SRA Snapshots Video Science $^{\text{TM}}$: Level A correlation to North Carolina Standard Course of Study: Science Grade 3

*SRA Snapshots Video Science*TM 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

Competency Goal 1: The learner will conduct investigations and build an understanding of plant growth and adaptations.

1.01 Observe and measure how the quantities and qualities of nutrients, light, and water in the environment affect plant growth.

Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; LabTime Hands-On Activity TRB pages 15-17, TG page 30

Competency Goal 1: The learner will conduct investigations and build an understanding of plant growth and adaptations.

1.02 Observe and describe how environmental conditions determine how well plants survive and grow in a particular environment.

Chapter 1, Lesson 1, Video A, SE page 3; Video B, SE page 4; KnowZone SE pages 14-15

Chapter 2, Lesson 2, Video A; Lesson 3, Video A

Competency Goal 1: The learner will conduct investigations and build an understanding of plant growth and adaptations.

1.03 Investigate and describe how plants pass through distinct stages in their life cycle including:

- Growth.
- Survival.
- Reproduction.

Chapter 1, Lesson 3, Video C, SE page 19

Competency Goal 1: The learner will conduct investigations and build an understanding of plant growth and adaptations.

1.04 Explain why the number of seeds a plant produces depends on variables such as light, water, nutrients, and pollination.

Chapter 1, Lesson 2, Video C, SE page 11; Lesson 3, Video C, SE page 19

Competency Goal 1: The learner will conduct investigations and build an understanding of plant growth and adaptations.

1.05 Observe and discuss how bees pollinate flowers.

Chapter 1, Lesson 3, Video C, SE page 19

Competency Goal 1: The learner will conduct investigations and build an understanding of plant growth and adaptations.

1.06 Observe, describe and record properties of germinating seeds.

Chapter 1, Lesson 3, Video C, SE page 19; LabTime Hands-On Activity, TRB pages 15-17, TG page 30

Competency Goal 2: The learner will conduct investigations to build an understanding of soil properties.

2.01 Observe and describe the properties of soil:

- Color.
- Texture.
- Capacity to hold water.

Chapter 4, Lesson 2, Video C, SE page 77

Competency Goal 2: The learner will conduct investigations to build an understanding of soil properties.

2.02 Investigate and observe that different soils absorb water at different rates.

Chapter 4, Lesson 2, Video C, SE page 77

Competency Goal 2: The learner will conduct investigations to build an understanding of soil properties.

2.03 Determine the ability of soil to support the growth of many plants, including those important to our food supply.

Chapter 4, Lesson 2, Video C, SE page 77

Competency Goal 2: The learner will conduct investigations to build an understanding of soil properties.

2.04 Identify the basic components of soil:

- Sand.
- Clay.
- Humus.

Chapter 4, Lesson 2, Video C, SE page 77

Competency Goal 2: The learner will conduct investigations to build an understanding of soil properties.

2.05 Determine how composting can be used to recycle discarded plant and animal material.

This concept is not covered at this level.

Competency Goal 2: The learner will conduct investigations to build an understanding of soil properties.

2.06 Determine the relationship between heat and decaying plant matter in a compost pile.

This concept is not covered at this level.

Competency Goal 3: The learner will make observations and use appropriate terminology to build an understanding of the earth/moon/sun system.

3.01 Observe that light travels in a straight line until it strikes an object and is reflected and/or absorbed.

Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; LabTime Hands-On Activity, SE pages 159-161, TG page 174

Competency Goal 3: The learner will make observations and use appropriate terminology to build an understanding of the earth/moon/sun system.

3.02 Observe that objects in the sky have patterns of movement including:

- Sun.
- Moon.
- Stars.

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 B, SE page 128; LabTime Hands-On Activity, SE TRB pages 105-107, TG page 120

Competency Goal 3: The learner will make observations and use appropriate terminology to build an understanding of the earth/moon/sun system.

3.03 Using shadows, follow and record the apparent movement of the sun in the sky during the day.

Chapter 6 LabTime Hands-On Activity, TRB pages 105-107, TG page 120

Competency Goal 3: The learner will make observations and use appropriate terminology to build an understanding of the earth/moon/sun system.

3.04 Use appropriate tools to make observations of the moon.

Chapter 6, Lesson 1, Video C, SE page 115; Lesson 3, Video B, SE page 128; Video C, SE page 129; LabTime Hands-On Activity, TRB pages 105107, TG page 120

Competency Goal 3: The learner will make observations and use appropriate terminology to build an understanding of the earth/moon/sun system.

3.05 Observe and record the change in the apparent shape of the moon from day to day over several months and describe the pattern of changes.

Chapter 6, Lesson I, Video C, SE page 115; Lesson 3 Process Skill, SE page 131

Competency Goal 3: The learner will make observations and use appropriate terminology to build an understanding of the earth/moon/sun system.

3.06 Observe that patterns of stars in the sky stay the same, although they appear to move across the sky nightly.

Chapter 6, Lesson 3, Video A, SE page 127

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of the form and function of the skeletal and muscle systems of the human body.

4.01 Identify the skeleton as a system of the human body.

This concept is not covered at this level.

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of the form and function of the skeletal and muscle systems of the human body.

4.02 Describe several functions of bones:

- Support.
- Protection.
- Locomotion.

This concept is not covered at this level.

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of the form and function of the skeletal and muscle systems of the human body.

4.03 Describe the functions of different types of joints:

- Hinge.
- Ball and socket.
- Gliding.

This concept is not covered at this level.

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of the form and function of the skeletal and muscle systems of the human body.

4.04 Describe how different kinds of joints allow movement and compare this to the movement of mechanical devices.

This concept is not covered at this level.

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of the form and function of the skeletal and muscle systems of the human body.

4.05 Observe and describe how muscles cause the body to move.

This concept is not covered at this level.

SRA Snapshots Video ScienceTM: Level B correlation to North Carolina Standard Course of Study: Science Grade 4

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KEY:

Reference Program Component

Video Video lessons on program DVDs

SE Student Edition

TRB Teacher's Resource Book

TG Teacher's Guide

Competency Goal 1: The learner will make observations and conduct investigations to build an understanding of animal behavior and adaptation.

1.01 Observe and describe how all living and nonliving things affect the life of a particular animal including:

- Other animals.
- Plants.
- Weather.
- Climate.

Chapter 1, Lesson 1, Video C, SE page 5

Chapter 2, Lesson 1, Video A, SE page 25; Video B, SE page 26; Video C, SE page 27; Lesson 3, Video C, SE page 41; Process Skill, SE page 43

Chapter 3, Lesson 1, Video B, SE page 48; Process Skill, SE page 51; Lesson 2, Video A, SE page 55; Video B, SE page 56; Video C, SE page 67; Lesson 3, Video B, SE page 62; Video C, SE page 63; Process Skill, SE page 65

Competency Goal 1: The learner will make observations and conduct investigations to build an understanding of animal behavior and adaptation.

1.02 Observe and record how animals of the same kind differ in some of their characteristics and discuss possible advantages and disadvantages of this variation.

This concept is not covered at this level.

Competency Goal 1: The learner will make observations and conduct investigations to build an understanding of animal behavior and adaptation.

1.03 Observe and discuss how behaviors and body structures help animals survive in a particular habitat.

Chapter 1, Lesson 1 Process Skill, SE page 7

Chapter 2, Lesson 1, Video B, SE page 26; KnowZone, SE pages 36-37

Competency Goal 1: The learner will make observations and conduct investigations to build an understanding of animal behavior and adaptation.

1.04 Explain and discuss how humans and other animals can adapt their behavior to live in changing habitats.

Chapter 1, Lesson 2, Video C, SE page 11

Chapter 2, Lesson 2, Video B, SE page 32

Chapter 3, Lesson 1, Video C, SE page 49

Competency Goal 1: The learner will make observations and conduct investigations to build an understanding of animal behavior and adaptation.

1.05 Recognize that humans can understand themselves better by learning about other animals.

Chapter 3, Lesson 3, Video B, SE page 62; Video C, SE page 63

Competency Goal 2: The learner will conduct investigations and use appropriate technology to build an understanding of the composition and uses of rocks and minerals.

2.01 Describe and evaluate the properties of several minerals.

Chapter 4, Lesson 3, Video A, SE page 81; Video C, SE page 83

Competency Goal 2: The learner will conduct investigations and use appropriate technology to build an understanding of the composition and uses of rocks and minerals.

2.02 Recognize that minerals have a definite chemical composition and structure, resulting in specific physical properties including:

- Hardness.
- Streak color.
- Luster.
- Magnetism.

Chapter 4, Lesson 3, Video A, SE page 81; Video C, SE page 83

Competency Goal 2: The learner will conduct investigations and use appropriate technology to build an understanding of the composition and uses of rocks and minerals.

2.03 Explain how rocks are composed of minerals.

Chapter 4, Lesson 2, Video B, SE page 76; Video C, SE page 77; Process Skills, SE page 79; Lesson 3, Video A, SE page 81

Competency Goal 2: The learner will conduct investigations and use appropriate technology to build an understanding of the composition and uses of rocks and minerals.

2.04 Show that different rocks have different properties.

Chapter 4, Lesson 2, Video B, SE page 76; Video C, SE page 77; Process Skill, SE page 79; Lesson 3 Process Skill, SE page 85

Competency Goal 2: The learner will conduct investigations and use appropriate technology to build an understanding of the composition and uses of rocks and minerals.

2.05 Discuss and communicate the uses of rocks and minerals.

Chapter 4, Lesson 3, Video A, SE page 81; Video B, SE page 82; Video C, SE page 83; KnowZone, SE pages 86-87

Competency Goal 2: The learner will conduct investigations and use appropriate technology to build an understanding of the composition and uses of rocks and minerals.

2.06 Classify rocks and rock-forming minerals using student-made rules.

Chapter 4, Lesson 2, Video B, SE page 76; Video C, SE page 77; Process Skill, SE page 79

Competency Goal 2: The learner will conduct investigations and use appropriate technology to build an understanding of the composition and uses of rocks and minerals.

2.07 Identify and discuss different rocks and minerals in North Carolina including their role in geologic formations and distinguishing geologic regions.

Chapter 4, Lesson 2, Video B, SE page 76; Video C, SE page 77; Process Skill, SE page 79; Lesson 3, Video C, SE page 83

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of magnetism and electricity.

3.01 Observe and investigate the pull of magnets on all materials made of iron and the pushes or pulls on other magnets.

Chapter 9, Lesson 2, Video A, SE page 185; Video B, SE page 186

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of magnetism and electricity.

3.02 Describe and demonstrate how magnetism can be used to generate electricity.

Chapter 9, Lesson 2, Video B, SE page 186; Video C, SE page 187

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of magnetism and electricity.

3.03 Design and test an electric circuit as a closed pathway including an energy source, energy conductor, and an energy receiver.

Chapter 9, Lesson 1, Video C, SE page 187

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of magnetism and electricity.

3.04 Explain how magnetism is related to electricity.

Chapter 9, Lesson 2, Video A, SE page 185; Video B, SE page 186; Video C, SE page 187

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of magnetism and electricity.

3.05 Describe and explain the parts of a light bulb.

See Level A:

Chapter 9, Lesson 2, Video B, SE page 188; Process Skill, SE page 191

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of magnetism and electricity.

3.06 Describe and identify materials that are conductors and non-conductors of electricity.

Chapter 9, Lesson 1, Video B, SE page 180

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of magnetism and electricity.

3.07 Observe and investigate that parallel and series circuits have different characteristics.

Chapter 9, Lesson 1, Video C, SE page 181

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of magnetism and electricity.

3.08 Observe and investigate the ability of electric circuits to produce light, heat, sound, and magnetic effects.

Chapter 9, Lesson 1, Video C, SE page 181

Competency Goal 3: The learner will make observations and conduct investigations to build an understanding of magnetism and electricity.

3.09 Recognize lightning as an electrical discharge and show proper safety behavior when lightning occurs.

Chapter 9, Lesson 1, Video B, SE page 180

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of how food provides energy and materials for growth and repair of the body.

4.01 Explain why organisms require energy to live and grow.

Chapter 1, Lesson 1, Video A, , SE page 3

Chapter 2, Lesson 1, Video A, SE page 25; Lesson 2, Video A, SE page 31; Video B, SE page 32; Video C, SE page 33; Process Skill, SE page 35

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of how food provides energy and materials for growth and repair of the body.

4.02 Show how calories can be used to compare the chemical energy of different foods.

See Level A:

Chapter 3, Lesson 1, Video C, SE page 49

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of how food provides energy and materials for growth and repair of the body.

4.03 Discuss how foods provide both energy and nutrients for living organisms.

See Level A:

Chapter 3, Lesson 1, Video C, SE page 49

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of how food provides energy and materials for growth and repair of the body.

4.04 Identify starches and sugars as carbohydrates.

See Level A:

Chapter 3, Lesson 1, Video C, SE page 49

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of how food provides energy and materials for growth and repair of the body.

4.05 Determine that foods are made up of a variety of components.

See Level A:

Chapter 3, Lesson 1, Video C, SE page 49

SRA Snapshots Video ScienceTM: Level C correlation to North Carolina Standard Course of Study: Science Grade 5

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KEY:

Reference Program Component

Video Video lessons on program DVDs

SE Student Edition

TRB Teacher's Resource Book

TG Teacher's Guide

Competency Goal 1: The learner will conduct investigations to build an understanding of the interdependence of plants and animals.

1.01 Describe and compare several common ecosystems (communities of organisms and their interaction with the environment).

Chapter 3, Lesson 1, Video A, SE page 47; Lesson 2, Video A, SE page 53; Video B, SE page 54; Video C, SE page 55; Process Skill, SE page 57

Competency Goal 1: The learner will conduct investigations to build an understanding of the interdependence of plants and animals.

1.02 Identify and analyze the functions of organisms within the population of the ecosystem:

- Producers.
- Consumers.
- Decomposers.

Chapter 3, Lesson 1, Video C, SE page 49; Process Skill, SE page 51

Energy Transfer, SE page 203

Competency Goal 1: The learner will conduct investigations to build an understanding of the interdependence of plants and animals.

1.03 Explain why an ecosystem can support a variety of organisms.

Chapter 3, Lesson 1, Video A, SE page 47; Video B, SE page 48; Video C, SE page 49; KnowZone, SE pages 58-59

Competency Goal 1: The learner will conduct investigations to build an understanding of the interdependence of plants and animals.

1.04 Discuss and determine the role of light, temperature, and soil composition in an ecosystem's capacity to support life.

Chapter 3, Lesson 1, Video C, SE page 49; Lesson 3 Process Skill, SE page 65

Competency Goal 1: The learner will conduct investigations to build an understanding of the interdependence of plants and animals.

1.05 Determine the interaction of organisms within an ecosystem.

Chapter 2, Lesson 3, Video A, SE page 39; Video B, SE page 40; Video C, SE page 41; Process Skill, SE page 43 Energy Transfer, SE page 203

Competency Goal 1: The learner will conduct investigations to build an understanding of the interdependence of plants and animals.

1.06 Explain and evaluate some ways that humans affect ecosystems.

- Habitat reduction due to development.
- Pollutants.
- Increased nutrients.

Chapter, Lesson 1, Video C, SE page 27

Chapter 3, Lesson 3, Video B, SE page 62; Video C, SE page 63

Competency Goal 1: The learner will conduct investigations to build an understanding of the interdependence of plants and animals.

1.07 Determine how materials are recycled in nature.

Chapter 3, Lesson 1, Video C, SE page 49

Competency Goal 2: The learner will make observations and conduct investigations to build an understanding of landforms.

2.01 Identify and analyze forces that cause change in landforms over time including:

- Water and ice.
- Wind.
- Gravity.

Chapter 4, Lesson 2, Video A, SE page 77; Video B, SE page 78

Competency Goal 2: The learner will make observations and conduct investigations to build an understanding of landforms.

2.02 Investigate and discuss the role of the water cycle and how movement of water over and through the landscape helps shape landforms.

Chapter 4, Lesson 2, Video A, SE page 77; Video B, SE page 78; Video C, SE page 79

Competency Goal 2: The learner will make observations and conduct investigations to build an understanding of landforms.

2.03 Discuss and consider the wearing away and movement of rock and soil in erosion and its importance in forming:

- Canyons.
- Valleys.
- Meanders.
- Tributaries.

Chapter 4, Lesson 2, Video B, SE page 78; Video C, SE page 79

Competency Goal 2: The learner will make observations and conduct investigations to build an understanding of landforms.

- 2.04 Describe the deposition of eroded material and its importance in establishing landforms including:
 - Deltas.
 - Flood plains.

Chapter 4, Lesson 2, Video C, SE page 79

Competency Goal 2: The learner will make observations and conduct investigations to build an understanding of landforms.

2.05 Discuss how the flow of water and the slope of the land affect erosion.

Chapter 4, Lesson 2, Video B, SE page 78

Competency Goal 2: The learner will make observations and conduct investigations to build an understanding of landforms.

2.06 Identify and use models, maps, and aerial photographs as ways of representing landforms.

See Level A:

Chapter 4, Lesson 1, Video A, SE page 69

Competency Goal 2: The learner will make observations and conduct investigations to build an understanding of landforms.

2.07 Discuss and analyze how humans influence erosion and deposition in local communities, including school grounds, as a result of:

- Clearing land.
- Planting vegetation.
- Building dams.

Chapter 4, Lesson 2, Video B, SE page 78

Competency Goal 3: The learner will conduct investigations and use appropriate technology to build an understanding of weather and climate.

3.01 Investigate the water cycle including the process of:

- Evaporation.
- Condensation.
- Precipitation.
- Run-off.

Chapter 5, Lesson 2, Video A, SE page 97; Video B, SE page 98; Process Skill, SE page 101 The Planet Earth, SE page 204

Competency Goal 3: The learner will conduct investigations and use appropriate technology to build an understanding of weather and climate.

3.02 Discuss and determine how the following are affected by predictable patterns of weather:

- Temperature.
- Wind direction and speed.
- Precipitation.
- Cloud cover.
- Air pressure.

Chapter 5, Lesson 1, Video A, SE page 91; Video B, SE page 92; Lesson 3, Video A, SE page 103; Video B, SE page 104; Video C, SE page 105; Process Skill, SE page 107

Competency Goal 3: The learner will conduct investigations and use appropriate technology to build an understanding of weather and climate.

3.03 Describe and analyze the formation of various types of clouds and discuss their relation to weather systems.

Chapter 5, Lesson 2, Video B, SE page 98

Competency Goal 3: The learner will conduct investigations and use appropriate technology to build an understanding of weather and climate.

3.04 Explain how global atmospheric movement patterns affect local weather.

Chapter 5, Lesson 1, Video B, SE page 92

Competency Goal 3: The learner will conduct investigations and use appropriate technology to build an understanding of weather and climate.

3.05 Compile and use weather data to establish a climate record and reveal any trends.

Chapter 5, Lesson 3, Video C, SE page 105

Competency Goal 3: The learner will conduct investigations and use appropriate technology to build an understanding of weather and climate.

3.06 Discuss and determine the influence of geography on weather and climate:

- Mountains.
- Sea breezes.
- Water bodies.

Level C:

Chapter 5, Lesson 3, Video C, SE page 105

See also Level B:

Chapter 5, Lesson 3, Video A, SE page 105; Video B, SE page 106

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of forces and motion in technological designs.

4.01 Determine the motion of an object by following and measuring its position over time.

Chapter 9, Lesson 1, Video A, SE page 179; Lesson 2, Video A, , SE page 187; Video B, SE page 188; Video C, SE page 189; Process Skill, SE page 191

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of forces and motion in technological designs.

4.02 Evaluate how pushing or pulling forces can change the position and motion of an object.

Chapter 9, Lesson 1, Video A, SE page 179

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of forces and motion in technological designs.

4.03 Explain how energy is needed to make machines move:

- Moving air.
- Gravity.

Chapter 9, Lesson 1, Video B, SE page 180

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of forces and motion in technological designs.

4.04 Determine that an unbalanced force is needed to move an object or change its direction.

Chapter 9, Lesson 1, Video A, SE page 179

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of forces and motion in technological designs.

4.05 Determine factors that affect motion including:

- Force.
- Friction.
- Inertia.
- Momentum.

Chapter 9, Lesson 1, Video A, SE page 179; Video B, SE page 180; 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

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of forces and motion in technological designs.

4.06 Build and use a model to solve a mechanical design problem:

- Devise a test for the model.
- Evaluate the results of test.

Chapter 9, Lesson 1 Process Skill, SE page 183; Lesson 3, Process Skill, SE page 197

Competency Goal 4: The learner will conduct investigations and use appropriate technology to build an understanding of forces and motion in technological designs.

4.07 Determine how people use simple machines to solve problems.

See Level A:

Chapter 7, 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 Level B:

Chapter 8, Lesson 3, Video C, SE page 173; Math in Science, SE page 175; Process Skill, SE page 175