, Lesson 1, Video C, SE page 93; Critical thinking, SE page 95; Lesson 2, Video C, SE page 99; Critical Thinking, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102 Chapter 7, Lesson 3, Video B, SE page 150 Chapter 8, Lesson 1, Video C, SE page 159; Lesson 3, Video C, SE page 173; Critical Thinking, SE page 175

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.17 Describe and illustrate various symbiotic relationships: • Parasitism • Mutualism • Commensalisms.
Chapter 2, Lesson 3, Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43

Strand 2: Life Science
Standard 4: Populations and Ecosystems: Students shall demonstrate and apply knowledge of populations and ecosystems using appropriate safety procedures, equipment, and technology.
Populations and Ecosystems
LS.4.5.18 Investigate careers, scientists, and historical breakthroughs related to <i>populations</i> and <i>ecosystems</i> .
Chapter 2, Lesson 1, Video B, SE page 26; Critical Thinking, SE page 29 Chapter 3, Lesson 2, Video C, SE page 55; Critical Thinking, SE page 57; KnowZone, SE pages 58-59

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Properties of Matter
PS.5.5.1 Identify the relationship of <i>atoms</i> to all <i>matter</i> .
Chapter 7, Lesson 1, Video A, SE page 135; Critical Thinking, SE page 139; KnowZone, SE page 140-141

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Properties of Matter
PS.5.5.2 Conduct <i>scientific investigations</i> on <i>physical properties</i> of objects.
Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Critical Thinking, SE page 147; Process Skill, SE page 147

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Properties of Matter
PS.5.5.3 Identify common examples of <i>physical properties</i> :
• Length • Mass • Area • Perimeter • Texture • Taste • Odor • Color • Elasticity.
Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Critical Thinking, SE page 147; Process Skill, SE page 147

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Properties of Matter
PS.5.5.4 State characteristics of physical changes.
Chapter 7, Lesson 2, Video C, SE page 145; Critical Thinking, SE page 147

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Properties of Matter
PS.5.5.5 Identify characteristics and common examples of physical changes.
Chapter 7, Lesson 2, Video C, SE page 145; Critical Thinking, SE page 147

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Properties of Matter
PS.5.5.6 Explain how heat influences the states of matter of a substance: • Solid • Liquid • Gas • Plasma.
Chapter 7, Lesson 1, Video B, SE page 136; Video C, SE page 137; Lesson 2, Video A, SE page 143; Video C, SE page 145; Critical Thinking, SE page 147

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Properties of Matter
PS.5.5.7 Demonstrate the effect of changes in the <i>physical properties</i> of matter.
Chapter 7, Lesson 1, Video B, SE page 136; Video C, SE page 137; Critical Thinking, SE page 139; Process Skill, SE page 139; Lesson 2, Video C, SE page 145; Critical Thinking, SE page 147

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Properties of Matter
PS.5.5.8 Model the motion and position of <i>molecules</i> in solids, liquids, and gases in terms of <i>kinetic energy</i> .
Chapter 7, Lesson 1, Video B, SE page 136; Lesson 2, Video A, SE page 143

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Properties of Matter
PS.5.5.9 Conduct investigations demonstrating expansion and contraction.
Chapter 7, Lesson 1, Video B, SE page 136

Strand 3: Physical Science
Standard 5: Matter: Properties and Changes: Students shall demonstrate and apply knowledge of matter, including properties and changes, using appropriate safety procedures, equipment, and technology.
Properties of Matter
PS.5.5.10 Investigate scientists, careers, and historical breakthroughs related to <i>physical properties</i> , physical changes, and states of <i>matter</i> .
Chapter 7, KnowZone, SE pages 140-141

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.
Motion and Forces
PS.6.5.1 Classify <i>simple machines</i> .
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
See also Level B: Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.
Motion and Forces
PS.6.5.2 Conduct investigations using: • Levers (e.g., toothbrush) • Pulleys • Inclined planes-ramps, wedges, and screws • Wheels and axles.
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
See also Level B: Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.
Motion and Forces
PS.6.5.3 Relate <i>simple machines</i> to inventions and discoveries.
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
See also Level B: Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.
Motion and Forces
PS.6.5.4 Compare and contrast <i>potential energy</i> and <i>kinetic energy</i> as applied to motion.
Chapter 8, Lesson 1, Video B, SE page 158; Critical Thinking, SE page 161; Process Skill, SE page 161; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.
Motion and Forces
PS.6.5.5 Classify real world examples as <i>potential energy</i> or <i>kinetic energy</i> as applied to motion.
Chapter 8, Lesson 1, Video B, SE page 158; Critical Thinking, SE page 161; Process Skill, SE page 161; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.
Motion and Forces
PS.6.5.6 Conduct investigations using <i>potential energy</i> and <i>kinetic energy</i> .
Chapter 8, Lesson 1, Video B, SE page 158; Critical Thinking, SE page 161; Process Skill, SE page 161; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Strand 3: Physical Science
Standard 6: Motion and Forces: Students shall demonstrate and apply knowledge of motion and forces using appropriate safety procedures, equipment, and technology.
Motion and Forces
PS.6.5.7 Investigate careers, scientists, and historical breakthroughs related to <i>simple machines</i> and <i>potential</i> and <i>kinetic energy</i> .
See Level A: Chapter 7, Lesson 3, Critical Thinking, SE page 153

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Energy
PS.7.5.1 Summarize how light can interact with <i>matter</i> through <i>absorption</i> , <i>refraction</i> , and <i>reflection</i> .
See Level A: Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Critical Thinking, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174
See also Level B: Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Critical Thinking, SE page 167

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Energy
PS.7.5.2 Investigate how light travels and interacts with an object or material.
See Level A: Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Critical Thinking, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174
See also Level B: Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Critical Thinking, SE page 167

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Energy
PS.7.5.3 Conduct investigations demonstrating how an object can be seen.
See Level A: Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Critical Thinking, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174 See also Level B: Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Critical Thinking, SE page 167

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Energy
PS.7.5.4 Design and conduct investigations of transparent, <i>translucent</i> , and <i>opaque</i> as applied to light.
See Level A: Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Critical Thinking, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174 See also Level B: Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Critical Thinking, SE page 167; KnowZone, SE pages 168-169

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Energy
PS.7.5.5 Investigate physical interactions of light and <i>matter</i> and the effect on color perception: • <i>Refraction</i> • <i>Absorption</i> • Transmission • Scattering.
See Level A: Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Critical Thinking, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174 See also Level B: Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Critical Thinking, SE page 167

Strand 3: Physical Science
Standard 7: Energy and Transfer of Energy: Students shall demonstrate and apply knowledge of energy and transfer of energy using appropriate safety procedures, equipment, and technology.
Energy
PS.7.5.6 Investigate careers, scientists, and historical breakthroughs related to light <i>energy</i> .
See Level A: Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Critical Thinking, SE page 183 See also Level B: Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Structure and Properties
ESS.8.5.1 Identify some basic <i>elements</i> composing minerals: • Silicon • Oxygen • Iron • Sodium • Chlorine • Calcium • Carbon • Hydrogen • Aluminum.
Level C: Chapter 4, Lesson 2, Video B, SE page 84 See also Level A: Chapter 4, Lesson 2, Video A, SE page 75 See also Level B: Chapter 4, Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; Process Skill, SE page 85

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Structure and Properties
ESS.8.5.2 Investigate the growth of crystals.
Chapter 4, Lesson 2, Video B, SE page 84 Process Skill, SE page 85

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Structure and Properties
ESS.8.5.3 Identify characteristics of minerals.
Level C: Chapter 4, Lesson 2, Video B, SE page 84 See also Level A: Chapter 4, Lesson 2, Video A, SE page 75 See also Level B: Chapter 4, Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; Process Skill, SE page 85

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Structure and Properties
ESS.8.5.4 Conduct investigations on mineral properties: • Luster • Hardness • Streak • Acid test for calcite • Fluorescence.
Level C: Chapter 4, Lesson 2, Video B, SE page 84 See also Level A: Chapter 4, Lesson 2, Video A, SE page 75

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Structure and Properties
ESS.8.5.5 Identify the following minerals: • Halite (salt) • Feldspar • Sulfur • Quartz • Diamonds • Gypsum • Calcite • Talc • Hematite (iron) • Precious <i>metals</i> (gold, silver).
Level C: Chapter 4, Lesson 2, Video B, SE page 84 See also Level A: Chapter 4, Lesson 2, Video A, SE page 75

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Structure and Properties
ESS.8.5.6 Identify minerals found in Arkansas: • Bauxite • Diamonds • Quartz • Galena.
Level C: Chapter 4, Lesson 2, Video B, SE page 84 See also Level A: Chapter 4, Lesson 2, Video A, SE page 75

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Structure and Properties
ESS.8.5.7 Identify characteristics of <i>sedimentary, igneous, and, metamorphic rocks</i> .
Chapter 4, Lesson 3, Video A, SE page 83; Critical Thinking, SE page 87; Process Skill, SE page 87

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Structure and Properties
ESS.8.5.8 Compare and contrast by investigation characteristics of the three basic types of rocks: • <i>Sedimentary</i> • <i>Igneous</i> • <i>Metamorphic</i>.
Chapter 4, Lesson 3, Video A, SE page 83; Critical Thinking, SE page 87; Process Skill, SE page 87

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Structure and Properties
ESS.8.5.9 Classify the three basic types of rocks.
Chapter 4, Lesson 3, Video A, SE page 83; Critical Thinking, SE page 87; Process Skill, SE page 87

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Structure and Properties
ESS.8.5.10 Investigate careers, scientists, and historical breakthroughs related to minerals and rocks.
Chapter 4, Lesson 3, Video A, SE page 83; Video B, SE page 84

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Cycles
ESS.8.5.11 Investigation the formation of soil.
Level C: Chapter 4, Lesson 3, Video C, SE page 85 See also Level A; Chapter 4, Lesson 2, Video C, SE page 77

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Cycles
ESS.8.5.12 Conduct investigations on sedimentation.
Chapter 4, Lesson 3, Video A, SE page 83; Critical thinking, SE page 87

Strand 4: Earth and Space Science
Standard 8: Earth Systems: Students shall demonstrate and apply knowledge of Earth’s structure and properties using appropriate safety procedures, equipment, and technology.
Cycles
ESS.8.5.13 Describe and illustrate the rock cycle.
Chapter 4, Lesson 3, Video A, SE page 83

Strand 4: Earth and Space Science
Standard 9: Earth’s History: Students shall demonstrate and apply knowledge of Earth’s history using appropriate safety procedures, equipment, and technology.
Earth’s History
ESS.9.5.1 Explain and give examples of how physical <i>evidence</i> from <i>fossils</i> supports the <i>theory</i> that Earth has changed over time.
Chapter 2, Lesson 1, Video C, SE page 27
Chapter 4, Lesson 3, Video A, SE page 83

Strand 4: Earth and Space Science
Standard 9: Earth’s History: Students shall demonstrate and apply knowledge of Earth’s history using appropriate safety procedures, equipment, and technology.
Earth’s History
ESS.9.5.2 Analyze <i>fossil</i> record <i>evidence</i> about plants and animals that lived long ago.
Chapter 2, Lesson 1, Video C, SE page 27
Chapter 4, Lesson 3, Video A, SE page 83

Strand 4: Earth and Space Science
Standard 9: Earth’s History: Students shall demonstrate and apply knowledge of Earth’s history using appropriate safety procedures, equipment, and technology.
Earth’s History
ESS.9.5.3 Infer the nature of ancient <i>environments</i> based on <i>fossil</i> record <i>evidence</i> .
Chapter 2, Lesson 1, Video C, SE page 27
Chapter 4, Lesson 3, Video A, SE page 83

Strand 4: Earth and Space Science
Standard 10: Objects in the Universe: Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.
Solar System: Sun, Earth, Moons, Planets, Galaxies
ESS.10.5.1 Compare the physical characteristics of the sun to other stars: • Size • Color • Brightness.
Chapter 6, Lesson 1, Video A, SE page 113

Strand 4: Earth and Space Science
Standard 10: Objects in the Universe: Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.
Solar System: Sun, Earth, Moons, Planets, Galaxies
ESS.10.5.2 Demonstrate the order of planets and other space objects in our <i>solar system</i> .
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 page 118-119

Strand 4: Earth and Space Science
Standard 10: Objects in the Universe: Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.
Solar System: Sun, Earth, Moons, Planets, Galaxies
ESS.10.5.3 Compare the properties of planets in our <i>solar system</i> : • Size • Shape • <i>Density</i> • <i>Atmosphere</i> • Distance from the sun • Orbital path • Moons • Surface • Composition.
Chapter 6, Lesson 1, Video B, SE page 114; Critical Thinking, SE page 117; Process Skill, SE page 117; KnowZone, SE page 118-119

Strand 4: Earth and Space Science
Standard 10: Objects in the Universe: Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.
Solar System: Sun, Earth, Moons, Planets, Galaxies
ESS.10.5.4 Distinguish between <i>mass</i> and <i>weight</i> .
Chapter 7, Lesson 2, Video B, SE page 144 Chapter 9, Lesson 1, Video B, SE page 180

Strand 4: Earth and Space Science
Standard 10: Objects in the Universe: Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.
Solar System: Sun, Earth, Moons, Planets, Galaxies
ESS.10.5.5 Compare the human body's <i>mass</i> to <i>weight</i> on Earth, the moon, and other planets in our <i>solar system</i> .
Chapter 7, Lesson 2, Video B, SE page 144 Chapter 9, Lesson 1, Video B, SE page 180

Strand 4: Earth and Space Science
Standard 10: Objects in the Universe: Students shall demonstrate and apply knowledge of objects in the universe using appropriate safety procedures, equipment, and technology.
Solar System: Sun, Earth, Moons, Planets, Galaxies
ESS.10.5.6 Investigate careers, scientists, and historical breakthroughs related to planets.
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