

SRA Snapshots Simply Science™
correlation to
Maryland Voluntary State Curriculum—Science
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:

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

SRA Snapshots Simply Science™ Grade 1	
Life Science Unit 1: Living Things and Their Needs	
Program Components	Maryland Voluntary State Curriculum—Science
<p>Video Living Things and Their Needs RAF “A Funny Frog” RANF “We Are Living Things” TIB pages 14, 15, 16, 17, 18, 19 BLM pages 70, 71, 72, 73, 74, 75, 76, 77, 78, 79 Cards 1, 2, 3, 4, 5, 6, 55, 56, 57, 64, 67, 68, 69, 71, 72, 76, 80, 81, 83, 84, 87, 88</p>	<p>3.0 Life Science—The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.</p> <p>B. Cells</p> <p>2. Provide evidence that all organisms are made of parts that help them carry out the basic functions of life.</p> <p>a. Gather information and direct evidence that humans and other animals have different body parts used to seek, find, and take in food.</p>
<p>TIB page 19, Hands-On Science Activity Group <i>Living/Nonliving Things</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. Seek information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>c. Explain why it is important to make some fresh observations when people give different descriptions of the same thing.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>b. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.</p>

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

Program Components	Maryland Voluntary State Curriculum—Science
<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>3.0 Life Science—The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.</p> <p>A. Diversity of Life</p> <p>b. Compare similar features in some animals and plants and explain how each of these enables the organism to satisfy basic needs. c. Use the information collected to ask and compare answers to questions about how an organism’s external features contribute to its ability to survive in an environment.</p> <p>B. Cells</p> <p>2. Provide evidence that all organisms are made of parts that help them carry out the basic functions of life. c. Describe some parts of plants and describe what they do for the plant.</p>
<p>TIB page 25, Hands-On Science Activity <i>Looking at Plant Parts</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens. b. Seek information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas. c. Explain why it is important to make some fresh observations when people give different descriptions of the same thing.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>b. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion. c. Draw pictures that correctly portray at least some features of the thing being described and sequence events (seasons, seed growth).</p>

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

Program Components

Maryland Voluntary State Curriculum—Science

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, 58, 62, 66, 75, 82

3.0 Life Science—The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.

E. Flow of Matter and Energy

1. Describe some of the ways in which animals depend on plants and on each other.

a. Examine organisms in a wide variety of environments to gather information on how animals satisfy their need for food.

- Some animals eat only plants
- Some animals eat only other animals
- Some animals eat both plants and other animals.

See also Grade 2.

3.0 Life Science—The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.

F. Ecology

1. Explain that organisms can grow and survive in many very different habitats.

a. Investigate a variety of familiar and unfamiliar habitats and describe how animals and plants found there maintain their lives and survive to reproduce.

b. Explain that organisms live in habitats that provide their basic needs.

- Food
- Water
- Air
- Shelter.

TIB page 31, Hands-On Science Activity *Habitat Mobiles*

1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.

A. Constructing Knowledge

1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.

a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.

b. Seek information through reading, observation, exploration, and investigations.

B. Applying Evidence and Reasoning.

1. People are more likely to believe your ideas if you can give good reasons for them.

b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.

C. Communicating Scientific Information

1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.

c. Draw pictures that correctly portray at least some features of the thing being described and sequence events (seasons, seed growth).

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

Program Components	Maryland Voluntary State Curriculum—Science
<p>Video Learning About Earth’s Surface RAF “A Big Difference” RANF “Earth’s Many Resources” TIB pages 32, 33, 34, 35, 36, 37 BLM pages 100, 101, 102, 103, 104, 105, 106, 107, 108, 109 Cards 19, 20, 21, 22, 23, 24, 85, 90</p>	<p>This topic is not covered in the Grade 1 Maryland Voluntary State Curriculum-Science, however it aligns with National Science Education Content Standard D:</p> <p>Earth and Space Science—Students should develop an understanding of properties of earth materials, objects in the sky, and changes in earth and sky.</p> <p><i>See Grade 2.</i></p> <p>2.0 Earth/Space Science—Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces, transfer of energy) of the environment, Earth, and the universe that occur over time.</p> <p>A. Materials and Processes That Shape A Planet</p> <p>1. Describe and compare properties of a variety of Earth materials.</p> <p>a. Classify a collection of rocks based on the properties that distinguish one type from another.</p> <p>b. Collect soil from different locations and compare the properties of the samples.</p> <ul style="list-style-type: none"> • Color • Texture • Reaction to water • Remains of living things. <p>c. Compare rocks, sand, soil, and clay.</p> <p>d. Use examples of observations from places around the school and neighborhood to describe ways Earth materials can change.</p> <ul style="list-style-type: none"> • Changes caused by humans and other animals. • Changes caused by water, wind, etc.
<p>TIB page 37 Hands-On Science Activity <i>What Comes from Earth’s Surface?</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. Seek information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>c. Explain why it is important to make some fresh observations when people give different descriptions of the same thing.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>a. Describe things as accurately as possible and compare observations with those of others.</p> <p>b. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.</p>

SRA Snapshots Simply Science™ Grade 1

Earth Science Unit 5: Weather on Earth

Program Components

Maryland Voluntary State Curriculum—Science

Video Weather on Earth
RAF “A Leaf’s Story”
RANF “All About Weather!”
TIB pages 38, 39, 40, 41, 42, 43
BLM pages 110, 111, 112, 113, 114, 115, 116, 117, 118, 119
Cards 25, 26, 27, 28, 29, 30, 53, 63, 73, 86

2.0 Earth/Space Science—Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces, transfer of energy) of the environment, Earth, and the universe that occur over time.
E. Interactions of hydrosphere and Atmosphere
1. Describe observable changes in water on the surface of the Earth.
a. Cite examples of the sun’s effect on what happens to water on the Earth’s surface.

- Water disappears from puddles, wet surfaces after rain, any open container, etc.
- Water can be a liquid or a solid and go back and forth from one form to another.

2. Describe that some events in nature have repeating patterns.
a. Observe and compare day-to-day weather changes.
b. Observe, record, and compare weather changes from month to month.
c. Compare temperatures and type and amount of precipitation across the months.
d. Identify the impact of weather changes on daily activities.
e. Identify and describe patterns of weather conditions based on data collected.

TIB page 43, Hands-On Science Activity *Seasons*

1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.
A. Constructing Knowledge
1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.
a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.
b. Seek information through reading, observation, exploration, and investigations.
B. Applying Evidence and Reasoning.
1. People are more likely to believe your ideas if you can give good reasons for them.
b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.
C. Communicating Scientific Information
1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.
b. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.
c. Draw pictures that correctly portray at least some features of the thing being described and sequence events (seasons, seed growth).

SRA Snapshots Simply Science™ Grade 1

Earth Science Unit 6: Earth in Space

Program Components

Maryland Voluntary State Curriculum—Science

Video Earth in Space
RAF “The Mysterious Moon”
RANF “Look Up!”
TIB pages 44, 45, 46, 47, 48, 49
BLM pages 120, 121, 122, 123, 124, 125, 126, 127, 128, 129
Cards 31, 32, 33, 34, 35, 36, 86

2.0 Earth/Space Science—Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces, transfer of energy) of the environment, Earth, and the universe that occur over time.

D. Astronomy

2. Recognize that there is a relationship between the sun and the earth.

a. Identify ways that the sun affects the earth including that the sun warms the earth and provides light.

See also Grade 2.

2.0 Earth/Space Science—Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces, transfer of energy) of the environment, Earth, and the universe that occur over time.

D. Astronomy

1. Observe and describe changes over time in the properties, location, and motion of celestial objects.

a. Identify and record observable properties of the sun, moon, and stars.

b. Identify and record the apparent visible changes in the shape of the moon over two months of observations.

c. Observe and record changes in the location of the sun and moon in the sky over time.

d. Describe and compare the patterns of change that occur in the sun and the moon.

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

1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.

A. Constructing Knowledge

1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.

a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.

b. **Seek information through reading, observation, exploration, and investigations.**

B. Applying Evidence and Reasoning.

1. People are more likely to believe your ideas if you can give good reasons for them.

b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.

c. Explain why it is important to make some fresh observations when people give different descriptions of the same thing.

C. Communicating Scientific Information

1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.

a. Describe things as accurately as possible and compare observations with those of others.

b. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.

c. Draw pictures that correctly portray at least some features of the thing being described and sequence events (seasons, seed growth).

D. Technology

3. Examine a variety of physical models and describe what they teach about the real things they are meant to resemble.

a. Explain that a model of something is different from the real thing but can be used to learn something about the real thing.

SRA Snapshots Simply Science™ Grade 1
Physical Science Unit 7: Properties of Matter

Program Components	Maryland Voluntary State Curriculum—Science
<p>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, 73, 90</p>	<p>This topic is not covered in the Grade 1 Maryland Voluntary State Curriculum-Science, however it aligns with National Science Education Content Standard B:</p> <p>Physical Science—Students should develop an understanding of properties of objects and materials, position and motion of objects, and light, heat, electricity, and magnetism.</p> <p><i>See Grade 2.</i></p> <p>4.0 Chemistry—Students will use scientific skills and processes to explain the composition, structure, and interactions of matter in order to support the predictability of structure and energy transformations.</p> <p>B. Conservation of Matter</p> <p>1. Provide evidence from investigations that things can be done to materials to change some of their properties.</p> <p>a. Based on evidence from investigations describe that materials, such as clay, are not changed by certain actions, such as reshaping or breaking into pieces.</p> <p>b. Ask and seek answers to questions about what happened to the materials if other things were done to them, such as being placed in a freezer, heated, etc.</p> <p>D. Physical and Chemical Changes</p> <p>1. Provide evidence from investigations to identify processes that can be used to change physical properties of materials.</p> <p>a. Based on investigations, describe what changes occur to the observable properties of various materials when they are subjected to various processes including wetting, cutting, bending, and mixing.</p> <p>b. Compare the observable properties of objects before and after they have been subjected to various processes.</p> <p>c. Ask and seek answers to :What if...” questions about what might happen to the materials if different processes, such as heating, freezing, and dissolving were used to change them.</p>
<p>TIB page 55, Hands-On Science Activity <i>Making Mixtures</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. Seek information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>c. Explain why it is important to make some fresh observations when people give different descriptions of the same thing.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>a. Describe things as accurately as possible and compare observations with those of others.</p> <p>c. Draw pictures that correctly portray at least some features of the thing being described and sequence events (seasons, seed growth).</p>

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

Program Components	Maryland Voluntary State Curriculum—Science
<p>Video Learning About Forces RAF “Queen of the Hill” RANF “Pushes and Pulls” TIB pages 56, 57, 58, 59, 60, 61 BLM pages 140, 141, 142, 143, 144, 145, 146, 147, 148, 149 Cards 43, 44, 45, 46, 47, 48</p>	<p>5.0 Physics—Students will use scientific skills and processes to explain the interactions of matter and energy and the energy transformations that occur.</p> <p>C. Electricity and Magnetism</p> <p>3. Describe the effect magnets have on a variety of objects.</p> <p>a. Classify materials based on their behavior in the presence of a magnet.</p> <p>b. Describe how the magnet affects the behavior of objects within each group.</p>
<p>TIB page 61, Hands-On Science Activity <i>Big and Small Pushes</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. Seek information through reading, observation, exploration, and investigations.</p> <p>c. Use tools such as thermometers, magnifiers, rulers, or balances to extend their senses and gather data.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>c. Explain why it is important to make some fresh observations when people give different descriptions of the same thing.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>a. Describe things as accurately as possible and compare observations with those of others.</p> <p>b. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.</p> <p>c. Draw pictures that correctly portray at least some features of the thing being described and sequence events (seasons, seed growth).</p>

SRA Snapshots Simply Science™ Grade 1
Physical Science Unit 9: Heat, Light, and Sound

Program Components	Maryland Voluntary State Curriculum—Science
<p>Video Heat, Light, and Sound RAF “The Energy Challenge” RANF “Energy All Around” TIB pages 62, 63, 64, 65, 66, 67 BLM pages 150, 151, 152, 153, 154, 155, 156, 157, 158, 159 Cards 36, 49, 50, 51, 52, 53, 54, 59, 65, 70, 79</p>	<p>This topic is not covered in the Grade 1 Maryland Voluntary State Curriculum-Science, however it aligns with National Science Education Content Standard B:</p> <p>Physical Science—Students should develop an understanding of properties of objects and materials, position and motion of objects, and light, heat, electricity, and magnetism.</p> <p>See Grade 2.</p> <p>5.0 Physics-Students will use scientific skills and processes to explain the interactions of matter and energy and the energy transformations that occur.</p> <p>B. Thermodynamics</p> <p>1. Identify and describe ways in which heat can be produced.</p> <p>a. Recognize that things that give off light also give off heat.</p> <p>b. Describe methods of producing heat.</p> <ul style="list-style-type: none"> • Burning • Friction between surfaces • Electricity in wires. <p>c. Identify fuels that are used to produce light and heat in homes and schools.</p> <p>C. Electricity and Magnetism</p> <p>1. Identify and describe the sources and uses of electricity in daily life.</p> <p>a. Identify sources of electricity.</p> <ul style="list-style-type: none"> • Electrical outlets • Batteries. <p>b. Identify the devices that use electricity to produce light, heat, and sound.</p>
<p>TIB page 67, Hands-On Science Activity <i>Investigating Sound</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. Seek information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>c. Explain why it is important to make some fresh observations when people give different descriptions of the same thing.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>a. Describe things as accurately as possible and compare observations with those of others.</p>

SRA Snapshots Simply Science™
correlation to
Maryland Voluntary State Curriculum—Science
Grade 2

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:

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

SRA Snapshots Simply Science™ Grade 2	
Life Science Unit 1: Organisms Are Living Things	
Program Components	Maryland Voluntary State Curriculum—Science
<p>Video Organisms Are Living Things RAF “The Brave Beaver” RANF “Organisms Are Alive” TIB pages 14, 15, 16, 17, 18, 19 BLM pages 70, 71, 72, 73, 74, 75, 76, 77, 78, 79 Cards 1, 2, 3, 4, 5, 6, 7, 8, 11, 55, 57, 59, 62, 64, 65, 70, 72, 73, 80, 83, 87, 88</p>	<p>This topic is not covered in the Grade 2 Maryland Voluntary State Curriculum—Science, however it aligns with National Science Education Content Standard C:</p> <p>Life Science—Students should develop an understanding of the characteristics of organisms, life cycles of organisms, and organisms and environments.</p> <p><i>See Grade 1.</i></p> <p>3.0 Life Science—The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.</p> <p>B. Cells</p> <p>2. Provide evidence that all organisms are made of parts that help them carry out the basic functions of life.</p> <p>a. Gather information and direct evidence that humans and other animals have different body parts used to seek, find, and take in food.</p>
<p>TIB page 19, Hands-On Science Activity <i>Grouping Animals</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. See information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>b. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.</p>

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

Program Components	Maryland Voluntary State Curriculum—Science
<p>Video Learning About Animals RAF “Fun in the Rain Forest’ RANF “Animals 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, 57, 59, 61, 62, 64, 70, 72, 80, 83, 87, 88</p>	<p>3.0 Life Science—The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.</p> <p>C. Genetics</p> <p>1. Explain that there are identifiable stages in the life cycles (growth, reproduction, and death) of plants and animals.</p> <p>c. Given pictures of stages in the life cycle of a plant or an animal, determine the sequence of the stages in the life cycle.</p> <p>d. Provide examples, using observations and information from reading, that life cycles differ from species to species.</p>
<p>TIB page 25, Hands-On Science Activity <i>Modeling a Life Cycle</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. Seek information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>c. Draw pictures that correctly portray at least some features of the thing being described and sequence events (seasons, seed growth).</p> <p>D. Technology</p> <p>3. Examine a variety of physical models and describe what they teach about the real things they are meant to resemble.</p> <p>a. Explain that a model of something is different from the real thing but can be used to learn something about the real thing.</p>

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

Program Components	Maryland Voluntary State Curriculum—Science
<p>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 13, 14, 15, 16, 17, 18, 55, 57, 59, 62, 64, 65, 70, 72, 80, 83, 87, 88</p>	<p>3.0 Life Science—The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.</p> <p>F. Ecology</p> <p>1. Explain that organisms can grow and survive in many very different habitats.</p> <p>a. Investigate a variety of familiar and unfamiliar habitats and describe how animals and plants found there maintain their lives and survive to reproduce.</p> <p>b. Explain that organisms live in habitats that provide their basic needs.</p> <ul style="list-style-type: none"> • Food • Water • Air • Shelter. <p>C. Explain that animals and plants sometimes cause changes in their environments, such as woodpeckers putting holes in trees, beetles eating the leaves of plants, earthworms enriching the soil, etc.</p>
<p>TIB page 31, Hands-On Science Activity <i>Caterpillar Camouflage</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. Seek information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>c. Draw pictures that correctly portray at least some features of the thing being described and sequence events (seasons, seed growth).</p>

SRA Snapshots Simply Science™ Grade 2
Earth Science Unit 4: Earth’s Natural Resources

Program Components	Maryland Voluntary State Curriculum—Science
<p>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 19, 20, 21, 22, 23, 24, 78, 79, 82, 89</p>	<p>2.0 Earth/Space Science—Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces, transfer of energy) of the environment, Earth, and the universe that occur over time.</p> <p>A. Materials and Processes That Shape A Planet</p> <p>1. Describe and compare properties of a variety of Earth materials.</p> <p>a. Classify a collection of rocks based on the properties that distinguish one type from another.</p> <p>b. Collect soil from different locations and compare the properties of the samples.</p> <ul style="list-style-type: none"> • Color • Texture • Reaction to water • Remains of living things. <p>c. Compare rocks, sand, soil, and clay.</p> <p>d. Use examples of observations from places around the school and neighborhood to describe ways Earth materials can change.</p> <ul style="list-style-type: none"> • Changes caused by humans and other animals. • Changes caused by water, wind, etc.
<p>TIB page 37, Hands-On Science Activity <i>Hand-Made Fossils</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. Seek information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>a. Describe things as accurately as possible and compare observations with those of others.</p> <p>D. Technology</p> <p>3. Examine a variety of physical models and describe what they teach about the real things they are meant to resemble.</p> <p>a. Explain that a model of something is different from the real thing but can be used to learn something about the real thing.</p>

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Earth Science Unit 5: Weather and Water

Program Components

Maryland Voluntary State Curriculum—Science

Video Weather and Water
RAF “Felicia and the Four Seasons”
RANF “All About Weather!”
TIB pages 38, 39, 40, 41, 42, 43
BLM pages 110, 111, 112, 113, 114, 115, 116, 117, 118, 119
Cards 25, 26, 27, 28, 29, 30, 41, 60, 66, 75, 81, 85, 90

This topic is not covered in the **Grade 2 Maryland Voluntary State Curriculum-Science**, however it aligns with **National Science Education Content Standard D:**

Earth and Space Science—Students should develop an understanding of properties of earth materials, objects in the sky, and changes in earth and sky.

See Grade 1.

2.0 Earth/Space Science—Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces, transfer of energy) of the environment, Earth, and the universe that occur over time.

E. Interactions of hydrosphere and Atmosphere

1. Describe observable changes in water on the surface of the Earth.

a. Cite examples of the sun’s effect on what happens to water on the Earth’s surface.

- Water disappears from puddles, wet surfaces after rain, any open container, etc.
- Water can be a liquid or a solid and go back and forth from one form to another.

2. Describe that some events in nature have repeating patterns.

a. Observe and compare day-to-day weather changes.
b. Observe, record, and compare weather changes from month to month.
c. Compare temperatures and type and amount of precipitation across the months.
d. Identify the impact of weather changes on daily activities.
e. Identify and describe patterns of weather conditions based on data collected.

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

1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.

A. Constructing Knowledge

1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.

a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.
b. Seek information through reading, observation, exploration, and investigations.
c. Use tools such as thermometers, magnifiers, rulers, or balances to extend their senses and gather data.

B. Applying Evidence and Reasoning.

1. People are more likely to believe your ideas if you can give good reasons for them.

b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.

C. Communicating Scientific Information

1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.

a. Describe things as accurately as possible and compare observations with those of others.

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

Program Components	Maryland Voluntary State Curriculum—Science
<p>Video Learning About Space RAF “Janie’s Space Journey” RANF “Earth in Space” TIB pages 44, 45, 46, 47, 48, 49 BLM pages 120, 121, 122, 123, 124, 125, 126, 127, 128, 129 Cards 31, 32, 33, 34, 35, 36, 86</p>	<p>2.0 Earth/Space Science—Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces, transfer of energy) of the environment, Earth, and the universe that occur over time.</p> <p>D. Astronomy</p> <p>1. Observe and describe changes over time in the properties, location, and motion of celestial objects.</p> <p>a. Identify and record observable properties of the sun, moon, and stars.</p> <p>b. Identify and record the apparent visible changes in the shape of the moon over two months of observations.</p> <p>c. Observe and record changes in the location of the sun and moon in the sky over time.</p> <p>d. Describe and compare the patterns of change that occur in the sun and the moon.</p>
<p>TIB page 49, Hands-On Science Activity <i>Stars in the Day Time</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. Seek information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>c. Explain why it is important to make some fresh observations when people give different descriptions of the same thing.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>b. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.</p>

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

Program Components	Maryland Voluntary State Curriculum—Science
<p>Video Characteristics of Matter RAF “Irene’s Exploration” RANF “All About Matter” 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, 66, 89</p>	<p>4.0 Chemistry—Students will use scientific skills and processes to explain the composition, structure, and interactions of matter in order to support the predictability of structure and energy transformations.</p> <p>B. Conservation of Matter</p> <p>1. Provide evidence from investigations that things can be done to materials to change some of their properties.</p> <p>a. Based on evidence from investigations describe that materials, such as clay, are not changed by certain actions, such as reshaping or breaking into pieces.</p> <p>b. Ask and seek answers to questions about what happened to the materials if other things were done to them, such as being placed in a freezer, heated, etc.</p> <p>D. Physical and Chemical Changes</p> <p>1. Provide evidence from investigations to identify processes that can be used to change physical properties of materials.</p> <p>a. Based on investigations, describe what changes occur to the observable properties of various materials when they are subjected to various processes including wetting, cutting, bending, and mixing.</p> <p>b. Compare the observable properties of objects before and after they have been subjected to various processes.</p> <p>c. Ask and seek answers to :What if...” questions about what might happen to the materials if different processes, such as heating, freezing, and dissolving were used to change them.</p>
<p>TIB page 55, Hands-On Science Activity <i>How Much Liquid?</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. Seek information through reading, observation, exploration, and investigations.</p> <p>c. Use tools such as thermometers, magnifiers, rulers, or balances to extend their senses and gather data.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>b. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.</p>

SRA Snapshots Simply Science™ Grade 2

Physical Science Unit 8: Forces and Motion

Program Components

Maryland Voluntary State Curriculum—Science

Video Forces and Motion
RAF “Carlos’s Skateboard”
RANF “Motion, Magnets, and More!”
TIB pages 56, 57, 58, 59, 60, 61
BLM pages 140, 141, 142, 143, 144, 145, 146, 147, 148, 149
Cards 43, 44, 45, 46, 47, 48, 71

This topic is not covered in the **Grade 2 Maryland Voluntary State Curriculum-Science**, however it aligns with **National Science Education Content Standard B:**

Physical Science—Students should develop an understanding of properties of objects and materials, position and motion of objects, and light, heat, electricity, and magnetism.

See Grade 1.

5.0 Physics-Students will use scientific skills and processes to explain the interactions of matter and energy and the energy transformations that occur.

C. Electricity and Magnetism

3. Describe the effect magnets have on a variety of objects.

- a. Classify materials based on their behavior in the presence of a magnet.
- b. Describe how the magnet affects the behavior of objects within each group.

TIB page 61, Hands-On Science Activity *Magnets*

1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.

A. Constructing Knowledge

1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.

- a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.
- b. Seek information through reading, observation, exploration, and investigations.

B. Applying Evidence and Reasoning.

1. People are more likely to believe your ideas if you can give good reasons for them.

- b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.

C. Communicating Scientific Information

1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.

- b. Describe and compare things in terms of number, shape, texture, size, weight, color, and motion.

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

Program Components	Maryland Voluntary State Curriculum—Science
<p>Video Energy Is Everywhere RAF “The Low-Energy Band” RANF “All About Energy” TIB pages 62, 63, 64, 65, 66, 67 BLM pages 150, 151, 152, 153, 154, 155, 156, 157, 158, 159 Cards 41, 49, 50, 51, 52, 53, 54, 63, 69, 84, 86</p>	<p>5.0 Physics—Students will use scientific skills and processes to explain the interactions of matter and energy and the energy transformations that occur.</p> <p>B. Thermodynamics</p> <p>1. Identify and describe ways in which heat can be produced.</p> <p>a. Recognize that things that give off light also give off heat.</p> <p>b. Describe methods of producing heat.</p> <ul style="list-style-type: none"> • Burning • Friction between surfaces • Electricity in wires. <p>c. Identify fuels that are used to produce light and heat in homes and schools.</p> <p>C. Electricity and Magnetism</p> <p>1. Identify and describe the sources and uses of electricity in daily life.</p> <p>a. Identify sources of electricity.</p> <ul style="list-style-type: none"> • Electrical outlets • Batteries. <p>b. Identify the devices that use electricity to produce light, heat, and sound.</p>
<p>TIB page 67, Hands-On Science Activity <i>Heat Energy</i></p>	<p>1.0 Skills and Processes—Students will demonstrate the thinking and acting inherent in the practice of science.</p> <p>A. Constructing Knowledge</p> <p>1. Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.</p> <p>a. Describe what can be learned about things by just observing those things carefully and adding information by sometimes doing something to the things and noting what happens.</p> <p>b. See information through reading, observation, exploration, and investigations.</p> <p>B. Applying Evidence and Reasoning.</p> <p>1. People are more likely to believe your ideas if you can give good reasons for them.</p> <p>b. Develop reasonable explanations for observations made, investigations completed, and information gained by sharing ideas and listening to others’ ideas.</p> <p>C. Communicating Scientific Information</p> <p>1. Ask, “How do you know?” in appropriate situations and attempt reasonable answers when others ask them the same question.</p> <p>c. Draw pictures that correctly portray at least some features of the thing being described and sequence events (seasons, seed growth).</p>