SRA Snapshots Video Science™: Level A
correlation to
Alaska Science Performance Standards
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

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA1. Students develop an understanding of the processes of science used to investigate problems, design, and conduct repeatable scientific investigations, and defend scientific arguments.
The student develops an understanding of the processes of science by:
[3] SA1.1 asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.
Chapter 1, Lesson 1, Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 3, Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 2, Process Skill, SE page 79; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA1. Students develop an understanding of the processes of science used to investigate problems, design, and conduct repeatable scientific investigations, and defend scientific arguments.
The student develops an understanding of the processes of science by:
[3] SA1.2 observing and describing their world to answer simple questions.
Chapter 1, Lesson 1, Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 3, Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 2, Process Skill, SE page 79; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 1, Critical Thinking, SE page 183; Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA2. Students develop an understanding that the processes of science require integrity, logical reasoning, skepticism, openness, communication, and peer review.
The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by:
[3] SA2.1 answering, "how do you know?" questions with reasonable answers.
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**

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA3. Students develop an understanding that culture, local knowledge, history, and interaction with the environment contribute to the development of scientific knowledge, and local applications provide opportunity for understanding scientific concepts and global issues.
The student demonstrates an understanding that interactions with the environment provide an opportunity for understanding scientific concepts by:
[3]SA3.1 observing local conditions that determine which plants and/or animals survive.
Chapter 2, Lesson 1, Video C, SE page 27; Process Skill, SE page 29

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB1 Students develop an understanding of the characteristic properties of matter and the relationship of these properties to their structure and behavior.
The student demonstrates an understanding of the structure and properties of matter by:
[3] SB1.1 classifying matter according to physical properties (i.e., color, size, shape, weight, texture, flexibility).
Chapter 8, Lesson 1, Video B, SE page 158; Video C, SE page 159; Lesson 2, Process Skill, SE page167; KnowZone, SE pages 168-169; Lesson 3, Video B, SE page 172; Video C, SE page 173

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB2. Students develop an understanding that energy appears in different forms, can be transformed from one form to another, can be transferred or moved from one place or system to another, may be unavailable for use, and is ultimately conserved.
The student demonstrates am understanding of how energy can be transformed, transferred, and conserved by:
[3] SB2.1 classifying materials as insulators or conductors (i.e., fur, metal, wood, plastic) and identifying their applications.
See Level B: **Chapter 9, Lesson 1, Video B, SE page 180**

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB3 Students develop an understanding of the interactions between matter and energy, including physical, chemical, and nuclear changes, and the effects of these interactions on physical systems.
The student demonstrates an understanding of the interactions between matter and energy and the effects of these interactions on systems by:
[3] SB3.1 recognizing that temperature changes cause changes in phases of substances (e.g., ice changing to liquid, water changing to water vapor, and vice versa).
Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Process Skills 161

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB4 Students develop an understanding of motions, forces, their characteristics and relationships, and natural forces and their effects.
The student demonstrates an understanding of motions, forces, their characteristics, relationships, and effects by:
[3] SB4.1 recognizing that objects can be moved without being touched (e.g., using magnets, falling objects, static electricity).
Chapter 7, Lesson 1, Video C, SE page 137; Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Process Skill, SE page 147

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB1 Students develop an understanding of how science explains changes in life forms over time, including genetics, heredity, the process of natural selection, and biological evolution.
The student demonstrates an understanding of how science explain changes in life forms over time, including genetics, heredity, the process of natural selection and biological evolution.
[3] SC1.1 sorting Alaskan plants and/or animals using physical characteristics (e.g., leaves, beaks). (L)
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; 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 **Classification, SE page 202**

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB1 Students develop an understanding of how science explains changes in life forms over time, including genetics, heredity, the process of natural selection, and biological evolution.
The student demonstrates an understanding of how science explain changes in life forms over time, including genetics, heredity, the process of natural selection and biological evolution.
[3] SC1.2 describing how some traits (e.g., claws, teeth, camouflage) of living organisms have helped them survive as a species.
Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40; Lesson C, SE page 41; Writing in Science, SE page 43; Process Skill, SE page 43

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB2 Students develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.
The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by:
[3] SC2.1 sorting animals and plants into groups based on appearance and behaviors.
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

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB2 Students develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.
The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by:
[3] SC2.2 observing and comparing external features of plants and of animals that may help them grow, survive, and reproduce.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Lesson 3, Video C, SE page 19 Chapter 2, Lesson 2, Video A, SE page 31; KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB3 Students develop an understanding that all organisms are linked to each other and their physical environments through the transfer of matter and energy.
The student demonstrates an understanding that all organisms are linked to each other and they physical environments through the transfer and transformation of matter and energy by:
[3] SC3.1 identifying and sorting examples of living and nonliving things in the local environment. (L)
Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Process Skill, SE page 7; 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; Process Skill, SE page 29; Lesson 2, Video A, SE page 31; Video B, SE page 2; Video C, SE page 33; Critical Thinking, SE page 35; Process Skill, SE page 35; Lesson 3, Video A, SE page 39; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB3 Students develop an understanding that all organisms are linked to each other and their physical environments through the transfer of matter and energy.
The student demonstrates an understanding that all organisms are linked to each other and they physical environments through the transfer and transformation of matter and energy by:
[3] SC3.2 organizing a simple food chain of familiar plants and animals. (L)
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**

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD1 Students demonstrate an understanding of Earth's geochemical cycles.
The student demonstrates an understanding of geochemical cycles by:
[3]SD1.1 recognizing that most rocks are composed of combinations of different substances.
Chapter 4, Lesson 2, Video A, SE page 75

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD1 Students demonstrate an understanding of Earth's geochemical cycles.
The student demonstrates an understanding of geochemical cycles by:
[3]SD1.2 describing the water cycle to show that water circulates through the crust, oceans, and atmosphere of Earth.
Chapter 5, Lesson 2, Video B, SE page 100 **The Planet Earth, SE page 204**

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD2 Students demonstrate an understanding of the origins, ongoing processes, and forces that shape the structure, composition, and physical history of the Earth.
The student demonstrates an understanding of the forces that shape Earth by:
[3]SD2.1 identifying and comparing a variety of Earth's land features (i.e., rivers, deltas, lakes, glaciers, mountains, valleys, and islands).
Chapter 4, Lesson 1, Video A, SE page 69; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD3 Students demonstrate an understanding of the cyclical changes controlled by energy from the sun and by Earth's position and motion in our solar system.
The student demonstrates an understanding of cycles influenced by energy from the sun and by Earths position and motion in our solar system by:
[3]SD3.1 using recorded weather patterns (e.g., temperature, cloud cover, or precipitation) to make reasonable predictions. (L)
Chapter 5, KnowZone, SE pages 96-97; Lesson 2, Process Skill, SE page 103; Lesson 3, Video A, SE page 105; Video B, SE page 106; Video C, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD4 Students demonstrate an understanding of the theories regarding the evolution of the universe.
The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by:
[3]SD4.1 recognizing that objects appear smaller the farther away they are.
Chapter 6, Lesson 3, Video A, SE page 127

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD4 Students demonstrate an understanding of the theories regarding the evolution of the universe.
The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by:
[3]SD4.2 recognizing that objects have properties, locations, and movements that can be observed and described.
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

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD4 Students demonstrate an understanding of the theories regarding the evolution of the universe.
The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by:
[3]SD4.3 recognizing and using appropriate instruments of magnification (e.g., binoculars and telescopes).
Chapter 3, Lesson 2, Video A, SE page 55; Math in Science, SE page 59 **Chapter 6, KnowZone, SE pages 124-125; Lesson 3, Video B, SE page 128**

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE1 Students develop an understanding of how scientific knowledge and technology are used in making decisions about issues, innovations, and responses to problems and everyday events.
The student demonstrates an understanding of how to integrate scientific knowledge and technology to address problems by:
[3]SE1.1 identifying local problems and discussing solutions. (L)
Chapter 2, Lesson 1, Process Skill, SE page 29 **Chapter 3, Lesson 3, Process Skill, SE page 65** **Chapter 4, Lesson 2, Process Skill, SE page 79; Lesson 3, Process Skill, SE page 87** **Chapter 5, Lesson 2, Critical Thinking, SE page 103**

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE2 Students develop an understanding that solving problems involves different ways of thinking, perspectives, and curiosity that lead to the exploration of multiple paths that are analyzed using scientific, technological, and social merits.
The student demonstrates an understanding that solving problems involves different ways of thinking, perspectives, and curiosity by:
[3]SE2.1 identifying local tools and materials used in everyday life. (L)
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**

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE3 Students develop an understanding of how scientific discoveries and technological innovations affect and are affected by our lives and cultures.
The student demonstrates an understanding of how scientific discoveries and technological innovations affect our lives and society by:
[3]SE3.1 listing all the positive and negative effects of a single technological development in the local community (e.g., fish trap, fish wheel, four-wheeler, computer). (L)
Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Math in Science, SE page 59 **Chapter 5, KnowZone SE pages 96-97; Lesson 3, Video A, SE page 105** **Chapter 6, KnowZone, SE pages 124-125; Lesson 3, Video BC, SE page 128; Video C, 129**

F1—Cultural, Social, Personal Perspectives, and Science
SF Students develop an understanding of the dynamic relationships among scientific, cultural, social, and personal perspectives.
SF1 Students develop an understanding of the interrelationships among individuals, cultures, societies, science, and technology.
The student demonstrates an understanding of the dynamic relationships among scientific, cultural, social, and personal perspectives by:
[3} SF1.1-SF3.1 exploring local or traditional stories that explain a natural events. (L)
See Level C: **Chapter 6, Lesson 1, Enrichment, TG page 110**

G1—History and Nature of Science
SG Students develop an understanding that historical perspectives of scientific explanations demonstrate that scientific knowledge changes over time, building on prior knowledge.
SG2 Students develop an understanding that the advancement of scientific knowledge embraces innovation and requires empirical evidence, repeatable investigations, logical arguments, and critical review in striving for the best possible explanations of the natural world.
The student demonstrates an understanding of the bases of the advancement of scientific knowledge by:
[3] SG2.1 comparing the results of multiple observations of a single local event. (L)
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**

G1—History and Nature of Science
SG Students develop an understanding that historical perspectives of scientific explanations demonstrate that scientific knowledge changes over time, building on prior knowledge.
SG4 Students develop an understanding that advancements in science depend on curiosity, creativity, imagination, and a broad knowledge base.
The student demonstrates an understanding that advancements in science depend on curiosity, creativity, imagination, and a broad knowledge base by:
[3] SG4.1 asking questions about the natural world.
Chapter 1, Lesson 1, Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 3, Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 2, Process Skill, SE page 79; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

SRA Snapshots Video Science™: Level B
correlation to
Alaska Science Performance Standards
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

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA1. Students develop an understanding of the processes of science used to investigate problems, design, and conduct repeatable scientific investigations, and defend scientific arguments.
The student develops an understanding of the processes of science by:
[4] SA1.1 asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.
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**

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA1. Students develop an understanding of the processes of science used to investigate problems, design, and conduct repeatable scientific investigations, and defend scientific arguments.
The student develops an understanding of the processes of science by:
[4] SA1.2 observing, measuring and collecting data from explorations and using this information to classify, predict and communicate.
Chapter 1, Lesson 2, Process Skill, SE page 13; Lesson 3, Process Skill, SE page 21; 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, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 2, Process Skill, SE page 79; 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 1, Writing in Science, SE page 117; Process Skill, SE page 117; 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 1, Video A, SE page 161; 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**

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA2. Students develop an understanding that the processes of science require integrity, logical reasoning, skepticism, openness, communication, and peer review.
The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by:
[4] SA2.1 supporting their ideas with observations and peer review. (L)
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**

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA3. Students develop an understanding that culture, local knowledge, history, and interaction with the environment contribute to the development of scientific knowledge, and local applications provide opportunity for understanding scientific concepts and global issues.
The student demonstrates an understanding that interactions with the environment provide an opportunity for understanding scientific concepts by:
[4]SA3.1 identifying the local limiting factors (e.g., weather, human influence, species interactions) when plants and/or animals survive. (L)
Chapter 1, Lesson 1, Video C, SE page 5 **Chapter 2, Lesson 1, Video B, SE page 26; Lesson 3, Video C, SE page 41; Process Skill, SE page 43** **Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 2, Video C, SE page 57; Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63; Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB1 Students develop an understanding of the characteristic properties of matter and the relationship of these properties to their structure and behavior.
The student demonstrates an understanding of the structure and properties of matter by:
[4] SB1.1 identifying and comparing the characteristics of gases, liquids, and solids.
Chapter 7, Lesson 1, Video C, SE page 137; Critical Thinking, SE page 139; Process Skill, SE page 139; Lesson 3, Video C, SE page 151

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB2. Students develop an understanding that energy appears in different forms, can be transformed from one form to another, can be transferred or moved from one place or system to another, may be unavailable for use, and is ultimately conserved.
The student demonstrates am understanding of how energy can be transformed, transferred, and conserved by:
[4] SB2.1 investigating the effectiveness of different insulating and conducting materials with respect to heat flow and record the results. (L)
Chapter 9, Lesson 1, Video B, SE page 180

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB3 Students develop an understanding of the interactions between matter and energy, including physical, chemical, and nuclear changes, and the effects of these interactions on physical systems.
The student demonstrates an understanding of the interactions between matter and energy and the effects of these interactions on systems by:
[4] SB3.1 explaining that temperature changes cause changes in phases of substances (e.g., ice changing to liquid water and liquid water to water vapor).
Chapter 7, Lesson 1, Video C, SE page 137; Critical Thinking, SE page 139; Process Skill, SE page 139; Lesson 3, Video C, SE page 151

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB4 Students develop an understanding of motions, forces, their characteristics and relationships, and natural forces and their effects.
The student demonstrates an understanding of motions, forces, their characteristics, relationships, and effects by:
[4] SB4.1 simulating that changes in speed or direction are caused by forces. (L)
See Level A: **Chapter 7, Lesson 1, Video C, SE page 135; Video B, SE page 136; Video C, SE page 137** **See also Level C:** **Chapter 9, Lesson 1, Video A, SE page 179; 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**

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB1 Students develop an understanding of how science explains changes in life forms over time, including genetics, heredity, the process of natural selection, and biological evolution.
The student demonstrates an understanding of how science explain changes in life forms over time, including genetics, heredity, the process of natural selection and biological evolution.
[4] SC1.1 showing the relationship between physical characteristics of Alaskan organisms and the environment in which they live.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; KnowZone, SE pages 14-15; Lesson 3, Video B, SE page 18; Video C, SE page 19 **Chapter 2, KnowZone, SE pages 36-37** **Chapter 3, Lesson 1, Video B, SE page 48; KnowZone, SE pages 52-53; Lesson 2, Video B, SE page 56**

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB1 Students develop an understanding of how science explains changes in life forms over time, including genetics, heredity, the process of natural selection, and biological evolution.
The student demonstrates an understanding of how science explain changes in life forms over time, including genetics, heredity, the process of natural selection and biological evolution.
[4] SC1.2 describing fossils evidence (e.g., casts, track ways, imprints, etc.) of extinct organisms.
Chapter 1, Lesson 1, Video C, SE page 5; Math in Science, SE page 7; Process Skill, SE page 7 **Chapter 4, Lesson 2, Video B, SE page 76; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB2 Students develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.
The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by:
[4] SC2.1 choosing appropriate tools (i.e., hand lens, microscopes, ruler, balance) to examine the basic structural components (e.g., stems, leaves, fish scales, wings) of living things.
Chapter 1, Lesson 1, Video A, SE page 3

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB2 Students develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.
The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by:
[4] SC2.2 describing the basic characteristics and requirements of living things.
Chapter 1, Lesson 1, Video A, SE page 3; Lesson 3, Video B, SE page 18; Video C, SE page 19; Critical Thinking, SE page 21 **Chapter 2, Lesson 1, Video A, SE page 25; Lesson 2, Video A, SE page 31; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 2, Video A, SE page 55**

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB3 Students develop an understanding that all organisms are linked to each other and their physical environments through the transfer of matter and energy.
The student demonstrates an understanding that all organisms are linked to each other and they physical environments through the transfer and transformation of matter and energy by:
[4] SC3.1 identifying examples of living and nonliving things and the relationship between them (e.g., living things need water, herbivores need plants).
Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Process Skill, SE page 35; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43; Lesson Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; Process Skill, SE page 51

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB3 Students develop an understanding that all organisms are linked to each other and their physical environments through the transfer of matter and energy.
The student demonstrates an understanding that all organisms are linked to each other and they physical environments through the transfer and transformation of matter and energy by:
[4] SC3.2 identifying a simple food chain, diagramming how energy flows through it, and describing the effects of removing one link.
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; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD1 Students demonstrate an understanding of Earth's geochemical cycles.
The student demonstrates an understanding of geochemical cycles by:
[4]SD1.1 describing that most smaller rocks come from the breaking and weathering of larger rocks as part of the rock cycle.
Chapter 4, Lesson 2, Video B, SE page 76; Video C, SE page 77; Process Skills, SE page 79; Lesson 3, Video A, SE page 81

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD1 Students demonstrate an understanding of Earth's geochemical cycles.
The student demonstrates an understanding of geochemical cycles by:
[4]SD1.2 recognizing the physical properties of water as they relate to the rock cycle.
Chapter 4, Lesson 2, Video A, SE page 75

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD2 Students demonstrate an understanding of the origins, ongoing processes, and forces that shape the structure, composition, and physical history of the Earth.
The student demonstrates an understanding of the forces that shape Earth by:
[4]SD2.1 observing models of how waves, wind, water, and ice shape and reshape the Earth's surface by eroding rock and soil. (L)
Chapter 4, Lesson 2, Video A, SE page 75

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD2 Students demonstrate an understanding of the origins, ongoing processes, and forces that shape the structure, composition, and physical history of the Earth.
The student demonstrates an understanding of the forces that shape Earth by:
[4]SD2.2 identifying causes (i.e., earthquakes, tsunamis, volcanoes, floods, landslides, and avalanches) of rapid changes on the surface.
Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71; Critical Thinking, SE page 73; Lesson 2, Video A, SE page 75

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD3 Students demonstrate an understanding of the cyclical changes controlled by energy from the sun and by Earth's position and motion in our solar system.
The student demonstrates an understanding of cycles influenced by energy from the sun and by Earths position and motion in our solar system by:
[4]SD3.1 recognizing changes to length of daylight over time and its relationship to seasons.
Chapter 6, Lesson 1, Video B, SE page 114; Process Skill, SE page 117

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD3 Students demonstrate an understanding of the cyclical changes controlled by energy from the sun and by Earth's position and motion in our solar system.
The student demonstrates an understanding of cycles influenced by energy from the sun and by Earths position and motion in our solar system by:
[4]SD3.2 observing that heat flows from one object to another.
See Level A: **Chapter 8, Lesson 3, Video A, , SE page 171; Video B, SE page 172; Video C, SE page 173** **See also Level C:** **Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164**

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD4 Students demonstrate an understanding of the theories regarding the evolution of the universe.
The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by:
[4]SD4.1 recognizing that stars are like the sun but are so far away that they look like points of light.
Chapter 6, Lesson 1, Video A, SE page 113

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD4 Students demonstrate an understanding of the theories regarding the evolution of the universe.
The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by:
[4]SD4.2 recognizing that objects have properties, locations, and movements that can be observed and described.
Chapter 6, Lesson 1, Video B, SE page 114; Video C, SE page 115; Process Skill, SE page 117

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD4 Students demonstrate an understanding of the theories regarding the evolution of the universe.
The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by:
[4]SD4.3 recognizing and using appropriate instruments of magnification (e.g., binoculars and telescopes).
Chapter 6, Lesson 3, Video A, SE page 125; Video B, 126; **Video C, SE page 127: KnowZone, SE pages 130-131**

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE1 Students develop an understanding of how scientific knowledge and technology are used in making decisions about issues, innovations, and responses to problems and everyday events.
The student demonstrates an understanding of how to integrate scientific knowledge and technology to address problems by:
[4]SE1.1 identifying that tools (e.g., spear, hammer, hand lens, kayak, computer, and processes (e.g., drying fish, sewing, photography) are an important part of human cultures.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Process Skill, SE page 147** **Chapter 8, Lesson 3, Process Skill, SE page 175** **The Metric System, SE pages 200-201**

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE2 Students develop an understanding that solving problems involves different ways of thinking, perspectives, and curiosity that lead to the exploration of multiple paths that are analyzed using scientific, technological, and social merits.
The student demonstrates an understanding that solving problems involves different ways of thinking, perspectives, and curiosity by:
[4]SE2.1 identifying the function of a variety of tools (e.g., spear, hammer, land lens, kayak, computer).
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Process Skill, SE page 147** **Chapter 8, Lesson 3, Process Skill, SE page 175** **The Metric System, SE pages 200-201**

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE2 Students develop an understanding that solving problems involves different ways of thinking, perspectives, and curiosity that lead to the exploration of multiple paths that are analyzed using scientific, technological, and social merits.
The student demonstrates an understanding that solving problems involves different ways of thinking, perspectives, and curiosity by:
[4]SE2.2 identifying multiples explanations (e.g., oral traditions, folklore, scientific theory) of everyday events (e.g., weather, seasonal changes). (L)
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Lesson 3, Video A, SE page 39; Video B, SE page 40** **Chapter 3, Lesson 1, Video B, SE page 48; Video C, SE page 49** **Chapter 4, Lesson 1, Video B, SE page 70** **Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Process Skill, SE page 95; Lesson 2, Video B, SE page 98; Lesson 3, Video A, SE page 105; Video C, SE page 107** **Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115** **The Planet Earth, SE page 204; Earth in Space, SE page 205**

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE3 Students develop an understanding of how scientific discoveries and technological innovations affect and are affected by our lives and cultures.
The student demonstrates an understanding of how scientific discoveries and technological innovations affect our lives and society by:
[4]SE3.1 listing the positive and negative effects of a scientific discovery.
Chapter 4, Lesson 1, Video B, SE page 70; Lesson 3, Video C, SE page 83 **Chapter 5, Lesson 2, Video C, SE page 99; KnowZone, SE pages 102-103** **Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 127; Process Skill, SE page 129** **Chapter 7, KnowZone, SE pages 140-141** **Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169** **Chapter 9, Lesson 2, Video C, SE page 187; Process Skill, SE page 189; Lesson 3, Video A, SE page 191; Process Skill, SE page 195; KnowZone, SE pages 196-197**

F1—Cultural, Social, Personal Perspectives, and Science
SF Students develop an understanding of the dynamic relationships among scientific, cultural, social, and personal perspectives.
SF1 Students develop an understanding of the interrelationships among individuals, cultures, societies, science, and technology.
The student demonstrates an understanding of the dynamic relationships among scientific, cultural, social, and personal perspectives by:
[4] SF1.1-SF3.1 connecting observations of nature to a local or traditional story that explains a natural event (e.g., animal adaptation, weather, rapid changes to Earth's surface). (L)
See Level C: **Chapter 6, Lesson 1, Enrichment, TG page 110**

G1—History and Nature of Science
SG Students develop an understanding that historical perspectives of scientific explanations demonstrate that scientific knowledge changes over time, building on prior knowledge.
SG2 Students develop an understanding that the advancement of scientific knowledge embraces innovation and requires empirical evidence, repeatable investigations, logical arguments, and critical review in striving for the best possible explanations of the natural world.
The student demonstrates an understanding of the bases of the advancement of scientific knowledge by:
[4] SG2.1 recognizing the need for repeated measurements.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Process Skill, SE page 147** **Chapter 8, Lesson 3, Process Skill, SE page 175** **The Metric System, SE pages 200-201**

G1—History and Nature of Science
SG Students develop an understanding that historical perspectives of scientific explanations demonstrate that scientific knowledge changes over time, building on prior knowledge.
SG4 Students develop an understanding that advancements in science depend on curiosity, creativity, imagination, and a broad knowledge base.
The student demonstrates an understanding that advancements in science depend on curiosity, creativity, imagination, and a broad knowledge base by:
[4] SG4.1 using an account of a discovery to recognize that an individual's (e.g., George Washington Carver, Marie Curie) curiosity led to advancements in science.
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**

SRA Snapshots Video Science™: Level C
correlation to
Alaska Science Performance Standards
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

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA1. Students develop an understanding of the processes of science used to investigate problems, design, and conduct repeatable scientific investigations, and defend scientific arguments.
The student develops an understanding of the processes of science by:
[5] SA1.1 asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.
Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 2, Process Skill, 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA1. Students develop an understanding of the processes of science used to investigate problems, design, and conduct repeatable scientific investigations, and defend scientific arguments.
The student develops an understanding of the processes of science by:
[5] SA1.2 using quantitative and qualitative observations to create their own inferences and predictions.
Chapter 7, Lesson 3, Video C, SE page 151 **Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Critical Thinking, SE page 161; Process Skill, SE page 161; 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; KnowZone, SE pages 168-169; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 1, Critical Thinking, SE page 183; KnowZone SE pages 184-185; Lesson 2, Video A, SE page 187; Video B, SE page 188; Video C, SE page 189; Critical Thinking, SE page 191; Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA2. Students develop an understanding that the processes of science require integrity, logical reasoning, skepticism, openness, communication, and peer review.
The student will demonstrate an understanding of the attitudes and approaches to scientific inquiry by:
[5] SA2.1 supporting their statements with facts from a variety of resources and by identifying their sources. (L)
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**

A1—Science as Inquiry and Process
SA: Students develop an understanding of the processes and applications of scientific inquiry.
SA3. Students develop an understanding that culture, local knowledge, history, and interaction with the environment contribute to the development of scientific knowledge, and local applications provide opportunity for understanding scientific concepts and global issues.
The student demonstrates an understanding that interactions with the environment provide an opportunity for understanding scientific concepts by:
[5]SA3.1 identifying the limiting factors (e.g., weather, human influence, species interactions) that determine which plants and/or animals survive.
Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Critical Thinking, SE page 51; Process Skill, SE page 51; Lesson 3, Video B, SE page 62; Critical Thinking, SE page 65

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB1 Students develop an understanding of the characteristic properties of matter and the relationship of these properties to their structure and behavior.
The student demonstrates an understanding of the structure and properties of matter by:
[5] SB1.1 comparing models that represent matter as solids, liquids, or gases and the changes from one state to another. (L)
Chapter 7, Lesson 1, Video B, SE page 136

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB2. Students develop an understanding that energy appears in different forms, can be transformed from one form to another, can be transferred or moved from one place or system to another, may be unavailable for use, and is ultimately conserved.
The student demonstrates am understanding of how energy can be transformed, transferred, and conserved by:
[5] SB2.1 classifying the changes (i.e., heat, light, sound, and motion) that electrical energy undergoes in common household appliances (i.e., toaster, blender, radio, light bulb, heater).
Level C: **Chapter 9, Lesson 1, Video A, SE page 171; Video B, SE page 172** **See also Level B:** **Chapter 9, Lesson 1, Video C, SE page 181; Critical Thinking, SE page 183**

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB3 Students develop an understanding of the interactions between matter and energy, including physical, chemical, and nuclear changes, and the effects of these interactions on physical systems.
The student demonstrates an understanding of the interactions between matter and energy and the effects of these interactions on systems by:
[5] SB3.1 identifying physical and chemical changes based on observable characteristics (e.g., tearing paper vs. burning paper).
Chapter 7, Lesson 1, Video A, SE page 135; Video C, SE page 137; Critical Thinking, SE page 139; Process Skill, SE page 139;KnowZone, SE pages 140-141; Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Process Skill, SE page 147; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153; Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 The Periodic Table, SE pages 206-207

B1—Concepts of Physical Science
SB Students develop an understanding of the concepts, models, theories, universal principles, and facts that explain the physical world.
SB4 Students develop an understanding of motions, forces, their characteristics and relationships, and natural forces and their effects.
The student demonstrates an understanding of motions, forces, their characteristics, relationships, and effects by:
[5] SB4.1 investigating that the greater the force acting on an object, the greater the change in motion will be. (L)
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

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB1 Students develop an understanding of how science explains changes in life forms over time, including genetics, heredity, the process of natural selection, and biological evolution.
The student demonstrates an understanding of how science explain changes in life forms over time, including genetics, heredity, the process of natural selection and biological evolution.
[5] SC1.1 contrasting inherited traits (e.g., flower color, number of limbs) with those that are not (riding a bike, scar from an accident).
Chapter 2, Lesson 2, Video C, SE page 33

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB1 Students develop an understanding of how science explains changes in life forms over time, including genetics, heredity, the process of natural selection, and biological evolution.
The student demonstrates an understanding of how science explain changes in life forms over time, including genetics, heredity, the process of natural selection and biological evolution.
[5] SC1.2 making reasonable inferences about fossil organisms based on physical evidence.
Chapter 2, Lesson 1, Video C, SE page 27 **Chapter 4, Lesson 3, Video A, SE page 83**

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB2 Students develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.
The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by:
[5] SC2.1 identifying and sorting animals into groups using basic external and internal features.
Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Process Skill, SE page 29

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB2 Students develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.
The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by:
[5] SC2.2 explaining how external features and internal systems (i.e., respiratory, excretory, skeletal, circulatory, and digestive) of plants and animals may help the, grow, survive, and reproduce.
Chapter 2, Lesson 2, Video B, SE page 32; Video C, SE page 33; Critical Thinking, SE page 35; KnowZone, SE pages 36-37; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB2 Students develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.
The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by:
[5] SC2.3 recognizing that organisms are composed of cells.
Chapter 1, Lesson 1, Video A, SE page 3; Lesson 3, Video A, SE page 15; Video B, SE page 16; Critical Thinking, SE page 19

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB3 Students develop an understanding that all organisms are linked to each other and their physical environments through the transfer of matter and energy.
The student demonstrates an understanding that all organisms are linked to each other and they physical environments through the transfer and transformation of matter and energy by:
[5] SC3.1 diagramming how matter and energy are transferred within and between living and nonliving things.
Level C: **Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; Process Skill, SE page 51** **Food Web, SE page 203** **Energy Pyramid, SE page 203** **See also Level B:** **Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Process Skill, SE page 13; Lesson 3, Video A, SE page 17; Process Skill, SE page 21** **Food Web, SE page 203** **Energy Pyramid, SE page 203**

C1—Concepts of Life Science
SC Students develop an understanding of the concepts, models, theories, facts, evidence, systems, and processes of life science.
SB3 Students develop an understanding that all organisms are linked to each other and their physical environments through the transfer of matter and energy.
The student demonstrates an understanding that all organisms are linked to each other and they physical environments through the transfer and transformation of matter and energy by:
[5] SC3.2 organizing a simple food chain of familiar plants and animals that traces the source of the energy back to sunlight.
Level C: **Chapter 3, Lesson 1, Video C, SE page 49** **Food Web, SE page 203** **Energy Pyramid, SE page 203** **See also Level B:** **Chapter 2, Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Critical Thinking, SE page 35; Process Skill, SE page 35; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Food Web, SE page 203** **Energy Pyramid, SE page 203**

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD1 Students demonstrate an understanding of Earth's geochemical cycles.
The student demonstrates an understanding of geochemical cycles by:
[5]SD1.1 observing a model of the rock cycle showing that smaller rocks come from the breaking and weathering of larger rocks (e.g., sediments and sands) may combine with plants materials to form soils. (L)
Chapter 4, Lesson 3, Video A, SE page 83; Video B, SE page 84; Critical Thinking, SE page 87; Writing in Science, SE page 87; Process Skill, SE page 87

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD2 Students demonstrate an understanding of the origins, ongoing processes, and forces that shape the structure, composition, and physical history of the Earth.
The student demonstrates an understanding of the forces that shape Earth by:
[5]SD2.1 describing how wind and water tear down and build up the Earth's surface resulting in new land formations (i.e., deltas, moraines, and canyons).
Chapter 4, Lesson 2, Video A, SE page 77; Video B, SE page 78; Video C, SE page 79; Critical Thinking, SE page 81; Process Skill, SE page 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD3 Students demonstrate an understanding of the cyclical changes controlled by energy from the sun and by Earth's position and motion in our solar system.
The student demonstrates an understanding of cycles influenced by energy from the sun and by Earths position and motion in our solar system by:
[5]SD3.1 observing a model that shows how the regular and predictable motion of the Earth and moon determine the apparent shape (phases) of the moon over time. (L)
Chapter 6, Lesson 2, Video C, SE page 123

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD3 Students demonstrate an understanding of the cyclical changes controlled by energy from the sun and by Earth's position and motion in our solar system.
The student demonstrates an understanding of cycles influenced by energy from the sun and by Earths position and motion in our solar system by:
[5]SD3.2 comparing heat absorption and loss by land and water.
Chapter 5, Lesson 1, Video B, SE page 92; Lesson 2, Video B, SE page 98; Lesson 3, Video B, SE page 104

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD4 Students demonstrate an understanding of the theories regarding the evolution of the universe.
The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by:
[5]SD4.1 distinguishing between stars, planets, moons, comets, and meteors. (L)
Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Critical Thinking, SE page 117; Process Skill, SE page 117; KnowZone, SE pages 118-119

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD4 Students demonstrate an understanding of the theories regarding the evolution of the universe.
The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by:
[5]SD4.2 recognizing that the Earth is in regular and predictable motion and this motion explains the length of a day and year.
Chapter 6, Lesson 2, Video A, SE page 121; Video B, SE page 122; Video C, SE page 123

D1—Concepts of Earth Science
SD Students develop an understanding of the concepts, processes, theories, models, evidence, and systems of earth and space sciences.
SD4 Students demonstrate an understanding of the theories regarding the evolution of the universe.
The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by:
[5]SD4.3 recognizing and using appropriate instruments of magnification (e.g., binoculars and telescopes).
Level C: **Chapter 6, Lesson 2, Video B, SE page 128** **See also Level B:** **Chapter 6, Lesson 3, video A, SE page 125**

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE1 Students develop an understanding of how scientific knowledge and technology are used in making decisions about issues, innovations, and responses to problems and everyday events.
The student demonstrates an understanding of how to integrate scientific knowledge and technology to address problems by:
[5]SE1.1 identifying a community problem or issue and describing the information needed to develop a scientific solution. (L)
Chapter 2, Lesson 1, Video C, SE page 27 **Chapter 3, Lesson 1, Video C, SE page 49; Lesson 3, Video A, SE page 61; Lesson 3, Video B, SE page 62; Video C, SE page 63; Critical Thinking, SE page 65** **Chapter 4, Lesson 2, Video A, SE page 77; Video B, SE page 78** **Chapter 5, Lesson 1, Video C, SE page 93; Critical thinking, SE page 95; Lesson 2, Video C, SE page 99; Critical Thinking, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 7, Lesson 3, Video B, SE page 150** **Chapter 8, Lesson 1, Video C, SE page 159; Lesson 3, Video C, SE page 173; Critical Thinking, SE page 175**

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE2 Students develop an understanding that solving problems involves different ways of thinking, perspectives, and curiosity that lead to the exploration of multiple paths that are analyzed using scientific, technological, and social merits.
The student demonstrates an understanding that solving problems involves different ways of thinking, perspectives, and curiosity by:
[5]SE2.1 investigating a problem or project over a specified period of time and identifying the tools and processes used in that project. (L)
Chapter 9 LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE2 Students develop an understanding that solving problems involves different ways of thinking, perspectives, and curiosity that lead to the exploration of multiple paths that are analyzed using scientific, technological, and social merits.
The student demonstrates an understanding that solving problems involves different ways of thinking, perspectives, and curiosity by:
[5]SE2.2 comparing multiple explanations (e.g., oral traditions, folklore, scientific theory) of everyday events (e.g., weather, seasonal changes) (L)
Chapter 2, Lesson 1, 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; Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43 **Chapter 3, Lesson 3, video A, SE page 61** **Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71; Critical Thinking, SE page 73; KnowZone, SE pages 74-75; Lesson 2, Video A, SE page 77; Video B, SE page 78; Video C, SE page 79; Critical Thinking, SE page 81; Process Skill, SE page 81; Lesson 3, Video B, SE page 84** **Chapter 5, Lesson 1, Video B, SE page 92; Video C, SE page 93; Lesson 2, Video B, SE page 98; Lesson 3, Video A, SE page 103; Video B, SE page 104; Video C, SE page 105; Critical Thinking, SE page 107; KnowZone, SE pages 108-109** **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 121; Video B, SE page 122; Video C, SE page 123; Critical Thinking, SE page 125; Process Skill, SE page 125**

E1—Science and Technology
SE Students develop an understanding of the relationships among science, technology, and society.
SE3 Students develop an understanding of how scientific discoveries and technological innovations affect and are affected by our lives and cultures.
The student demonstrates an understanding of how scientific discoveries and technological innovations affect our lives and society by:
[5]SE3.1 describing the various effects of an innovation (e.g., snow machines, airplanes, immunizations) on the safety, health, and environment of the local community. (L)
Chapter 1, Lesson 3, Critical Thinking, SE page 19 **Chapter 3, Lesson 3, Video C, SE page 62; Video C, SE page 63** **Chapter 4, Lesson 1, Critical Thinking, SE page 73; Lesson 3, Vide C, SE page 85; Critical Thinking, SE page 87** **Chapter 5, Lesson 1, Video C, SE page 93; Critical Thinking, SE page 95; Lesson 2, Video C, SE page 99; Critical Thinking, SE page 101** **Chapter 6, Lesson 3, Video A, SE page 127; Video B, SE page 128; Video C, SE page 129; Critical Thinking, SE page 131** **Chapter 8, Lesson 1, Video C, SE page 159; Lesson 3, Video C, SE page 173**

F1—Cultural, Social, Personal Perspectives, and Science
SF Students develop an understanding of the dynamic relationships among scientific, cultural, social, and personal perspectives.
SF1 Students develop an understanding of the interrelationships among individuals, cultures, societies, science, and technology.
The student demonstrates an understanding of the dynamic relationships among scientific, cultural, social, and personal perspectives by:
[5] SF1.1-SF3.1 telling a local or tradition story that explains a natural event (e.g., animal adaptation, weather, rapid changes to Earth's surface) and relating it to a scientific explanation. (L)
Chapter 6, Lesson 1, Enrichment, TG page 110

G1—History and Nature of Science
SG Students develop an understanding that historical perspectives of scientific explanations demonstrate that scientific knowledge changes over time, building on prior knowledge.
SG2 Students develop an understanding that the advancement of scientific knowledge embraces innovation and requires empirical evidence, repeatable investigations, logical arguments, and critical review in striving for the best possible explanations of the natural world.
The student demonstrates an understanding of the bases of the advancement of scientific knowledge by:
[5] SG2.1 reviewing and recording results of investigations into the natural world.
Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 2, Process Skill, 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

G1—History and Nature of Science
SG Students develop an understanding that historical perspectives of scientific explanations demonstrate that scientific knowledge changes over time, building on prior knowledge.
SG4 Students develop an understanding that advancements in science depend on curiosity, creativity, imagination, and a broad knowledge base.
The student demonstrates an understanding that advancements in science depend on curiosity, creativity, imagination, and a broad knowledge base by:
[5] SG4.1 investigating that scientists' curiosity led to advancements in science. (L)
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**