SRA Snapshots Video Science™: Level A
correlation to
Indiana's Academic Standards for Science
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

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements. Students increase their use of tools, record data in journals, and communicate results through chart, graph, written, and verbal forms.
The Scientific View of the World
3.1.1 Recognize and explain that when a scientific investigation is repeated, a similar result is expected.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 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**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements. Students increase their use of tools, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Scientific Inquiry
3.1.2 Participate in different types of guided scientific investigations, such as observing objects and events and collecting specimens for analysis.
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**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements. Students increase their use of tools, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Scientific Inquiry
3.1.3 Keep and report records if investigations and observations using tools, such as journals, charts, graphs, and computers.
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**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements. Students increase their use of tools, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Scientific Inquiry
3.1.4 Discuss the results of investigations and consider the explanations of others.
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**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements. Students increase their use of tools, record data in journals, and communicate results through chart, graph, written, and verbal forms.
The Scientific Enterprise
3.1.5 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 2, Process Skill, SE page 59; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements. Students increase their use of tools, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Technology and Science
3.1.6 Give examples of how tools, such as automobiles, computers, and electric motors, have affected the way we live.
Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Math in Science, SE page 59 **Chapter 4, Lesson 1, Process Skill, SE page 73** **Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, 105** **Chapter 6, KnowZone, SE pages 124-125; Lesson 3, Video B, SE page 128; Video C, SE page 129** **Chapter 8, KnowZone, SE pages 168-169**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements. Students increase their use of tools, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Technology and Science
3.1.7 Recognize that and explain how an invention can be used in different ways, such as a radio being used to get information and for entertainment.
Chapter 6, KnowZone, SE pages 124-125 **Chapter 8, KnowZone, SE pages 168-169**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements. Students increase their use of tools, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Technology and Science
3.1.8 Describe how discarded products contribute to the problem of waste disposal and that recycling can help solve this problem.
Chapter 3, Lesson 3, Video A, SE page 61; Critical Thinking, SE page 65; Process Skill, SE page 65 **Chapter 4, Lesson 2, Video B, SE page 84; Video C, SE page 85** **Chapter 5, Lesson 2, Critical Thinking, SE page 103**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others.
Computation and Estimation
3.2.1 Add and subtract whole numbers mentally, on paper, and with a calculator.
Chapter 2, Lesson 2, Math in Science, SE page 35 **Chapter 3, Lesson 3, Process Skill, SE page 65** **Chapter 4, Lesson 1, Math in Science, SE page 73** **Chapter 5, Lesson 2, Math in Science, SE page 102** **Chapter 7, Lesson 2, Math in Science, SE page 147** **Chapter 9, Lesson 2, Math in Science, SE page 191**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others.
Manipulation and Observation
3.2.2 Measure and mix dry and liquid materials in prescribed amounts, following reasonable safety precautions.
Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others.
Manipulation and Observation
3.2.3 Keep a notebook that describes observations and is understandable weeks or months later.
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**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others.
Manipulation and Observation
3.2.4 Appropriately use simple tools, such as clamps, rulers, scissors, hand lenses, and other technology, such as calculators and computers, to help solve problems.
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**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others.
Manipulation and Observation
3.2.5 Construct something used for performing a task out of paper, cardboard, wood, plastic, metal, or existing objects.
Chapter 5, LabTime Hands-On Activity, TRB pages 87-89, TG page 102 **Chapter 9, Lesson 2 Process Skill, SE page 191**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others.
Communication Skills
3.2.6 Make sketches and write descriptions to aid in explaining procedures or ideas.
Chapter 1, Lesson 1, Writing in Science, SE page 7 **Chapter 2, Lesson 3, Writing in Science, SE page 43** **Chapter 3, Lesson 3, Writing in Science, SE page 65** **Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, Lesson 2, Writing in Science, SE page 95** **Chapter 6, Lesson 2, Writing in Science, SE page 123; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 1, Writing in Science, SE page 139; Lesson 3, Writing in Science, SE page 153** **Chapter 8, Lesson 1, Writing in Science, SE page 161** **Chapter 9, Lesson 1, Writing in Science, SE page 183**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others.
Critical Response Skills
3.2.7 Ask "How do you know?" in appropriate situations and attempt reasonable answers when others ask the same question.
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**

Standard 3: The Physical Setting
Students observe changes of Earth and the sky. They continue to explore the concepts of energy and motion.
The Universe
3.3.1 Observe and describe the apparent motion of the sun and moon over a time span of one day.
Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Process Skill, SE page 117; Lesson 3, Video A, SE page 127; Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Standard 3: The Physical Setting
Students observe changes of Earth and the sky. They continue to explore the concepts of energy and motion.
The Universe
3.3.2 Observe and describe that there are more stars in the sky than anyone can easily count, nut they are not scattered evenly.
Chapter 6, Lesson 2, Video A, SE page 127

Standard 3: The Physical Setting
Students observe changes of Earth and the sky. They continue to explore the concepts of energy and motion.
The Universe
3.3.3 Observe and describe that the sun can be seen only in the daytime.
Chapter 6, Lesson 1, Video A, SE page 113; Process Skill, SE page 117

Standard 3: The Physical Setting
Students observe changes of Earth and the sky. They continue to explore the concepts of energy and motion.
The Universe
3.3.4 Observe and describe that the moon looks a little different every day, but looks the same again about every four weeks.
Chapter 6, Lesson 1, Video C, SE page 115; Lesson 3, Process Skill, SE page 131

Standard 3: The Physical Setting
Students observe changes of Earth and the sky. They continue to explore the concepts of energy and motion.
Earth and the Processes That Shape It
3.3.5 Give examples of how change, such as weather patterns, is a continual process occurring on Earth.
Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 **Chapter 5, Lesson 2, Video B, SE page 100** **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; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**

Standard 3: The Physical Setting
Students observe changes of Earth and the sky. They continue to explore the concepts of energy and motion.
Earth and the Processes That Shape It
3.3.6 Describe ways human beings protect themselves from adverse weather conditions.
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

Standard 3: The Physical Setting
Students observe changes of Earth and the sky. They continue to explore the concepts of energy and motion.
Earth and the Processes That Shape It
3.3.7 Identify and explain some effects human activities have on weather.
Chapter 5, Lesson 2, Video C, SE page 101; Critical Thinking, SE page 103

Standard 3: The Physical Setting
Students observe changes of Earth and the sky. They continue to explore the concepts of energy and motion.
Matter and Energy
3.3.8 Investigate and describe how moving air and water can be used to run machines like windmills and waterwheels.
Level A: **Chapter 9, Lesson 3, Video C, SE page 195; Critical Thinking, SE page 197** **See also Level B:** **Chapter 9, KnowZone, SE pages 196-197**

Standard 3: The Physical Setting
Students observe changes of Earth and the sky. They continue to explore the concepts of energy and motion.
Forces of Nature
3.3.9 Demonstrate that things that make sound do so by vibrating, such as vocal cords and musical instruments.
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

Standard 4: The Living Environment
Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.
Diversity of Life
3.4.1 Demonstrating that a great variety of living things can be sorted into groups in many ways using various findings, such as how they look, where they live, and how they act, to decide which things belong to which group.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Math in Science, SE page 13 Classification, SE page 202

Standard 4: The Living Environment
Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.
Diversity of Life
3.4.2 Explain that features used for grouping depend on the purpose of the grouping.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Lesson 3, Video A, SE page 17; Video B, SE page 18; Video C, SE page 19; Critical Thinking, SE page 21; Process Skill, SE page 21

Standard 4: The Living Environment
Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.
Diversity of Life
3.4.3 Observe that and describe how offspring are very much, but not exactly, like their parents and like one another.
Chapter 1, Lesson 3, SE page 19

Standard 4: The Living Environment
Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.
Interdependence of Life and Evolution
3.4.4 Describe that almost all kinds of animals' food can be traced back to plants.
Chapter 2, Lesson 2, Video A, 31; 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**

Standard 4: The Living Environment
Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.
Interdependence of Life and Evolution
3.4.5 Give examples of some kinds of organisms that have completely disappeared and explain how these organisms were similar to some organisms living today.
Chapter 3, Lesson 3, Video C, SE page 63

Standard 4: The Living Environment
Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.
Human Identity
3.4.6 Explain that people need water, food, air, waste removal, and a particular range of temperatures, just as other animals do.
Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; Critical Thinking, SE page 51; Process Skill, SE page 51

Standard 4: The Living Environment
Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.
Human Identity
3.4.7 Explain that eating a variety of healthful foods and getting enough exercise and rest help people stay healthy.
Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; Critical Thinking, SE page 51; Process Skill, SE page 51; KnowZone, SE pages 52-53

Standard 4: The Living Environment
Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.
Human Identity
3.4.8 Explain that some things people take into their bodies from the environment can hurt then and give examples of such things.
Chapter 3, Lesson 3, Video A, SE page 61

Standard 4: The Living Environment
Students learn about an increasing variety of organisms. They use appropriate tools and identify similarities and differences among them. Students explore how organisms satisfy their needs in typical environments.
Human Identity
3.4.9 Explain that some diseases are caused by germs and some are not. Note that diseases caused by germs may be spread to other people. Also understand that washing hands with soap and water reduces the number of germs that can get into the body or that can be passed on to other people.
Chapter 3, Lesson 2, Video C, SE page 57; Critical Thinking, SE page 59; Process Skill, SE page 59

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. Students make more precise and varied measurements when gathering data. Based upon collected data, they pose questions and solve problems. Students use numbers to record data and construct graphs and tables to communicate their findings.
Numbers
3.5.1 Select and use appropriate measuring units, such as centimeters (cm) and meters (m), grams (g) and kilograms (kg), and degrees Celsius (ºC).
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 pages 200-201**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. Students make more precise and varied measurements when gathering data. Based upon collected data, they pose questions and solve problems. Students use numbers to record data and construct graphs and tables to communicate their findings.
Numbers
3.5.2 Observe that and describe how some measurements are likely to be slightly different, even if what is being measured stays the same.
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 pages 200-201**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. Students make more precise and varied measurements when gathering data. Based upon collected data, they pose questions and solve problems. Students use numbers to record data and construct graphs and tables to communicate their findings.
Shapes and Symbolic Relationships
3.5.3 Construct tables and graphs to show how values of one quantity are related to values of another.
Chapter 1, Lesson 2, Math in Science, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 3, Lesson 3, Process Skill, SE page 65** **Chapter 4, Lesson 3, Process Skill, SE page 87** **Chapter 5, Lesson 2, Math in Science, SE page 103; 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**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. Students make more precise and varied measurements when gathering data. Based upon collected data, they pose questions and solve problems. Students use numbers to record data and construct graphs and tables to communicate their findings.
Shapes and Symbolic Relationships
3.5.4 Illustrate that if 0 and 1 are located on a line, any other number can be depicted as a position on the line.
This concept is not covered at this level.

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. Students make more precise and varied measurements when gathering data. Based upon collected data, they pose questions and solve problems. Students use numbers to record data and construct graphs and tables to communicate their findings.
Reasoning and Uncertainty
3.5.5 Explain that one way to make sense of something is to think of how it relates to sometime more familiar.
Chapter 1, Lesson 2, Critical Thinking, SE page 13; Lesson 3, Critical Thinking, SE page 21; Process Skill, SE page 21 **Chapter 2, Lesson 3, Critical Thinking, SE page 43** **Chapter 7, Lesson 2, Process Skill, SE page 153** **Chapter 8, Lesson 1, Process Skill, SE page 161; Lesson 2, Process Skill, SE page 167**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.
Systems
3.6.1 Investigate how and describe that when parts are put together, they can do things that they could not do by themselves.
Chapter 1, Lesson 1, Video B, SE page 4 **Chapter 2, Lesson 1, Video B, SE page 26; Video C, SE page 27; Critical Thinking, SE page 29** **Chapter 3, Lesson 1, Video C, SE page 49; Lesson 3, Video C, SE page 63** **Chapter 4, Lesson 1, Critical Thinking, SE page 73; Lesson 2, Video C, SE page 77; Critical Thinking, SE page 79; Process Skill, SE page 79** **Chapter 5, Lesson 1, Video C, SE page 93** **Chapter 7, KnowZone, SE pages 140-141; Lesson 2, Critical Thinking, SE page 153** **Chapter 8, KnowZone, SE pages 168-169** **Chapter 9, Lesson 2, Process Skill, SE page 191**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.
Systems
3.6.2 Investigate how and describe that something may not work if some of its parts are missing.
Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Lesson 3, Video A, SE page 17; Video B, SE page 18; Video C, SE page 19; Process Skill, SE page 21; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Lesson 3, Video A, SE page 39; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; Lesson 2, Video B, SE page 56; Video C, SE page 57; Lesson 3, Video B, SE page 62; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson, 1, Video B, SE page 70; Video C, SE page 71; Lesson 2, Video A, SE page 75; Video B, SE page 76; Video C, SE page 77; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Video C, SE page 93; Lesson 2, Video A, SE page 99; Video B, SE page 100; Video C, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Lesson 2, Video A, SE page 119; Video B, SE page 120; Video C, SE page 121; Lesson 3, Video A, SE page 127; Video B, SE page 128; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 1, Video A, SE page 135; Video B, SE page 136; Video C, SE page 137; Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Lesson 3, Video A, SE page 171; Video B, SE page 172; Video C, SE page 173; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Video C, SE page 181; Lesson 2, Video A, SE page 187; Video B, SE page 188; Video C, SE page 189; Lesson 3, Video A, SE page 193; Video B, SE page 194; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** **Energy Transfer, SE page 203** **Planet Earth, SE page 204** **Earth in Space, SE page 205**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.
Models and Scale
3.6.3 Explain how a model of something is different from the real thing but can be used to learn something about the real thing.
Chapter 4 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 LabTime Hands-On Activity, TRB pages 105-107; TG page 120** **Chapter 7, Lesson 3 Process Skill, SE page 153**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.
Models and Scale
3.6.4 Take, record, and display counts and simple measurements of things over time, such as plant or student growth.
Chapter 3, Lesson 3, Process Skill, SE page 65 **Chapter 5, Lesson 2, Process Skill, SE page 103; LabTime Hands-On Activity, TRB Pages 87-89; TG page 102** **Chapter 8, Lesson 3, Process Skill, SE page 175**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.
Models and Scale
3.6.5 Observe that and describe how some changes are very slow and some are very fast and that some of these changes may be hard to see and/or record.
Chapter 1, KnowZone, SE pages 14-15 **Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71** **Chapter 6, Lesson 1, Video A, SE page 113; Lesson 3, Video A, SE page 127** **Chapter 9, KnowZone, SE pages 184-185**

SRA Snapshots Video Science™: Level B
correlation to
Indiana's Academic Standards for Science
Grade 4

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

KEY:

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

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.
The Scientific View of the World
4.1.1 Observe and describe that scientific investigations generally work the same way in different places.
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**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Scientific Inquiry
4.1.2 Recognize and describe that results of scientific investigations are seldom exactly the same. If differences occur, such as a large variation in the measurement of plant growth, propose reasons for why these differences exist, using recorded information about investigations.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, 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**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.
The Scientific Enterprise
4.1.3 Explain that clear communication is an essential part of doing science since it enables scientists to inform others about their work, to expose their ideas to evaluation by other scientists, and to allow scientists to stay informed about scientific discoveries around the world.
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**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.
The Scientific Enterprise
4.1.4 Describe how people all over the world have taken part in scientific investigation for many centuries.
Chapter 4, Lesson 2, Video C, SE page 77 **Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 127; Math in Science, SE page 129; KnowZone, SE pages 130-131** **Chapter 7, Lesson 3, Video A, SE page 149** **Chapter 8 KnowZone, SE pages 168-169** **Chapter 9 KnowZone, SE pages 196-197**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Technology and Science
4.1.5 Demonstrate how measuring instruments, such as microscopes, telescopes, and cameras, can be used to gather accurate information for making scientific comparisons of objects and events. Note that measuring instruments, such as rulers, can also be used for designing and constructing things that will work properly.
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**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Technology and Science
4.1.6 Explain that even a good design may fail even though steps are taken ahead of time to reduce the likelihood of failure.
Chapter 1, KnowZone, SE pages 14-15 **Chapter 7, KnowZone, SE pages 140-141**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Technology and Science
4.1.7 Discuss and give examples of how technology, such as computers and medicines, has improved the lives of many people, although the benefits are not equally available to all.
Chapter 4, Lesson 3, Video B, SE page 82; Video C, SE page 83 **Chapter 5, Lesson 2, Video C, SE page 99; KnowZone, SE pages 102-103** **Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 27; KnowZone, SE pages 130-131** **Chapter 7, KnowZone, SE pages 140-141** **Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169; Lesson 3, Video C, SE page 173** **Chapter 9, Lesson 2, Video C, SE page 187; Lesson 3, Video A, SE page 191; Video B, SE page 192; Process Skill, SE page 195; KnowZone, SE pages 196-197**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Technology and Science
4.1.8 Recognize and explain that any invention may lead to other inventions.
Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 127; Critical Thinking, SE page 129 **Chapter 7, KnowZone, SE pages 140-141** **Chapter 8, KnowZone, SE pages 168-169**

Standard 1: The Nature of Science and Technology
Students, working collaboratively, carry out investigations. They question, observe, and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.
Technology and Science
4.1.9 Explain how some products and materials are easier to recycle than others.
Chapter 1, Lesson 1, Video C, SE page 5 **Chapter 2, Lesson 2, Critical Thinking, SE page 29; Lesson 3, Video C, SE page 41; Process Skill, SE page 43** **Chapter 3, Lesson 2, Critical Thinking, SE page 59; Lesson 3, Video C, SE page 63; Critical thinking, SE page 65; Process Skill, SE page 65** **Chapter 5, Lesson 1, Video C, SE page 93** **Chapter 9, Lesson 3, video A, SE page 191; Video B, SE page 192; Critical Thinking, SE page 195**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, explain, and justify both information and numerical functions.
Computation and Estimation
4.2.1 Judge whether measurements and computations, such as length, area, volume, weight, or time, are reasonable. Add and subtract whole numbers mentally, on paper, and with a calculator.
Chapter 1, Lesson 1. Math in Science, SE page 7; LabTime Hands-On Activity, TRB pages 15-17, TG page 30 **Chapter 3, Lesson 3 Math in Science, SE page 65; LabTime Hands-On Activity, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 1 Math in Science, SE page 73; 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 LabTime Hands-On Activity, 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; Math in Science, SE page 147; Process Skill, SE page 147; LabTime Hands-On Activity, TRB pages 123-125, TG page 138** **Chapter 8, Lesson 3 Math in Science, SE page 175** **Chapter 9, Lesson 3 Math in Science, SE page 195** **The Metric System, SE pages 200-201**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, explain, and justify both information and numerical functions.
Computation and Estimation
4.2.2 State the purpose, orally or in writing, of each step in a computation.
Chapter 1, Lesson 1, Math in Science, SE page 7 **Chapter 2, Lesson 1, Math in Science, SE page 29** **Chapter 3, Lesson 3, Math in Science, SE page 65** **Chapter 4, Lesson 1, Math in Science, SE page 73** **Chapter 7, Lesson 2, Math in Science, SE page 147** **Chapter 8, Lesson 3, Math in Science, SE page 175** **Chapter 9, Lesson 3, Math in Science, SE page 195**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, explain, and justify both information and numerical functions.
Manipulation and Observation
4.2.3 Make simple and safe electrical connections with various plugs, sockets, and terminals.
Chapter 9, Lesson 1, Video B, SE page 180; Video C, SE page 181; Critical Thinking, SE page 183; Lesson 2, Critical Thinking, SE page 189; Process Skill, SE page 191; Lesson 3, Video C, SE page 195

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, explain, and justify both information and numerical functions.
Communication Skills
4.2.4 Use numerical data to describe and compare objects and events.
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**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, explain, and justify both information and numerical functions.
Communication Skills
4.2.5 Write descriptions of investigations, using observations and other evidence as support for explanations.
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**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, explain, and justify both information and numerical functions.
Communication Skills
4.2.6 Support statements with facts found in print and electronic media, identify the sources used, and expect others to do the same.
Chapter 1, KnowZone, SE pages 14-15 **Chapter 2, KnowZone, SE pages 36-37** **Chapter 3, KnowZone, SE pages 52-53** **Chapter 4, KnowZone. SE pages 86-87** **Chapter 5, Lesson 3 Process Skill, SE page 109; KnowZone, SE pages 101-103** **Chapter 6, KnowZone, SE pages 130-131** **Chapter 7, KnowZone, SE pages 140-141** **Chapter 8, KnowZone, SE pages 168-169** **Chapter 9, KnowZone, SE pages 196-197**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, explain, and justify both information and numerical functions.
Critical Response Skills
4.2.7 Identify better reasons for believing something than "Everybody knows that…" or "I just know," and discount such reasons when given by others.
Chapter 1, Lesson 1, Process Skill, SE page 7 **Chapter 2, Lesson 3, Process Skill, SE page 43** **Chapter 3, Lesson 3, Critical Thinking, SE page 65** **Chapter 4, Lesson 3, Process Skill, SE page 85** **Chapter 5, Lesson 1, Process Skill, SE page 95; KnowZone, SE pages 102-103; Lesson 3, Critical Thinking, SE page 109** **Chapter 6, Lesson 1, Process Skill, SE page 117; Lesson 3, Process Skill, SE page 129** **Chapter 7, Lesson 2, Critical thinking, SE page 147** **Chapter 9, Lesson 1, Process Skill, SE page 183**

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
The Universe
4.3.1 Observe and report that the moon can be seen sometimes at night and sometimes during the day.
Chapter 6, Lesson 1, Video C, SE page 115

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Earth and the Processes That Shape It
4.3.2 Begin to investigate and explain that the air is a substance that surrounds us and takes up space, and whose movements we feel as wind.
Chapter 5, Lesson 2, Video A, SE page 97; Video B, SE page 98; Video C, SE page 99; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Earth and the Processes That Shape It
4.3.3 Identify salt as the major difference between fresh and ocean waters.
Chapter 5, Lesson 1, Video C, SE page 93

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Earth and the Processes That Shape It
4.3.4 Describe some of the effects of oceans on climate.
Chapter 5, Lesson 2, Video B, SE page 98; Lesson 3, Video A, SE page 105; Video B, SE page 106

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Earth and the Processes That Shape It
4.3.5 Describe how waves, wind, water, and glacial ice shape and reshape Earth's land surface by the erosion of rock and soil in some areas and depositing them in other areas.
Chapter 4, Lesson 2, Video A, SE page 75

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Earth and the Processes That Shape It
43.3.6 Recognize and describe that rock is composed of different combinations of minerals.
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 C, SE page 83

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Earth and the Processes That Shape It
4.3.7 Explain that smaller rocks come from the breakage and weathering of bedrock and larger rocks and that soil is made partly from weathered rock, partly from plant remains, and also contains many living organisms.
See Level A: **Chapter 4, Lesson 2, Video C, SE page 77; Process Skill, SE page 79** **See also Level C:** **Chapter 4, Lesson 3, Video C, SE page 85**

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Earth and the Processes That Shape It
4.3.8 Explain that the rotation of Earth on its axis every 24 hours produces the night-and-day cycle.
Chapter 6, Lesson 1, Video B, SE page 114; Process Skill, SE pages 117

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Earth and the Processes That Shape It
4.3.9 Draw or correctly select drawings of shadows and their direction and length at different times of day.
See Level A: **Chapter 6, Lesson 3, Video A, SE page 127**

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Matter and Energy
4.3.10 Demonstrate that the mass of a whole object is always the same as the sum of the masses of its parts.
Chapter 7, Lesson 2, Video B, SE page 144

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Matter and Energy
4.3.11 Investigate, observe, and explain that things that give off light often also given off heat.
Chapter 8, KnowZone, SE pages 168-1169 **Chapter 9, Lesson 3, Video A, SE page 191**

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Matter and Energy
4.3.12 Investigate, observe, and explain that heat is produced when one object rubs against another, such as one's hands rubbing together.
Chapter 6, Lesson 1, Video A, SE page 113 **Chapter 9, Lesson 3, Video B, SE page 192**

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Matter and Energy
4.3.13 Observe and describe the things that give off heat, such as people, animals, and the sun.
Chapter 1, Lesson 2, Video B, SE page 10 **Chapter 5, KnowZone, SE pages 102-103** **Chapter 6, Lesson 1, Video A, SE page 113; Video C, SE page 115; Critical Thinking, SE page 117** **Chapter 8, Lesson 2, Critical Thinking, SE page 167; Process Skill, SE page 167; KnowZone, SE pages 168-169** **Chapter 9, Lesson 3, Video A, SE page 191**

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Matter and Energy
4.3.14 Explain that energy in fossil fuels comes from plants that grew long ago.
Chapter 9, Lesson 1, Video A, SE page 191; Video B, SE page 192

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Forces of Nature
4.3.15 Demonstrate that without touching them, a magnet pulls all things made of iron and either pushes or pulls other magnets.
Chapter 9, Lesson 2, Video A, SE page 185

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motions, and energy.
Forces of Nature
4.3.16 Investigate and describe that without touching them, material that has been electrically charged pulls all other materials and may either push or pull other charged material.
Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Critical Thinking, SE page 183; Process Skill, SE page 183

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Diversity of Life
4.4.1 Investigate, such as by using microscopes, to see that living things are made mostly of cells.
Chapter 1, Lesson 1, Video A, SE page 3

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Interdependence of Life and Evolution
4.4.2 Investigate, observe, and describe that insects and various other organisms depend on dead plants and animal material for food.
Chapter 2, Lesson 2, Video C, SE page 33; Writing in Science, SE page 35; Process Skill, SE page 35

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Interdependence of Life and Evolution
4.4.3 Observe and describe that organisms interact with one another in various ways, such as providing food, pollination, and seed dispersal.
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 **Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; Process Skill, SE page 51**

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Interdependence of Life and Evolution
4.4.4 Describe and describe that some source of energy is needed for all organisms to stay alive and grow.
Chapter 1, Lesson 1, Video A, SE page 3 **Chapter 2, Lesson 1, Video A, SE page 25; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Critical Thinking, SE page 35; Writing in Science, SE page 35; Process Skill, SE page 35; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 1, Video A, SE page 47; Lesson 2, Video A, SE page 55**

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Interdependence of Life and Evolution
4.4.5 Observe and explain that most plants produce far more seeds than those that actually grow into new plants.
Chapter 1, Lesson 3, Video A, SE page 17; Video C, SE page 19

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Interdependence of Life and Evolution
4.4.6 Explain how in all environments, organisms are growing, dying, and decaying, and new organisms are being produced by the old ones.
Chapter 1, Lesson 3, Video A, SE page 17; Video C, SE page 19

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Human Identity
4.4.7 Describe that human beings have made tools and machines, such as x-rays, microscopes, and computers, to sense and do things they could not otherwise sense or do at all, or as quickly, or as well.
Chapter 1, Lesson 1, Video A, SE page 3 **Chapter 5, Lesson 2, Video C, SE page 99** **Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 127; Critical Thinking, SE page 129; Math in Science, SE page 129; KnowZone, SE pages 130-131** **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; Lesson 3, Video B, SE page 172; Video C, SE page 173; Critical Thinking, SE page 175** **Chapter 9, Lesson 1, Video B, SE page 180; Video C, SE page 181; Critical thinking, SE page 183; Lesson 2, Video B, SE page 186; Video C, SE page 187; Critical Thinking, SE page 189; Process Skill, SE page 189; Lesson 3, Video A, SE page 191; Video B, SE page 192; KnowZone, SE pages 196-197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Human Identity
4.4.8 Know and explain that artifacts and preserved remains provide some evidence of the physical characteristics and possible behavior of human beings who lived a very long time ago.
This concept is not covered at this level.

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Human Identity
4.4.9 Explain that food provides energy and materials for growth and repair of body parts. Recognize that vitamins and minerals, present in small amounts in foods, are essential to keep everything working well. Further understand that as people grow up, the amounts and kinds of food and exercise needed by the body may change.
See Level A: **Chapter 3, Lesson 1, Video C, SE page 49; Critical Thinking, SE page 51; Process Skill, SE page 51**

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Human Identity
4.4.10 Explain that if germs are able to get inside the body, they may keep it from working properly. Understand that for defense against germs, the human body has tears, saliva, skin, some blood cells, and stomach secretions. Also note that a healthy body can fight most germs that invade it. Recognize, however, that there are some germs that interfere with the body's defenses.
Chapter 3, Lesson 2, Video C, SE page 57; Critical Thinking, SE page 59; Process Skill, SE page 59

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.
Human Identity
4.4.11 Explain that there are some diseases that human beings can only catch once. Explain that there are many diseases that can be prevented by vaccinations, so that people do not catch them even once.
This concept is not covered at this level.

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. Their geometric descriptions of objects are more comprehensive. They realize that graphing demonstrates specific connections between data. They identify questions that can be answered by data distribution.
Numbers
4.5.1 Explain that the meaning of numerals in many-digit numbers depends on their positions.
Chapter 4, Lesson 1, Math in Science, SE page 73 **Chapter 6, Lesson 1, Video A, SE page 113; Lesson 2, Video A, SE page 119** **Chapter 7, Lesson 2, Video A, SE page 143; Math in Science, SE page 147** **The Metric System, SE pages 200-201**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. Their geometric descriptions of objects are more comprehensive. They realize that graphing demonstrates specific connections between data. They identify questions that can be answered by data distribution.
Numbers
4.5.2 Explain that in some situations, "0" means none of something, but in others it may be just the label of some point on a scale.
Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 **The Metric System, SE pages 200-201**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. Their geometric descriptions of objects are more comprehensive. They realize that graphing demonstrates specific connections between data. They identify questions that can be answered by data distribution.
Shapes and Symbolic Relationships
4.5.3 Illustrate how length can be thought as units of length joined together, area as a collection of unit squares, and volume as a set of unit cubes.
Chapter 7, Lesson 2, Math in Science, SE page 147 **Chapter 8, Math in Science, SE page 175** **The Metric System, SE pages 200-201**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. Their geometric descriptions of objects are more comprehensive. They realize that graphing demonstrates specific connections between data. They identify questions that can be answered by data distribution.
Shapes and Symbolic Relationships
4.5.4 Demonstrate how graphical displays of numbers may make it possible to spot patterns that are not otherwise obvious, such as comparative size and trends.
Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120 **Chapter 9, Lesson 2, Math in Science, SE page 195**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. Their geometric descriptions of objects are more comprehensive. They realize that graphing demonstrates specific connections between data. They identify questions that can be answered by data distribution.
Reasoning and Uncertainty
4.5.5 Explain how reasoning can be distorted by strong feelings.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 1, Critical Thinking, SE page 29; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.
Systems
4.6.1 Demonstrate that in an object consisting of many parts, the parts usually influence or interact with one another.
Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Process Skill, SE page 29; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Process Skill, SE page 35; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 **Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Process Skill, SE page 59; Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63; Critical Thinking, SE page 65** **Chapter 4, Lesson 2, Video C, SE page 77** **Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Lesson 2, Video A, SE page 97; Lesson 3, Video C, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Lesson 2, Video A, SE page 119; Video C, SE page 121; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 1, Video C, SE page 137; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 157; Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Lesson 3, Video C, SE page 173; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 1, Video C, SE page 181; Lesson 2, Video C, SE page 187; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.
Systems
4.6.2 Show that something may not work as well, or at all, if a part of it is missing, broken, worn out, mismatched, or incorrectly connected.
Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Process Skill, SE page 29; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Process Skill, SE page 35; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 **Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Process Skill, SE page 59; Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63; Critical Thinking, SE page 65** **Chapter 4, Lesson 2, Video C, SE page 77** **Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Lesson 2, Video A, SE page 97; Lesson 3, Video C, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Lesson 2, Video A, SE page 119; Video C, SE page 121; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 1, Video C, SE page 137; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 157; Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Lesson 3, Video C, SE page 173; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 1, Video C, SE page 181; Lesson 2, Video C, SE page 187; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.
Models and Scale
4.6.3 Recognize that and describe how changes made to a model can help predict how the real thing can be altered.
Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 **Chapter 6, Lesson 1, Process Skill, SE page 117** **Chapter 8, Lesson 3, Process Skill, SE page 175** **Chapter 9, Lesson 2, Process Skill, SE page 189**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.
Constancy and Change
4.6.4 Observe and describe that some features of things may stay the same even when other features change.
Chapter 2, Lesson 1, Video B, SE page 26 **Chapter 3, Lesson 2, Video C, SE page 57; Lesson 2, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63** **Chapter 4, KnowZone, SE pages 02-103** **Chapter 7, KnowZone, SE page 140-141; Lesson 3, Critical Thinking, SE page 153**

SRA Snapshots Video Science™: Level C
correlation to
Indiana's Academic Standards for Science
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

Standard 1: The Nature of Science and Technology
Students work collaboratively to carry out investigations. They observe and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms. Students repeat investigations, explain inconsistencies, and design projects.
The Scientific View of the World
5.1.1 Recognize and describe the results of similar investigations may turn out differently because of inconsistencies in methods, materials, 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, Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 191**

Standard 1: The Nature of Science and Technology
Students work collaboratively to carry out investigations. They observe and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms. Students repeat investigations, explain inconsistencies, and design projects.
Scientific Inquiry
5.1.2 Begin to evaluate the validity of claims based on the amount and quality of the evidence cited.
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**

Standard 1: The Nature of Science and Technology
Students work collaboratively to carry out investigations. They observe and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms. Students repeat investigations, explain inconsistencies, and design projects.
The Scientific Enterprise
5.1.3 Explain that doing science involves many different kinds of work and engages men, women, and children of all ages and backgrounds.
Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4: Video C, SE page 5; Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Lesson 3, Video A, SE page 15; Video B, SE page 16 **Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129** **Chapter 7, Lesson 2, Video B, SE page 144; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson C, Video C, SE page 165; KnowZone, SE pages 168-169** **Chapter 9, Lesson 2 Process Skill, SE page 191**

Standard 1: The Nature of Science and Technology
Students work collaboratively to carry out investigations. They observe and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms. Students repeat investigations, explain inconsistencies, and design projects.
Technology and Science
5.1.4 Give examples of technology, such as telescopes, microscopes, and cameras, that enable scientists and others to observe things that are too small or too far away to be seen without them and to study the motion of objects that are moving very rapidly or are hardly moving at all.
Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Lesson 2, Video B, SE page 10; Video C, SE page 11; Lesson 3, Video A, SE page 15; Video B, SE page 16; KnowZone, SE pages 20-21 **Chapter 5, Lesson 3, Video A, SE page 103** **Chapter 6, KnowZone, SE pages 118-119; Lesson 3, Video B, SE page 128**

Standard 1: The Nature of Science and Technology
Students work collaboratively to carry out investigations. They observe and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms. Students repeat investigations, explain inconsistencies, and design projects.
Technology and Science
5.1.5 Explain that technology extends the ability of people to make positive and/or negative changes in the world.
Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4: Video C, SE page 5; Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Lesson 3, Video A, SE page 15; Video B, SE page 16 **Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129** **Chapter 7, Lesson 2, Video B, SE page 144; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson C, Video C, SE page 165; KnowZone, SE pages 168-169** **Chapter 9, Lesson 2 Process Skill, SE page 191**

Standard 1: The Nature of Science and Technology
Students work collaboratively to carry out investigations. They observe and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms. Students repeat investigations, explain inconsistencies, and design projects.
Technology and Science
5.1.6 Explain how the solution to one problem, such as the use of pesticides in agriculture or the use of dumps for waste disposal, may create other problems.
Chapter 3, Lesson 3, Critical Thinking, SE page 65 **Chapter 5, Lesson 1, Critical Thinking, SE page 95; Lesson 2, Critical Thinking, SE page 101**

Standard 1: The Nature of Science and Technology
Students work collaboratively to carry out investigations. They observe and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms. Students repeat investigations, explain inconsistencies, and design projects.
Technology and Science
5.1.7 Give examples of materials not present in nature, such as cloth, plastic, and concrete, that have become available because of science and technology.
Chapter 7, KnowZone, SE pages 140-141 **Chapter 8, Lesson 2, Video A, SE page 163**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. Students describe their observations accurately and clearly using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, contrast, explain, and justify both information and numerical functions.
Computation and Estimation
5.2.1 Multiply and divide whole numbers mentally, on paper, and with a calculator.
Chapter 1, Lesson 1, Math in Science, SE page 7 **Chapter 4, Lesson 1, Math in Science, SE page 73** **Chapter 7, Lesson 3, Math in Science, SE page 147** **Chapter 8, Lesson 3, Math in Science, SE page 175**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. Students describe their observations accurately and clearly using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, contrast, explain, and justify both information and numerical functions.
Computation and Estimation
5.2.2 Use appropriate fractions and decimals when solving problems.
Chapter 4, Lesson 1 Math in Science, SE page 73 **Chapter 8, Lesson 3 Process Skill, SE page 175** **The Metric System, SE pages 200-201**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. Students describe their observations accurately and clearly using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, contrast, explain, and justify both information and numerical functions.
Manipulation and Observation
5.2.3 Choose appropriate common materials for making simple mechanical constructions and repairing things.
Chapter 1, Lesson 1, Process Skill, SE page 7

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. Students describe their observations accurately and clearly using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, contrast, explain, and justify both information and numerical functions.
Communication Skills
5.2.4 Keep a notebook to record observations and to be able to distinguish inferences from actual 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, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. Students describe their observations accurately and clearly using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, contrast, explain, and justify both information and numerical functions.
Communication Skills
5.2.5 Use technology, such as calculators or spreadsheets, in determining area and volume from linear dimensions. Find area, volume, mass, time, and cost, and find the difference between two quantities of anything.
Chapter 1, Lesson 1, Math in Science, SE page 7 **Chapter 2, Lesson 2, Math in Science, SE page 35; Lesson 3, Process Skill, SE page 43** **Chapter 3, Lesson 2, Math in Science, SE page 57** **Chapter 4, Lesson 1, Math in Science, SE page 73** **Chapter 5, Lesson 2, Math in Science, SE page 101** **Chapter 6, Lesson 1, Critical thinking, SE page 117** **Chapter 7, Lesson 3, Video B, SE page 144; Math in Science, SE page 147** **Chapter 8, Lesson 3, Math in Science, SE page 175**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. Students describe their observations accurately and clearly using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, contrast, explain, and justify both information and numerical functions.
Communication Skills
5.2.6 Write instructions that others can follow in carrying out a procedure.
Chapter 1, Lesson 2, Process Skill, SE page 13 **Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 3, Process Skill, SE page 65** **Chapter 7, Lesson 1, Process Skill, SE page 139**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. Students describe their observations accurately and clearly using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, contrast, explain, and justify both information and numerical functions.
Communication Skills
5.2.7 Read and follow step-by-step instructions when learning new procedures.
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**

Standard 2: Scientific Thinking
Students use a variety of skills and techniques when attempting to answer questions and solve problems. Students describe their observations accurately and clearly using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, contrast, explain, and justify both information and numerical functions.
Critical Response Skills
5.2.8 Recognize when and describe that comparisons might not be accurate because some of the conditions are not kept the same.
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**

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
The Universe
5.3.1 Explain that telescopes are used to magnify distant objects in the sky, including the moon and the planets.
Level C: **Chapter 6, Lesson 2, Video B, SE page 128** **See also Level B:** **Chapter 6, Lesson 3, video A, SE page 125**

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
The Universe
5.3.2 Observe and describe that stars are like the sun, some being smaller and some being larger, but they are so far away that they look like points of light.
Chapter 6, Lesson 1, Video A, SE page 113

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
The Universe
5.3.3 Observe the stars and identify stars that are unusually bright and those that have unusual colors, such as reddish or bluish.
Chapter 6, Lesson 1, Video A, SE page 113

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
Earth and the Processes That Shape It
5.3.4 Investigate that when liquid water disappears it turns into a gas (vapor) mixed into the air and can reappear as a liquid when cooled or as a solid when cooled below the freezing point of water.
Chapter 5, Lesson 2, Video B, SE page 98; Process Skill, SE page 101 **The Planet Earth, SE page 204**

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
Earth and the Processes That Shape It
5.3.5 Observe and explain that clouds and fog are made of tiny droplets of water.
Chapter 5, Lesson 2, Video B, SE page 98

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
Earth and the Processes That Shape It
5.3.6 Demonstrate that things on or near Earth are pulled toward it by Earth's gravity.
Chapter 9, Lesson 3, Video B, SE page 194

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
Earth and the Processes That Shape It
5.3.7 Describe that, like all planets and stars, Earth is approximately spherical in shape.
Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
Matter and Energy
5.3.8 Investigate, observe, and describe that heating and cooling cause changes in the properties of materials, such as water tuning into steam by boiling and water turning into ice by freezing. Notice that many kinds of changes occur faster at higher temperatures.
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

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
Matter and Energy
5.3.9 Investigate, observe, and describe that when warmer things are put with cooler ones, the warm ones lose heat and the cool ones gain it until they are all at the same temperature. Demonstrate that a warmer object can warm a cooler one by contact or at a distance.
Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Critical Thinking, SE page 167; Process Skill, SE page 167

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
Matter and Energy
5.3.10 Investigate that some materials conduct heat much better than others, and poor conductors can reduce heat loss.
Chapter 8, Lesson 2, Video A, SE page 163; Process Skill, SE page 167

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
Forces of Nature
5.3.11 Investigate and describe that changes in speed or direction of motion on an object are caused by forces. Understand that the greater the force, the greater the change in motion and the more massive an object, the less effect a given force will have.
Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Video C, SE page 181; Critical Thinking, SE page 183; Process Skill, SE page 183; Lesson 3, video A, SE page 193; Video B, SE page 194; Video C, SE page 195; Critical Thinking, SE page 197; Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
Matter and Energy
5.3.12 Explain that objects move at different rates, with some moving very slowly and some moving too quickly for people to see them.
Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Video C, SE page 181; Critical Thinking, SE page 183; Process Skill, SE page 183; KnowZone, SE pages 184-185; Lesson 2, Video B, SE page 188; Video C, SE page 189; Critical Thinking, SE page 191; Process Skill, SE page 191

Standard 3: The Physical Setting
Students continue to investigate changes of Earth and the sky. They explore, describe, and classify materials, motion, and energy.
Matter and Energy
5.3.13 Demonstrate that Earth's gravity pulls any object toward it without touching it.
Chapter 9, Lesson 1, Video B, SE page 180

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among these organisms. Students explore how organisms satisfy their needs in their environments.
Diversity of Life
5.4.1 Explain that for offspring to resemble their parents there must be a reliable way to transfer information form one generation to the next.
Chapter 2, Lesson 2, Video B, SE page 32

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among these organisms. Students explore how organisms satisfy their needs in their environments.
Diversity of Life
5.4.2 Observe and describe that some living things consist of a single cell that needs food, water, air, a way to dispose of waste, and an environment in which to live.
Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among these organisms. Students explore how organisms satisfy their needs in their environments.
Diversity of Life
5.4.3 Observe and explain that some organisms are made of a collection of similar cells that benefit from cooperating. Explain that some organisms' cells, such as human nerve and muscle cells, vary greatly in appearance and perform very different roles in the organism.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Critical Thinking, SE page 13; Process Skill, SE page 13; Lesson 3, Video A, SE page 15; Video B, SE page 16; Video C, SE page 17

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among these organisms. Students explore how organisms satisfy their needs in their environments.
Interdependence of Life and Evolution
5.4.4 Explain that in any particular environment, some kinds of plants and animals survive well, some do not survive as well, and some cannot survive at all.
Chapter 2, Lesson 2, Video B, SE page 32 **Chapter 3, Lesson 1, Video B, SE page 98; Lesson 2, Critical thinking, SE page 57; Lesson 3, Video A, SE page 61**

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among these organisms. Students explore how organisms satisfy their needs in their environments.
Interdependence of Life and Evolution
5.4.5 Explain how changes in an organism's habitat are sometimes beneficial and sometimes harmful.
Chapter 2, Lesson 1, Video C, SE page 27; KnowZone, SE pages 36-37 **Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62**

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among these organisms. Students explore how organisms satisfy their needs in their environments.
Interdependence of Life and Evolution
5.4.6 Recognize and explain that most microorganisms do not cause disease and many are beneficial.
Chapter 1, Lesson 3, Video A, SE page 15; Critical Thinking, SE page 19; KnowZone, SE pages 20-21

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among these organisms. Students explore how organisms satisfy their needs in their environments.
Interdependence of Life and Evolution
5.4.7 Explain that living things, such as plants and animals, differ in their characteristics, and that sometimes these differences can give members of these groups (plants and animals) an advantage in surviving and reproducing.
Chapter 2, Lesson 2, Video B, SE page 32; Video C, SE page 33; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among these organisms. Students explore how organisms satisfy their needs in their environments.
Interdependence of Life and Evolution
5.4.8 Observe that and describe how fossils can be compared to one another and to living organisms according to their similarities and differences.
Chapter 2, Lesson 1, Video C, SE page 27 **Chapter 4, Lesson 3, Video A, SE page 83**

Standard 4: The Living Environment
Students learn about an increasing variety of organisms—familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among these organisms. Students explore how organisms satisfy their needs in their environments.
Human Identity
5.4.9 Explain that like other animals, human beings have body systems.
Chapter 1, Lesson 3, Video B, SE page 16; Video C, SE page 17

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are more comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies become important.
Numbers
5.5.1 Make precise and varied measurements and specify the appropriate units.
Chapter 1, LabTime Hands-On Activity 1, TRB page 15, TG page 30 **Chapter 5, Lesson 3, Process Skill, SE page 107; LabTime Hands-On Activity 5, TRB page 87, TG page 102** **Chapter 7, Lesson 2, Video C, SE page 165; LabTime Hands-On Activity 7, TRB page 123, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB page 141, TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 191** **The Metric System, SE page 200-201**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are more comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies become important.
Shapes and Symbolic Relationships
5.5.2 Show that mathematical statements using symbols may be true only when the symbols are replaced by certain numbers.
This concept is not covered at this level.

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are more comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies become important.
Shapes and Symbolic Relationships
5.5.3 Classify objects in terms of simple figures and solids.
This concept is not covered at this level.

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are more comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies become important.
Shapes and Symbolic Relationships
5.5.4 Compare shapes in terms of concepts, such as parallel and perpendicular, congruence, and symmetry.
This concept is not covered at this level.

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are more comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies become important.
Shapes and Symbolic Relationships
5.5.5 Demonstrate that areas of irregular shapes can be found by dividing them into squares and triangles.
This concept is not covered at this level.

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are more comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies become important.
Shapes and Symbolic Relationships
5.5.6 Describe and use drawings to show shapes and compare locations of things very different in size.
Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are more comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies become important.
Reasoning and Uncertainty
5.5.7 Explain that predictions can be based on what is known about the past, assuming that conditions are similar.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 2, Process Skill, SE page 57; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 3, Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are more comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies become important.
Reasoning and Uncertainty
5.5.8 Realize and explain that predictions may be more accurate if they are based on large collections of objects or events.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 2, Process Skill, SE page 57; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 3, Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are more comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies become important.
Reasoning and Uncertainty
5.5.9 Show how spreading data out on a number line helps to see what the extremes are, where they pile up, and where the gaps are.
Chapter 3, Lesson 2, Math in Science, SE page 57

Standard 5: The Mathematical World
Students apply mathematics in scientific contexts. They make more precise and varied measurements in gathering data. Their geometric descriptions of objects are more comprehensive, and their graphing demonstrates specific connections. They identify questions that can be answered by data distribution, e.g., "Where is the middle?" and their support of claims or answers with reasons and analogies become important.
Reasoning and Uncertainty
5.5.10 Explain the danger in using only a portion of the data collected to describe the whole.
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**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result.
Systems
5.6.1 Recognize and describe that systems contain objects as well as processes that interact with each other.
Chapter 1, Lesson 1, Process Skill, SE page 7 **Chapter 2, Lesson 1, Video B, SE page 26; Process Skill, SE page 29; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Process Skill, SE page 35** **Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62** **Chapter 4, Lesson 2, Video C, SE page 77; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Video C, SE page 93; Lesson 2, Video B, SE page 100; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Lesson 2, Video A, SE page 119; Video B, SE page 120; Video C, SE page 121; Lesson 3, Video A, SE page 127; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 1, video C, SE page 137; Lesson 2, Video A, SE page 144; Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151** **Chapter 8, Lesson 3, Video B, SE page 172; Video C, SE page 173** **Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Video C, SE page 181; Lesson 2, Video A, SE page 187; Video B, SE page 188; Video C, SE page 189; Lesson 3, Video A, SE page 193; Video B, SE page 194; Video C, SE page 195**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result.
Models and Scale
5.6.2 Demonstrate how geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories can be used to represent objects, events, and processes in the real world, although such representations can never be exact in every detail.
Chapter 1, Lesson 1 Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 3, Lesson 2 Math in Science, SE page 57** **Chapter 4, Lesson 3 Process Skill, SE page 87** **Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 9, Lesson 1 Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result.
Models and Scale
5.6.3 Recognize and describe that almost anything has limits on how big or small it can be.
Chapter 1, Lesson 1, Video C, SE page 5; Lesson 3, Critical Thinking, SE page 5 **Chapter 6, Lesson 3, Video C, SE page 129** **Chapter 7, Lesson 1, Video A, SE page 135**

Standard 6: Common Themes
Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result.
Constancy and Change
5.6.4 Investigate, observe, and describe that things change in steady, repetitive, or irregular ways, such as toy cars continuing in the same direction and air temperature reaching a high or low value. Note that the best way to tell which kinds of changes are happening is to make a table or graph of measurements.
Chapter 4, Lesson 1, Video B, SE page 70; video C, SE page 71; Lesson 2, Video A, SE page 77; Video B, SE page 78; Video C, SE page 79; Critical Thinking, SE page 81; Lesson 3, Critical Thinking, SE page 87 **Chapter 5, Lesson 2, Video B, SE page 98; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 2, Video A, SE page 121; Video B, SE page 122; Video C, SE page 123** **Chapter 7, Lesson 1, Video B, SE page 136**