# *SRA Snapshots Video Science™: Level A*
# correlation to
# Michigan Curriculum Framework Science Benchmarks
# 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 |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will ask questions that help them learn about the world. |
| 1. Generate questions about the world based on observation. |
| **Chapter 1, Lesson 1, Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, Lesson 3, Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, Lesson 2, Process Skill, SE page 79; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, Lesson 3, Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, Lesson 1, Process Skill, SE page 183; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will design and conduct investigations using appropriate methodology and technology. |
| 2. Develop solutions to problems through reasoning, observation, and investigations. |
| **Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, Lesson 2, Process Skill, SE page 59; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will design and conduct investigations using appropriate methodology and technology. |
| 3. Manipulate simple devices that aid observations and data collection. |
| **Chapter 3, Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 57**<br>**Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, SE page 105**<br>**Chapter 6, KnowZone, SE page 124-125; Lesson 3, Video B, SE page 128; Video C, SE page 129; Process Skill, SE page 131**<br>**Chapter 7, LabTime Hands-On Activity, TRB pages 123-125; TG page 138**<br>**Chapter 8, Lesson 1, Video C, SE page 187; LabTime Hands-On Activity. TRB ages 141-143, TG page 156** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will design and conduct investigations using appropriate methodology and technology. |
| 4. Use simple measurement devices to make measurements in scientific investigations. |
| **Chapter 3, Lesson 3, Process Skill, SE page 65**<br>**Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will learn from books and other sources of information. |
| 5. Develop strategies for information gathering and problem solving. |
| **Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will communicate findings of investigations, using appropriate technology. |
| 6. Construct charts and graphs and prepare summaries of observations. |
| **Chapter 1, Lesson 2, Math in Science, SE page 13; Process Skill, SE page 13**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 5, Lesson 2, Process Skill, SE page 103; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge. |
| 1. Develop an awareness of the need for evidence in making decisions scientifically. |
| **Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, Lesson 2, Process Skill, SE page 59; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, Lesson 1, Process Skill, SE page 95; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, Lesson 2, Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how science is related to other ways of knowing. |
| 2. Show how science concepts can be illustrated through creative expression such as language arts and fine arts. |
| **Chapter 1,Lesson 1, Writing in Science, SE page 7**<br>**Chapter 2, Lesson 3, Writing in Science, SE page 43**<br>**Chapter 3, Lesson 3, Writing in Science, SE page 65**<br>**Chapter 4, Lesson 2, Writing in Science, SE page 79; Lesson 3, Writing in Science, SE page 87**<br>**Chapter 5, Lesson 1, Writing in Science, SE page 95; Lesson 3, Writing in Science, SE page 109**<br>**Chapter 6, Lesson 2, Writing in Science, SE page 123; Lesson 3, Writing in Science, SE page 131**<br>**Chapter 7, Lesson 1, Writing in Science, SE page 139; Lesson 3, Writing in Science, SE page 153**<br>**Chapter 8, Lesson 1, Writing in Science, SE page 161**<br>**Chapter 9, Lesson 1, Writing in Science, SE page 183; Lesson 3, Writing in Science, SE page 197** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how science and technology affect our society. |
| 3. Describe ways in which technology is used in everyday life. |
| **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**<br>**Chapter 4, Lesson 1, Process Skill, SE page 73**<br>**Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, 105**<br>**Chapter 6, KnowZone, SE pages 124-125; Lesson 3, Video B, SE page 128; Video C, SE page 129**<br>**Chapter 8, KnowZone, SE pages 168-169** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how science and technology affect our society. |
| 4. Develop an awareness of and sensitivity to the natural world. |
| **Chapter 2, Lesson 1, Video C, SE page 27**<br>**Chapter 3, Lesson 1, Video A, SE page 47; Video C, SE page 49; Lesson 3, Video A, SE page 61; Video C, SE page 63; Critical Thinking, SE page 65**<br>**Chapter 4, Lesson 3, Video B, SE page 84; Video C, SE page 85**<br>**Chapter 5, Lesson 2, Video C, SE page 101**<br>**Chapter 9, Lesson 3, Video C, SE page 195** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how people of diverse cultures have contributed to and influenced developments in science. |
| 5. Develop an awareness of contributions made to science by people of diverse backgrounds and cultures. |
| **Chapter 3, Lesson 2 Process Skill, SE page 59**<br>**Chapter 4, KnowZone, SE pages 80-81**<br>**Chapter 5, KnowZone, SE pages 96-97; Lesson 3, Video A, SE page 105**<br>**Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129**<br>**Chapter 7, Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151**<br>**Chapter 8, KnowZone, SE pages 168-169**<br>**Chapter 9, Lesson 2, Video A, SE page 187; Video B, SE page SE page 188; Video C, SE page 189** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will use classification systems to describe groups of living things. |
| 1. Explain characteristics and functions of observable body parts in a variety of animals. |
| **Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Lesson 3, Video C, SE page 19**<br>**Chapter 2, Lesson 2, Video A, SE page 31; KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will use classification systems to describe groups of living things. |
| 2. Classify familiar organisms on the basis of observable physical characteristics. |
| **Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Math in Science, SE page 13**<br>**Classification, SE page 202** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will compare and contrast differences in the life cycles of living things. |
| 3. Describe life cycles of familiar organisms. |
| **Chapter 1, Lesson 3, Video A, SE page 17; Video B, SE page 18; Video C, SE page 19; Process Skill, SE page 21** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will investigate and explain how living things obtain and use energy. |
| 4. Compare and contrast food, energy, and environmental needs of selected organisms. |
| **Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, Lesson 3, Video A, SE page 39**<br>**Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; KnowZone, Se pages 52-53** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will analyze how parts of living things are adapted to carry out specific functions. |
| 5. Explain functions of selected seed plant parts. |
| **Chapter 1, Lesson 1, Video B, SE page 4; Lesson 2, Video C, SE page 11; Lesson 3, Video C, SE page 19**<br>**Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40** |

| Heredity (LH) III.3 |
|---|
| All students will investigate and explain how characteristics of living things are passed on through generations. |
| 1. Give evidence that characteristics are passed from parents to young. |
| **Chapter 1, Lesson 3, SE page 19**<br>**Chapter 2, Lesson 3, Video B, SE page 40; Video C, SE page 41** |

| Evolution (LE) III.4 |
|---|
| All students will explain how scientists construct and scientifically test theories concerning the origin of life and evolution of species. |
| 1. Explain how fossils provide evidence about the nature of ancient life. |
| **Chapter 4, Lesson 2, Video B, SE page 76; Writing in Science, SE page 79; KnowZone, SE pages 80-81** |

| Evolution (LE) III.4 |
|---|
| All students will compare ways that living organisms are adapted (suited) to survive and reproduce in their environments and explain how species change through time. |
| 2. Explain how physical and behavioral characteristics of animals help them to survive in their environments. |
| **Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video A, SE page 39; Video C, SE page 41; Process Skill, SE page 43** |

| Ecosystems (LEC) III.5 |
|---|
| All students will explain how parts of an ecosystem are related and how they interact. |
| 1. Identify familiar organisms as part of a food chain or food web and describe their feeding relationships within the web. |
| **Chapter 2, Lesson 1, Video C, SE page 27**<br>**Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63** |

| Ecosystems (LEC) III.5 |
|---|
| All students will explain how energy is distributed to living things in an ecosystem. |
| 1. Describe the basic requirements for all living things to maintain their existence. |
| **Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, Lesson 3, Video A, SE page 39**<br>**Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; KnowZone, Se pages 52-53** |

| Ecosystems (LEC) III.5 |
|---|
| All students will investigate and explain how communities of living things change over a period of time. |
| 3. Design systems that encourage growing of particular plants or animals. |
| **Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** |

| Ecosystems (LEC) III.5 |
|---|
| All students will analyze how humans and the environment interact. |
| 4. Describe positive and negative effects of humans on the environment. |
| **Chapter 2, Lesson 1, Video C, SE page 27**<br>**Chapter 3, Lesson 1, Video A, SE page 47; Video C, SE page 49; Lesson 3, Video A, SE page 61; Video C, SE page 63; Critical Thinking, SE page 65**<br>**Chapter 4, Lesson 3, Video B, SE page 84; Video C, SE page 85**<br>**Chapter 5, Lesson 2, Video C, SE page 101**<br>**Chapter 9, Lesson 3, Video C, SE page 195** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will measure and describe the things around us. |
| 1. Classify common objects and substances according to observable attributes/properties. |
| **Chapter 8, Lesson 1, Video B, SE page 158; Video C, SE page 159; Lesson 2, Process Skill, SE page167; KnowZone, SE pages 168-169; Lesson 3, Video B, SE page 172; Video C, SE page 173** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will measure and describe the things around us. |
| 2. Identify properties of materials which make them useful. |
| **Chapter 4, Lesson 3, Video A, SE page 83**<br>**Chapter 8, Lesson 1, Video B, SE page 156; Critical Thinking, SE page 161; Process Skill, SE page 161** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will identify and describe forms of energy. |
| 3. Identify forms of energy associated with common phenomena. |
| **Chapter 8, Lesson 3, Video A, SE page 171; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, Lesson 1, Video A, SE page 179; Video C, SE page181; Process Skill, SE page 183; Lesson 2, Video A, SE page 187; Lesson 3, Video A, SE page 193; Video B, SE page 194; Video C, SE page195; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will explain how electricity {and magnetism; see PMO] interact with matter. |
| 4. Construct simple, useful electrical circuits. |
| **Chapter 9, Lesson 2, Video B, SE page 188; Video C, SE page 189; Process Skill, SE page 191** |

| Changes in Matter (PCM) IV.2 |
|---|
| All students will investigate, describe and analyze ways in which matter changes. |
| 1. Describe common changes in matter—size; melting; freezing; dissolving; evaporating. |
| **Chapter 8, Lesson 2, Video B, SE page 164; Critical Thinking, SE page 167; Process Skill, SE page 167** |

| Changes in Matter (PCM) IV.2 |
|---|
| All students will investigate, describe and analyze ways in which matter changes. |
| 2. Prepare mixtures and separate them into their component parts. |
| **See Level B:**<br>**Chapter 7, Lesson 2, Video B, SE page 150** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 1. Describe or compare motions of common objects in terms of speed and direction. |
| **Chapter 7, Lesson 1, Video A, SE page 135; Video B, SE page 136; Video C, SE page 137; KnowZone, SE pages 140-141; Lesson 2, Video A, SE page 143; Video B, SE page 144** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 2. Explain how forces (pushes or pulls) are needed to speed up, slow down, stop, or change the direction of a moving object. |
| **Chapter 7, Lesson 1, Video A, SE page 135; Video B, SE page 136; Video C, SE page 137; KnowZone, SE pages 140-141; Lesson 2, Video A, SE page 143; Video B, SE page 144** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 3. Describe patterns of interaction of magnetic materials with other magnetic and non-magnetic materials. |
| **Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Critical Thinking, SE page 147; Process Skill, SE page 147** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 4. Identify and use simple machines and describe how they change effort. |
| **Chapter 8, Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Writing in Science, SE page 153; Process Skill, SE page 153** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 5. Manipulate simple mechanical devices and explain how their parts work together. |
| **Chapter 7, Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153; Writing in Science, SE page 153; Process Skill, SE page 163**<br>**Chapter 9, Lesson 2, Process Skill, SE page 191** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will describe sounds and sound waves. |
| 1. Describe sounds in terms of their properties. |
| **Chapter 9, Lesson 1, Video C, SE page 181; Critical Thinking, SE page 183; Writing in Science, SE page 183; Process Skill, SE page 183** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will describe sounds and sound waves. |
| 2. Explain how sounds are made. |
| **Chapter 9, Lesson 1, Video C, SE page 181; Critical Thinking, SE page 183; Writing in Science, SE page 183; Process Skill, SE page 183** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will explain shadows, color, and other light phenomena. |
| 3. Use prisms and filters with light sources to produce various colors of light. |
| **Chapter 9, Lesson 1, Video B, SE page 180** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will explain shadows, color, and other light phenomena. |
| 4. Explain how shadows are made. |
| **Chapter 9, Lesson 1, Video A, SE page 191; Video A, TG page 163** |

| Geosphere (EG) V.1 |
|---|
| All students will describe the earth's surface. |
| 1. Describe major features of the earth's surface. |
| **Chapter 4, Lesson 1, Video A, SE page 69; Video B, SE page 70; Video C, SE page 71; Lesson 2, Video A, SE page 75; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** |

| Geosphere (EG) V.1 |
|---|
| All students will describe the earth's surface. |
| 2. Recognize and describe different types of earth materials. |
| **Chapter 4, Lesson 2, Video A, SE page 75; Video B, SE page 76; Video C, SE page 77; Lesson 3, Video A, SE page 83; Video B, SE page 84**<br>**Chapter 5, Lesson 1, Video A, SE page 91; Lesson 2, Video A, SE page 99**<br>**Chapter 9, Lesson 3, Video C, SE page 195** |

| Geosphere (EG) V.1 |
|---|
| All students will describe and explain how the earth's features change over time. |
| 3. Describe natural changes in the earth's surface. |
| **Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71; Process Skill, SE page 73**; **LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** |

| Geosphere (EG) V.1 |
|---|
| All students will describe and explain how the earth's features change over time. |
| 4. Explain how rocks and fossils are used to understand the history of the earth. |
| **Chapter 4, Lesson 2, Video B, SE page 76; Writing in Science, SE page 79; KnowZone, SE pages 80-81** |

| Geosphere (EG) V.1 |
|---|
| All students will analyze effects of technology on the earth's surface and resources. |
| 5. Describe uses of materials taken from the earth. |
| **Chapter 4, Lesson 2, Video A, SE page 75; Video B, SE page 76; Video C, SE page 77; Lesson 3, Video A, SE page 83; Video B, SE page 84**<br>**Chapter 5, Lesson 1, Video A, SE page 91; Lesson 2, Video A, SE page 99**<br>**Chapter 9, Lesson 3, Video C, SE page 195** |

| Geosphere (EG) V.1 |
|---|
| All students will analyze effects of technology on the earth's surface and resources. |
| 6. Demonstrate ways to conserve natural resources and reduce pollution through reduction, reuse, and recycling of manufactured materials. |
| **Chapter 3, Lesson 3, Video A, SE page 61; Video C, SE page 63; Process Skill, SE page 65**<br>**Chapter 4, Lesson 2, Video C, SE page 77; Lesson 2, Video A, SE page 83; Video B, SE page 84; Video C, SE page 85; Process Skill, SE page 87**<br>**Chapter 5, Lesson 2, Video C, SE page 101**<br>**Chapter 9, Lesson 3, video C, SE page 195** |

| Hydrosphere (EH) V.2 |
|---|
| All students will describe the characteristics of water and demonstrate where water is found on earth. |
| 1. Describe how water exists on earth in three states. |
| **Chapter 5, Lesson 2, Video A, SE page 99; Video B, SE page 100; Video C, SE page 101; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**The Water Cycle, SE page 204** |

| Hydrosphere (EH) V.2 |
|---|
| All students will describe how water moves. |
| 2. Trace the path of rain water after it falls. |
| **Chapter 4, Lesson 3, Video C, SE page 85**<br>**Chapter 5, Lesson 2, Video A, SE page 99; Video B, SE page 100**<br>**The Water Cycle, SE page 204** |

| Hydrosphere (EH) V.2 |
|---|
| All students will analyze the interaction of human activities with the hydrosphere. |
| 3. Identify sources of water and its uses. |
| **Chapter 5, Lesson 2, Video A, SE page 99; Video B, SE page 100; Video C, SE page 101; Critical Thinking, SE page 103; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** |

| Atmosphere and Weather (EAW) V.3 |
|---|
| All students will investigate and describe what makes up weather and how it changes from day to day, from season to season, and over long periods of time. |
| 1. Describe weather conditions. |
| **Chapter 5, KnowZone, SE pages 96-97; Lesson 2, Process Skill, SE page 103; Lesson 3, Video A, SE page 105; Video B, SE page 106; Video C, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** |

| Atmosphere and Weather (EAW) V.3 |
|---|
| All students will investigate and describe what makes up weather and how it changes from day to day, from season to season, and over long periods of time. |
| 2. Describe seasonal changes in Michigan's weather. |
| **Chapter 6, Lesson 1, Video B, SE page 114; Critical Thinking, SE page 117; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** |

| Atmosphere and Weather (EAW) V.3 |
|---|
| All students will analyze the relationships between human activities and the atmosphere. |
| 3. Explain appropriate safety precautions during severe weather. |
| **Chapter 5, Lesson 3, Video B, SE page 106; Video C, SE page 107; Critical Thinking, SE page 109; Writing in Science, SE page 109** |

| Solar System, Galaxy and Universe (ES) V.4 |
|---|
| All students will compare and contrast our planet and sun to other planets and star systems. |
| 1. Compare and contrast characteristics of the sun, moon and earth. |
| **Chapter 6, Lesson 1, Video C, SE page 115; Lesson 2, Video B, SE page 120; Writing in Science, SE page 123; Process Skill, SE page 123; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** |

| Solar System, Galaxy and Universe (ES) V.4 |
|---|
| All students will describe and explain how objects in the solar system move. |
| 2. Describe the motion of the earth around the sun and the moon around the earth. |
| **Chapter 9, 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; Lesson 3, Video A, SE page 127; Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** |

# *SRA Snapshots Video Science™: Level B*
# correlation to
# Michigan Curriculum Framework Science Benchmarks
# 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 |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will ask questions that help them learn about the world. |
| 1. Generate questions about the world based on observation. |
| **Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, Lesson 3, Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, Lesson 3, Process Skill, SE page 85; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will design and conduct investigations using appropriate methodology and technology. |
| 2. Develop solutions to problems through reasoning, observation, and investigations. |
| **Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will design and conduct investigations using appropriate methodology and technology. |
| 3. Manipulate simple devices that aid observations and data collection. |
| **Chapter 1, Lesson 1, Video A, SE page 3**<br>**Chapter 4, Lesson 2, Video C, SE page 77**<br>**Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 127; KnowZone, SE pages 105-107; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145**<br>**Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169**<br>**Chapter 9 KnowZone, SE pages 196-197** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will design and conduct investigations using appropriate methodology and technology. |
| 4. Use simple measurement devices to make measurements in scientific investigations. |
| **Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Process Skill, SE page 147**<br>**Chapter 8, Lesson 3, Process Skill, SE page 175**<br>**The Metric System, SE pages 200-201** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will learn from books and other sources of information. |
| 5. Develop strategies for information gathering and problem solving. |
| **Chapter 1, Lesson 1, Video A, SE page 3**<br>**Chapter 4, Lesson 2, Video C, SE page 77**<br>**Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 127; KnowZone, SE pages 105-107; ; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145**<br>**Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169**<br>**Chapter 9 KnowZone, SE pages 196-197** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will communicate findings of investigations, using appropriate technology. |
| 6. Construct charts and graphs and prepare summaries of observations. |
| **Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**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**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**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** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge. |
| 1. Develop an awareness of the need for evidence in making decisions scientifically. |
| **Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how science is related to other ways of knowing. |
| 2. Show how science concepts can be illustrated through creative expression such as language arts and fine arts. |
| **Chapter 1, Lesson 2, Writing in Science, SE page 13**<br>**Chapter 2, Lesson 2, Writing in Science, SE page 35**<br>**Chapter 3, Lesson 2, Writing in Science, SE page 59; Process Skill, SE page 59**<br>**Chapter 4, Lesson 1, Process Skill, SE page 73; Lesson 2, Writing in Science, SE page 79; Lesson 3, Writing in Science, SE page 85**<br>**Chapter 5, Lesson 2, Writing in Science, SE page 101; Lesson 3, Writing in Science, SE page 109**<br>**Chapter 6, Lesson 1, Writing in Science, SE page 117; Process Skill, SE page 117; Lesson 2, Writing in Science, SE page 123**<br>**Chapter 7, Lesson 1, Writing in Science, SE page 139; Lesson 2, Writing in Science, SE page147**<br>**Chapter 8, Lesson 1, Writing in Science, SE page161; Lesson 2, Writing in Science, SE page167**<br>**Chapter 9, Lesson 2, Writing in Science, SE page189** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how science and technology affect our society. |
| 3. Describe ways in which technology is used in everyday life. |
| **Chapter 4, Lesson 3, Video B, SE page 82; Video C, SE page 83**<br>**Chapter 5, Lesson 2, Video C, SE page 99; KnowZone, SE pages 102-103**<br>**Chapter 6, Lesson 3, Video A, SE page 125; Video B, SE page 126; Video C, SE page 27; KnowZone, SE pages 130-131**<br>**Chapter 7, KnowZone, SE pages 140-141**<br>**Chapter 8, Lesson 2, Video C, SE page 165; KnowZone, SE pages 168-169; Lesson 3, Video C, SE page 173**<br>**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** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how science and technology affect our society. |
| 4. Develop an awareness of and sensitivity to the natural world. |
| **Chapter 2, Lesson 1, Video B, SE page 26; Critical Thinking, SE page 29; Lesson 3, Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43**<br>**Chapter 3, Lesson 2, Video C, SE page 57; Critical Thinking, SE page 59; Lesson 3, Video C, SE page 62; Video C, SE page 63; Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how people of diverse cultures have contributed to and influenced developments in science. |
| 5. Develop an awareness of contributions made to science by people of diverse backgrounds and cultures. |
| **Chapter 4, Lesson 2, Video C, SE page 77**<br>**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**<br>**Chapter 7, Lesson 3, Video A, SE page 149**<br>**Chapter 8 KnowZone, SE pages 168-169**<br>**Chapter 9 KnowZone, SE pages 196-197** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will use classification systems to describe groups of living things. |
| 1. Explain characteristics and functions of observable body parts in a variety of animals. |
| **Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; KnowZone, SE pages 14-15; Lesson 3, Video B, SE page 18; Video C, SE page 19**<br>**Chapter 2, KnowZone, SE pages 36-37**<br>**Chapter 3, Lesson 1, Video B, SE page 48; KnowZone, SE pages 52-53; Lesson 2, Video B, SE page 56** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will use classification systems to describe groups of living things. |
| 2. Classify familiar organisms on the basis of observable physical 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; Process Skill, SE page 21** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will compare and contrast differences in the life cycles of living things. |
| 3. Describe life cycles of familiar organisms. |
| **Level B:**<br>**Chapter 1, Lesson 3, Video C, SE page 19**<br><br>**See also Level A:**<br>**Chapter 1, Lesson 3, Video B, SE page 18; Process Skill, SE page 21**<br><br>**See also Level C:**<br>**Chapter 2, Lesson 2, Video A, SE page 31; KnowZone, SE pages 36-37** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will investigate and explain how living things obtain and use energy. |
| 4. Compare and contrast food, energy, and environmental needs of selected organisms. |
| **Chapter 1, Lesson 1, Video A, SE page 3; Lesson 3, Video B, SE page 18; Video C, SE page 19; Critical Thinking, SE page 21**<br>**Chapter 2, Lesson 1, Video A, SE page 25; Lesson 2, Video A, SE page 31; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 2, Video A, SE page 55** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will analyze how parts of living things are adapted to carry out specific functions. |
| 5. Explain functions of selected seed plant parts. |
| **Chapter 1, Lesson 3, Video A, SE page 17; Video C, SE page 19; Process Skill, SE page 21** |

| Heredity (LH) III.3 |
|---|
| All students will investigate and explain how characteristics of living things are passed on through generations. |
| 1. Give evidence that characteristics are passed from parents to young. |
| **Chapter 1, Lesson 2, Video B, SE page 10; Video C, SE page 11; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30** |

| Evolution (LE) III.4 |
|---|
| All students will explain how scientists construct and scientifically test theories concerning the origin of life and evolution of species. |
| 1. Explain how fossils provide evidence about the nature of ancient life. |
| **Chapter 1, Lesson 1, Video C, SE page 5; Math in Science, SE page 7; Process Skill, SE page 7**<br>**Chapter 4, Lesson 2, Video B, SE page 76; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** |

| Evolution (LE) III.4 |
|---|
| All students will compare ways that living organisms are adapted (suited) to survive and reproduce in their environments and explain how species change through time. |
| 2. Explain how physical and behavioral characteristics of animals help them to survive in their environments. |
| **Chapter 1, Lesson 2, Video C, SE page 11; Writing in Science, SE page 13**<br>**Chapter 3, Lesson 1, Video B, SE page 48; Video C, SE page 49; KnowZone, SE pages 52-53** |

| Ecosystems (LEC) III.5 |
|---|
| All students will explain how parts of an ecosystem are related and how they interact. |
| 1. Identify familiar organisms as part of a food chain or food web and describe their feeding relationships within the web. |
| **Chapter 2, Lesson 1, Video B, SE page 26; Lesson 3, Video C, SE page 41**<br>**Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63** |

| Ecosystems (LEC) III.5 |
|---|
| All students will explain how energy is distributed to living things in an ecosystem. |
| 1. Describe the basic requirements for all living things to maintain their existence. |
| **Chapter 1, Lesson 1, Video A, SE page 3; Lesson 3, Video B, SE page 18; Video C, SE page 19; Critical Thinking, SE page 21**<br>**Chapter 2, Lesson 1, Video A, SE page 25; Lesson 2, Video A, SE page 31; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 2, Video A, SE page 55** |

| Ecosystems (LEC) III.5 |
|---|
| All students will investigate and explain how communities of living things change over a period of time. |
| 3. Design systems that encourage growing of particular plants or animals. |
| **Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** |

| Ecosystems (LEC) III.5 |
|---|
| All students will analyze how humans and the environment interact. |
| 4. Describe positive and negative effects of humans on the environment. |
| **Chapter 2, Lesson 1, Video B, SE page 26; Critical Thinking, SE page 29; Lesson 3, Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43**<br>**Chapter 3, Lesson 2, Video C, SE page 57; Critical Thinking, SE page 59; Lesson 3, Video C, SE page 62; Video C, SE page 63; Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will measure and describe the things around us. |
| 1. Classify common objects and substances according to observable attributes/properties. |
| **Chapter 7, Lesson 1, Video A, SE page 135; Video B, SE page 136; Video C, SE page 137; Process Skill, SE page 139; KnowZone, SE pages 140-141; Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Process Skill, SE page 147** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will measure and describe the things around us. |
| 2. Identify properties of materials which make them useful. |
| **Chapter 4, Lesson 2, Video A, SE page 81**<br>**Chapter 7, Lesson 1, Video B, SE page 136; Lesson 3, Video B, SE page 150; Video C, SE page 151**<br>**Chapter 9, Lesson 1, Video B, SE page 180** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will identify and describe forms of energy. |
| 3. Identify forms of energy associated with common phenomena. |
| **Chapter 8, Lesson 1, Video A, SE page 157; Lesson 2, Video A, SE page 163; Lesson 3, Video A, SE page 171; Video B, SE page 172; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**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; Video C, SE page 187; Lesson 3, video A, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will explain how electricity {and magnetism; see PMO] interact with matter. |
| 4. Construct simple, useful electrical circuits. |
| **Chapter 9, Lesson 1, Video C, SE page 181** |

| Changes in Matter (PCM) IV.2 |
|---|
| All students will investigate, describe and analyze ways in which matter changes. |
| 1. Describe common changes in matter—size; melting; freezing; dissolving; evaporating. |
| **Chapter 7, Lesson 1, Video C, SE page 137; Critical Thinking, SE page 139; Process Skill, SE page 139; Lesson 3, Video C, SE page 151; Critical Thinking, SE page 153; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138** |

| Changes in Matter (PCM) IV.2 |
|---|
| All students will investigate, describe and analyze ways in which matter changes. |
| 2. Prepare mixtures and separate them into their component parts. |
| **Chapter 7, Lesson 3, Video B, SE page 150** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 1. Describe or compare motions of common objects in terms of speed and direction. |
| **Level B:**<br>**Chapter 8, Lesson 3, Video A, SE page 171**<br><br>**See also Level A:**<br>**Chapter 7, Lesson 1, Video A, SE page 135**<br><br>**See also Level C:**<br>**Chapter 9, 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** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 2. Explain how forces (pushes or pulls) are needed to speed up, slow down, stop, or change the direction of a moving object. |
| **See Level A:**<br>**Chapter 7, Lesson 1, Video C, SE page 135; Video B, SE page 136; Video C, SE page 137**<br><br>**See also Level C:**<br>**Chapter 9, Lesson 1, Video A, SE page 179; Video C, SE page 181; Lesson 2, Video A, SE page 187; Video B, SE page 188; Video C, SE page 189; Lesson 3, Video A, SE page 193; Video B, SE page 194; Video C, SE page 195** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 3. Describe patterns of interaction of magnetic materials with other magnetic and non-magnetic materials. |
| **Chapter 9, Lesson 2, Video A, SE page 185** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 4. Identify and use simple machines and describe how they change effort. |
| **Level B:**<br>**Chapter 8, Lesson 3, Video C, SE page 173**<br><br>**See also Level A:**<br>**Chapter 7, Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153; Writing in Science, SE page 153; Process Skill, SE page 163**<br>**Chapter 9, Lesson 2, Process Skill, SE page 191** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 5. Manipulate simple mechanical devices and explain how their parts work together. |
| **Chapter 8, Lesson 3, video C, SE page 173; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, Lesson 1, Critical Thinking, SE page 183; Lesson 2, Video C, SE page 187; Process Skill, SE page 189; KnowZone, SE pages 196-197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will describe sounds and sound waves. |
| 1. Describe sounds in terms of their properties. |
| **Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Writing in Science, SE page 161; Process Skill, SE page 161; LabTime Hands-On Activity 8, TRB Pages 141-143; TG Page 156** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will describe sounds and sound waves. |
| 2. Explain how sounds are made. |
| **Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Writing in Science, SE page 161; Process Skill, SE page 161; LabTime Hands-On Activity 8, TRB Pages 141-143; TG Page 156** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will explain shadows, color, and other light phenomena. |
| 3. Use prisms and filters with light sources to produce various colors of light. |
| **Chapter 8, Lesson 2, Video A, SE page 163; Critical Thinking, SE page 167** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will explain shadows, color, and other light phenomena. |
| 4. Explain how shadows are made. |
| **See Level A:**<br>**Chapter 9, Lesson 1, Video A, SE page 191; Video A, TG page 163** |

| Geosphere (EG) V.1 |
|---|
| All students will describe the earth's surface. |
| 1. Describe major features of the earth's surface. |
| **Chapter 4, Lesson 1, Video A, SE page 69; Video B, SE page 70; Video C, SE page 71; Lesson 2, Video A, SE page 75; Video B, SE page 76; Video C, SE page 77; Critical Thinking, SE page 79; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** |

| Geosphere (EG) V.1 |
|---|
| All students will describe the earth's surface. |
| 2. Recognize and describe different types of earth materials. |
| **Chapter 4, Lesson 2, Video B, SE page 76; Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; KnowZone, SE pages 86-87; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, Lesson 1, Video C, SE page 93; Lesson 2, Video A, SE page 97**<br>**Chapter 9, Lesson 2, Video A, SE page 191; Video B, SE page 192; Critical Thinking, SE page 195; Process Skill, SE page 195** |

| Geosphere (EG) V.1 |
|---|
| All students will describe and explain how the earth's features change over time. |
| 3. Describe natural changes in the earth's surface. |
| **Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71; Lesson 2, Video A, SE page 75** |

| Geosphere (EG) V.1 |
|---|
| All students will describe and explain how the earth's features change over time. |
| 4. Explain how rocks and fossils are used to understand the history of the earth. |
| **Chapter 1, Lesson 1, Video C, SE page 5; Math in Science, SE page 7; Process Skill, SE page 7**<br>**Chapter 4, Lesson 2, Video B, SE page 76; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84** |

| Geosphere (EG) V.1 |
|---|
| All students will analyze effects of technology on the earth's surface and resources. |
| 5. Describe uses of materials taken from the earth. |
| **Chapter 4, Lesson 2, Video B, SE page 76; Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; KnowZone, SE pages 86-87; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, Lesson 1, Video C, SE page 93; Lesson 2, Video A, SE page 97**<br>**Chapter 9, Lesson 2, Video A, SE page 191; Video B, SE page 192; Critical Thinking, SE page 195; Process Skill, SE page 195** |

| Geosphere (EG) V.1 |
|---|
| All students will analyze effects of technology on the earth's surface and resources. |
| 6. Demonstrate ways to conserve natural resources and reduce pollution through reduction, reuse, and recycling of manufactured materials. |
| **Chapter 1, Lesson 1, Video C, SE page 5**<br>**Chapter 2, Lesson 2, Critical Thinking, SE page 29; Lesson 3, Video C, SE page 41; Process Skill, SE page 43**<br>**Chapter 3, Lesson 2, Critical Thinking, SE page 59; Lesson 3, Video C, SE page 63; Critical thinking, SE page 65; Process Skill, SE page 65**<br>**Chapter 5, Lesson 1, Video C, SE page 93**<br>**Chapter 9, Lesson 3, video A, SE page 191; Video B, SE page 192; Critical Thinking, SE page 195** |

| Hydrosphere (EH) V.2 |
|---|
| All students will describe the characteristics of water and demonstrate where water is found on earth. |
| 1. Describe how water exists on earth in three states. |
| **Chapter 5, Lesson 1, Video A, SE page 91**<br>**The Water Cycle, SE page 204** |

| Hydrosphere (EH) V.2 |
|---|
| All students will describe how water moves. |
| 2. Trace the path of rain water after it falls. |
| **Chapter 3, Lesson 2, Video A, SE page 55**<br>**Chapter 4, Lesson 1, Video A, SE page 69** |

| Hydrosphere (EH) V.2 |
|---|
| All students will analyze the interaction of human activities with the hydrosphere. |
| 3. Identify sources of water and its uses. |
| **Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Video C, SE page 93; Critical Thinking, SE page 95** |

| Atmosphere and Weather (EAW) V.3 |
|---|
| All students will investigate and describe what makes up weather and how it changes from day to day, from season to season, and over long periods of time. |
| 1. Describe weather conditions. |
| **Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Lesson 2, Video B, SE page 98; Video C, SE page 99; Process Skill, SE page 101; Lesson 3, Video C, SE page 107; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** |

| Atmosphere and Weather (EAW) V.3 |
|---|
| All students will investigate and describe what makes up weather and how it changes from day to day, from season to season, and over long periods of time. |
| 2. Describe seasonal changes in Michigan's weather. |
| **Level B:**<br>**Chapter 5, Lesson 3, Video A, SE page 105**<br><br>**See also Level A:**<br>**Chapter 6, Lesson 1, Video B, SE page 114; Critical Thinking, SE page 117; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** |

| Atmosphere and Weather (EAW) V.3 |
|---|
| All students will analyze the relationships between human activities and the atmosphere. |
| 3. Explain appropriate safety precautions during severe weather. |
| **Level B:**<br>**Chapter 5, Lesson 3, Video C, SE page 107**<br><br>**See also Level A:**<br>**Chapter 5, Lesson 3, Video B, SE page 106; Video C, SE page 107; Critical Thinking, SE page 109**<br><br>**See also Level C:**<br>**Chapter 5, Lesson 3, Video B, SE page 104; Critical Thinking, SE page 107; KnowZone, SE page 108-109** |

| Solar System, Galaxy and Universe (ES) V.4 |
|---|
| All students will compare and contrast our planet and sun to other planets and star systems. |
| 1. Compare and contrast characteristics of the sun, moon and earth. |
| **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; Lesson 2, Video B, SE page 120; Writing in Science, SE page 123; LabTime Hands-On Activity, TRB pages 105-107, TG page 120** |

| Solar System, Galaxy and Universe (ES) V.4 |
|---|
| All students will describe and explain how objects in the solar system move. |
| 2. Describe the motion of the earth around the sun and the moon around the earth. |
| **Chapter 6, Lesson 1, Video B, SE page 114; Process Skill, SE page 117** |

# *SRA Snapshots Video Science™: Level C*
# correlation to
# Michigan Curriculum Framework Science Benchmarks
# 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 |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will ask questions that help them learn about the world. |
| 1. Generate questions about the world based on observation. |
| **Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**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**<br>**Chapter 4, Lesson 2, Process Skill, 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**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**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will design and conduct investigations using appropriate methodology and technology. |
| 2. Develop solutions to problems through reasoning, observation, and investigations. |
| **Chapter 1, Lesson 2, Process Skill, SE page 13; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**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**<br>**Chapter 4, Lesson 2, Process Skill, 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**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**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, Lesson 3, Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will design and conduct investigations using appropriate methodology and technology. |
| 3. Manipulate simple devices that aid observations and data collection. |
| **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**<br>**Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129**<br>**Chapter 7, Lesson 2, Video B, SE page 144; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, Lesson C, Video C, SE page 165; KnowZone, SE pages 168-169**<br>**Chapter 9, Lesson 2 Process Skill, SE page 191** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will design and conduct investigations using appropriate methodology and technology. |
| 4. Use simple measurement devices to make measurements in scientific investigations. |
| **Chapter 1, LabTime Hands-On Activity 1, TRB page 15, TG page 30**<br>**Chapter 5, Lesson 3, Process Skill, SE page 107; LabTime Hands-On Activity 5, TRB page 87, TG page 102**<br>**Chapter 7, Lesson 2, Video C, SE page 165; LabTime Hands-On Activity 7, TRB page 123, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB page 141, TG page 156**<br>**Chapter 9, Lesson 2, Process Skill, SE page 191**<br>**The Metric System, SE page 200-201** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will learn from books and other sources of information. |
| 5. Develop strategies for information gathering and problem solving. |
| **Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Constructing New Scientific Knowledge (C) I.1 |
|---|
| All students will communicate findings of investigations, using appropriate technology. |
| 6. Construct charts and graphs and prepare summaries of observations. |
| **Chapter 1, Lesson 1, Process Skill, SE page 7; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge. |
| 1. Develop an awareness of the need for evidence in making decisions scientifically. |
| **Chapter 1, LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30**<br>**Chapter 2, LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**<br>**Chapter 4, LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, Lesson 2, Process Skill, SE page 101; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120**<br>**Chapter 7, LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156**<br>**Chapter 9, Lesson 2, Process Skill, SE page 191; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how science is related to other ways of knowing. |
| 2. Show how science concepts can be illustrated through creative expression such as language arts and fine arts. |
| **Chapter 1, Lesson 2, Writing in Science, SE page 13**<br>**Chapter 2, Lesson 1, Writing in Science, SE page 29**<br>**Chapter 3, Lesson 1, Writing in Science, SE page 51**<br>**Chapter 4, Lesson 2, Writing in Science, SE page 81; Lesson 2, Writing in Science, SE page 87**<br>**Chapter 5, Lesson 1, Writing in Science, SE page 95**<br>**Chapter 6, Lesson 2, Writing in Science, SE page 125; Lesson 3, Writing in Science, SE page**131<br>**Chapter 7, Lesson 1, Writing in Science, SE page 139**<br>**Chapter 8, Lesson 1, Writing in Science, SE page 161**<br>**Chapter 9, Lesson 1, Writing in Science, SE page 183; Lesson 3, Writing in Science, SE page 197** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how science and technology affect our society. |
| 3. Describe ways in which technology is used in everyday life. |
| **Chapter 5, Lesson 2, Critical Thinking, SE page 101; Lesson 3, Critical Thinking, SE page 107; Process Skill, SE page 107**<br>**Chapter 6, Lesson 3, Video A, SE page 127; Video B, SE page 128; Video C, SE page 129**<br>**Chapter 8, Lesson 1, Video C, SE page 165; Critical Thinking, SE page 167** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how science and technology affect our society. |
| 4. Develop an awareness of and sensitivity to the natural world. |
| **Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; Video C, SE page 5; Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Lesson 3, Video A, SE page 15; Video B, SE page 16; Video C, SE page 17l KnowZone, SE pages 20-21**<br>**Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41**<br>**Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; Lesson 2, Video A, SE page 53; Video B, SE page 54; Video C, SE page 55l KnowZone, SE pages 58-59; Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63**<br>**Chapter 4, Lesson 1, Video A, SE page 69; Video B, SE page 70; Video C, SE page 71; KnowZone, SE pages 74-75; Lesson 2, Video A, SE page 77; Video B, SE page 78; Video C, SE page 79; Lesson 3, Video A, SE page 83; Video B, SE page 84; Video C, SE page 85**<br>**Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Video C, SE page 93; Lesson 2, Video A, SE page 97; Video B, SE page 98; Video C, SE page 99; Lesson 3, Video A, SE page 103; Video B, SE page 104; Video C, SE page 105; KnowZone, SE pages 108-109**<br>**Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; KnowZone, SE pages 118-119; Lesson 2, Video A, SE page 121; Video B, SE page 122; Video C, SE page 123**<br>**Chapter 7, Lesson 1, Video AC, SE page 135, Video B, SE page 136; Video C, SE page 137; KnowZone, SE pages 140-141; Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151**<br>**Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; KnowZone, SE pages 168-169; Lesson 3, Video A, SE page 171; Video B, SE page 172; Video C, SE page 173**<br>**Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Video C, SE page 181; KnowZone, SE pages 184-185; Lesson 2, Video A, SE page 187; Video B, SE page 188; Video C, SE page 189; Lesson 3, Video A, SE page 193; Video B, SE page 194; Video C, SE page 195** |

| Reflecting on Scientific Knowledge (R) II.1 |
|---|
| All students will show how people of diverse cultures have contributed to and influenced developments in science. |
| 5. Develop an awareness of contributions made to science by people of diverse backgrounds and cultures. |
| **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**<br>**Chapter 5 LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**<br>**Chapter 6, Lesson 3, Video B, SE page 128; Video C, SE page 129**<br>**Chapter 7, Lesson 2, Video B, SE page 144; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138**<br>**Chapter 8, Lesson C, Video C, SE page 165; KnowZone, SE pages 168-169**<br>**Chapter 9, Lesson 2 Process Skill, SE page 191** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will use classification systems to describe groups of living things. |
| 1. Explain characteristics and functions of observable body parts in a variety of animals. |
| **See Level A:**<br>**Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Lesson 3, Video C, SE page 19**<br>**Chapter 2, Lesson 2, Video A, SE page 31; KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; Process Skill, SE page 43**<br><br>**See also Level B:**<br>**Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; KnowZone, SE pages 14-15; Lesson 3, Video B, SE page 18; Video C, SE page 19**<br>**Chapter 2, KnowZone, SE pages 36-37**<br>**Chapter 3, Lesson 1, Video B, SE page 48; KnowZone, SE pages 52-53; Lesson 2, Video B, SE page 56** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will use classification systems to describe groups of living things. |
| 2. Classify familiar organisms on the basis of observable physical characteristics. |
| **Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Process Skill, SE page 29** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will compare and contrast differences in the life cycles of living things. |
| 3. Describe life cycles of familiar organisms. |
| **Level C:**<br>**Chapter 2, Lesson 2, Video A, SE page 31**<br><br>**See also Level A:**<br>**Chapter 1, Lesson 3, Video A, SE page 17; Video B, SE page 18; Video C, SE page 19; Process Skill, SE page 21**<br><br>**See also Level B:**<br>**Chapter 1, Lesson 3, Video C, SE page 19** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will investigate and explain how living things obtain and use energy. |
| 4. Compare and contrast food, energy, and environmental needs of selected organisms. |
| **Chapter 2, Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**<br>**Chapter 3, Lesson 2, Video A, SE page 53; Video B, SE page 54; Video C, SE page 55** |

| Organization of Living Things (LO) III.2 |
|---|
| All students will analyze how parts of living things are adapted to carry out specific functions. |
| 5. Explain functions of selected seed plant parts. |
| **See Level A:**<br>**Chapter 1, Lesson 1, Video B, SE page 4; Lesson 2, Video C, SE page 11; Lesson 3, Video C, SE page 19**<br>**Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40**<br><br>**See also Level B:**<br>**Chapter 1, Lesson 3, Video A, SE page 17; Video C, SE page 19; Process Skill, SE page 21** |

| Heredity (LH) III.3 |
|---|
| All students will investigate and explain how characteristics of living things are passed on through generations. |
| 1. Give evidence that characteristics are passed from parents to young. |
| **Chapter 2, Lesson 2, Video B, SE page 32** |

| Evolution (LE) III.4 |
|---|
| All students will explain how scientists construct and scientifically test theories concerning the origin of life and evolution of species. |
| 1. Explain how fossils provide evidence about the nature of ancient life. |
| **Chapter 2, Lesson 1, Video C, SE page 27**<br>**Chapter 4, Lesson 3, Video A, SE page 83** |

| Evolution (LE) III.4 |
|---|
| All students will compare ways that living organisms are adapted (suited) to survive and reproduce in their environments and explain how species change through time. |
| 2. Explain how physical and behavioral characteristics of animals help them to survive in their environments. |
| **Chapter 2, Lesson 2, Video B, SE page 32; Video C, SE page 33; Critical Thinking, SE page 35; Process Skill, SE page 35; KnowZone, SE pages 36-37; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48** |

| Ecosystems (LEC) III.5 |
|---|
| All students will explain how parts of an ecosystem are related and how they interact. |
| 1. Identify familiar organisms as part of a food chain or food web and describe their feeding relationships within the web. |
| **Level C:**<br>**Chapter 3, Lesson 1, Video C, SE page 49**<br>**Food Web, SE page 203**<br>**Energy Pyramid, SE page 203**<br><br>**See also Level B:**<br>**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**<br>**Food Web, SE page 203**<br>**Energy Pyramid, SE page 203** |

| Ecosystems (LEC) III.5 |
|---|
| All students will explain how energy is distributed to living things in an ecosystem. |
| 1. Describe the basic requirements for all living things to maintain their existence. |
| **Chapter 2, Lesson 1, Video C, SE page 27; Lesson 3, video A, SE page 39; Video B, SE page 40; Video C, SE page 41; Critical Thinking, SE page 43** |

| Ecosystems (LEC) III.5 |
|---|
| All students will investigate and explain how communities of living things change over a period of time. |
| 3. Design systems that encourage growing of particular plants or animals. |
| **Chapter 3, Lesson 3, Process Skill, SE page 65** |

| Ecosystems (LEC) III.5 |
|---|
| All students will analyze how humans and the environment interact. |
| 4. Describe positive and negative effects of humans on the environment. |
| **Chapter 2, Lesson 1, Video C, SE page 27**<br>**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**<br>**Chapter 4, Lesson 2, Video A, SE page 77; Video B, SE page 78**<br>**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**<br>**Chapter 7, Lesson 3, Video B, SE page 150**<br>**Chapter 8, Lesson 1, Video C, SE page 159; Lesson 3, Video C, SE page 173; Critical Thinking, SE page 175** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will measure and describe the things around us. |
| 1. Classify common objects and substances according to observable attributes/properties. |
| **Chapter 7, Lesson 1, Video A, SE page 135; Video C, SE page 137; Critical Thinking, SE page 139; Process Skill, SE page 139; Lesson 2, Video A, SE page 143; Video B, SE page 144; Process Skill, SE page 147** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will measure and describe the things around us. |
| 2. Identify properties of materials which make them useful. |
| **Chapter 7, KnowZone, SE pages 140-141; Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150; Video C, SE page 151; Critical Thinking, SE page 153 Chapter 8, Lesson 1, Video C, SE page 159; Lesson 2, Video A, SE page 163; Process Skill, SE page 167; Lesson 3, Video C, SE page 173** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will identify and describe forms of energy. |
| 3. Identify forms of energy associated with common phenomena. |
| **Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Lesson 3, Video A, SE page 171; Video B, SE page 172; Video C, SE page 173; Critical Thinking, SE page 175; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** |

| Matter and Energy (PME) IV.1 |
|---|
| All students will explain how electricity {and magnetism; see PMO] interact with matter. |
| 4. Construct simple, useful electrical circuits. |
| **Level C:**<br>**Chapter 9, Lesson 1, Video A, SE page 171; Video B, SE page 172**<br><br>**See also Level B:**<br>**Chapter 9, Lesson 1, Video C, SE page 181; Critical Thinking, SE page 183** |

| Changes in Matter (PCM) IV.2 |
|---|
| All students will investigate, describe and analyze ways in which matter changes. |
| 1. Describe common changes in matter—size; melting; freezing; dissolving; evaporating. |
| **Chapter 7, Lesson 1, Video B, SE page 136; Video C, SE page 137; Critical Thinking, SE page 139; Process Skill, SE page 139; Lesson 2, Video C, SE page 145; Critical Thinking, SE page 147** |

| Changes in Matter (PCM) IV.2 |
|---|
| All students will investigate, describe and analyze ways in which matter changes. |
| 2. Prepare mixtures and separate them into their component parts. |
| **Chapter 7, Lesson 1, Video C, SE page 137; Critical Thinking SE page 139; Process Skill, SE page 139** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 1. Describe or compare motions of common objects in terms of speed and direction. |
| **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** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 2. Explain how forces (pushes or pulls) are needed to speed up, slow down, stop, or change the direction of a moving object. |
| **Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; Video C, SE page 181; Critical Thinking, SE page 183; Process Skill, SE page 183; Lesson 3, video A, SE page 193; Video B, SE page 194; Video C, SE page 195; Critical Thinking, SE page 197; Process Skill, SE page 197; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 3. Describe patterns of interaction of magnetic materials with other magnetic and non-magnetic materials. |
| **See Level B:**<br>**Chapter 9, Lesson 2, Video A, SE page 185** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 4. Identify and use simple machines and describe how they change effort. |
| **See Level A:**<br>**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**<br><br>**See also Level B:**<br>**Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175** |

| Motion of Objects (PMO) IV.3 |
|---|
| All students will describe how things around us move, explain why things move as they do, and demonstrate and explain how we control the motions of objects. |
| 5. Manipulate simple mechanical devices and explain how their parts work together. |
| **See Level A:**<br>**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**<br><br>**See also Level B:**<br>**Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will describe sounds and sound waves. |
| 1. Describe sounds in terms of their properties. |
| **See Level B:**<br>**Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Process Skill, SE page 161; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will describe sounds and sound waves. |
| 2. Explain how sounds are made. |
| **See Level B:**<br>**Chapter 8, Lesson 1, Video A, SE page 157; Video B, SE page 158; Video C, SE page 159; Process Skill, SE page 161; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will explain shadows, color, and other light phenomena. |
| 3. Use prisms and filters with light sources to produce various colors of light. |
| **See Level A;**<br>**Chapter 9, Lesson 1, Video B, SE page 180**<br><br>**See also Level B:**<br>**Chapter 8, Lesson 2, Video A, SE page 163; Critical Thinking, SE page 167** |

| Waves and Vibrations (PWV) IV.4 |
|---|
| All students will explain shadows, color, and other light phenomena. |
| 4. Explain how shadows are made. |
| **See Level A:**<br>**Chapter 9, Lesson 1, Video A, SE page 191; Video A, TG page 163** |

| Geosphere (EG) V.1 |
|---|
| All students will describe the earth's surface. |
| 1. Describe major features of the earth's surface. |
| **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** |

| Geosphere (EG) V.1 |
|---|
| All students will describe the earth's surface. |
| 2. Recognize and describe different types of earth materials. |
| **Chapter 4, Lesson 3, Video A, SE page 83; Video B, SE page 84; Video C, SE page 85**<br>**Chapter 5, Lesson 1, Video A, SE page 91; Lesson 2, Video A, SE page 97**<br>**Chapter 7, KnowZone, SE pages 140-141**<br>**Chapter 8, Lesson 1, Video C, SE page 159; Lesson 3, Video C, SE page 173** |

| Geosphere (EG) V.1 |
|---|
| All students will describe and explain how the earth's features change over time. |
| 3. Describe natural changes in the earth's surface. |
| **Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Critical Thinking, SE page 117; Process Skill, SE page 117; KnowZone, SE pages 118-119** |

| Geosphere (EG) V.1 |
|---|
| All students will describe and explain how the earth's features change over time. |
| 4. Explain how rocks and fossils are used to understand the history of the earth. |
| **Chapter 2, Lesson 1, Video C, SE page 27**<br>**Chapter 4, Lesson 3, Video A, SE page 83** |

| Geosphere (EG) V.1 |
|---|
| All students will analyze effects of technology on the earth's surface and resources. |
| 5. Describe uses of materials taken from the earth. |
| **Chapter 4, Lesson 3, Video B, SE page 84; Video C, SE page 85**<br>**Chapter 5, Lesson 2, Video C, SE page 99**<br>**Chapter 8, Lesson 1, Video C, SE page 159; Lesson 3, Video C, SE page 173** |

| Geosphere (EG) V.1 |
|---|
| All students will analyze effects of technology on the earth's surface and resources. |
| 6. Demonstrate ways to conserve natural resources and reduce pollution through reduction, reuse, and recycling of manufactured materials. |
| **Chapter 3, Lesson 3, Video B, SE page 62; Video C, SE page 63; Critical Thinking, SE page 65**<br>**Chapter 4, Lesson 3, Video C, SE page 85**<br>**Chapter 5, Lesson 1, Video C, SE page 93; Lesson 2, Video C, SE page 99; Critical Thinking, SE page 101** |

| Hydrosphere (EH) V.2 |
|---|
| All students will describe the characteristics of water and demonstrate where water is found on earth. |
| 1. Describe how water exists on earth in three states. |
| **Chapter 4, Lesson 2, Video A, SE page 77; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84**<br>**Chapter 5, Lesson 1, Video C, SE page 93; Lesson 2, Video C, SE page 99** |

| Hydrosphere (EH) V.2 |
|---|
| All students will describe how water moves. |
| 2. Trace the path of rain water after it falls. |
| **Chapter 5, Lesson 2, Video B, SE page 98; Process Skill, SE page 101**<br>**The Planet Earth, SE page 204** |

| Hydrosphere (EH) V.2 |
|---|
| All students will analyze the interaction of human activities with the hydrosphere. |
| 3. Identify sources of water and its uses. |
| **Chapter 5, Lesson 2, Video A, SE page 97; Video B, SE page 98; Video C, SE page 99; Critical Thinking, SE page 101** |

| Atmosphere and Weather (EAW) V.3 |
|---|
| All students will investigate and describe what makes up weather and how it changes from day to day, from season to season, and over long periods of time. |
| 1. Describe weather conditions. |
| **Chapter 4, Lesson 3, Video A, SE page 103; Video B, SE page 104; Process Skill, SE page 107** |

| Atmosphere and Weather (EAW) V.3 |
|---|
| All students will investigate and describe what makes up weather and how it changes from day to day, from season to season, and over long periods of time. |
| 2. Describe seasonal changes in Michigan's weather. |
| **Chapter 6, Lesson 2, Video A, SE page 121; Process Skill, SE page 125**<br>**Earth in Space, SE page 205** |

| Atmosphere and Weather (EAW) V.3 |
|---|
| All students will analyze the relationships between human activities and the atmosphere. |
| 3. Explain appropriate safety precautions during severe weather. |
| **Chapter 5, Lesson 3, Video B, SE page 104; Critical Thinking, SE page 107; KnowZone, SE pages 108-109** |

| Solar System, Galaxy and Universe (ES) V.4 |
|---|
| All students will compare and contrast our planet and sun to other planets and star systems. |
| 1. Compare and contrast characteristics of the sun, moon and earth. |
| **Chapter 6, Lesson 1, Video A, SE page 113; Lesson 2, Video B, SE page 122; Video C, SE page 123; Critical Thinking, SE page 125** |

| Solar System, Galaxy and Universe (ES) V.4 |
|---|
| All students will describe and explain how objects in the solar system move. |
| 2. Describe the motion of the earth around the sun and the moon around the earth. |
| **Chapter 6, Lesson 2, Video A, SE page 1121; Video C, SE page 123; Process Skill, SE page 125** |