SRA Snapshots Video Science™: Level A
correlation to
Georgia's Performance 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

Habits of Mind
S3CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Keep records of investigations and observations and do not alter the records later.
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**

Habits of Mind
S3CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
b. Offer reasons for findings and consider reasons suggested by 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, 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**

Habits of Mind
S3CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
c. Take responsibility for understanding the importance of being safety conscious.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 5, Lesson 3, Video C, Se page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**

Habits of Mind
S3CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.
Chapter 2, Lesson 2, Math in Science, SE page 35 **Chapter 3, Lesson 2, Math in Science, SE page 59; Lesson 3 Process Skill, SE page 65** **Chapter 4, Lesson 1, Math in Science, SE page 73; Process Skill, SE page 73** **Chapter 5, Lesson 2 Math in Science, SE page 103; Process Skill, SE page 103** **Chapter 7, Lesson 2, Math in Science, SE page147** **Chapter 9, Lesson 2, Math in Science, SE page 191** **The Metric System, SE pages 200-201**

Habits of Mind
S3CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
b. Use commonly encountered fractions—halves, thirds, and fourths (but not sixths, sevenths, etc.)—in science calculations.
Chapter 9, Lesson 1 Process Skill, SE page 183

Habits of Mind
S3CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
c. Judge whether measurements and computations of quantities, such as length, weight, or time, are reasonable answers to scientific problems by comparing them to typical values.
Chapter 2, Lesson 2 Math in Science, SE page 35 **Chapter 3, Lesson 2 Math in Science, SE page 59; Lesson 3 Process Skill, SE page 65** **Chapter 4, Lesson 1 Math in Science, SE page 73; Process Skill, SE page 73** **Chapter 5, Lesson Math in Science, SE page 103; Process Skill, SE page 103** **Chapter 7, Lesson 2 Math in Science, SE page 147; LabTime Hands-On Activity, TRB Pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 2 Math in Science, SE page 191** **The Metric System, SE pages 200-201**

Habits of Mind
S3CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
a. Choose appropriate common materials for making simple mechanical constructions and repairing things.
Chapter 5, LabTime Hands-On Activity, TRB pages 87-89, TG page 102 **Chapter 9, Lesson 2 Process Skill, SE page 191**

Habits of Mind
S3CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
b. Use computers, cameras, and recording devices for capturing information.
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 80-81** **Chapter 5, KnowZone, SE pages 96-97** **Chapter 6, KnowZone, SE pages 124-125** **Chapter 7, KnowZone, SE pages 140-141** **Chapter 8, KnowZone, SE pages 168-169** **Chapter 9, KnowZone, SE pages 184-185**

Habits of Mind
S3CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
c. Identify and practice accepted safety procedures in manipulating science materials and equipment.
Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66 **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**

Habits of Mind
S3CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
a. Observe and describe how parts influence one another in things with many parts.
Chapter 1, Lesson 1, Process Skill, SE page7 **Chapter 2, Lesson 1, Process Skill, SE page 29; Lesson 2 Process Skill, SE page 35** **Chapter 5, LabTime Hands-On Activity, TRB pages 87-89; TG page 102** **Chapter 7, Lesson 3, Process Skill, SE page 153**

Habits of Mind
S3CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world.
Chapter 1, Lesson 2, Math in Science, SE page 13; LabTime Hands-On Activity, TRG pages 15-17; TG page 30 **Chapter 2, LabTime Hands-On Activity, TRB pages 33-34; TG page 48** **Chapter 3, LabTime Hands-On Activity, TRB pages 51-53; TG page 66** **Chapter 4, Lesson 3, Process Skill, SE page 87; LabTime Hands-On Activity, TRB Pages 69-71; TG page 84** **Chapter 5, Lesson 2, Math in Science, SE page 103; Process Skill, SE page 103; 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; LabTime Hands-On Activity, TRB pages 123-125; TG page 138** **Chapter 8, LabTime Hands-On Activity, TRB pages 141-143; TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity, TRB pages 159-161; TG page 174**

Habits of Mind
S3CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
c. Identify ways in which the representations so not match their original counterparts.
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**

Habits of Mind
S3CS5. Students will communicate scientific ideas and activities clearly.
a. Write instructions that others can follow in carrying out a scientific procedure.
Chapter 8, Lesson 3 Process Skill, SE page 175

Habits of Mind
S3CS5. Students will communicate scientific ideas and activities clearly.
b. Make sketches to aid in explaining scientific procedures or ideas.
Chapter 2, Lesson 1 Process Skill, SE page 29 **Chapter 4, LabTime Hands-On Activity, TRB Pages 69-71; TG page 84** **Chapter 6, LabTime Hands-On Activity, TRB pages 87-89; TG page 102** **Chapter 7, Lesson 3 Writing in Science, SE page 153** **Chapter 9, Lesson 2 Process Skill , SE page 191**

Habits of Mind
S3CS5. Students will communicate scientific ideas and activities clearly.
c. Use numerical data in describing and comparing objects and events.
Chapter 1, Lesson 2 Math in Science, SE page 13 **Chapter 3, Lesson 3 Process Skill, SE page 65** **Chapter 5, Lesson 2 Math in Science, SE page 103; Process Skill, SE page 103** **Chapter 6, Lesson 2 Writing in Science. SE page 123** **Chapter 7 LabTime Hands-On Activity, TRB pages 123-125; TG page 138** **Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity, TRB pages 141-143; TG page 156**

Habits of Mind
S3CS5. Students will communicate scientific ideas and activities clearly.
d. Locate scientific information in reference books, back issues of newspapers and magazines, CD-ROMs, and computer databases.
Chapter 1, KnowZone, SE pages 14-15 **Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Process Skill SE page 43** **Chapter 3, KnowZone, SE pages 52-53** **Chapter 4, KnowZone, SE pages 80-81** **Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Process Skill, SE page 109** **Chapter 6, KnowZone, SE pages 124-125** **Chapter 7, KnowZone, SE pages 140-141** **Chapter 8, KnowZone, SE pages 168-169** **Chapter 9, KnowZone, SE pages 184-185**

Habits of Mind
S3CS6. Students will question scientific claims and arguments effectively.
a. Support statements with facts found in books, articles, and databases, and identify the sources used.
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 80-81** **Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Process Skill SE page 109** **Chapter 6, KnowZone, SE pages 124-125** **Chapter 7, KnowZone, SE pages 140-141** **Chapter 8, KnowZone, SE pages 168-169** **Chapter 9, KnowZone, SE pages 184-185**

The Nature of Science
S3CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
a. Students will recognize that similar scientific investigations seldom produce exactly the same results, which may differ due to unexpected differences in whatever is being investigated, unrecognized differences in the methods or circumstances of the investigation, or observational uncertainties.
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**

The Nature of Science
S3CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
b. Students will recognize that some scientific knowledge is very old and yet is still applicable today.
Chapter 6, Lesson 3, Video A, SE page 127; Video B, SE page 128

The Nature of Science
S3CS8. Students will understand important features of the process of scientific inquiry.
a. Students will apply the following to inquiry learning practices: Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
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**

The Nature of Science
S3CS8. Students will understand important features of the process of scientific inquiry.
b. Students will apply the following to inquiry learning practices: Clear and active communication is an essential part of doing science. It enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and 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, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson 2, Process Skill, SE page 167; Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

The Nature of Science
S3CS8. Students will understand important features of the process of scientific inquiry.
c. Students will apply the following to inquiry learning practices: Scientists use technology to increase their power to observe things and to measure and compare things accurately.
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**

The Nature of Science
S3CS8. Students will understand important features of the process of scientific inquiry.
d. Students will apply the following to inquiry learning practices: Science involves many different kinds of work and engages men and women of all ages and backgrounds.
Chapter 3, Lesson 2 Process Skill, SE page 59 **Chapter 4, KnowZone, SE pages 80-81** **Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, SE page 105** **Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129** **Chapter 7, Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151** **Chapter 8, KnowZone, SE pages 168-169** **Chapter 9, Lesson 2, Video A, SE page 187; Video B, SE page SE page 188; Video C, SE page 189**

Earth Science
S3E1. Students will investigate the physical attributes of rocks and soil.
a. Explain the difference between a rock and a mineral.
Chapter 4, Lesson 2, Video A, SE page 75

Earth Science
S3E1. Students will investigate the physical attributes of rocks and soil.
b. Recognize the physical attributes of rocks and minerals using observation (shape, color, texture), measurement, and simple tests (hardness).
Chapter 4, Lesson 2, Video A, SE page 75

Earth Science
S3E1. Students will investigate the physical attributes of rocks and soil.
c. Use observation to compare the similarities and differences of texture, particle size, and color in top soils (such as clay, loam or potting soil, and sand).
Chapter 4, Lesson 2, Video C, SE page 77; Process Skill , SE page 79

Earth Science
S3E1. Students will investigate the physical attributes of rocks and soil.
d. Determine how water and wind can change rocks and soil over time using observation and research.
Chapter 4, Lesson 1, Video B, SE page 70; LabTime Hands-On Activity, TRB pages 69-71; TG page 84

Earth Science
S3E2. Students will investigate fossils as evidence of organisms that lived long ago.
a. Investigate fossils by observing authentic fossils or models of fossils or view information resources about fossils as evidence of organisms that lived long ago.
Chapter 4, Lesson 2, Video B, SE page 76

Earth Science
S3E2. Students will investigate fossils as evidence of organisms that lived long ago.
b. Describe how a fossil is formed.
Chapter 4, Lesson 2, Video B, SE page 76

Physical Science
S32P1. Students will investigate how heat is produced and the effects of heating and cooling, and will understand a change in temperature indicates a change in heat.
a. Categorize ways to produce heat energy such as burning, rubbing (friction), and mixing one thing with another.
Chapter 8, Lesson 2, Video C, SE page 165; Lesson 3, Video A, SE page 171 **Chapter 9, Lesson 3, Video B, SE page 194**

Physical Science
S32P1. Students will investigate how heat is produced and the effects of heating and cooling, and will understand a change in temperature indicates a change in heat.
b. Investigate how insulation affects heating and cooling.
Chapter 8, Lesson 3, Video B, SE page 172; Video C, SE page 173; Process Skill, SE page 175; LabTime Hands-On Activity, TRB pages 141-143; TG page 156

Physical Science
S32P1. Students will investigate how heat is produced and the effects of heating and cooling, and will understand a change in temperature indicates a change in heat.
c. Investigate the transfer of heat energy from the sun to various materials.
Chapter 2, Lesson 2, Video A, SE page 31 **Chapter 9, Lesson 3, Video C, SE page 195**

Physical Science
S32P1. Students will investigate how heat is produced and the effects of heating and cooling, and will understand a change in temperature indicates a change in heat.
d. Use thermometers to measure the changes in temperatures of water samples (hot, warm, cold) over time.
Chapter 8, LabTime Hands-On Activity, TRB pages 141-143; TG page 156

Physical Science
S3P2. Students will investigate magnets and how they affect other magnets and common objects.
a. Investigate how to find common objects that are attracted to magnets.
Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145

Physical Science
S3P2. Students will investigate magnets and how they affect other magnets and common objects.
b. Investigate how magnets attract and repel each other.
Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145

Life Science
S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.
a. Differentiate between habitats of Georgia (mountains, marsh/swamp, coast, Piedmont, Atlantic Ocean) and the organisms that live there.
Chapter 1, Lesson 1, Video B, SE page 4; Lesson 2, Video C, SE page 11; Lesson 3, Video C, SE page 19 **Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40**

Life Science
S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.
b. Identify features of green plants that allow them to live and thrive in different regions of Georgia.
Chapter 1, Lesson 1, Video B, SE page 4; Lesson 2, Video C, SE page 11; Lesson 3, Video C, SE page 19 **Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40**

Life Science
S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.
c. Identify features of animals that allow them to live and thrive in different regions of Georgia.
Chapter 1, Lesson 1, Video A, SE page 3; Video C, SE page 5; Lesson 2, Video A, SE page 9; Video B, SE page 10; Lesson 3, Video B, SE page 18 **Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video C, SE page 41**

Life Science
S3L1. Students will investigate the habitats of different organisms and the dependence of organisms on their habitat.
d. Explain what will happen to an organism if the habitat is changed.
Chapter 3, Lesson 3, Video B, SE page 62; Video C, SE page 63

Life Science
S3L2. Students will recognize the effects of pollution and humans on the environment.
a. Explain the effects of pollution (such as littering) to the habitats of plants and animals.
Chapter 3, Lesson 3, Video A, SE page 61 **Chapter 4, Lesson 3, Video B, SE page 84**

Life Science
S3L2. Students will recognize the effects of pollution and humans on the environment.
b. Identify ways to protect the environment. • Conservation of resources • Recycling of materials.
Chapter 3, Lesson 3, Video C, SE page 62 **Chapter 4, Lesson 3, Video A, SE page 83; Video C, SE page 85; Process Skill, SE page 87** **Chapter 5, Lesson 2, Video C, SE page 101** **Chapter 9, Lesson 3, Video C, SE page 195**

SRA Snapshots Video Science™: Level B
correlation to
Georgia's Performance 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

Habits of Mind
S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Keep records of investigations and observations and do not alter the records later.
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**

Habits of Mind
S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
b. Carefully distinguish observations from ideas and speculation about those observations.
Chapter 1, Lesson 1, Process Skill, SE page 7; Lesson 2, Process Skill, SE page 11; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 3, Process Skill, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 3, Process Skill, SE page 153l LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Habits of Mind
S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
c. Offer reasons for findings and consider reasons suggested by others.
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**

Habits of Mind
S4CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
d. Take responsibility for understanding the importance of being safety conscious.
Chapter 3, Lesson 3 Process Skill, SE page 65 **Chapter 4, Lesson 3 Process Skill, SE page 85** **Chapter 6 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 9, Lesson 3, Video C, SE page 193; LabTime Hands-On Activity, TRB pages 159-161, TG page 174**

Habits of Mind
S43CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.
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 6 LabTime Hands-On Activity, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 2 Math in Science, SE page 147**

Habits of Mind
S4CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
b. Use fractions and decimals, and translate between decimals and commonly encountered fractions—halves, thirds, fourths, fifths, tenths, and hundredths (but not sixths, sevenths, and so on)—in scientific calculations.
Chapter 6 LabTime Hands-On Activity, TRB pages 105-107, TG page 120 **The Metric System, SE pages 200-201**

Habits of Mind
S4CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
c. Judge whether measurements and computations of quantities, such as length, area, volume, weight, or time, are reasonable answers to scientific problems by comparing them to typical values.
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**

Habits of Mind
S4CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
a. Choose appropriate common materials for making simple mechanical constructions and repairing things.
Chapter 6, Lesson 1 Process Skill, SE page 117 **Chapter 9, Lesson 2 Process Skill, SE page 189; ; LabTime Hands-On Activity, TRB pages 159-161, TG page 174**

Habits of Mind
S4CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
b. Measure and mix dry and liquid materials in prescribed amounts, exercising reasonable safety.
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**

Habits of Mind
S4CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
c. Use computers, cameras, and recording devices for capturing information.
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**

Habits of Mind
S4CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
d. Identify and practice accepted safety procedures in manipulating science materials and equipment.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 3, Video C, SE page 193; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Habits of Mind
S4CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
a. Observe and describe how parts influence one another in things with many parts.
Chapter 2, Lesson 2 Process Skill, SE page 35; LabTime Hands-On Activity, TRB pages 15-17, TG page 30 **Chapter 3, Lesson 2, Process Skill, SE page 59; Lesson 3 Process Skill, SE page 65** **Chapter 6, Lesson 1 Process Skill, SE page 117** **Chapter 7 LabTime Hands-On Activity, TRB pages 123-125, TG page 138** **Chapter 9, Lesson 2 Process Skill, SE page 189; LabTime Hands-On Activity, TRB pages 159-161, TG page 174** **Energy Transfer, SE page 203** **The Water Cycle, SE page 204** **Climate Zones, Eclipses, page 205**

Habits of Mind
S4CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world. Identify ways in which the representations do not match their original counterparts.
Chapter 2, Lesson 2 Process Skill, SE page 35 **Chapter 3, LabTime Hands-On Activity, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 1 Process Skill, SE page 73; LabTime Hands-On Activity, TRB pages 69-71, TG page 84** **Chapter 6, Lesson 1 Process Skill, SE page 117; LabTime Hands-On Activity, TRB pages 105-107, TG page 120** **Chapter 9, Lesson 2 Process Skill, SE page 189; Lesson 3 Math in Science, SE page 195; LabTime Hands-On Activity, TRB pages 159-161, TG page 174** **Energy Pyramid, SE page 203** **The Planet Earth, SE page 204** **Earth in Space, SE page 205**

Habits of Mind
S4CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
c. Identify patterns of change in things—such as steady, repetitive, or irregular change—using records, tables, or graphs of measurements where appropriate.
Chapter 5, Lesson 2, Process Skill, SE page 101 **Chapter 6, Lesson 1, Process Skill, SE page 117**

Habits of Mind
S4CS5. Students will communicate scientific ideas and activities clearly.
a. Write instructions that others can follow in carrying out a scientific procedure.
Chapter 3, Lesson 3 Process Skill, SE page 65 **Chapter 4, Lesson 3 Process Skill, SE page 85** **Chapter 6, Lesson 1 Process Skill, SE page 117** **Chapter 7, Lesson 1 Writing in Science, SE page 139** **Chapter 9, Lesson 2 Writing in Science, SE page 189**

Habits of Mind
S4CS5. Students will communicate scientific ideas and activities clearly.
b. Make sketches to aid in explaining scientific procedures or ideas.
Chapter 2, Lesson 2 Process Skill, SE page 35; LabTime Hands-On Activity, TRB pages 33-35, TG page 48 **Chapter 3, Lesson 2 Process Skill, SE page 59** **Chapter 4 LabTime Hands-On Activity, TRB pages 69-71, TG page 84** **Chapter 5, Lesson 1 Process Skill, SE page 95**

Habits of Mind
S4CS5. Students will communicate scientific ideas and activities clearly.
c. Use numerical data in describing and comparing objects and events.
Chapter 1 LabTime Hands-On Activity, TRB pages 15-17, TG page 30 **Chapter 5, Lesson 3 Process Skill, SE page 109** **Chapter 6 LabTime Hands-On Activity, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 2 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; Process Skill, SE page 195**

Habits of Mind
S4CS5. Students will communicate scientific ideas and activities clearly.
d. Locate scientific information in reference books, back issues of newspapers and magazines, CD-ROMs, and computer databases.
Chapter 1 KnowZone, SE pages 14-15; Lesson 3 Process Skill, SE page 21 **Chapter 2 KnowZone, SE pages 36-37; Lesson 3 Process Skill, SE page 43** **Chapter 3 KnowZone, SE pages 52-53; Lesson 2 Process Skill, SE page 59** **Chapter 4, Lesson 2 Process Skill, SE page 79; KnowZone, SE pages 86-87** **Chapter 5 KnowZone, SE pages 102-103** **Chapter 6, Lesson 3 Math in Science, SE page 129; KnowZone, SE page 130-131** **Chapter 7 KnowZone, SE pages 140-141** **Chapter 8 KnowZone, SE pages 168-169** **Chapter 9 KnowZone, SE pages 196-198**

Habits of Mind
S4CS6. Students will question scientific claims and arguments effectively.
a. Support statements with facts found in books, articles, and databases, and identify the sources used.
Chapter 1 KnowZone. SE pages 14-15; Lesson 3 Process Skill, SE page 21 **Chapter 2 KnowZone, SE pages 36-37; Lesson 3 Process Skill, SE page 43** **Chapter 3 KnowZone, SE pages 52-53; Lesson 2 Process Skill, SE page 59** **Chapter 4, Lesson 2 Process Skill, SE page 79; KnowZone, SE pages 86-87** **Chapter 5 KnowZone, SE pages 102-103** **Chapter 6, Lesson 3 Math in Science, SE page 129; KnowZone, SE pages 130-131** **Chapter 7 KnowZone, SE pages 140-141** **Chapter 8 KnowZone, SE pages 168-169** **Chapter 9 KnowZone, SE pages 196-197**

Habits of Mind
S4CS6. Students will question scientific claims and arguments effectively.
b. Identify when comparisons might not be fair because some conditions are different.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 1, Process Skill, SE page 29** **Chapter 3, Lesson 3, Process Skill, SE page 65** **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**

The Nature of Science
S4CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
a. Students will recognize that similar scientific investigations seldom produce exactly the same results, which may differ due to unexpected differences in whatever is being investigated, unrecognized differences in the methods or circumstances of the investigation, or observational uncertainties.
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**

The Nature of Science
S4CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
b. Students will recognize that some scientific knowledge is very old and yet is still applicable today.
Chapter 6, Lesson 2 Process Skill, SE page 123; Lesson 3 Math in Science, SE page 129; KnowZone, SE pages 130-131

The Nature of Science
S4CS8. Students will understand important features of the process of scientific inquiry.
a. Students will apply the following to inquiry learning practices: Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 1, Process Skill, SE page 29; 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**

The Nature of Science
S4CS8. Students will understand important features of the process of scientific inquiry.
b. Students will apply the following to inquiry learning practices: Clear and active communication is an essential part of doing science. It enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and 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**

The Nature of Science
S4CS8. Students will understand important features of the process of scientific inquiry.
c. Students will apply the following to inquiry learning practices: Scientists use technology to increase their power to observe things and to measure and compare things accurately.
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**

The Nature of Science
S4CS8. Students will understand important features of the process of scientific inquiry.
d. Students will apply the following to inquiry learning practices: Science involves many different kinds of work and engages men and women of all ages and backgrounds.
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**

Earth Science
S4E1. Students will compare and contrast the physical attributes of stars, star patterns, and planets.
a. Recognize the physical attributes of stars in the night sky such as number, size, color, and patterns.
Chapter 6, Lesson 1, Video A, SE page 113

Earth Science
S4E1. Students will compare and contrast the physical attributes of stars, star patterns, and planets.
b. Compare the similarities and differences of planets to the stars in appearance, position, and number in the night sky.
Chapter 6, Lesson 1, Video A, SE page 113; Lesson 2, Video A, SE page 119; Video B, SE page 120

Earth Science
S4E1. Students will compare and contrast the physical attributes of stars, star patterns, and planets.
c. Explain why the pattern of stars in a constellation stays the same, but a planet can be seen in different locations at different times.
See Level A: **Chapter 6, Lesson 3, Video A, SE page 127**

Earth Science
S4E1. Students will compare and contrast the physical attributes of stars, star patterns, and planets.
d. Identify how technology is used to observe distant objects in the sky.
Chapter 6, Lesson 3, Video A, SE page 125; Video B, 126; **Video C, SE page 127: KnowZone, SE pages 130-131**

Earth Science
S4E2. Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.
a. Explain the day/night cycle of the earth using a model.
Chapter 6, Lesson 1, Video B, SE page 114; Process Skill, SE pages 117

Earth Science
S4E2. Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.
b. Explain the sequence of the phases of the moon.
Chapter 6, Lesson 1, Video C, SE page 115; Process Skill, SE page 117

Earth Science
S4E2. Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.
c. Demonstrate the revolution of the earth around the sun and the earth's tilt to explain the seasonal changes.
Chapter 6, Lesson 1, Video B, SE page 114; Process Skill, SE page 117

Earth Science
S4E2. Students will model the position and motion of the earth in the solar system and will explain the role of relative position and motion in determining sequence of the phases of the moon.
d. Demonstrate the relative size and order from the sun of the planets in the solar system.
Chapter 6, Lesson 2, Video A, SE page 119; Video B, SE page 120; Video C, SE page 121

Earth Science
S4E3. Students will differentiate between the states of water and how they relate to the water cycle and weather.
a. Demonstrate how water changes from solid (ice) to liquid (water) to gas (water vapor/steam) and changes from gas to liquid to solid.
Chapter 5, Lesson 1, Video A, SE page 91 **Chapter 7, Lesson 1, Video C, SE page 137**

Earth Science
S4E3. Students will differentiate between the states of water and how they relate to the water cycle and weather.
b. Identify the temperature at which water becomes a solid and at which water becomes a gas.
Chapter 7, Lesson 1, Video C, SE page 137

Earth Science
S4E3. Students will differentiate between the states of water and how they relate to the water cycle and weather.
c. Investigate how clouds are formed.
Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Process Skill, SE page 95; Lesson 3, Video C, SE page 107

Earth Science
S4E3. Students will differentiate between the states of water and how they relate to the water cycle and weather.
d. Explain the water cycle (evaporation, condensation, and precipitation).
Chapter 5, Lesson 1, Video A, SE page 91 **The Water Cycle, SE page 204**

Earth Science
S4E3. Students will differentiate between the states of water and how they relate to the water cycle and weather.
e. Investigate different forms of precipitation and sky conditions (rain, snow, sleet, hail, clouds, and fog).
Chapter 5, Lesson 1, Video A, SE page 91

Earth Science
S4E4. Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.
a. Identify weather instruments and explain how each is used in gathering weather data and making forecasts (thermometer, rain gauge, barometer, wind vane, anemometer).
Chapter 5, Lesson 2, Video C, SE page 99; LabTime Hands-On Activity 5, TRB pages 87-89; TG page 102

Earth Science
S4E4. Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.
b. Using a weather map, identify the fronts, temperatures, and precipitation and use the information to interpret the weather conditions.
Chapter 5, Lesson 2, Video C, SE page 99; Process Skill, SE page 101; Lesson 3, Video A, SE page 105; Video B, SE page 106

Earth Science
S4E4. Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.
c. Use observations and records of weather conditions to predict weather patterns throughout the year.
Chapter 5, Lesson 2, Video C, SE page 99; Process Skill, SE page 101; Lesson 3, Video B, SE page 106; Video C, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89; TG page 102

Earth Science
S4E4. Students will analyze weather charts/maps and collect weather data to predict weather events and infer patterns and seasonal changes.
d. Differentiate between weather and climate.
Chapter 5, Lesson 3, Video A, SE page 105; Video B, SE page 106

Physical Science
S4P1. Students will investigate the nature of light using tools such as mirrors, lenses, and prisms.
a. Identify materials that are transparent, opaque, and translucent.
Chapter 8, Lesson 2, Video B, SE page 164

Physical Science
S4P1. Students will investigate the nature of light using tools such as mirrors, lenses, and prisms.
b. Investigate the reflection of light using a mirror and a light source.
Chapter 8, Lesson 2, Video B, SE page 164

Physical Science
S4P1. Students will investigate the nature of light using tools such as mirrors, lenses, and prisms.
c. Identify the physical attributes of a convex lens, a concave lens, and a prism and where each is used.
Chapter 8, Lesson 2, Video A, SE page 163; Video C, SE page 165

Physical Science
S4P2. Students will demonstrate how sound is produced by vibrating objects and how sound can be varied by changing the rate of vibration.
a. Investigate how sound is produced.
Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Writing in Science, SE page 161; Process Skill, SE page 161; LabTime Hands-On Activity 8, TRB Pages 141-143; TG Page 156

Physical Science
S4P2. Students will demonstrate how sound is produced by vibrating objects and how sound can be varied by changing the rate of vibration.
b. Recognize the conditions that cause pitch to vary.
Chapter 8, Lesson 1, Video C, SE page 159; Writing in Science, SE page 161; Process Skill, SE page 161; LabTime Hands-On Activity 8, TRB Pages 141-143; TG Page 156

Physical Science
S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.
a. Identify simple machines and explain their uses (levers, pulley, wedge, inclined plane, screw, wheel and axle).
Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175

Physical Science
S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.
b. Using different size objects, observe how force affects speed and motion.
Chapter 8, Lesson 3, Video A, SE page 171

Physical Science
S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.
c. Explain what happens to the speed or direction of an object when a greater force that the initial one is applied.
Chapter 8, Lesson 3, Video A, SE page 171

Physical Science
S4P3. Students will demonstrate the relationship between the application of a force and the resulting change in position and motion on an object.
d. Demonstrate the effect of gravitational force on the motion of an object.
Chapter 8, Lesson 3, Video A, SE page 171

Life Science
S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.
a. Identify the roles of producers, consumers, and decomposers in a community.
Chapter 2, Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; 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; Process Skill, SE page 43

Life Science
S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.
b. Demonstrate the flow of energy through a food web/food chain beginning with sunlight and including producers, consumers, and decomposers.
Chapter 2, 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; Process Skill, SE page 43

Life Science
S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.
c. Predict how changes in the environment would affect a community (ecosystem) of organisms.
Chapter 1, Lesson 1, Video C, SE page 5 **Chapter 2, Lesson 3, Video C, SE page 41; Process Skill, SE page 43** **Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63**

Life Science
S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.
d. Predict effects on a population if some of the plants or animals in the community are scarce or if there are too many.
Chapter 1, Lesson 1, Video C, SE page 5 **Chapter 2, Lesson 1, Video C, SE page 27; Math in Science, SE page 29; Process Skill, SE page29; Lesson 3, Video C, SE page 41; Process Skill, SE page 43** **Chapter 3, Lesson 1 Process Skill, SE page 51; Lesson 3, Video C, SE page 63**

Life Science
S4L2. Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors (hibernation) and external features (camouflage and protection).
a. Identify external features of organisms that allow them to survive or reproduce better than organisms that do not have these features (e.g., camouflage, use of hibernation, protection, etc.).
Chapter 1, Lesson 2, Video C, SE page 11; LabTime Hands-On Activity 1, TRB Pages 15-17; TG page 30 **Chapter 2 KnowZone, SE pages 36-37** **Chapter 3, Lesson 1, Video C, SE page 49; Lesson 3, Video A, SE page 61; Video B, SE page 62**

Life Science
S4L2. Students will identify factors that affect the survival or extinction of organisms such as adaptation, variation of behaviors (hibernation) and external features (camouflage and protection).
b. Identify factors that may have led to the extinction of some organisms.
Chapter 1, Lesson 1, Video C, SE page 5

SRA Snapshots Video Science™: Level C
correlation to
Georgia's Performance 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

Habits of Mind
S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
a. Keep records of investigations and observations and do not alter the records 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, 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**

Habits of Mind
S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
b. Carefully distinguish observations from ideas and speculation about those observations.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Habits of Mind
S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
c. Offer reasons for findings and consider reasons suggested by others.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 3, Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 1, Process Skill, SE page 51; 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 3, Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Habits of Mind
S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
d. Take responsibility for understanding the importance of being safety conscious.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 2, Process Skill, SE page 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, Lesson 3, Video B, SE page 109; Know Zone, SE pages 104-105; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Habits of Mind
S5CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
a. Add, subtract, multiply, and divide whole numbers mentally, on paper, and with a calculator.
Chapter 1, Lesson 1 Math in Science, SE page 7 **Chapter 2, Lesson 2 Math in Science, SE page 35** **Chapter 4, Lesson 1 Math in Science, SE page 73** **Chapter 5, Lesson 2 Math in Science, SE page 101** **Chapter 7, Lesson 2 Math in Science, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson 3 Math in Science, SE page 175; Process Skill, SE page 175**

Habits of Mind
S5CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
b. Use fractions and decimals, and translate between decimals and commonly encountered fractions—halves, thirds, fourths, fifths, tenths, and hundredths (but not sixths, sevenths, and so on)—in scientific calculations.
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**

Habits of Mind
S5CS2. Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
c. Judge whether measurements and computations of quantities, such as length, area, volume, weight, or time, are reasonable answers to scientific problems by comparing them to typical values.
Chapter 1, Lesson 1 Math in Science, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 2 Math in Science, SE page 35** **Chapter 3 LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 1 Math in Science, SE page 73** **Chapter 5, Lesson 2 Math in Science, SE page 101; Lesson 3 Process Skill, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 7, Lesson 2 Math in Science, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson 3 Math in Science, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 2 Process Skill, SE page 191**

Habits of Mind
S5CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
a. Choose appropriate common materials for making simple mechanical constructions and repairing things.
Chapter 9 LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Habits of Mind
S5CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
b. Measure and mix dry and liquid materials in prescribed amounts, exercising reasonable safety.
Chapter 1 LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 4, Lesson 3 Process Skill, SE page 87** **Chapter 7 LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**

Habits of Mind
S5CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
c. Use computers, cameras, and recording devices for capturing information.
Chapter 1, KnowZone, SE pages 20-21 **Chapter 2, KnowZone, SE pages 36-37** **Chapter 3, KnowZone, SE pages 58-59** **Chapter 4, KnowZone, SE pages 74-75** **Chapter 5, KnowZone, SE pages 108-109** **Chapter 6, KnowZone, SE pages 118-119** **Chapter 7, KnowZone, SE pages 140-141** **Chapter 8, KnowZone, SE pages 168-169** **Chapter 9, KnowZone, SE pages 184-185**

Habits of Mind
S5CS3. Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities utilizing laboratory procedures.
d. Identify and practice accepted safety procedures in manipulating science materials and equipment.
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**

Habits of Mind
S5CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
a. Observe and describe how parts influence one another in things with many parts.
Chapter 1, Lesson 1 Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 3, Lesson 1 Process Skill, SE page 51** **Chapter 8 LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**

Habits of Mind
S5CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world. Identify ways in which the representations do not match their original counterparts.
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**

Habits of Mind
S5CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
c. Identify patterns of change in things—such as steady, repetitive, or irregular change—using records, tables, or graphs of measurements where appropriate.
Chapter 8 LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Habits of Mind
S5CS4. Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
d. Identify the biggest and the smallest possible values of something.
Chapter 1, Lesson 1 Math in Science, 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; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 5, Lesson 3 Process Skill, SE page 107** **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**

Habits of Mind
S5CS5. Students will communicate scientific ideas and activities clearly.
a. Write instructions that others can follow in carrying out a scientific procedure.
Chapter 9, Lesson 3 Process Skill, SE page 197

Habits of Mind
S5CS5. Students will communicate scientific ideas and activities clearly.
b. Make sketches to aid in explaining scientific procedures or ideas.
Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 **Chapter 9, Lesson 1 Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Habits of Mind
S5CS5. Students will communicate scientific ideas and activities clearly.
c. Use numerical data in describing and comparing objects and events.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 3 Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 1 Math in Science, SE page 57; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 5, Lesson 3 Process Skill, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, KnowZone, SE pages 184-185**

Habits of Mind
S5CS5. Students will communicate scientific ideas and activities clearly.
d. Locate scientific information in reference books, back issues of newspapers and magazines, CD-ROMs, and computer databases.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 1, SE page 29; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Habits of Mind
S5CS6. Students will question scientific claims and arguments effectively.
a. Support statements with facts found in books, articles, and databases, and identify the sources used.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 1, SE page 29; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Habits of Mind
S5CS6. Students will question scientific claims and arguments effectively.
b. Identify when comparisons might not be fair because some conditions are different.
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, Lesson 2, Process Skill, SE page 167; 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**

The Nature of Science
S5CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
a. Students will recognize that similar scientific investigations seldom produce exactly the same results, which may differ due to unexpected differences in whatever is being investigated, unrecognized differences in the methods or circumstances of the investigation, or observational uncertainties.
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**

The Nature of Science
S5CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
b. Students will recognize that some scientific knowledge is very old and yet is still applicable today.
Chapter 1, Lesson 1, Video A, SE page 3 **Chapter 6, KnowZone, SE pages 118-119** **Chapter 7, KnowZone, SE pages 140-141** **Chapter 9, Lesson 3, Video A, SE page 193; Video B, SE page 194; Video C, SE page 195**

The Nature of Science
S5CS8. Students will understand important features of the process of scientific inquiry.
a. Students will apply the following to inquiry learning practices: Scientific investigations may take many different forms, including observing what things are like or what is happening somewhere, collecting specimens for analysis, and doing experiments.
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 1, Process Skill, SE page 51; 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 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson 2, Process Skill, SE page 167; 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**

The Nature of Science
S5CS8. Students will understand important features of the process of scientific inquiry.
b. Students will apply the following to inquiry learning practices: Clear and active communication is an essential part of doing science. It enables scientists to inform others about their work, expose their ideas to criticism by other scientists, and 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, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

The Nature of Science
S5CS8. Students will understand important features of the process of scientific inquiry.
c. Students will apply the following to inquiry learning practices: Scientists use technology to increase their power to observe things and to measure and compare things accurately.
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**

The Nature of Science
S5CS8. Students will understand important features of the process of scientific inquiry.
d. Students will apply the following to inquiry learning practices: Science involves many different kinds of work and engages men and women of all ages and backgrounds.
Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129 **Chapter 7, KnowZone, SE pages 140-141**

Earth Science
S5E1. Students will identify surface features of the Earth caused by constructive and destructive processes.
a. Identify surface features caused by constructive processes. • Deposition (deltas, sand dunes, etc.) • Earthquakes • Volcanoes • Faults.
Chapter 4, Lesson 2, Video C, SE page 71; KnowZone, SE pages 74-75; Lesson 2, Video C, SE page 79

Earth Science
S5E1. Students will identify surface features of the Earth caused by constructive and destructive processes.
b. Identify and find examples of surface features caused by destructive processes. • Erosion (water—rivers and oceans, wind) • Weathering • Impact of organisms • Earthquake • Volcano.
Chapter 4, Lesson 1, Video C, SE page 7; KnowZone, SE pages 70-71; Lesson 2, Video A, SE page 77; Video B, SE page 78; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Earth Science
S5E1. Students will identify surface features of the Earth caused by constructive and destructive processes.
c. Relate the role of technology and human intervention in the control of constructive and destructive processes. Examples include, but are not limited to: • Seismological studies • Flood control (dams, levees, storm drain management, etc.) • Beach reclamation (Georgia coastal islands).
Chapter 4, Lesson 2, Video B, SE page 78; Video C, SE page 79 **Chapter 5, Lesson 3, Video B, SE page 104; KnowZone, SE pages 108-109**

Physical Science
S5P1. Students will verify that an object is the sum of its parts.
a. Demonstrate that the mass of an object is equal to the sum of its arts by manipulating and measuring different objects made of various parts.
Chapter 7, Lesson 2, Video B, SE page 144

Physical Science
S5P1. Students will verify that an object is the sum of its parts.
b. Investigate how common items have parts that are too small to be seen without magnification.
Chapter 7, Lesson 1, Video A, SE page 135 **The Periodic Table of the Elements, SE pages 206-207**

Physical Science
S5P2. Students will explain the difference between a physical change and a chemical change.
a. Investigate physical changes by separating mixtures and manipulating (cutting, tearing, folding) paper to demonstrate examples of physical change.
Chapter 7, Lesson 1, Video B, SE page 136; Video C, SE page 137; Process Skill, SE page 139; Lesson 2, Video C, SE page 145

Physical Science
S5P2. Students will explain the difference between a physical change and a chemical change.
b. Recognize that the changes in state of water (water vapor/steam, liquid, ice) are due to temperature differences and are examples of physical change.
Chapter 7, Lesson 1, Video B, SE page 136

Physical Science
S5P2. Students will explain the difference between a physical change and a chemical change.
c. Investigate the properties of a substance before, during, and after a chemical reaction to find evidence of change.
Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 **Chapter 7, Lesson 2, Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**

Physical Science
S5P3. Students will investigate electricity, magnetism, and their relationship.
a. Investigate static electricity.
See Level B: **Chapter 9, Lesson 1, Video A, SE page 179; Process Skill, SE page 183**

Physical Science
S5P3. Students will investigate electricity, magnetism, and their relationship.
b. Determine the necessary components for completing an electric circuit.
Level C: **Chapter 8, Lesson 3, Video A, SE page 171** **See also Level B:** **Chapter 9, Lesson 1, Video C, SE page 181**

Physical Science
S5P3. Students will investigate electricity, magnetism, and their relationship.
c. Investigate common materials to determine if they are insulators or conductors of electricity.
See Level B: **Chapter 9, Lesson 1, Video B, SE page 180**

Physical Science
S5P3. Students will investigate electricity, magnetism, and their relationship.
d. Compare a bar magnet to an electromagnet.
See Level B: **Chapter 9, Lesson 2, Video A, SE page 185; Video B, SE page 186**

Life Science
S5L1. Students will classify organisms into groups and relate how they determined the groups and how and why scientists use classification.
a. Demonstrate how animals are sorted into groups (vertebrates and invertebrates) and how vertebrates are sorted into groups (fish, amphibian, reptile, bird, and mammal).
Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Process Skill, SE page 29

Life Science
S5L1. Students will classify organisms into groups and relate how they determined the groups and how and why scientists use classification.
b. Demonstrate how plants are sorted into groups.
Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26

Life Science
S5L2. Students will recognize that offspring can resemble parents in inherited traits and learned behaviors.
a. Compare and contrast the characteristics of learned behaviors and of inherited traits.
Chapter 2, Lesson 2, Video C, SE page 33

Life Science
S5L2. Students will recognize that offspring can resemble parents in inherited traits and learned behaviors.
b. Discuss what a gene is and the role genes play in the transfer of traits.
This concept is not covered at this level.

Life Science
S5L3. Students will diagram and label parts of various cells (plant, animal, single-celled, multi-celled).
a. Use magnifiers such as microscopes or hand lenses to observe cells and their structure.
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

Life Science
S5L3. Students will diagram and label parts of various cells (plant, animal, single-celled, multi-celled).
b. Identify parts of a plant cell (membrane, wall, cytoplasm, nucleus, chloroplasts) and of an animal cell (membrane, cytoplasm, and nucleus) and determine the function of the parts.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10

Life Science
S5L3. Students will diagram and label parts of various cells (plant, animal, single-celled, multi-celled).
c. Explain how cells in multi-celled organisms are similar and different in structure and function to single-celled organisms.
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 15

Life Science
S5L4. Students will relate how microorganisms benefit or harm larger organisms.
a. Identify beneficial microorganisms and explain why they are beneficial.
Chapter 1, KnowZone, SE pages 20-21

Life Science
S5L4. Students will relate how microorganisms benefit or harm larger organisms.
b. Identify harmful microorganisms and explain why they are harmful.
Chapter 1, KnowZone, SE pages 20-21