SRA Snapshots Video Science™: Level A
correlation to
Massachusetts Science and Technology/Engineering Curriculum Framework
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

Earth and Space Science
Rocks and Their Properties
1. Give an explanation of what a mineral is and some examples, e.g., quartz, mica.
Chapter 4, Lesson 2, Video A, SE page 75

Earth and Space Science
Rocks and Their Properties
2. Identify the physical properties of minerals (hardness, color, luster, cleavage, and streak), and explain how minerals can be tested for these difference physical properties.
Chapter 4, Lesson 2, Video A, SE page 75

Earth and Space Science
Rocks and Their Properties
3. Identify the three categories of rocks (metamorphic, igneous, and sedimentary) based on how they are formed, and explain the natural and physical processes that create these rocks.
Chapter 4, Lesson 2, Video A, SE page 75

Earth and Space Science
Soil
4. Explain and give examples of the ways in which soil is formed (the weathering of rock by water and wind and from the decomposition of plant and animal remains).
Chapter 4, Lesson 2, Video C, SE page 77; Process Skill, SE page 79

Earth and Space Science
Soil
5. Recognize and discuss the different properties of soil, including color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.
Chapter 4, Lesson 2, Video C, SE page 77; Process Skill , SE page 79

Earth and Space Science
Weather
6. Explain how air temperature, moisture, wind speed and direction, and precipitation make up the weather in a particular place and time.
Chapter 5, Lesson 1, Video B, SE page 92; Video C, SE page 93; Process Skill, SE page 95; Lesson 2, Process Skill, SE page 103; Lesson 3, Video A, SE page 105; Video B, SE page 106; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Earth and Space Science
Weather
7. Distinguish among the various forms of precipitation (rain, snow, sleet, and hail), making connections to the weather in a particular place and time.
Chapter 5, Lesson 2, Video B, SE page 100; Process Skill, SE page 103; Lesson 3, Video A, SE page 105

Earth and Space Science
Weather
8. Describe how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation.
See Level C: **Chapter 5, Lesson 1, Video B, SE page 92; Process Skill, SE page 95**

Earth and Space Science
Weather
9. Differentiate between weather and climate.
See Level B: **Chapter 5, Lesson 2, Video B, SE page 98; Video C, SE page 99; Process Skill, SE page 101; Lesson 3, Video A, SE page 105; Video B, SE page 106; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102**

Earth and Space Science
The Water Cycle
10. Describe how water on earth cycles in different forms and in different locations, including underground and in the atmosphere.
Chapter 5, Lesson 2, Video A, SE page 99; Video B, SE page 100; Video C, SE page 101

Earth and Space Science
The Water Cycle
11. Give examples of how the cycling of water, both in and out of the atmosphere, has an effect on climate.
Chapter 5, Lesson 2, Video B, SE page 100; Lesson 3, Video B, SE page 106; Process Skill, SE page 109

Earth and Space Science
Earth's History
12. Give examples of how the surface of earth changes due to slow processes such as erosion and weathering, and rapid processes such as landslides, volcanic eruptions, and earthquakes.
Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71

Earth and Space Science
The Earth in the Solar System
13. Recognize that the earth is part of a system called the "solar system" that includes the sun (a star), planets, and many moons. The earth is the third planet from the sun in our solar system.
Chapter 6, Lesson 2, Video A, SE page 119; Video B, SE page 120; Video C, SE page 121

Earth and Space Science
The Earth in the Solar System
14. Recognize that the earth revolves around (orbits) the sun in a year's time and that the earth rotates on its axis once approximately every 24 hours. Make connections between the rotation of the earth and day/night, and the apparent movement of the sun, moon, and stars across the sky.
Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Process Skill, SE page 117; Lesson 3, Video A, SE page 127; Process Skill, SE page 131; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Earth and Space Science
The Earth in the Solar System
15. Describe the changes that occur in the observable shape of the moon over the course of a month.
Chapter 6, Lesson 1, Video C, SE page 115

Life Science (Biology)
Characteristics of Plants and Animals
1. Classify plants and animals according to the physical characteristics that they share.
Chapter 1, Lesson 2, Video A, SE page 9; Video B, SE page 10; Video C, SE page 11; Math in Science, SE page 13 Classification, SE page 202

Life Science (Biology)
Structures and Functions
2. Identify the structures in plants (leaves, roots, flowers, stem, bark, wood) that are responsible for food production, support, water transportation, reproduction, growth, and protection.
Chapter 1, Lesson 1, Video B, SE page 4; Lesson 2, Video C, SE page 11; Lesson 3, Video C, SE page 19 Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video B, SE page 40

Life Science (Biology)
Structures and Functions
3. Recognize that plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death.
Chapter 1, Lesson 3, Video A, SE page 17; Video B, SE page 18; Process Skill, SE page 21

Life Science (Biology)
Structures and Functions
4. Describe the major stages that characterize the life cycle of the frog and butterfly as they go through metamorphosis.
Chapter 1, Lesson 3, Video B, SE page 18; Process Skill, SE page 21

Life Science (Biology)
Structures and Functions
5. Differentiate between observed characteristics of plants and animals that are fully inherited (e.g., color of flower, shape of leaves, color of eyes, number of appendages) and characteristics that are affected by the climate or environment (e.g., browning of leaves due to too much sun, language spoken).
Chapter 2, Lesson 3, Video B, SE page 40; Video C, SE page 41

Life Science (Biology)
Adaptations of Living Things
6. Give examples of how inherited characteristics may change over time as adaptations to changes in the environment that enable organisms to survive,(e.g., shape of beak or feet, placement of eyes on head, length of neck, shape of teeth, color.
Chapter 2, Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41

Life Science (Biology)
Adaptations of Living Things
7. Give examples of how changes in the environment (drought, cold) have caused some plants and animals to die or move to new locations (migration).
Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63

Life Science (Biology)
Adaptations of Living Things
8. Describe how organisms meet some of their needs in an environment by using behaviors (patterns of activities) in response to information (stimuli) received from the environment. Recognize that some animals behaviors are instinctive (e.g., turtles burying their eggs), and others are learned (e.g., humans building fires for warmth, chimpanzees learning how to use tools).
Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video A, SE page 39; Video C, SE page 41; Process Skill, SE page 43

Life Science (Biology)
Adaptations of Living Things
9. Recognize plant behaviors, such as the way seedlings' stems grow toward light and their roots grow downward in response to gravity. Recognize that many plants and animals can survive harsh environments because of seasonal behaviors, e.g., in winter, some trees shed leaves, some animals hibernate, and other animals migrate.
Chapter 2, KnowZone, SE pages 36-37; Lesson 3, Video A, SE page 39; Video B, SE page 40

Life Science (Biology)
Adaptations of Living Things
10. Give examples of how organisms can cause changes in their environment to ensure survival. Explain how some of these changes may affect the ecosystem.
Chapter 2, Lesson 1, Video C, SE page 27 **Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63**

Life Science (Biology)
Energy and Living Things
11. Describe how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within a food chain from producers (plants) to consumers to decomposers.
Chapter 2, Lesson 2, Video A, 31; Video B, SE page 32; Video C, SE page 33; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48 **Energy Transfer, SE page 203**

Physical Sciences (Chemistry and Physics)
Properties of Objects and Materials
1. Differentiate between properties of objects (e.g., size, shape, weight) and properties of materials (e.g., color, texture, hardness).
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

Physical Sciences (Chemistry and Physics)
States of Matter
2. Compare and contrast solids, liquids, and gases based on the basic properties of each of these states of matter.
Chapter 8, Lesson 2, Video A, SE page 163; Process Skill, SE page 167

Physical Sciences (Chemistry and Physics)
States of Matter
3. Describe how water can be changed from one state to another by adding or taking away heat.
Chapter 8, Lesson 2, Video A, SE page 163; Process Skill, SE page 167

Physical Sciences (Chemistry and Physics)
Forms of Energy
4. Identify the basic forms of energy (light, sound, heat, electrical, and magnetic). Recognize that energy is the ability to cause motion or create change.
Chapter 8, Lesson 3, Video A, SE page 171; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 **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**

Physical Sciences (Chemistry and Physics)
Forms of Energy
5. Give examples of how energy can be transferred from one form to another.
Chapter 9, Lesson 3, Video B, SE page 194

Physical Sciences (Chemistry and Physics)
Electrical Energy
6. Recognize that electricity in circuits requires a complete loop through which an electrical current can pass, and that electricity can produce heat, light, and sound.
Chapter 9, Lesson 2, Video B, SE page 188; Video C, SE page 189; Process Skill, SE page 191

Physical Sciences (Chemistry and Physics)
Electrical Energy
7. Identify and classify objects and materials that conduct electricity and objects and materials that are insulators of electricity.
See Level B: **Chapter 9, Lesson 1, Video B, SE page 180**

Physical Sciences (Chemistry and Physics)
Electrical Energy
8. Explain how electromagnets can be made, and give examples of how they can be used.
Chapter 7, Lesson 2, Video C, SE page 145

Physical Sciences (Chemistry and Physics)
Magnetic Energy
9. Recognize that magnets have poles that repel and attract each other.
Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145

Physical Sciences (Chemistry and Physics)
Magnetic Energy
10. Identify and classify objects and materials that a magnet will attract and objects and materials that a magnet will not attract.
Chapter 7, Lesson 2, Video A, SE page 143; Video B, SE page 144; Video C, SE page 145

Physical Sciences (Chemistry and Physics)
Sound Energy
11. Recognize that sound is produced by vibrating objects and requires a medium through which to travel. Relate the rate of vibration to the pitch of the sound.
Chapter 9, Lesson 1, Video C, SE page 118; Writing in Science, SE page 183; Process Skill, SE page 183

Physical Sciences (Chemistry and Physics)
Light Energy
12. Recognize that light travels in a straight line until it strikes an object or travel from one medium to another, and that light can be reflected, refracted, and absorbed.
Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; LabTime Hands-On Activity, TRB pages 159-161; TG page 174

Technology/Engineering
Materials and Tools
1. Central Concept: Appropriate materials, tools, and machines extend our ability to solve problems and invent.
1.1 Identify materials used to accomplish a design task based on a specific property, e.g., strength, hardness, and flexibility.
Chapter 4, Lesson 1, Video C, SE page 77; Process Skill, SE page 179; Lesson 2, Video A, SE page 83; Video B, SE page 84; Video C, SE page 84 **Chapter 7, Lesson 2, Video A, SE page 143** **Chapter 8, KnowZone, SE pages 168-169**

Technology/Engineering
Materials and Tools
1. Central Concept: Appropriate materials, tools, and machines extend our ability to solve problems and invent.
1.2 Identify and explain the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) to construct a given prototype.
Chapter 5, LabTime Hands-On Activity, TRB Pages 87-89; TG page 102 **Chapter 7, Lesson 3, Process Skill, SE page 153** **Chapter 8, Lesson 3, Process Skill, SE page 175; LabTime Hands-On Activity, TRB pages 141-143; TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 191**

Technology/Engineering
Materials and Tools
1. Central Concept: Appropriate materials, tools, and machines extend our ability to solve problems and invent.
1.3 Identify and explain the difference between simple and complex machines, e.g., hand can opener that includes multiple gears, wheel, wedge, gear, and lever.
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

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.1 Identify a problem that reflects the need for shelter, storage, or convenience.
Chapter 3, Lesson 3, Writing in Science, SE page 65 **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 3, Process Skill, SE page 153; Lesson 3, Enrichment, TG page 136** **Chapter 8, Lesson 3, Process Skill SE page 175; LabTime Hands-On Activity, TRB pages 141-143; TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 191**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.2 Describe different ways in which a problem can be presented, e.g., sketches, diagrams, graphic organizers, and lists.
Chapter 3, Lesson 3, Writing in Science, SE page 65 **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 3, Process Skill, SE page 153; Lesson 3, Enrichment, TG page 136** **Chapter 8, Lesson 3, Process Skill SE page 175; LabTime Hands-On Activity, TRB pages 141-143; TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 191**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.3 Identify relevant design features (e.g., size, shape, weight) for building a prototype of a solution to a given problem.
Chapter 3, Lesson 3, Writing in Science, SE page 65 **Chapter 6, LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120** **Chapter 7, Lesson 3, Process Skill, SE page 153; Lesson 3, Enrichment, TG page 136** **Chapter 8, Lesson 3, Process Skill SE page 175; LabTime Hands-On Activity, TRB pages 141-143; TG page 156** **Chapter 9, Lesson 2, Process Skill, SE page 191**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.4 Compare natural systems with mechanical systems that are designed to serve similar purposes, e.g., a bird's wings as compared to an airplane's wings.
Chapter 4, LabTime Hands-On Activity, TRB Pages 69-71; TG page 84 **Chapter 5, LabTime Hands-On Activity, TRB Pages 87-89; TG page 102**

SRA Snapshots Video Science™: Level B
correlation to
Massachusetts Science and Technology/Engineering Curriculum Framework
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

Earth and Space Science
Rocks and Their Properties
1. Give an explanation of what a mineral is and some examples, e.g., quartz, mica.
Chapter 4, Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; Process Skill, SE page 85; KnowZone, SE page 86-87

Earth and Space Science
Rocks and Their Properties
2. Identify the physical properties of minerals (hardness, color, luster, cleavage, and streak), and explain how minerals can be tested for these difference physical properties.
Chapter 4, Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; Process Skill, SE page 85

Earth and Space Science
Rocks and Their Properties
3. Identify the three categories of rocks (metamorphic, igneous, and sedimentary) based on how they are formed, and explain the natural and physical processes that create these rocks.
Chapter 4, Lesson 2, Video B, SE page 76; Video C, SE page 77; Writing in Science, SE page 79; Process Skill, SE page 79; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Earth and Space Science
Soil
4. Explain and give examples of the ways in which soil is formed (the weathering of rock by water and wind and from the decomposition of plant and animal remains).
See Level A: **Chapter 4, Lesson 2, Video C, SE page 77; Process Skill, SE page 79** **See also Level C:** **Chapter 4, Lesson 3, Video C, SE page 85**

Earth and Space Science
Soil
5. Recognize and discuss the different properties of soil, including color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.
See Level A: **Chapter 4, Lesson 2, Video C, SE page 77; Process Skill, SE page 79** **See also Level C:** **Chapter 4, Lesson 3, Video C, SE page 85**

Earth and Space Science
Weather
6. Explain how air temperature, moisture, wind speed and direction, and precipitation make up the weather in a particular place and time.
Chapter 5, 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

Earth and Space Science
Weather
7. Distinguish among the various forms of precipitation (rain, snow, sleet, and hail), making connections to the weather in a particular place and time.
Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92

Earth and Space Science
Weather
8. Describe how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation.
See Level C: **Chapter 5, Lesson 1, Video B, SE page 92; Process Skill, SE page 95**

Earth and Space Science
Weather
9. Differentiate between weather and climate.
Chapter 5, Lesson 2, Video B, SE page 98; Video C, SE page 99; Process Skill, SE page 101; Lesson 3, video A, SE page 105; Video B, SE page 106; LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102

Earth and Space Science
The Water Cycle
10. Describe how water on earth cycles in different forms and in different locations, including underground and in the atmosphere.
Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Video C, SE page 93 **The Water Cycle, SE page 204**

Earth and Space Science
The Water Cycle
11. Give examples of how the cycling of water, both in and out of the atmosphere, has an effect on climate.
Chapter 5, Lesson 1, Video A, SE page 91 **The Water Cycle, SE page 204**

Earth and Space Science
Earth's History
12. Give examples of how the surface of earth changes due to slow processes such as erosion and weathering, and rapid processes such as landslides, volcanic eruptions, and earthquakes.
Chapter 4, Lesson 1, Video B, SE page 70; Video C, SE page 71; Lesson 2, Video A, SE page 75

Earth and Space Science
The Earth in the Solar System
13. Recognize that the earth is part of a system called the "solar system" that includes the sun (a star), planets, and many moons. The earth is the third planet from the sun in our solar system.
Chapter 6, Lesson 1, Video A, SE page 113; Video C, SE page 115; Lesson 2, Video A, SE page 119; Video B, SE page 120; Video C, SE page 121; Process Skill, SE page 123; LabTime Hands-On Activity 6, TRB pages 105-107, TG page 120

Earth and Space Science
The Earth in the Solar System
14. Recognize that the earth revolves around (orbits) the sun in a year's time and that the earth rotates on its axis once approximately every 24 hours. Make connections between the rotation of the earth and day/night, and the apparent movement of the sun, moon, and stars across the sky.
Chapter 6, Lesson 1, Video B, SE page 114; Process Skill, SE page 117

Earth and Space Science
The Earth in the Solar System
15. Describe the changes that occur in the observable shape of the moon over the course of a month.
Chapter 6, Lesson 1, Video C, SE page 115

Life Science (Biology)
Characteristics of Plants and Animals
1. Classify plants and animals according to the physical characteristics that they share.
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

Life Science (Biology)
Structures and Functions
2. Identify the structures in plants (leaves, roots, flowers, stem, bark, wood) that are responsible for food production, support, water transportation, reproduction, growth, and protection.
Chapter 1, Lesson 3, Video A, SE page 17; Video B, SE page 18; Video C, SE page 19; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Life Science (Biology)
Structures and Functions
3. Recognize that plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death.
Level B: **Chapter 1, Lesson 3, Video C, SE page 19** **See also Level A:** **Chapter 1, Lesson 3, Video B, SE page 18; Process Skill, SE page 21** **See also Level C:** **Chapter 2, Lesson 2, Video A, SE page 31; KnowZone, SE pages 36-37**

Life Science (Biology)
Structures and Functions
4. Describe the major stages that characterize the life cycle of the frog and butterfly as they go through metamorphosis.
See Level A: **Chapter 1, Lesson 3, Video B, SE page 18; Process Skill, SE page 21** **See also Level C:** **Chapter 2, Lesson 2, Video A, SE page 31; KnowZone, SE pages 36-37**

Life Science (Biology)
Structures and Functions
5. Differentiate between observed characteristics of plants and animals that are fully inherited (e.g., color of flower, shape of leaves, color of eyes, number of appendages) and characteristics that are affected by the climate or environment (e.g., browning of leaves due to too much sun, language spoken).
Chapter 1, Lesson 2, Video C, SE page 11; LabTime Hands-On Activity 1, TRB pages 15-17, TG page 30

Life Science (Biology)
Adaptations of Living Things
6. Give examples of how inherited characteristics may change over time as adaptations to changes in the environment that enable organisms to survive,(e.g., shape of beak or feet, placement of eyes on head, length of neck, shape of teeth, color.
Chapter 1, Lesson 2, Video C, SE page 11; KnowZone, SE pages 14-15 **Chapter 3, Lesson 1, Video B, SE page 48**

Life Science (Biology)
Adaptations of Living Things
7. Give examples of how changes in the environment (drought, cold) have caused some plants and animals to die or move to new locations (migration).
Chapter 1, Lesson 1, Video C, SE page 5 **Chapter 2, Lesson 1, Video B, SE page 26; Lesson 3, Video C, SE page 41; Process Skill, SE page 43** **Chapter 3, Lesson 1, Process Skill, SE page 51; Lesson 2, Video C, SE page 57; Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63; Process Skill, SE page 65; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66**

Life Science (Biology)
Adaptations of Living Things
8. Describe how organisms meet some of their needs in an environment by using behaviors (patterns of activities) in response to information (stimuli) received from the environment. Recognize that some animals behaviors are instinctive (e.g., turtles burying their eggs), and others are learned (e.g., humans building fires for warmth, chimpanzees learning how to use tools).
Chapter 1, Lesson 2, Video C, SE page 11; Writing in Science, SE page 13 **Chapter 3, Lesson 1, Video B, SE page 48; Video C, SE page 49; KnowZone, SE pages 52-53**

Life Science (Biology)
Adaptations of Living Things
9. Recognize plant behaviors, such as the way seedlings' stems grow toward light and their roots grow downward in response to gravity. Recognize that many plants and animals can survive harsh environments because of seasonal behaviors, e.g., in winter, some trees shed leaves, some animals hibernate, and other animals migrate.
Chapter 1, Lesson 2, Video C, SE page 11; Lesson 3, Video B, SE page 18; Video C, SE page 19 **Chapter 3, Lesson 1, Video C, SE page 59; KnowZone, SE pages 52-53**

Life Science (Biology)
Adaptations of Living Things
10. Give examples of how organisms can cause changes in their environment to ensure survival. Explain how some of these changes may affect the ecosystem.
Chapter 2, Lesson 1, Video B, SE page 26; Lesson 3, Video C, SE page 41 **Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62; Video C, SE page 63**

Life Science (Biology)
Energy and Living Things
11. Describe how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within a food chain from producers (plants) to consumers to decomposers.
Chapter 2, Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Process Skill, SE page 35; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Physical Sciences (Chemistry and Physics)
Properties of Objects and Materials
1. Differentiate between properties of objects (e.g., size, shape, weight) and properties of materials (e.g., color, texture, hardness).
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

Physical Sciences (Chemistry and Physics)
States of Matter
2. Compare and contrast solids, liquids, and gases based on the basic properties of each of these states of matter.
Chapter 7, Lesson 1, Video C, SE page 137; Process Skill, SE page 139

Physical Sciences (Chemistry and Physics)
States of Matter
3. Describe how water can be changed from one state to another by adding or taking away heat.
Chapter 7, Lesson 1, Video C, SE page 137; Process Skill, SE page 139

Physical Sciences (Chemistry and Physics)
Forms of Energy
4. Identify the basic forms of energy (light, sound, heat, electrical, and magnetic). Recognize that energy is the ability to cause motion or create change.
Chapter 8, Lesson 1, Video A, SE page 157; Lesson 2, Video A, SE page 163 **Chapter 9, Lesson 1, Video A, SE page 179; Lesson 2, Video A, SE page 185; Lesson 3, Video A, SE page 191**

Physical Sciences (Chemistry and Physics)
Forms of Energy
5. Give examples of how energy can be transferred from one form to another.
Chapter 8, Lesson 1, Video A, SE page 157; Lesson 2, Video A, SE page 163; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156 **Chapter 9, Lesson 2, Video C, SE page 187; KnowZone, SE pages 196-197**

Physical Sciences (Chemistry and Physics)
Electrical Energy
6. Recognize that electricity in circuits requires a complete loop through which an electrical current can pass, and that electricity can produce heat, light, and sound.
Chapter 9, Lesson 1, Video C, SE page 181

Physical Sciences (Chemistry and Physics)
Electrical Energy
7. Identify and classify objects and materials that conduct electricity and objects and materials that are insulators of electricity.
Chapter 9, Lesson 1, Video B, SE page 180

Physical Sciences (Chemistry and Physics)
Electrical Energy
8. Explain how electromagnets can be made, and give examples of how they can be used.
Chapter 9, Lesson 2, Video B, SE page 186; Video V, SE page 187; Writing in Science, SE page 189; Process Skill, SE page 189; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Physical Sciences (Chemistry and Physics)
Magnetic Energy
9. Recognize that magnets have poles that repel and attract each other.
Chapter 9, Lesson 2, Video A, SE page 185

Physical Sciences (Chemistry and Physics)
Magnetic Energy
10. Identify and classify objects and materials that a magnet will attract and objects and materials that a magnet will not attract.
Chapter 9, Lesson 2, Video A, SE page 185

Physical Sciences (Chemistry and Physics)
Sound Energy
11. Recognize that sound is produced by vibrating objects and requires a medium through which to travel. Relate the rate of vibration to the pitch of the sound.
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

Physical Sciences (Chemistry and Physics)
Light Energy
12. Recognize that light travels in a straight line until it strikes an object or travel from one medium to another, and that light can be reflected, refracted, and absorbed.
Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Process Skill, SE page 167

Technology/Engineering
Materials and Tools
1. Central Concept: Appropriate materials, tools, and machines extend our ability to solve problems and invent.
1.1 Identify materials used to accomplish a design task based on a specific property, e.g., strength, hardness, and flexibility.
Chapter 4, Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; KnowZone, SE pages 86-87 **Chapter 7, Lesson 1, Video B, SE page 136; Lesson 2, Video B, SE page 144; video C, SE page 145; Lesson 3, Video A, SE page 149; Video B, SE page 150** **Chapter 8, LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156** **Chapter 9, Lesson 1, Video B, SE page 180; Lesson 2, Video A, SE page 185**

Technology/Engineering
Materials and Tools
1. Central Concept: Appropriate materials, tools, and machines extend our ability to solve problems and invent.
1.2 Identify and explain the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) to construct a given prototype.
Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Technology/Engineering
Materials and Tools
1. Central Concept: Appropriate materials, tools, and machines extend our ability to solve problems and invent.
1.3 Identify and explain the difference between simple and complex machines, e.g., hand can opener that includes multiple gears, wheel, wedge, gear, and lever.
Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175 **See also Level A:** **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**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.1 Identify a problem that reflects the need for shelter, storage, or convenience.
Chapter 3, Lesson 3, Process Skill, SE page 65 **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**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.2 Describe different ways in which a problem can be presented, e.g., sketches, diagrams, graphic organizers, and lists.
Chapter 3, Lesson 3, Process Skill, SE page 65 **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**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.3 Identify relevant design features (e.g., size, shape, weight) for building a prototype of a solution to a given problem.
Chapter 3, Lesson 3, Process Skill, SE page 65 **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**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.4 Compare natural systems with mechanical systems that are designed to serve similar purposes, e.g., a bird's wings as compared to an airplane's wings.
Chapter 4, Lesson 1, Process Skill, SE page 73; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84 **Chapter 6, Lesson 1, Process Skill, SE page 117** **Chapter 8, Lesson 3, Process Skill, SE page 175** **Chapter 9, Lesson 2, Process Skill, SE page 189**

SRA Snapshots Video Science™: Level C
correlation to
Massachusetts Science and Technology/Engineering Curriculum Framework
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

Earth and Space Science
Rocks and Their Properties
1. Give an explanation of what a mineral is and some examples, e.g., quartz, mica.
Chapter 4, Lesson 3, Video B, SE page 84

Earth and Space Science
Rocks and Their Properties
2. Identify the physical properties of minerals (hardness, color, luster, cleavage, and streak), and explain how minerals can be tested for these difference physical properties.
Chapter 4, Lesson 3, Video B, SE page 84

Earth and Space Science
Rocks and Their Properties
3. Identify the three categories of rocks (metamorphic, igneous, and sedimentary) based on how they are formed, and explain the natural and physical processes that create these rocks.
Chapter 4, Lesson 3, Video A, SE page 83

Earth and Space Science
Soil
4. Explain and give examples of the ways in which soil is formed (the weathering of rock by water and wind and from the decomposition of plant and animal remains).
See Level A: **Chapter 4, Lesson 2, Video C, SE page 77; Process Skill, SE page 79** **See also Level C:** **Chapter 4, Lesson 3, Video C, SE page 85**

Earth and Space Science
Soil
5. Recognize and discuss the different properties of soil, including color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants.
See Level A: **Chapter 4, Lesson 2, Video C, SE page 77; Process Skill, SE page 79** **See also Level C:** **Chapter 4, Lesson 3, Video C, SE page 85**

Earth and Space Science
Weather
6. Explain how air temperature, moisture, wind speed and direction, and precipitation make up the weather in a particular place and time.
Chapter 4, Lesson 3, Video A, SE page 103; Video B, SE page 104; Process Skill, SE page 107

Earth and Space Science
Weather
7. Distinguish among the various forms of precipitation (rain, snow, sleet, and hail), making connections to the weather in a particular place and time.
Chapter 5, Lesson 2, Video B, SE page 98

Earth and Space Science
Weather
8. Describe how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation.
Chapter 5, Lesson 1, Video B, SE page 92; Process Skill, SE page 95

Earth and Space Science
Weather
9. Differentiate between weather and climate.
Chapter 5, Lesson 3, Video A, SE page 103; Video B, SE page 104; Video C, SE page 105

Earth and Space Science
The Water Cycle
10. Describe how water on earth cycles in different forms and in different locations, including underground and in the atmosphere.
Chapter 5, Lesson 2, Video A, SE page 97; Video B, SE page 98; Process Skill, SE page 101

Earth and Space Science
The Water Cycle
11. Give examples of how the cycling of water, both in and out of the atmosphere, has an effect on climate.
Chapter 5, Lesson 2, Video A, SE page 97; Video B, SE page 98; Process Skill, SE page 101

Earth and Space Science
Earth's History
12. Give examples of how the surface of earth changes due to slow processes such as erosion and weathering, and rapid processes such as landslides, volcanic eruptions, and earthquakes.
Chapter 4, Lesson 1, 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; Process Skill, SE page 81; LabTime Hands-On Activity 4, TRB pages 69-71, TG page 84

Earth and Space Science
The Earth in the Solar System
13. Recognize that the earth is part of a system called the "solar system" that includes the sun (a star), planets, and many moons. The earth is the third planet from the sun in our solar system.
Chapter 6, Lesson 1, Video A, SE page 113; Video B, SE page 114; Video C, SE page 115; Process Skill, SE page 117; KnowZone, SE pages 118-119

Earth and Space Science
The Earth in the Solar System
14. Recognize that the earth revolves around (orbits) the sun in a year's time and that the earth rotates on its axis once approximately every 24 hours. Make connections between the rotation of the earth and day/night, and the apparent movement of the sun, moon, and stars across the sky.
Chapter 6, Lesson 2, Video A, SE page 121; Video B, SE page 122; Video C, SE page 123

Earth and Space Science
The Earth in the Solar System
15. Describe the changes that occur in the observable shape of the moon over the course of a month.
Chapter 6, Lesson 2, Video C, SE page 123

Life Science (Biology)
Characteristics of Plants and Animals
1. Classify plants and animals according to the physical characteristics that they share.
Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Process Skill, SE page 29

Life Science (Biology)
Structures and Functions
2. Identify the structures in plants (leaves, roots, flowers, stem, bark, wood) that are responsible for food production, support, water transportation, reproduction, growth, and protection.
See Level B: **Chapter 1, Lesson 3, Video A, SE page 17; Video B, SE page 18; Video C, SE page 19; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**

Life Science (Biology)
Structures and Functions
3. Recognize that plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death.
Chapter 2, Lesson 2, Video A, SE page 31; KnowZone, SE pages 36-37

Life Science (Biology)
Structures and Functions
4. Describe the major stages that characterize the life cycle of the frog and butterfly as they go through metamorphosis.
Level C: **Chapter 2, Lesson 2, Video A, SE page 31; KnowZone, SE pages 36-37** **See also Level A:** **Chapter 1, Lesson 3, Video B, SE page 18; Process Skill, SE page 21** **See also Level B:** **Chapter 1, Lesson 3, Video C, SE page 19**

Life Science (Biology)
Structures and Functions
5. Differentiate between observed characteristics of plants and animals that are fully inherited (e.g., color of flower, shape of leaves, color of eyes, number of appendages) and characteristics that are affected by the climate or environment (e.g., browning of leaves due to too much sun, language spoken).
Level C: **Chapter 2, Lesson 2, Video B, SE page 32; KnowZone, SE pages 36-37** **See also Level A:** **Chapter 1, Lesson 3, Video B, SE page 18; Process Skill, SE page 21**

Life Science (Biology)
Adaptations of Living Things
6. Give examples of how inherited characteristics may change over time as adaptations to changes in the environment that enable organisms to survive,(e.g., shape of beak or feet, placement of eyes on head, length of neck, shape of teeth, color.
Chapter 2, Lesson 2, Video B, SE page 32; Video C, SE page 33; LabTime Hands-On Activity 3, TRB pages 51-53, TG page 66

Life Science (Biology)
Adaptations of Living Things
7. Give examples of how changes in the environment (drought, cold) have caused some plants and animals to die or move to new locations (migration).
Chapter 2, Lesson 1, Video C, SE page 27; KnowZone, SE pages 36-37 **Chapter 3, Lesson 3, Video A, SE page 61; Video B, SE page 62**

Life Science (Biology)
Adaptations of Living Things
8. Describe how organisms meet some of their needs in an environment by using behaviors (patterns of activities) in response to information (stimuli) received from the environment. Recognize that some animals behaviors are instinctive (e.g., turtles burying their eggs), and others are learned (e.g., humans building fires for warmth, chimpanzees learning how to use tools).
Chapter 2, Lesson 2, Video B, SE page 32; KnowZone, SE pages 36-37; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48

Life Science (Biology)
Adaptations of Living Things
9. Recognize plant behaviors, such as the way seedlings' stems grow toward light and their roots grow downward in response to gravity. Recognize that many plants and animals can survive harsh environments because of seasonal behaviors, e.g., in winter, some trees shed leaves, some animals hibernate, and other animals migrate.
Chapter 2, Lesson 2, Video B, SE page 32; KnowZone, SE pages 36-37

Life Science (Biology)
Adaptations of Living Things
10. Give examples of how organisms can cause changes in their environment to ensure survival. Explain how some of these changes may affect the ecosystem.
Chapter 2, Lesson 1, Video C, SE page 27; Lesson 3, Video C, SE page 41 **Chapter 3, Lesson 1, Video B, SE page 48; Process Skill, SE page 51; Lesson 3, Video A, SE page 61; Video B, SE page 62**

Life Science (Biology)
Energy and Living Things
11. Describe how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within a food chain from producers (plants) to consumers to decomposers.
See Level B: **Chapter 2, Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Process Skill, SE page 35; Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; Process Skill, SE page 43; LabTime Hands-On Activity 2, TRB pages 33-35, TG page 48**

Physical Sciences (Chemistry and Physics)
Properties of Objects and Materials
1. Differentiate between properties of objects (e.g., size, shape, weight) and properties of materials (e.g., color, texture, hardness).
Chapter 7, Lesson 1, Video B, SE page 136; Lesson 2, Video A, SE page 143; Video B, SE page 144; Process Skill, SE page 147; LabTime Hands-On Activity 7, TRB pages 123-125, TG page 138

Physical Sciences (Chemistry and Physics)
States of Matter
2. Compare and contrast solids, liquids, and gases based on the basic properties of each of these states of matter.
Chapter 7, Lesson 1, Video B, SE page 136; Lesson 2, Video A, SE page 143

Physical Sciences (Chemistry and Physics)
States of Matter
3. Describe how water can be changed from one state to another by adding or taking away heat.
Chapter 7, Lesson 1, Video B, SE page 136; Lesson 2, Video A, SE page 143

Physical Sciences (Chemistry and Physics)
Forms of Energy
4. Identify the basic forms of energy (light, sound, heat, electrical, and magnetic). Recognize that energy is the ability to cause motion or create change.
Chapter 8, Lesson 1, Video A, SE page 157; Lesson 2, Video A, SE page 163; Lesson 3, Video A, SE page 171

Physical Sciences (Chemistry and Physics)
Forms of Energy
5. Give examples of how energy can be transferred from one form to another.
Chapter 8, Lesson 1, Video B, SE page 158; Lesson 2, Video B, SE page 164; Lesson 3, Video B, SE page 172; LabTime Hands-On Activity 8, TRB pages 141-143, TG page 156

Physical Sciences (Chemistry and Physics)
Electrical Energy
6. Recognize that electricity in circuits requires a complete loop through which an electrical current can pass, and that electricity can produce heat, light, and sound.
Chapter 8, Lesson 3, Video A, SE page 171

Physical Sciences (Chemistry and Physics)
Electrical Energy
7. Identify and classify objects and materials that conduct electricity and objects and materials that are insulators of electricity.
See Level B: **Chapter 9, Lesson 1, Video B, SE page 180**

Physical Sciences (Chemistry and Physics)
Electrical Energy
8. Explain how electromagnets can be made, and give examples of how they can be used.
See Level B: **Chapter 9, Lesson 2, Video B, SE page 186; Video V, SE page 187; Writing in Science, SE page 189; Process Skill, SE page 189; LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Physical Sciences (Chemistry and Physics)
Magnetic Energy
9. Recognize that magnets have poles that repel and attract each other.
See Level B: **Chapter 9, Lesson 2, Video A, SE page 185**

Physical Sciences (Chemistry and Physics)
Magnetic Energy
10. Identify and classify objects and materials that a magnet will attract and objects and materials that a magnet will not attract.
See Level B: **Chapter 9, Lesson 2, Video A, SE page 185**

Physical Sciences (Chemistry and Physics)
Sound Energy
11. Recognize that sound is produced by vibrating objects and requires a medium through which to travel. Relate the rate of vibration to the pitch of the sound.
See Level B: **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**

Physical Sciences (Chemistry and Physics)
Light Energy
12. Recognize that light travels in a straight line until it strikes an object or travel from one medium to another, and that light can be reflected, refracted, and absorbed.
See Level B: **Chapter 8, Lesson 2, Video A, SE page 163; Video B, SE page 164; Video C, SE page 165; Process Skill, SE page 167**

Technology/Engineering
Materials and Tools
1. Central Concept: Appropriate materials, tools, and machines extend our ability to solve problems and invent.
1.1 Identify materials used to accomplish a design task based on a specific property, e.g., strength, hardness, and flexibility.
Chapter 4, Lesson 3, Video A, SE page 83; Video B, SE page 84; Video C, SE page 85 **Chapter 7, Lesson 1, Video A, SE page 135; KnowZone, SE pages 140-141; Lesson 2, Video A, SE page 143; Video B, SE page 144; Lesson 3, Video A, SE page 149** **Chapter 8, Lesson 2, Video A, SE page 163**

Technology/Engineering
Materials and Tools
1. Central Concept: Appropriate materials, tools, and machines extend our ability to solve problems and invent.
1.2 Identify and explain the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) to construct a given prototype.
Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174

Technology/Engineering
Materials and Tools
1. Central Concept: Appropriate materials, tools, and machines extend our ability to solve problems and invent.
1.3 Identify and explain the difference between simple and complex machines, e.g., hand can opener that includes multiple gears, wheel, wedge, gear, and lever.
See Level A: **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** **See also Level B:** **Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.1 Identify a problem that reflects the need for shelter, storage, or convenience.
Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147 **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.2 Describe different ways in which a problem can be presented, e.g., sketches, diagrams, graphic organizers, and lists.
Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147 **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.3 Identify relevant design features (e.g., size, shape, weight) for building a prototype of a solution to a given problem.
Chapter 7, Lesson 1, Process Skill, SE page 139; Lesson 2, Process Skill, SE page 147 **Chapter 9, LabTime Hands-On Activity 9, TRB pages 159-161, TG page 174**

Technology/Engineering
2. Engineering Design
Central Concept: Engineering design requires creative thinking and strategies to solve practical problems generated by needs and wants.
2.4 Compare natural systems with mechanical systems that are designed to serve similar purposes, e.g., a bird's wings as compared to an airplane's wings.
Chapter 1, Lesson 1, Process Skill, SE page 7 **Chapter 4, Lesson 3, Process Skill, SE page 87** **Chapter 5, LabTime Hands-On Activity 5, TRB pages 87-89, TG page 102** **Chapter 9, Lesson1, Process Skill, SE page 183**