

***SRA Snapshots Simply Science™***  
**correlation to**  
**New York Science Core Curriculum**  
**Grade 1**

*SRA Snapshots Simply Science™* consists of several components. Each level has Simply Science Video lessons (**Video**) that provide an introduction to or review of the unit science concepts. The Fiction Read Alouds (**RAF**) and Nonfiction Read Alouds (**RANF**) provide student friendly text that reinforces the science concepts in the video. The Teacher’s Idea Book (**TIB**) provides quick lesson activities and reproducible pages (**BLM**). The Vocabulary Photo Cards (**Cards**) contain engaging photos, definitions, and additional activities.

**KEY:**

<b>Reference</b>	<b>Program Component</b>
<b>Video</b>	Video lessons
<b>RAF</b>	Read Aloud - Fiction
<b>RANF</b>	Read Aloud - Nonfiction
<b>TIB</b>	Teacher’s Idea Book
<b>BLM</b>	Reproducible pages
<b>Cards</b>	Vocabulary Photo Cards

<b>SRA Snapshots Simply Science™ Grade 1</b>	
<b>Life Science Unit 1: Living Things and Their Needs</b>	
<b>Program Components</b>	<b>New York Science Core Curriculum</b>
<b>Video</b> Living Things and Their Needs <b>RAF</b> “A Funny Frog” <b>RANF</b> “We Are Living Things” <b>TIB</b> pages 14, 15, 16, 17, 18, 19 <b>BLM</b> pages 70, 71, 72, 73, 74, 75, 76, 77, 78, 79 <b>Cards</b> 1, 2, 3, 4, 5, 6, 55, 56, 57, 60, 61, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90	<b>Standard 4: The Living Environment</b> <b>Key Idea 1: Living things are both similar to and different from each other and from nonliving things.</b> <b>Performance Indicator 1.1: Describe the characteristics of and variations between living and nonliving things.</b> <b>Major Understandings:</b> <b>1.1a</b> Animals need air, water, and food in order to live and thrive. <b>1.1b</b> Plants require air, water, nutrients, and light in order to live and thrive. <b>1.1c</b> Nonliving things do not live and thrive. <b>1.1d</b> Nonliving things can be human-created or naturally occurring.  <b>Performance Indicator 1.2: Describe the life processes common to all living things.</b> <b>Major Understandings:</b> <b>1.2a</b> Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die.

**Life Science Unit 1 (continued)**

<b>Program Components</b>	<b>New York Science Core Curriculum</b>
<p>TIB page 19, Hands-On Science Activity <i>Group Living/Nonliving Things</i></p>	<p><b>Standard 1: Analysis, Inquiry, and Design</b> <b>Scientific Inquiry</b> <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b> <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b> <b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.</b> <b>S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.</b> <b>S2.3b</b> Record observations accurately and concisely.</p> <p><b>General Skills</b> <b>i.</b> follow safety procedures in the classroom, laboratory, and field. <b>x.</b> classify objects according to an established scheme. <b>xi.</b> generate a scheme for classification. <b>xii.</b> utilize senses optimally for making observations. <b>xx.</b> compare and contrast organisms/objects/events in the living and physical environments.</p>

**SRA Snapshots Simply Science™ Grade 1**  
**Life Science Unit 2: Learning About Plants**

<b>Program Components</b>	<b>New York Science Core Curriculum</b>
<p>Video Learning About Plants RAF “Which Way to Sprout?” RANF “Plants Are Living Things” TIB pages 20, 21, 22, 23, 24, 25 BLM pages 80, 81, 82, 83, 84, 85, 86, 87, 88, 89 Cards 7, 8, 9, 10, 11, 12, 55, 56, 69, 81, 84, 87, 88</p>	<p><b>Standard 4: The Living Environment</b> <b>Key Idea 3: Individual Organisms and species change over time.</b> <b>Performance Indicator 3.1: Describe how the structure of plants and animals complement different functions in growth.</b> <b>Major Understandings:</b> <b>3.1b</b> each plant has different structures that serve different functions in growth, survival, and reproduction.</p> <ul style="list-style-type: none"><li>• Roots help support the plant and take in water and nutrients</li><li>• Leaves help plants utilize sunlight to make food for the plant</li><li>• Stems, stalks, trunks, and other similar structures provide support for the plant</li><li>• Some plants have flowers</li><li>• Flowers are reproductive structures of plants that produce fruit which contains seeds</li><li>• Seeds contain stored food that aids in germination and the growth of young plants.</li></ul> <p><b>Key Idea 4: The continuity of life is sustained through reproduction and development.</b> <b>Performance Indicator 4.1: Describe the major life stages in the life cycles of selected plants and animals.</b> <b>Major Understandings:</b> <b>4.1a</b> Plants and animals have life cycles. These may include beginning of a life, development into an adult, reproduction as an adult, and eventually death. <b>4.1b</b> Each kind of plant goes through its own stages of growth and the development that may include seed, young plant, and mature plant. <b>4.1c</b> The length of time from beginning of development to death of the plant is called its life span. <b>4.1d</b> Life cycles of some plants include changes from seed to mature plant.</p>

<b>Life Science Unit 2 (continued)</b>	
<b>Program Components</b>	<b>New York Science Core Curriculum</b>
TIB page 25, Hands-On Science Activity <i>Looking at Plant Parts</i>	<p><b>Standard 1: Analysis, Inquiry, and Design</b></p> <p><b>Scientific Inquiry</b></p> <p><b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b></p> <p><b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b></p> <p><b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.</b></p> <p><b>S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.</b></p> <p><b>S2.3b</b> Record observations accurately and concisely.</p> <p><b>General Skills</b></p> <ul style="list-style-type: none"> <li><b>i.</b> follow safety procedures in the classroom, laboratory, and field.</li> <li><b>xii.</b> utilize senses optimally for making observations.</li> <li><b>xiii.</b> observe, analyze, and report observations of objects and events.</li> </ul>

**SRA Snapshots Simply Science™ Grade 1**  
**Life Science Unit 3: Habitats Are Everywhere**

**Program Components**

**Video** Habitats Are Everywhere  
**RAF** “A Home for Maggie”  
**RANF** “A Habitat Is a Home”  
**TIB** pages 26, 27, 28, 29, 30, 31  
**BLM** pages 90, 91, 92, 93, 94, 95, 96, 97, 98, 99  
**Cards** 13, 14, 15, 16, 17, 18, 19, 66, 75, 82

**New York Science Core Curriculum**

**Standard 4: The Living Environment**  
**Key Idea 3: Individual Organisms and species change over time.**  
**Performance Indicator 3.1: Describe how the structure of plants and animals complement different functions in growth.**  
**Major Understandings:**  
**3.1c** In order to survive in their environment, plants and animals must be adapted to that environment.

- Seeds disperse by a plant’s own mechanism and/or in a variety of ways that can include wind, water, and animals
- Leaf, flower, stem, and root adaptations may include variations in size, shape, thickness, color, smell, and texture
- Animal adaptations include coloration for warning or attraction, camouflage, defense mechanisms, movement, hibernation, and migration.

**Key Idea 5: Organisms maintain a dynamic equilibrium that sustains life.**  
**Performance Indicator 5.1: Describe basic life functions of common living specimens (e.g., guppies, mealworms, gerbils).**  
**Major understandings:**  
**5.1b** An organism’s external physical features can enable it to carry out life functions in its particular environment.

**Performance Indicator 5.2: Describe some survival behaviors of common living specimens.**  
**Major Understandings:**  
**5.2a** Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate, and leaves form and grow.  
**5.2f** Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating.  
**5.2g** The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight.

**Key Idea 6: Plants and animals depend on each other and their physical environment.**  
**Performance Indicator 6.1: Describe how plants and animals, including humans, depend upon each other and the nonliving environment.**  
**Major Understandings:**  
**6.1a** Green plants are producers because they provide the basic food supply for themselves and animals.  
**6.1b** All animals depend on plants. Some animals (predators) eat other animals (prey).  
**6.1c** Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain.  
**6.1e** An organism’s pattern of behavior is related to the nature of that organism’s environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment.

**Performance Indicator 6.2: Describe the relationship of the Sun as an energy source for living and nonliving cycles.**  
**Major Understandings:**  
**6.2a** Plants manufacture food by utilizing air, water, and energy from the Sun.  
**6.2b** The Sun’s energy is transferred on Earth from plants to animals through the food chain.

**Life Science Unit 3 (continued)**

<b>Program Components</b>	<b>New York Science Core Curriculum</b>
<b>TIB</b> page 31, Hands-On Science Activity <i>Habitat Mobiles</i>	<b>Standard 1: Analysis, Inquiry, and Design</b> <b>Scientific Inquiry</b> <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b> <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b> <b>S1.1a</b> Observe and discuss objects and events and record observations.  <b>General Skills</b> ix. order and sequence objects and/or events xiii. observe, analyze, and report observations of objects and events.

**SRA Snapshots Simply Science™ Grade 1**  
**Earth Science Unit 4: Learning About Earth’s Surface**

<b>Program Components</b>	<b>New York Science Core Curriculum</b>
<b>Video</b> Learning About Earth’s Surface <b>RAF</b> “A Big Difference” <b>RANF</b> “Earth’s Many Resources” <b>TIB</b> pages 32, 33, 34, 35, 36, 37 <b>BLM</b> pages 100, 101, 102, 103, 104, 105, 106, 107, 108, 109 <b>Cards</b> 19, 20, 21, 22, 23, 24, 75, 82, 85, 90	<b>Standard 4: The Physical Setting</b> <b>Key Idea 2: Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.</b> <b>Performance Indicator 2.1: Describe the relationship among air, water, and land on Earth.</b> <b>Major Understandings:</b> <b>2.1d</b> Erosion and deposition result from the interaction among air, water, and land. <ul style="list-style-type: none"><li>• Interaction between air and water breaks down earth materials</li><li>• Pieces of earth materials may be moved by air, water, wind, and gravity</li><li>• Pieces of earth material will settle or deposit on land or in the water in different places</li><li>• Soil is composed of broken-down pieces of living and nonliving earth material.</li></ul>
<b>TIB</b> page 37 Hands-On Science Activity <i>What Comes from Earth’s Surface?</i>	<b>Standard 1: Analysis, Inquiry, and Design</b> <b>Scientific Inquiry</b> <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b> <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b> <b>S1.1a</b> Observe and discuss objects and events and record observations.  <b>Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.</b> <b>S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.</b> <b>S2.3b</b> Record observations accurately and concisely.  <b>General Skills</b> i. follow safety procedures in the classroom, laboratory, and field. x. classify objects according to an established scheme. xii. utilize senses optimally for making observations. xiii. observe, analyze, and report observations of objects and events.

**SRA Snapshots Simply Science™ Grade 1**

**Earth Science Unit 5: Weather on Earth**

Program Components	New York Science Core Curriculum
<p><b>Video</b> Weather on Earth  <b>RAF</b> “A Leaf’s Story”  <b>RANF</b> “All About Weather!”  <b>TIB</b> pages 38, 39, 40, 41, 42, 43  <b>BLM</b> pages 110, 111, 112, 113, 114, 115, 116, 117, 118, 119  <b>Cards</b> 25, 26, 27, 28, 29, 30, 53, 63, 73, 86</p>	<p><b>Standard 4: The Physical Setting</b>  <b>Key Idea 2: Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.</b>  <b>Performance Indicator 2.1: Describe the relationship among air, water, and land on Earth.</b>  <b>Major Understandings:</b>  <b>2.1a</b> Weather is the condition of the outside air at a particular moment.  <b>2.1b</b> Weather can be described and measured by:</p> <ul style="list-style-type: none"> <li>• Temperature</li> <li>• Wind speed and direction</li> <li>• Form and amount of precipitation</li> <li>• General sky conditions (cloudy, sunny, partly cloudy).</li> </ul> <p><b>2.1c</b> Water is recycled by natural processes on Earth.</p> <ul style="list-style-type: none"> <li>• Evaporation: changing of water (liquid) into water vapor (gas)</li> <li>• Condensation: changing of water vapor (gas) into water (liquid)</li> <li>• Precipitation: rain, sleet, snow, hail</li> <li>• Runoff: water flowing on Earth’s surface</li> <li>• Groundwater: water that moves downward into the ground.</li> </ul>
<p><b>TIB</b> page 43, Hands-On Science Activity <i>Seasons</i></p>	<p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Scientific Inquiry</b>  <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b>  <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b>  <b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>General Skills</b>  <b>xii.</b> utilize senses optimally for making observations.</p>

**SRA Snapshots Simply Science™ Grade 1**

**Earth Science Unit 6: Earth in Space**

Program Components	New York Science Core Curriculum
<p><b>Video</b> Earth in Space  <b>RAF</b> “The Mysterious Moon”  <b>RANF</b> “Look Up!”  <b>TIB</b> pages 44, 45, 46, 47, 48, 49  <b>BLM</b> pages 120, 121, 122, 123, 124, 125, 126, 127, 128, 129  <b>Cards</b> 31, 32, 33, 34, 35, 36, 86, 89</p>	<p><b>Standard 4: The Physical Setting</b>  <b>Key Idea 1: The Earth and celestial phenomena can be described by principles of relative motion and perspective.</b>  <b>Performance Indicator 1.1: Describe patterns of daily, monthly, and seasonal changes in their environment.</b>  <b>Major Understandings:</b>  <b>1.1a</b> Natural cycles and patterns include:</p> <ul style="list-style-type: none"> <li>• Earth spinning around once every 24 hours (rotation), resulting in day and night</li> <li>• Earth moving in a path around the Sun (revolution), resulting in one Earth year</li> <li>• The length of daylight and darkness varying with the seasons</li> <li>• Weather changing from day to day and through the seasons</li> <li>• The appearance of the Moon changing as it moves in a path around Earth to complete a single cycle.</li> </ul> <p><b>1.1c</b> The Sun and other stars appear to move in a recognizable pattern both daily and seasonally.</p>

**Earth Science Unit 6 (continued)****Program Components****New York Science Core Curriculum**

TIB page 49, Hands-On Science Activity *Modeling Moon Phases*

**Standard 1: Analysis, Inquiry, and Design**  
**Scientific Inquiry**

**Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.**

**S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.**

**S1.1a** Observe and discuss objects and events and record observations.

**Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.**

**S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.**

**S2.3b** Record observations accurately and concisely.

**General Skills**

**i.** follow safety procedures in the classroom, laboratory, and field.

**ix.** order and sequence objects and/or events

**xiv.** observe, identify, and communicate patterns.

**SRA Snapshots Simply Science™ Grade 1****Physical Science Unit 7: Properties of Matter****Program Components****New York Science Core Curriculum**

**Video** Properties of Matter

**RAF** “What’s the Matter?”

**RANF** “Matter All Around”

**TIB** pages 50, 51, 52, 53, 54, 55

**BLM** pages 130, 131, 132, 133,

134, 135, 136, 137, 138, 139

**Cards** 37, 38, 39, 40, 41, 42, 63, 73, 90

**Standard 4: The Physical Setting**

**Key Idea 3: Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.**

**Performance Indicator 2.1: Observe and describe properties of materials, using appropriate tools.**

**Major Understandings:**

**3.1b** Matter has properties (color, hardness, odor, sound, taste, etc.) that can be observed through the senses.

**3.1c** Objects have properties that can be observed, described, and/or measured: length, width, volume, size, shape, mass or weight, temperature, texture, flexibility, reflectiveness of light.

**3.1f** Objects and/or materials can be sorted or classified according to their properties.

**Performance Indicator 3.2: Describe chemical and physical changes, including changes in states of matter.**

**Major Understandings:**

**3.2a** Matter exists in three states: solid, liquid, gas.

- Solids have a definite shape and volume
- Liquids do not have a definite shape but have a definite volume
- Gases do not hold their shape or volume.

**3.2b** Temperature can affect the state of matter of a substance.

**3.2c** Changes in the properties or materials of objects can be observed and described.

**Physical Science Unit 7 (continued)**

<b>Program Components</b>	<b>New York Science Core Curriculum</b>
<b>TIB</b> page 55, Hands-On Science Activity <i>Making Mixtures</i>	<b>Standard 1: Analysis, Inquiry, and Design</b> <b>Scientific Inquiry</b> <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b> <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b> <b>S1.1a</b> Observe and discuss objects and events and record observations.  <b>General Skills</b> <b>i.</b> follow safety procedures in the classroom, laboratory, and field. <b>xii.</b> utilize senses optimally for making observations. <b>xiii.</b> observe, analyze, and report observations of objects and events. <b>xix.</b> make predictions based on prior experiences and/or information.

**SRA Snapshots Simply Science™ Grade 1**  
**Physical Science Unit 8: Learning About Forces**

<b>Program Components</b>	<b>New York Science Core Curriculum</b>
<b>Video</b> Learning About Forces <b>RAF</b> “Queen of the Hill” <b>RANF</b> “Pushes and Pulls” <b>TIB</b> pages 56, 57, 58, 59, 60, 61 <b>BLM</b> pages 140, 141, 142, 143, 144, 145, 146, 147, 148, 149 <b>Cards</b> 43, 44, 45, 46, 47, 48	<b>Standard 4: The Physical Setting</b> <b>Key Idea 5: Energy and matter interact through forces that result in changes in motion.</b> <b>Performance Indicator 5.1: Describe the effects of common forces (pushes and pulls) of objects, such as those caused by gravity, magnetism, and mechanical forces.</b> <b>Major Understandings:</b> <b>5.1a</b> The position of an object can be described by locating it relative to another object or the background (e.g., on top of, next to, over, under, etc.). <b>5.1b</b> The position or direction of motion of an object can be changed by pushing or pulling. <b>5.1c</b> The force of gravity pulls objects toward the center of Earth. <b>5.1e</b> Magnetism is a force that may attract or repel certain materials.



<b>Physical Science Unit 8 (continued)</b>	
<b>Program Components</b>	<b>New York Science Core Curriculum</b>
<p>TIB page 61, Hands-On Science Activity <i>Big and Small Pushes</i></p>	<p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Mathematical Analysis</b>  <b>Key Idea 3: Critical thinking skills are used in the solution of mathematical problems.</b>  <b>M3.1 Explore and solve problems generated from school, home, and community situations, using concrete objects or manipulative materials when possible.</b>  <b>M3.1a</b> Use appropriate scientific tools, such as metric rulers, spring scale, pan balance, graph paper, thermometers [Fahrenheit and Celsius], graduated cylinders to solve problems about the natural world.</p> <p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Scientific Inquiry</b>  <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b>  <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b>  <b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>General Skills</b>  <b>ii.</b> safely and accurately use the following tools:  <ul style="list-style-type: none"> <li>• Ruler.</li> </ul> <b>vi.</b> select appropriate standard and nonstandard measurement tools for measurement activities.  <b>vii.</b> estimate, find, and communicate measurements, using standard and nonstandard units.  <b>viii.</b> use and record appropriate units for measured or calculated values.  <b>xii.</b> utilize senses optimally for making observations.  <b>xiii.</b> observe, analyze, and report observations of objects and events.  <b>xv.</b> observe, identify, and communicate cause-and-effect relationships.</p>
<b>SRA Snapshots Simply Science™ Grade 1</b>	
<b>Physical Science Unit 9: Heat, Light, and Sound</b>	
<b>Program Components</b>	<b>New York Science Core Curriculum</b>
<p>Video Heat, Light, and Sound  <b>RAF</b> “The Energy Challenge”  <b>RANF</b> “Energy All Around”  <b>TIB</b> pages 62, 63, 64, 65, 66, 67  <b>BLM</b> pages 150, 151, 152, 153, 154, 155, 156, 157, 158, 159  <b>Cards</b> 36, 49, 50, 51, 52, 53, 54, 59, 65, 70, 73, 79, 89</p>	<p><b>Standard 4: The Physical Setting</b>  <b>Key Idea 4: Energy exists in many forms, and when these forms change energy is conserved.</b>  <b>Performance Indicator 4.1: Describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy.</b>  <b>Major Understandings:</b>  <b>4.1a</b> Energy exists in various forms: heat, electric, sound, chemical, mechanical, light.  <b>4.1d</b> Energy and matter interact: water is evaporated by the Sun’s heat; a bulb is lighted by means of electrical current; a musical instrument is played to produce sound; dark colors may absorb light, light colors may reflect light.  <b>4.1f</b> Heat can be released in many ways, for example, by burning, rubbing (friction), or combining one substance with another.</p>

<b>Physical Science Unit 9 (continued)</b>	
<b>Program Components</b>	<b>New York Science Core Curriculum</b>
TIB page 67, Hands-On Science Activity <i>Investigating Sound</i>	<p><b>Standard 1: Analysis, Inquiry, and Design</b></p> <p><b>Scientific Inquiry</b></p> <p><b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b></p> <p><b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b></p> <p><b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>General Skills</b></p> <p><b>i.</b> follow safety procedures in the classroom, laboratory, and field.</p> <p><b>xii.</b> utilize senses optimally for making observations.</p> <p><b>xiii.</b> collect and organize data, choosing the appropriate representation:</p> <ul style="list-style-type: none"> <li>• Journal entries.</li> <li>• Graphic representations.</li> <li>• Drawings/pictorial representations.</li> </ul>

***SRA Snapshots Simply Science™***  
**correlation to**  
**New York Science Core Curriculum**  
**Grade 2**

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<b>TIB</b>	Teacher’s Idea Book
<b>BLM</b>	Reproducible pages
<b>Cards</b>	Vocabulary Photo Cards

<b>SRA Snapshots Simply Science™ Grade 2</b>	
<b>Life Science Unit 1: Organisms Are Living Things</b>	
<b>Program Components</b>	<b>New York Science Core Curriculum</b>
<b>Video</b> Organisms Are Living Things <b>RAF</b> “The Brave Beaver” <b>RANF</b> “Organisms Are Alive” <b>TIB</b> pages 14, 15, 16, 17, 18, 19 <b>BLM</b> pages 70, 71, 72, 73, 74, 75, 76, 77, 78, 79 <b>Cards</b> 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 57, 59, 62, 64, 65, 70, 72, 80, 83, 87, 88	<b>Standard 4: The Living Environment</b> <b>Key Idea 1: Living things are both similar to and different from each other and from nonliving things.</b> <b>Performance Indicator 1.1: Describe the characteristics of and variations between living and nonliving things.</b> <b>Major Understandings:</b> <b>1.1a</b> Animals need air, water, and food in order to live and thrive. <b>1.1b</b> Plants require air, water, nutrients, and light in order to live and thrive.  <b>Performance Indicator 1.2: Describe the life processes common to all living things.</b> <b>Major Understandings:</b> <b>1.2a</b> Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die.  <b>Key Idea 5: Organisms maintain a dynamic equilibrium that sustains life.</b> <b>Performance Indicator 5.1: Describe basic life functions of common living specimens (e.g., guppies, mealworms, gerbils).</b> <b>Major understandings:</b> <b>5.1a</b> All living things grow, take in nutrients, breathe, reproduce, and eliminate waste. <b>5.1b</b> An organism’s external physical features can enable it to carry out life functions in its particular environment.

**Life Science Unit 1 (continued)**

Program Components	New York Science Core Curriculum
<p>TIB page 19, Hands-On Science Activity <i>Grouping Animals</i></p>	<p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Scientific Inquiry</b>  <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b>  <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b>  <b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.</b>  <b>S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.</b>  <b>S2.3b</b> Record observations accurately and concisely.</p> <p><b>General Skills</b>  <b>i.</b> follow safety procedures in the classroom, laboratory, and field.  <b>x.</b> classify objects according to an established scheme.  <b>xi.</b> generate a scheme for classification.</p>

**SRA Snapshots Simply Science™ Grade 2**  
**Life Science Unit 2: Learning About Animals**

Program Components	New York Science Core Curriculum
<p><b>Video</b> Learning About Animals  <b>RAF</b> “Fun in the Rain Forest”  <b>RANF</b> “Animals Are Living Things”  <b>TIB</b> pages 20, 21, 22, 23, 24, 25  <b>BLM</b> pages 80, 81, 82, 83, 84, 85, 86, 87, 88, 89  <b>Cards</b> 7, 8, 9, 10, 11, 12, 55, 57, 59, 61, 62, 64, 65, 70, 72, 80, 83, 87, 88</p>	<p><b>Standard 4: The Living Environment</b>  <b>Key Idea 2: Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring.</b>  <b>Performance Indicator 2.1: Recognize that traits of living things are both inherited and acquired or learned.</b>  <b>2.1a</b> Some traits of living things have been inherited (e.g., color of flowers and number of limbs of animals).  <b>2.1b</b> Some characteristics result from an individual’s interactions with the environment and cannot be inherited by the next generation (e.g., having scars; riding a bicycle).</p> <p><b>Key Idea 4: The continuity of life is sustained through reproduction and development.</b>  <b>Performance Indicator 4.1: Describe the major life stages in the life cycles of selected plants and animals.</b>  <b>Major Understandings:</b>  <b>4.1a</b> Plants and animals have life cycles. These may include beginning of a life, development into an adult, reproduction as an adult, and eventually death.  <b>4.1e</b> Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult.</p>
<p>TIB page 25, Hands-On Science Activity <i>Modeling a Life Cycle</i></p>	<p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Scientific Inquiry</b>  <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b>  <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b>  <b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>General Skills</b>  <b>i.</b> follow safety procedures in the classroom, laboratory, and field.  <b>ix.</b> order and sequence objects and/or events</p>

**SRA Snapshots Simply Science™ Grade 2**  
**Life Science Unit 3: Ecosystems All Around**

**Program Components**

**Video** Ecosystems All Around  
**RAF** “A Remarkable River”  
**RANF** “Ecosystems in Action”  
**TIB** pages 26, 27, 28, 29, 30, 31  
**BLM** pages 90, 91, 92, 93, 94, 95, 96, 97, 98, 99  
**Cards** 7, 8, 11, 13, 14, 15, 16, 17, 18, 55, 57, 59, 62, 64, 70, 72, 80, 83, 87, 88

**New York Science Core Curriculum**

**Standard 4: The Living Environment**

**Key Idea 3: Individual Organisms and species change over time.**

**Performance Indicator 3.1: Describe how the structure of plants and animals complement different functions in growth.**

**Major Understandings:**

**3.1a** Each animal has different structures that serve different functions in growth, survival, and reproduction.

- Wings, legs, or fins enable some animals to seek shelter and escape predators.
- The mouth, including teeth, jaws, and tongue, enables some animals to eat and drink.
- Eyes, nose, ears, tongue, and skin of some animals enables the animals to sense their surroundings.
- Claws, shells, spines, feathers, furs, scales, and color of body covering enable some animals to protect themselves from predators and other environmental conditions, or enable them to obtain food.
- Some animals have parts that are used to produce sounds and smells to help the animal meet its needs.
- The characteristics of some animals change as seasonal conditions change (e.g., fur grows and is shed to help regulate; body fat is a form of stored energy and it changes as the seasons change).

**3.1b** each plant has different structures that serve different functions in growth, survival, and reproduction.

- Roots help support the plant and take in water and nutrients
- Leaves help plants utilize sunlight to make food for the plant
- Stems, stalks, trunks, and other similar structures provide support for the plant
- Some plants have flowers
- Flowers are reproductive structures of plants that produce fruit which contains seeds
- Seeds contain stored food that aids in germination and the growth of young plants.

**3.1c** In order to survive in their environment, plants and animals must be adapted to that environment.

- Seeds disperse by a plant’s own mechanism and/or in a variety of ways that can include wind, water, and animals
- Leaf flower, stem, and root adaptations may include variations in size, shape, thickness, color, smell, and texture
- Animal adaptations include coloration for warning or attraction, camouflage, defense mechanisms, movement, hibernation, and migration.

**Key Idea 6: Plants and animals depend on each other and their physical environment.**

**Performance Indicator 6.1: Describe how plants and animals, including humans, depend upon each other and the nonliving environment.**

**Major Understandings:**

**6.1a** Green plants are producers because they provide the basic food supply for themselves and animals.

**6.1b** All animals depend on plants. Some animals (predators) eat other animals (prey).

**6.1c** Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain.

**6.1e** An organism’s pattern of behavior is related to the nature of that organism’s environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment.

**Life Science Unit 3 (continued)****Program Components****New York Science Core Curriculum**

TIB page 31, Hands-On Science  
Activity *Caterpillar Camouflage*

**Standard 1: Analysis, Inquiry, and Design**  
**Scientific Inquiry**

**Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.**

**S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.**

**S1.1a** Observe and discuss objects and events and record observations.

**Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.**

**S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.**

**S2.3b** Record observations accurately and concisely.

**General Skills**

**i.** follow safety procedures in the classroom, laboratory, and field.

**xii.** utilize senses optimally for making observations.

**xiii.** observe, analyze, and report observations of objects and events.

**xix.** make predictions based on prior experiences and/or information.

**SRA Snapshots Simply Science™ Grade 2****Earth Science Unit 4: Earth’s Natural Resources****Program Components****New York Science Core Curriculum**

**Video** Earth’s Natural Resources  
**RAF** “The Missing Rock”  
**RANF** “Digging in the Dirt”  
**TIB** pages 32, 33, 34, 35, 36, 37  
**BLM** pages 100, 101, 102, 103, 104, 105, 106, 107, 108, 109  
**Cards** 16, 19, 20, 21, 22, 23, 24, 78, 79, 82, 89

**Standard 4: The Physical Setting**

**Key Idea 2: Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.**

**Performance Indicator 2.1: Describe the relationship among air, water, and land on Earth.**

**Major Understandings:**

**2.1d** Erosion and deposition result from the interaction among air, water, and land.

- Interaction between air and water breaks down earth materials
- Pieces of earth materials may be moved by air, water, wind, and gravity
- Pieces of earth material will settle or deposit on land or in the water in different places
- Soil is composed of broken-down pieces of living and nonliving earth material.

**Earth Science Unit 4 (continued)**

Program Components	New York Science Core Curriculum
<p>TIB page 37, Hands-On Science Activity <i>Hand-Made Fossils</i></p>	<p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Scientific Inquiry</b>  <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b>  <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b>  <b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.</b>  <b>S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.</b>  <b>S2.3b</b> Record observations accurately and concisely.</p> <p><b>General Skills</b>  <b>i.</b> follow safety procedures in the classroom, laboratory, and field.  <b>iv.</b> manipulate materials through teacher direction and free discovery.</p>

**SRA Snapshots Simply Science™ Grade 2  
 Earth Science Unit 5: Weather and Water**

Program Components	New York Science Core Curriculum
<p><b>Video</b> Weather and Water  <b>RAF</b> “Felicia and the Four Seasons”  <b>RANF</b> “All About Weather!”  <b>TIB</b> pages 38, 39, 40, 41, 42, 43  <b>BLM</b> pages 110, 111, 112, 113, 114, 115, 116, 117, 118, 119  <b>Cards</b> 25, 26, 27, 28, 29, 30, 41, 60, 66, 75, 81, 85, 90</p>	<p><b>Standard 4: The Physical Setting</b>  <b>Key Idea 2: Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.</b>  <b>Performance Indicator 2.1: Describe the relationship among air, water, and land on Earth.</b>  <b>Major Understandings:</b>  <b>2.1a</b> Weather is the condition of the outside air at a particular moment.  <b>2.1b</b> Weather can be described and measured by:</p> <ul style="list-style-type: none"> <li>• Temperature</li> <li>• Wind speed and direction</li> <li>• Form and amount of precipitation</li> <li>• General sky conditions (cloudy, sunny, partly cloudy).</li> </ul> <p><b>2.1c</b> Water is recycled by natural processes on Earth.</p> <ul style="list-style-type: none"> <li>• Evaporation: changing of water (liquid) into water vapor (gas)</li> <li>• Condensation: changing of water vapor (gas) into water (liquid)</li> <li>• Precipitation: rain, sleet, snow, hail</li> <li>• Runoff: water flowing on Earth’s surface</li> <li>• Groundwater: water that moves downward into the ground.</li> </ul>

**Earth Science Unit 5 (continued)**

**Program Components**

**New York Science Core Curriculum**

TIB page 43, Hands-On Science  
Activity *What Can the Wind Blow?*

**Standard 1: Analysis, Inquiry, and Design**

**Mathematical Analysis**

**Key Idea 3: Critical thinking skills are used in the solution of mathematical problems.**

**M3.1 Explore and solve problems generated from school, home, and community situations, using concrete objects or manipulative materials when possible.**

**M3.1a** Use appropriate scientific tools, such as metric rulers, spring scale, pan balance, graph paper, thermometers [Fahrenheit and Celsius], graduated cylinder to solve problems about the natural world.

**Standard 1: Analysis, Inquiry, and Design**

**Scientific Inquiry**

**Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.**

**S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.**

**S1.1a** Observe and discuss objects and events and record observations.

**Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.**

**S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.**

**S2.3b** Record observations accurately and concisely.

**General Skills**

**i.** follow safety procedures in the classroom, laboratory, and field.

**ii.** safely and accurately use the following tools:

- Ruler.

**vi.** select appropriate standard and nonstandard measurement tools for measurement activities.

**vii.** estimate, find, and communicate measurements, using standard and nonstandard units.

**viii.** use and record appropriate units for measured or calculated values.



**SRA Snapshots Simply Science™ Grade 2**  
**Earth Science Unit 6: Learning About Space**

Program Components	New York Science Core Curriculum
<p><b>Video</b> Learning About Space  <b>RAF</b> “Janie’s Space Journey”  <b>RANF</b> “Earth in Space”  <b>TIB</b> pages 44, 45, 46, 47, 48, 49  <b>BLM</b> pages 120, 121, 122, 123, 124, 125, 126, 127, 128, 129  <b>Cards</b> 31, 32, 33, 34, 35, 36, 86</p>	<p><b>Standard 4: The Physical Setting</b>  <b>Key Idea 1: The Earth and celestial phenomena can be described by principles of relative motion and perspective.</b>  <b>Performance Indicator 1.1: Describe patterns of daily, monthly, and seasonal changes in their environment.</b>  <b>Major Understandings:</b>  <b>1.1a</b> Natural cycles and patterns include: <ul style="list-style-type: none"> <li>• Earth spinning around once every 24 hours (rotation), resulting in day and night</li> <li>• Earth moving in a path around the Sun (revolution), resulting in one Earth year</li> <li>• The length of daylight and darkness varying with the seasons</li> <li>• Weather changing from day to day and through the seasons</li> <li>• The appearance of the Moon changing as it moves in a path around Earth to complete a single cycle.</li> </ul> <b>1.1c</b> The Sun and other stars appear to move in a recognizable pattern both daily and seasonally.</p>
<p><b>TIB</b> page 49, Hands-On Science Activity <i>Stars in the Day Time</i></p>	<p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Scientific Inquiry</b>  <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b>  <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b>  <b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.</b>  <b>S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.</b>  <b>S2.3b</b> Record observations accurately and concisely.</p> <p><b>General Skills</b>  <b>xii.</b> utilize senses optimally for making observations.</p>

**SRA Snapshots Simply Science™ Grade 2**  
**Physical Science Unit 7: Characteristics of Matter**

Program Components	New York Science Core Curriculum
<p><b>Video</b> Characteristics of Matter  <b>RAF</b> “Irene’s Exploration”  <b>RANF</b> “All About Matter”  <b>TIB</b> pages 50, 51, 52, 53, 54, 55  <b>BLM</b> pages 130, 131, 132, 133, 134, 135, 136, 137, 138, 139  <b>Cards</b> 37, 38, 39, 40, 41, 42, 56, 66, 89</p>	<p><b>Standard 4: The Physical Setting</b>  <b>Key Idea 3: Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.</b>  <b>Performance Indicator 2.1: Observe and describe properties of materials, using appropriate tools.</b>  <b>Major Understandings:</b>  <b>3.1b</b> Matter has properties (color, hardness, odor, sound, taste, etc.) that can be observed through the senses.  <b>3.1c</b> Objects have properties that can be observed, described, and/or measured: length, width, volume, size, shape, mass or weight, temperature, texture, flexibility, reflectiveness of light.  <b>3.1d</b> Measurements can be made with standard metric units and nonstandard units.</p> <p><b>Performance Indicator 3.2: Describe chemical and physical changes, including changes in states of matter.</b>  <b>Major Understandings:</b>  <b>3.2a</b> Matter exists in three states: solid, liquid, gas. <ul style="list-style-type: none"> <li>• Solids have a definite shape and volume</li> <li>• Liquids do not have a definite shape but have a definite volume</li> <li>• Gases do not hold their shape or volume.</li> </ul> <b>3.2b</b> Temperature can affect the state of matter of a substance.  <b>3.2c</b> Changes in the properties or materials of objects can be observed and described.</p>

<b>Physical Science Unit 7 (continued)</b>	
<b>Program Components</b>	<b>New York Science Core Curriculum</b>
TIB page 55, Hands-On Science Activity <i>How Much Liquid?</i>	<p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Mathematical Analysis</b>  <b>Key Idea 3: Critical thinking skills are used in the solution of mathematical problems.</b>  <b>M3.1 Explore and solve problems generated from school, home, and community situations, using concrete objects or manipulative materials when possible.</b>  <b>M3.1a</b> Use appropriate scientific tools, such as metric rulers, spring scale, pan balance, graph paper, thermometers [Fahrenheit and Celsius], graduated cylinder to solve problems about the natural world.</p> <p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Scientific Inquiry</b>  <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b>  <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b>  <b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.</b>  <b>S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.</b>  <b>S2.3b</b> Record observations accurately and concisely.</p> <p><b>General Skills</b>  <b>i.</b> follow safety procedures in the classroom, laboratory, and field.  <b>ii.</b> safely and accurately use the following tools: <ul style="list-style-type: none"> <li>• Measuring cups.</li> </ul> <b>vi.</b> select appropriate standard and nonstandard measurement tools for measurement activities.  <b>vii.</b> estimate, find, and communicate measurements, using standard and nonstandard units.  <b>viii.</b> use and record appropriate units for measured or calculated values.  <b>xviii.</b> collect and organize data, choosing the appropriate representation: <ul style="list-style-type: none"> <li>• Journal entries.</li> <li>• Graphic representations.</li> <li>• Drawings/pictorial representations.</li> </ul> </p>

**SRA Snapshots Simply Science™ Grade 2**

**Physical Science Unit 8: Forces and Motion**

Program Components	New York Science Core Curriculum
<p><b>Video</b> Forces and Motion  <b>RAF</b> “Carlos’s Skateboard”  <b>RANF</b> “Motion, Magnets, and More!”  <b>TIB</b> pages 56, 57, 58, 59, 60, 61  <b>BLM</b> pages 140, 141, 142, 143, 144, 145, 146, 147, 148, 149  <b>Cards</b> 43, 44, 45, 46, 47, 48, 71</p>	<p><b>Standard 4: The Physical Setting</b>  <b>Key Idea 5: Energy and matter interact through forces that result in changes in motion.</b>  <b>Performance Indicator 5.1: Describe the effects of common forces (pushes and pulls) of objects, such as those caused by gravity, magnetism, and mechanical forces.</b>  <b>Major Understandings:</b>  <b>5.1a</b> The position of an object can be described by locating it relative to another object or the background (e.g., on top of, next to, over, under, etc.).  <b>5.1b</b> The position or direction of motion of an object can be changed by pushing or pulling.  <b>5.1c</b> The force of gravity pulls objects toward the center of Earth.  <b>5.1e</b> Magnetism is a force that may attract or repel certain materials.</p> <p><b>Performance Indicator 5.2: Describe how forces can operate across distances.</b>  <b>Major Understandings:</b>  <b>5.2a</b> The forces of gravity and magnetism can affect objects through gases, liquids, and solids.  <b>5.2b</b> The force of magnetism on objects decreases as distance increases.</p>
<p><b>TIB</b> page 61, Hands-On Science Activity <i>Magnets</i></p>	<p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Scientific Inquiry</b>  <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b>  <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b>  <b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.</b>  <b>S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.</b>  <b>S2.3b</b> Record observations accurately and concisely.</p> <p><b>General Skills</b>  <b>iv.</b> manipulate materials through teacher direction and free discovery.  <b>xii.</b> utilize senses optimally for making observations.  <b>xiii.</b> observe, analyze, and report observations of objects and events.  <b>xvii.</b> observe, collect, organize, and appropriately record data, then accurately interpret results.</p>

**SRA Snapshots Simply Science™ Grade 2**  
**Physical Science Unit 9: Energy Is Everywhere**

Program Components	New York Science Core Curriculum
<p><b>Video</b> Energy Is Everywhere  <b>RAF</b> “The Low-Energy Band”  <b>RANF</b> “All About Energy”  <b>TIB</b> pages 62, 63, 64, 65, 66, 67  <b>BLM</b> pages 150, 151, 152, 153, 154, 155, 156, 157, 158, 159  <b>Cards</b> 41, 49, 50, 51, 52, 53, 54, 63, 69, 84, 86</p>	<p><b>Standard 4: The Physical Setting</b>  <b>Key Idea 4: Energy exists in many forms, and when these forms change energy is conserved.</b>  <b>Performance Indicator 4.1: Describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy.</b>  <b>Major Understandings:</b>  <b>4.1a</b> Energy exists in various forms: heat, electric, sound, chemical, mechanical, light.  <b>4.1b</b> Energy can be transferred from one place to another.  <b>4.1d</b> Energy and matter interact: water is evaporated by the Sun’s heat; a bulb is lighted by means of electrical current; a musical instrument is played to produce sound; dark colors may absorb light, light colors may reflect light.</p> <p><b>Performance Indicator 4.2: Observe the way one form of energy can be transferred into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy).</b>  <b>Major Understandings:</b>  <b>4.2b</b> Humans utilize interactions between matter and energy.</p> <ul style="list-style-type: none"> <li>• Chemical to electrical, light, and heat: battery and bulb</li> <li>• Electrical to sound (e.g., doorbell buzzer)</li> <li>• Mechanical to sound (e.g., musical instruments, clapping)</li> <li>• Light to electrical (e.g., solar-powered calculator).</li> </ul>
<p><b>TIB</b> page 67, Hands-On Science Activity <i>Heat Energy</i></p>	<p><b>Standard 1: Analysis, Inquiry, and Design</b>  <b>Scientific Inquiry</b>  <b>Key Idea 1: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.</b>  <b>S1.1 Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.</b>  <b>S1.1a</b> Observe and discuss objects and events and record observations.</p> <p><b>Key Idea 2: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.</b>  <b>S2.3 Carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurement of quantities, such as length, mass, volume, temperature, and time.</b>  <b>S2.3b</b> Record observations accurately and concisely.</p> <p><b>General Skills</b>  <b>i.</b> follow safety procedures in the classroom, laboratory, and field.  <b>xii.</b> utilize senses optimally for making observations.  <b>xiii.</b> observe, analyze, and report observations of objects and events.  <b>xv.</b> observe, identify, and communicate cause-and-effect relationships.</p>