SRA Snapshots Video Science™: Level A
correlation to
Maine Science and Technology 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

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
1. Group the same organisms in different ways using different characteristics.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Critical Thinking, SE page 13 **Chapter 2, Lesson 2, Video B, SE page 32** **Classification, SE page 202**

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
2. Design and describe a classification system for organisms.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Critical Thinking, SE page 13 **Classification, SE page 202**

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
3. Describe the different living things within a given habitat.
Chapter 1, Lesson 1, Process Skill, SE page 7 **Chapter 3, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Process Skill, SE page 29**

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
4. Compare and contrast the life cycles, behavior, and structure of different organisms.
Chapter 1, 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 **Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43**

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
1. Describe a food web and the relationships within a given ecosystem.
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 **Energy Transfer, SE page 203**

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
2. Explain the difference between producers a (e.g., green plants), consumers (e.g., those that eat green plants), and decomposers (e.g., bacteria that break down the "consumers" when they die), and identify examples of each.
Chapter 2, Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Critical Thinking, SE page 35 **Energy Transfer, SE page 203**

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
3. Compare and contrast physical and living components of different biomes-i.e., regions characterized by their climate and plant life-(e.g., tundra, rain forest, ocean, desert).
Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
4. Investigate the connection between major living and nonliving components of a local ecosystem.
Chapter 1, Lesson 1, Critical Thinking, SE page 7; Process Skill, SE page 7 **Chapter 2, Lesson 1, Video A, SE page 25; Process Skill, SE page 29**

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
1. Demonstrate an understanding that a cell is the basic unit of living organisms.
See Level C: **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**

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
2. Describe how single-celled organisms exist.
See Level C: **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**

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
3. Explore how the use of a microscope allows one to see cells in a variety of organisms.
Level A: **Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57** **See also Level C:** **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**

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
4. Describe the functions of the major human organ systems.
See Level C: **Chapter 1, Lesson 2, Video C, SE page 11; Lesson 3, Video B, SE page 16; Video C, SE page 17**

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
1. Identify present day organisms that have not always existed, and past life forms that have become extinct.
Chapter 3, Lesson 3, Video C, SE page 63

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
2. Describe how fossils form.
Chapter 4, Lesson 2, Video B, SE page 76; Critical Thinking, SE page 79; KnowZone, SE pages 80-81

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
3. Explain how adaptations, in response to change over time, may increase a species' chances of survival.
Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
4. Describe ways in which organisms may be similar to and different from their parents and explore the possible reasons for this.
Chapter 1, Lesson 3, Video A, SE page 17; Video B, SE page 18; Video C, SE page 19

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
1. Describe how the physical properties of objects sometimes change when one project chemically combines with another.
Chapter 8, Lesson 2, Video C, SE page 165; Critical Thinking, SE page 167

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
2. Explain how matter changes in both chemical and physical ways.
Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Critical Thinking, SE page 167; Lesson 3, Video A, SE page 171

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
1. Describe the change in position of the continents over time.
See Level B: **Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71** **See also Level C:** **Chapter 4, Lesson 1, Video A, SE page 69; Video B, SE page 70; Video C, SE page 71; Critical Thinking, SE page 73; Process Skill, SE page 73; KnowZone, SE pages 74-75**

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
2. Demonstrate an understanding that many things about earth (e.g., climate) occur in cycles that vary in length and frequency.
Chapter 5, Lesson 2, Video B, SE page 100 **Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Critical Thinking, SE page 117; Process Skill, SE page 117** **The Water Cycle, SE page 204** **Earth in Space, SE page 205**

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
3. Describe differences among minerals, rocks, and soils.
Chapter 4, Lesson 2, Video A, SE page 75; Video B, SE page 76; Video C, SE page 77; Critical Thinking, SE page 79; Process Skill, SE page 79

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
4. Illustrate how water and other substances go through a cyclic process of change in the environment.
Chapter 5, Lesson 2, Video B, SE page 100 **The Water Cycle, SE page 204**

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
1. Illustrate the relative positions of the sun, moon, and planets.
Chapter 6, Lesson 2, Video A, SE page 119; Video B, SE page 120; Video C, SE page 121

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
2. Trace the sources of earth's heat and light energy to the sun.
Chapter 2, Lesson 2, Video A, SE page 31 **Chapter 5, Lesson 2, Video B, SE page 100** **Chapter 9, Lesson 1, Video A, SE page 179**

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
3. Describe earth's rotation on its axis and it revolution around the sun.
Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Critical Thinking, SE page 117; Process Skill, SE page 117

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
4. Explore the relationship between the earth and its moon.
Chapter 6, Lesson 1, Video C, SE page 115 **Eclipses, SE page 205**

H. Energy
Students will understand concepts of energy. Students will be able to:
1. Identify different forms of energy (e.g., light, sound, heat).
Chapter 8, Lesson 3, Video A, SE page 171 **Chapter 9, Lesson 1, Video A, SE page 179; Video C, SE page 181; Critical Thinking, SE page 183; Process Skill, SE page 183; KnowZone, SE pages 184-185; Lesson 2, Video A, SE page 187; Critical Thinking, SE page 191; Process Skill, SE page 191; Lesson 3, Video B, SE page 194; Video C, SE page 195; Critical Thinking, SE page 197**

H. Energy
Students will understand concepts of energy. Students will be able to:
2. Explain ways different forms of energy can be produced.
Chapter 9, Lesson 1, Video A, SE page 179; Video C, SE page 181; Process Skill, SE page 183; KnowZone, SE pages 184-185; Lesson 2, Video A, SE page 187; Critical Thinking, SE page 191; Process Skill, SE page 191; Lesson 3, Video B, SE page 194; Video C, SE page 195; Critical Thinking, SE page 197

I. Motion
Students will understand the motion of objects and how forces can change that motion. Students will be able to:
1. Describe the effects of different types of forces (e.g., mechanical, electrical, magnetic) on motion.
Chapter 7, Lesson 1, Video A, SE page 135; Video B, SE page 136; Video C, SE page 137; Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Critical Thinking, SE page 147; 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

I. Motion
Students will understand the motion of objects and how forces can change that motion. Students will be able to:
2. Draw conclusions about how the amount of force affects the motion or more massive and less massive objects.
Chapter 7, Lesson 1, Video A, SE page 135; Lesson 3, Video B, SE page 150; Video C, SE page 151

I. Motion
Students will understand the motion of objects and how forces can change that motion. Students will be able to:
3. Generate examples illustrating that when something is pushed or pulled, it exerts a reaction force.
Chapter 7, Lesson 1, Video A, SE page 135; Video C, SE page 137; Lesson 2, Video A, SE page 143; Video C, SE page 145; Lesson 3, Video B, SE page 150; Video C, SE page 151

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
1. Make accurate observations using appropriate tools and units of measure.
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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
2. Conduct scientific investigations: make observations, collect and analyze data, and do 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, 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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
3. Use results in a purposeful way; design fair tests, make predictions based on observed patterns, and interpret data to make further predictions.
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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
4. Design and build an invention.
Chapter 5, LabTime Hands-On Activity, TRB pages 87-89, TG page 102 **Chapter 9, Lesson 2 Process Skill, SE page 191**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
5. Explain how differences in time, place, or experimenter can lead to different data.
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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
6. Explain how different conclusions can be derived from the same data.
Chapter 1, Lesson 2, Math in Science, 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 3, Process Skill, SE page 35** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 3, Process Skill, SE page 87** **Chapter 5, Lesson 2, Math in Science, SE page 103** **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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
1. Give alternative explanations for observed phenomena.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
2. Describe how feelings can distort reasoning.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
3. Draw conclusions about 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, 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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
4. Use various types of evidence (e.g., logical, quantitative) to support a claim.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
5. Demonstrate an understanding that ideas are more believable when supported by good reasons.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
6. Practice and apply simple logic, intuitive thinking, and brainstorming.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
1. Record results of experiments or activities (e.g., interviews, discussions, field work) and summarize and communicate what they have learned.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
2. Ask clarifying and extending questions.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
3. Reflect on work in science and technology using such activities as discussions, journals, and self-assessment.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
4. Make and/or use sketches, tables, graphs, physical representations, and manipulatives to explain procedures and ideas.
Chapter 1, Lesson 2, Math in Science, SE page 13; Process Skill, SE page 13 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 5, Lesson 2, Process Skill, SE page 103; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
5. Gather and effectively present information, using a variety of media including computers (e.g., spreadsheets, word processing, programming, graphics, modeling).
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
6. Cite examples of bias in information sources and question the validity of information from varied sources.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
7. Function effectively in groups within various assigned roles (e.g., reader, recorder).
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**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
1. Explore how cultures have found different technological solutions to deal with similar needs or problems (e.g., construction, clothing, agricultural tools and methods).
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, KnowZone, SE pages 124-125; Lesson 3, Video A, SE page 127; 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**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
2. Investigate and describe the role of scientists and inventors.
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**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
3. Explore how technology (e.g., transportation, irrigation) has altered human settlement.
Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Math in Science, SE page 59 **Chapter 4, Lesson 1, Process Skill, SE page 73** **Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, 105** **Chapter 6, KnowZone, SE pages 124-125; Lesson 3, Video B, SE page 128; Video C, SE page 129** **Chapter 8, KnowZone, SE pages 168-169**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
4. Explain practices for conservation in daily life, based on a recognition that renewable and non-renewable resources have limits.
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
Maine Science and Technology 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

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
1. Group the same organisms in different ways using different characteristics.
Chapter 1, Lesson 1, Video B, SE page 4; Lesson 2, Video A, SE page 9; Video B, SE page 10; Process Skill, SE page 13; Lesson 3, Video A, SE page 17 **Classification, SE page 202**

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
2. Design and describe a classification system for organisms.
Chapter 1, Lesson 1, Video B, SE page 4; Lesson 2, Video A, SE page 9; Video B, SE page 10; Process Skill, SE page 13; Lesson 3, Video A, SE page 17 **Classification, SE page 202**

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
3. Describe the different living things within a given habitat.
Chapter 1, Lesson 3, Process Skill, SE page 21 **Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Critical Thinking, SE page 29; Process Skill, SE page 29** **Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Critical Thinking, SE page 59; Process Skill, SE page 59**

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
4. Compare and contrast the life cycles, behavior, and structure of different organisms.
Chapter 1, Lesson 3, Video C, SE page 19; KnowZone, SE pages 14-15 **Chapter 2, Lesson 2, KnowZone, SE pages 36-37**

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
1. Describe a food web and the relationships within a given ecosystem.
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; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43 **Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Critical Thinking, SE page 51; Process Skill, SE page 51** **Energy Transfer, SE page 203**

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
2. Explain the difference between producers a (e.g., green plants), consumers (e.g., those that eat green plants), and decomposers (e.g., bacteria that break down the "consumers" when they die), and identify examples of each.
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; Lesson 3, Video A, SE page 39; Video B, SE page 40

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
3. Compare and contrast physical and living components of different biomes-i.e., regions characterized by their climate and plant life-(e.g., tundra, rain forest, ocean, desert).
Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57; Critical Thinking, SE page 59; Process Skill, SE page 59

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
4. Investigate the connection between major living and nonliving components of a local ecosystem.
Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Lesson 2, Video C, SE page 33; Lesson 3, Critical Thinking, SE page 43; Process Skill, SE page 43 **Chapter 3, Lesson 1, Video C, SE page 49; Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63; Critical Thinking, SE page 65; Process Skill, SE page 65**

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
1. Demonstrate an understanding that a cell is the basic unit of living organisms.
Level B: **Chapter 1, Lesson 1, Video A, SE page 3** **See also Level C:** **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**

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
2. Describe how single-celled organisms exist.
See Level C: **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**

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
3. Explore how the use of a microscope allows one to see cells in a variety of organisms.
Level B: **Chapter 1, Lesson 1, Video A, SE page 3** **See also Level A:** **Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57** **See also Level C:** **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**

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
4. Describe the functions of the major human organ systems.
See Level C: **Chapter 1, Lesson 2, Video C, SE page 11; Lesson 3, Video B, SE page 16; Video C, SE page 17**

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
1. Identify present day organisms that have not always existed, and past life forms that have become extinct.
Chapter 1, Lesson 1, Video C, SE page 5; Critical Thinking, SE page 7; Process Skill, SE page 7

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
2. Describe how fossils form.
Chapter 4, Lesson 2, Video B, SE page 76; Critical Thinking, SE page 79

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
3. Explain how adaptations, in response to change over time, may increase a species' chances of survival.
Chapter 1, Lesson 2, Video C, SE page 11; Critical Thinking, SE page 13; Writing in Science, SE page 13 **Chapter 2, KnowZone, SE pages 36-37**

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
4. Describe ways in which organisms may be similar to and different from their parents and explore the possible reasons for this.
Chapter 1, Lesson 3, Video B, SE page 18; Video C, SE page 19

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
1. Describe how the physical properties of objects sometimes change when one project chemically combines with another.
Level B: **Chapter 7, KnowZone, SE pages 140-141; Lesson 3, Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153** **See also Level C:** **Chapter 2, Chapter 7, Lesson 2, Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153; Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
2. Explain how matter changes in both chemical and physical ways.
Chapter 7, Lesson 1, Video C, SE page 137; Critical Thinking, SE page 139; Process Skill, SE page 139; Lesson 3, Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
1. Describe the change in position of the continents over time.
Level B: **Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71** **See also Level C:** **Chapter 4, Lesson 1, Video A, SE page 69; Video B, SE page 70; Video C, SE page 71; Critical Thinking, SE page 73; Process Skill, SE page 73; KnowZone, SE pages 74-75**

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
2. Demonstrate an understanding that many things about earth (e.g., climate) occur in cycles that vary in length and frequency.
Chapter 4, Lesson 2, Video C, SE page 77 **Chapter 5, Lesson 1, Video A, SE page 91; Critical Thinking, SE page 95; Lesson 3, Video A, SE page 105; Video B, SE page 106**

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
3. Describe differences among minerals, rocks, and soils.
Chapter 4, Lesson 2, Video B, SE page 76; Video C, SE page 77; Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; Critical Thinking, SE page 83; Process Skill, SE page 85; KnowZone, SE pages 86-87

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
4. Illustrate how water and other substances go through a cyclic process of change in the environment.
Chapter 4, Lesson 1, Video A, SE page 91; Critical Thinking, SE page 95

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
1. Illustrate the relative positions of the sun, moon, and planets.
Chapter 6, Lesson 2, Video A, SE page 119; Video B, SE page 120; Video C, SE page 121; Critical Thinking, SE page 123

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
2. Trace the sources of earth's heat and light energy to the sun.
Chapter 2, Lesson 2, Video A, SE page 31 **Chapter 5, Lesson 1, Video A, SE page 91; KnowZone, SE pages 102-103** **Chapter 6, Lesson 1, Video A, SE page 113; Critical Thinking, SE page 117** **Chapter 8, Lesson 2, Video A, SE page 163**

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
3. Describe earth's rotation on its axis and it revolution around the sun.
Chapter 6, Lesson 1, Video B, SE page 114; Process Skill, SE page 117

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
4. Explore the relationship between the earth and its moon.
Chapter 6, Lesson 1, Video C, SE page 115; KnowZone, SE pages 130-131

H. Energy
Students will understand concepts of energy. Students will be able to:
1. Identify different forms of energy (e.g., light, sound, heat).
Chapter 8, Lesson 1, Video A, SE page 157; Lesson 2, Video A, SE page 163; Lesson 3, Video B, SE page 172 **Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Lesson 2, Video A, SE page 185; Video B, SE page 186; Lesson 3, Video A, SE page 191**

H. Energy
Students will understand concepts of energy. Students will be able to:
2. Explain ways different forms of energy can be produced.
Chapter 8, Lesson 1, Video A, SE page 157; Lesson 3, Video B, SE page 172 **Chapter 9, Lesson 2, Video C, SE page 187; Critical Thinking, SE page 189; Process Skill, SE page 189; Lesson 3, Video A, SE page 191**

I. Motion
Students will understand the motion of objects and how forces can change that motion. Students will be able to:
1. Describe the effects of different types of forces (e.g., mechanical, electrical, magnetic) on motion.
Chapter 8, Lesson 3, Video A, SE page 171; Video B, SE page 172; Video C, SE page 173; Critical Thinking, SE page 175

I. Motion
Students will understand the motion of objects and how forces can change that motion. Students will be able to:
2. Draw conclusions about how the amount of force affects the motion or more massive and less massive objects.
Chapter 8, Lesson 3, Video A, SE page 171; Critical Thinking, SE page 175 **Chapter 9, Lesson 2, Video A, SE page 185**

I. Motion
Students will understand the motion of objects and how forces can change that motion. Students will be able to:
3. Generate examples illustrating that when something is pushed or pulled, it exerts a reaction force.
Chapter 8, Lesson 3, Video A, SE page 171; Critical Thinking, SE page 175 **Chapter 9, Lesson 2, Video A, SE page 185**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
1. Make accurate observations using appropriate tools and units of measure.
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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
2. Conduct scientific investigations: make observations, collect and analyze data, and do 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 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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
3. Use results in a purposeful way; design fair tests, make predictions based on observed patterns, and interpret data to make further predictions.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 1, Math in Science, SE page 117; Lesson 3, Math in Science, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 189; Lesson 3, Math in Science, SE page 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
4. Design and build an invention.
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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
5. Explain how differences in time, place, or experimenter can lead to different data.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, Lesson 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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
6. Explain how different conclusions can be derived from the same data.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 1, Math in Science, SE page 117; Lesson 3, Math in Science, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 189; Lesson 3, Math in Science, SE page 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
1. Give alternative explanations for observed phenomena.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
2. Describe how feelings can distort reasoning.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
3. Draw conclusions about observations.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
4. Use various types of evidence (e.g., logical, quantitative) to support a claim.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
5. Demonstrate an understanding that ideas are more believable when supported by good reasons.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
6. Practice and apply simple logic, intuitive thinking, and brainstorming.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
1. Record results of experiments or activities (e.g., interviews, discussions, field work) and summarize and communicate what they have learned.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
2. Ask clarifying and extending questions.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
3. Reflect on work in science and technology using such activities as discussions, journals, and self-assessment.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
4. Make and/or use sketches, tables, graphs, physical representations, and manipulatives to explain procedures and ideas.
Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30 **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** **Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 6, Lesson 1, Math in Science, SE page 117; Lesson 3, Math in Science, SE page 129; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 189; Lesson 3, Math in Science, SE page 195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
5. Gather and effectively present information, using a variety of media including computers (e.g., spreadsheets, word processing, programming, graphics, modeling).
Chapter 1 KnowZone, SE pages 14-15; Lesson 3 Process Skill, SE page 21 **Chapter 2 KnowZone, SE pages 36-37; Lesson 3 Process Skill, SE page 43** **Chapter 3 KnowZone, SE pages 52-53; Lesson 2 Process Skill, SE page 59** **Chapter 4, Lesson 2 Process Skill, SE page 79; KnowZone, SE pages 86-87** **Chapter 5 KnowZone, SE pages 102-103** **Chapter 6, Lesson 3 Math in Science, SE page 129; KnowZone, SE pages 130-131** **Chapter 7 KnowZone, SE pages 140-141** **Chapter 8 KnowZone, SE pages 168-169** **Chapter 9 KnowZone, SE pages 196-198**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
6. Cite examples of bias in information sources and question the validity of information from varied sources.
Chapter 1 KnowZone, SE pages 14-15; Lesson 3 Process Skill, SE page 21 **Chapter 2 KnowZone, SE pages 36-37; Lesson 3 Process Skill, SE page 43** **Chapter 3 KnowZone, SE pages 52-53; Lesson 2 Process Skill, SE page 59** **Chapter 4, Lesson 2 Process Skill, SE page 79; KnowZone, SE pages 86-87** **Chapter 5 KnowZone, SE pages 102-103** **Chapter 6, Lesson 3 Math in Science, SE page 129; KnowZone, SE pages 130-131** **Chapter 7 KnowZone, SE pages 140-141** **Chapter 8 KnowZone, SE pages 168-169** **Chapter 9 KnowZone, SE pages 196-198**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
7. Function effectively in groups within various assigned roles (e.g., reader, recorder).
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**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
1. Explore how cultures have found different technological solutions to deal with similar needs or problems (e.g., construction, clothing, agricultural tools and methods).
Chapter 5, Lesson 2, Video C, SE page 99 **Chapter 6, Lesson 2, Process Skill, SE page 123; 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, KnowZone, SE pages 140-141; Lesson 3, Video A, SE page 149** **Chapter 8, KnowZone, SE pages 168-169** **Chapter 9, KnowZone, SE pages 196-197**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
2. Investigate and describe the role of scientists and inventors.
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**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
3. Explore how technology (e.g., transportation, irrigation) has altered human settlement.
Chapter 4, Lesson 3, Video B, SE page 82; Video C, SE page 83 **Chapter 5, Lesson 2, Video C, SE page 99; KnowZone, SE pages 102-103** **Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 27; KnowZone, SE pages 130-131** **Chapter 7, KnowZone, SE pages 140-141** **Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169; Lesson 3, Video C, SE page 173** **Chapter 9, Lesson 2, Video C, SE page 187; Lesson 3, Video A, SE page 191; Video B, SE page 192; Process Skill, SE page 195; KnowZone, SE pages 196-197**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
4. Explain practices for conservation in daily life, based on a recognition that renewable and non-renewable resources have limits.
Chapter 4, Lesson 3, Video B, SE page 82; Video C, SE page 83; KnowZone, SE pages 86-87 **Chapter 5, Lesson 1, Video C, SE page 93** **Chapter 9, Lesson 3, Video A, SE page 191; Video B, SE page 192**

SRA Snapshots Video Science™: Level C
correlation to
Maine Science and Technology 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

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
1. Compare systems of classifying organisms including systems used by scientists.
Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Process Skill, SE page 29

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
2. Decipher the system for assigning a scientific name to every living thing.
Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Process Skill, SE page 29

A. Classifying Life Forms
Students will understand that there are similarities within the diversity of all living things. Students will be able to:
3. Describe some structural and behavioral adaptations that allow organisms to survive in a changing environment.
Chapter 2, Lesson 2, Video B, SE page 32; video C, SE page 33; Critical Thinking, SE page 35; KnowZone, SE pages 36-37 **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
1. Describe in general terms the chemical processes of photosynthesis and respiration.
Level C: **Chapter 1, Lesson 2, Video A, SE page 9** **Chapter 7, Lesson 3, Video A, SE page 149** **See also Level B:** **Chapter 2, Lesson 2, Video A, SE page 31; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
2. Analyze how the finite resources in an ecosystem limit the types and populations of organisms within it.
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

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
3. Describe succession and other ways that ecosystems change over time.
Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62; Critical Thinking, SE page 65

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
4. Generate examples of the variety of ways that organisms interact (e.g., competition, predator/prey, parasitism/mutualism).
Chapter 2, 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 1, Video B, SE page 48; Critical Thinking, SE page 51; Process Skill, SE page 51**

B. Ecology
Students will understand how living things depend of one another and on non-living aspects of the environment. Students will be able to:
5. Describe various mechanisms found in the natural world for transporting living and non-living matter and the results of such movements.
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**

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
1. Compare and contrast human organ systems with those of other species.
Chapter 1, Lesson 3, Video B, SE page 16; Video C, SE page 17

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
2. Prepare and examine microscope slides of single-celled and multi-celled organisms.
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

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
3. Describe the structure and function of major organs in human systems.
Chapter 1, Lesson 3, Video B, SE page 16; Video C, SE page 17

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
4. Identify the causes and effects of diseases, explain their transmission, and identify preventive strategies.
Chapter 1, Lesson 3, Video A, SE page 15; Critical Thinking, SE page 19; KnowZone, SE page 20-21

C. Cells
Students will understand that cells are the basic units of life. Students will be able to:
5. Describe how body systems work together.
Chapter 1, Lesson 3, Video B, SE page 16; Video C, SE page 17

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
1. Describe how fossils can be used by scientists to trace the history of a species.
Chapter 2, Lesson 1, Video C, SE page 27 **Chapter 4, Lesson 3, Video A, SE page 83**

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
2. Explain how scientists use fossils to prove that life forms, climate, environment, and geologic features in a certain location are not the same as they were in the past.
Chapter 2, Lesson 1, Video C, SE page 27 **Chapter 4, Lesson 3, Video A, SE page 83**

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
3. Provide examples of the concept of natural and artificial selection and its role in species changes over time.
Chapter 2, Lesson 1, Video C, SE page 27; Lesson 2, Video B, SE page 32; Video C, SE page 33 **Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**

D. Continuity and Change
Students will understand the basis for all life and that all living things change over time. Students will be able to:
4. Compare how sexually and asexually reproducing species transfer genetic information to offspring.
Chapter 2, Lesson 2, Video B, SE page 32

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
1. Predict and test whether objects will float or sink based on a qualitative and quantitative understanding of the concepts of density and buoyancy.
Chapter 7, Lesson 2, Video A, SE page 143; Critical Thinking, SE page 147; Process Skill, SE page 147

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
2. Describe the evidence that all matter consists of particles called atoms that are made up of certain smaller particles.
Chapter 7, Lesson 1, Video A, SE page 135; Critical Thinking, SE page 139; KnowZone, SE pages 140-141

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
3. Use the Periodic Table to group elements based on their characteristics.
Chapter 7, Lesson 1, Video A, SE page 135; KnowZone, SE pages 140-141 **Periodic Table of the Elements, SE pages 206-207**

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
4. Describe how a substance can combine with different substances in different ways, depending on the conditions and the properties of each substance.
Chapter 7, Lesson 2, Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153; Process Skill, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
5. Describe how the motion of the particles of matter determines the state of that matter (e.g., solid, liquid, gas, plasma) and vice versa.
Chapter 7, Lesson 1, Video B, SE page 136

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
6. Explain how the relatively small number of naturally occurring elements can result in the large variety of substances found in the world.
Chapter 7, Lesson 1, Video A, SE page 135; Critical Thinking, SE page 139; KnowZone, SE pages 140-141; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138 **The Periodic Table, SE pages 206-207**

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
7. Investigate the similarities and differences between elements, compounds, and mixtures.
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

E. Structure of Matter
Students will understand that structure of matter and the changes it can undergo. Students will be able to:
8. Demonstrate the law of conservation of matter.
This concept is not covered at this level.

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
1. Demonstrate how the earth's tilt on its axis results in the seasons.
Chapter 6, Lesson 2, Video A, SE page 121; Process Skill, SE page 125 **Earth in Space, SE page 205**

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
2. Describe how soils are formed and why soils differ from one place to another.
Level C: **Chapter 4, Lesson 3, Video C, SE page 85** **See also Level A:** **Chapter 4, Lesson 2, Video C, SE page 77; Critical Thinking, SE page 79; Process Skill, SE page 79**

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
3. Explain the evidence scientists use when they give the age of the earth.
Chapter 4, Lesson 1, Video B, SE page 70

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
4. Describe factors that can cause short-term and long-term changes to the earth.
Chapter 4, Lesson 1, 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; Lesson 3, Writing in Science, SE page 87; Process Skill, SE page 87

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
5. Classify and identify rocks and minerals based on their physical and chemical properties, their composition, and the processes which formed them.
Chapter 4, Lesson 3, Video A, SE page 83; Video B, SE page 84; Writing in Science, SE page 187

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
6. Describe the many products used by humans that are derived from materials in the earth's crust.
Chapter 4, Lesson 3, Video A, SE page 83; Video B, SE page 84; Video C, SE page 85; Critical Thinking, SE page 87 **Chapter 5, Lesson 2, Video A, SE page 97; Video C, SE page 99; Critical Thinking, SE page 101** **Chapter 8, Lesson 1, Video C, SE page 159; Lesson 3, video C, SE page 173**

F. The Earth
Students will gain knowledge about the earth and the processes that change it. Students will be able to:
7. Demonstrate factors affecting the flow of groundwater.
Chapter 5, Lesson 2, Video B, SE page 98; Process Skill, SE page 101 **The Water Cycle, SE page 204**

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
1. Compare past and present knowledge about characteristics of stars (e.g., composition, location, lifecycles) and explain how people have learned about them.
Chapter 6, Lesson 1, Video A, SE page 113

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
2. Describe the concept of galaxies, including size and number of stars.
Chapter 6, Lesson 3, Video A, SE page 127

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
3. Compare and contrast distances and the time required to travel those distances on earth, in the solar system, in the galaxy, and between galaxies.
Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
4. Describe scientists' exploration of space and the objects they have found (e.g., comets, asteroids, pulsars).
Chapter 6, Lesson 3, Video A, SE page 127; Video B, SE page 128; Video C, SE page 129; Critical Thinking, SE page 131

G. The Universe
Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:
5. Describe the motions of moons, planets, stars, solar systems, and galaxies.
Chapter 6, Lesson 2, Video A, SE page 121; Video B, SE page 122; Video C, SE page 123; Critical Thinking, SE page 125; Process Skill, SE page 125 **Earth in Space, SE page 205**

H. Energy
Students will understand concepts of energy. Students will be able to:
1. Analyze the benefits and drawbacks of energy conversions (e.g., in electricity generation).
Chapter 8, Lesson 3, Video B, SE page 172; Critical Thinking, SE page 175; Process Skill, SE page 175

H. Energy
Students will understand concepts of energy. Students will be able to:
2. Demonstrate that energy cannot be created or destroyed but only changed from one form to another.
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

H. Energy
Students will understand concepts of energy. Students will be able to:
3. Compare and contrast the ways energy travels (e.g., waves, conduction, convection, radiation).
Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Critical Thinking, SE page 167; Process Skill, SE page 167

H. Energy
Students will understand concepts of energy. Students will be able to:
4. Describe the characteristics of static and current electricity.
Chapter 8, Lesson 3, Video A, SE page 171

H. Energy
Students will understand concepts of energy. Students will be able to:
5. Categorize energy sources as renewable or non-renewable and compare how these sources are used by humans.
Chapter 4, Lesson 3, Video C, SE page 85; Critical Thinking, SE page 87 **Chapter 8, Lesson 3, Video C, SE page 173; Critical Thinking, SE page 175**

H. Energy
Students will understand concepts of energy. Students will be able to:
6. Describe how energy put into or taken out of a system can cause changes in the motion of particles in matter.
Chapter 7, Lesson 3, Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153; Process Skill, SE page 153 **Chapter 8, Lesson 1, Video A, SE page 157; Lesson 2, Video A, SE page 163; Video C, SE page 165; Critical Thinking, SE page 167**

I. Motion
Students will understand the motion of objects and how forces can change that motion. Students will be able to:
1. Describe the motion of objects using knowledge of Newton's laws.
Chapter 9, Lesson 3, Video A, SE page 193; Video B, SE page 194; Video C, SE page 197; Critical Thinking, SE page 197; Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

I. Motion
Students will understand the motion of objects and how forces can change that motion. Students will be able to:
2. Use mathematics to describe the motion of objects (e.g., speed, distance, time, acceleration).
Chapter 9, Lesson 1, Video A, SE page 179; KnowZone, SE pages 184-185; Lesson 2, Video A, SE page 187; Video B, SE page 188; Video C, SE page 189; Critical Thinking, SE page 191; Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

I. Motion
Students will understand the motion of objects and how forces can change that motion. Students will be able to:
3. Describe and quantify the ways machines can provide mechanical advantages in producing motion.
See Level A: **Chapter 7, Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153; Process Skill, SE page 153** **See also Level B:** **Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
1. Make accurate observations using appropriate tools and units of measure.
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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
2. Design and conduct scientific investigations which include controlled experiments and systemic observations. Collect and analyze data, and draw conclusions fairly.
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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
3. Verify and evaluate scientific investigations and use the results in a purposeful way.
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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
4. Compare and contrast the processes of scientific inquiry and the technological method.
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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
5. Explain how personal bias can affect 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**

J. Inquiry and Problem Solving
Students will apply inquiry and problem-solving approaches in science and technology. Students will be able to:
6. Design, construct, and test a device (invention) that solves a special problem.
Chapter 9 LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
1. Examine the ways people form generalizations.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
2. Identify exceptions to proposed generalizations.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
3. Identify basic informal fallacies in arguments.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
4. Analyze means of slanting information.
This concept is not covered at this level.

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
5. Identify stereotypes.
This concept is not covered at this level.

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
6. Support reasoning by using a variety of evidence.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
7. Show that proving a hypothesis false is easier than proving it true, and explain why.
This concept is not covered at this level.

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
8. Construct logical arguments.
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**

K. Scientific Reasoning
Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:
9. Apply analogous reasoning.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
1. Discuss scientific and technological ideas and make conjectures and convincing arguments.
Chapter 3, Lesson 1, Process Skill, SE page 51 **Chapter 4, Lesson 3, Critical Thinking, SE page 87** **Chapter 5, Lesson 1, Critical Thinking, SE page 95; Lesson 2, Critical Thinking, SE page 101** **Chapter 6, Lesson 1, Process Skill, SE page 117; Lesson 2, Process Skill, SE page 125; Lesson 3, Critical Thinking, SE page 131** **Chapter 7, Lesson 3, Critical Thinking, SE page 153** **Chapter 8, Lesson 1, Critical Thinking, SE page 161; Lesson 2, Critical Thinking, SE page 167** **Chapter 9, Lesson 1, Critical Thinking, SE page 183; Lesson 2, Critical Thinking, SE page 191; Lesson 3, Critical Thinking, SE page 197**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
2. Defend problem-solving strategies and solutions.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
3. Evaluate individual and group communication for clarity, and work to improve communication.
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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
4. Make and use scale drawings, maps, and three-dimensional models to represent real objects, find locations, and describe relationships.
Chapter 1, Lesson 1, Process Skill, SE page 7 **Chapter 4, Lesson 1, Process Skill, SE page 73** **Chapter 5, Lesson 3, Process Skill, SE page 87** **Chapter 9, Lesson 1, Process Skill, SE page 183**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
5. Access information at remote sites using telecommunications.
Chapter 1, KnowZone, SE pages 20-21 **Chapter 2, Lesson 1, Process Skill, SE page 29; 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**

L. Communication
Students will communicate effectively in the application of science and technology. Students will be able to:
6. Identify and perform roles necessary to accomplish group tasks.
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**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
1. Research and evaluate the social and environmental impacts of scientific and technological developments.
Chapter 1, KnowZone, SE page 20-21 **Chapter 3, Lesson 2, Video B, SE page 62** **Chapter 4, Lesson 2, Video A, SE page77; Video B, SE page 78; Lesson 3, Video C, SE page 85** **Chapter 5, Lesson 1, Video C, SE page 93** **Chapter 6, KnowZone, SE pages 118-119; Lesson 3, Video A, SE page 127; Video B, SE page 128; Video C, SE page 129** **Chapter 7, KnowZone, SE pages 140-141** **Chapter 9, KnowZone, SE pages 184-185**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
2. Describe the historical and cultural conditions at the time of an invention or discovery, and analyze the societal impacts of that invention.
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**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
3. Discuss the ethical issues surrounding a specific scientific or technological development.
Level C: **Chapter 2, Lesson 1, Process Skill, SE page 29** **See also Level B:** **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
4. Describe an individual's biological and other impacts on an environment system.
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**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
5. Identify factors that have caused some countries to become leaders in science and technology.
This concept is not covered at this level.

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
6. Give examples of actions which may have expected or unexpected consequences that may be positive, negative, or both.
Chapter 1, Lesson 1, Critical Thinking, SE page 7; Lesson 3, Critical Thinking, SE page 19 **Chapter 2, Lesson 1, Critical Thinking, SE page 29** **Chapter 3, Lesson 2, Critical Thinking, SE page 57** **Chapter 4, Lesson 2, Critical Thinking, SE page 73** **Chapter 5, Lesson 1, Critical Thinking, SE page 85; Lesson 2, Critical Thinking, SE page 101; Lesson 3, Critical Thinking, SE page 107** **Chapter 6, Lesson 3, Critical Thinking, SE page 131** **Chapter 8, Lesson 3, Critical Thinking, SE page 175** **Chapter 9, Lesson 3, Critical Thinking, SE page 197**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
7. Explain the connections between industry, natural resources, population, and economic development.
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**

M. Implications of Science and Technology
Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:
8. Recognize scientific and technological contributions of diverse people including women, different ethnic groups, races, and physically disabled.
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**