

SCIENCE - KINDERGARTEN

1st Nine Weeks

Scientific Investigation, Reasoning, and Logic

- K.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which
- basic characteristics or properties of objects are identified by direct observation;
 - observations are made from multiple positions to achieve different perspectives;
 - a set of objects is sequenced according to size;
 - a set of objects is separated into two groups based on a single physical characteristic;
 - nonstandard units are used to measure the length, mass, and volume of common objects;
 - observations and predictions are made for an unseen member in a sequence of objects;
 - a question is developed and predictions are made from one or more observations;
 - observations are recorded;
 - picture graphs are constructed;
 - unusual or unexpected results in an activity are recognized; and
 - objects are described both pictorially and verbally.

Life Processes

- K.6 The student will investigate and understand the differences between living organisms and nonliving objects. Key concepts include
- all things can be classified as living or nonliving; and
 - living organisms have certain characteristics that distinguish them from nonliving objects including growth, movement, response to the environment, having offspring, and the need for food, air, and water.
- K.7 The student will investigate and understand basic needs and life processes of plants and animals. Key concepts include
- animals need adequate food, water, shelter, air, and space to survive;
 - plants need nutrients, water, air, light, and a place to grow to survive;
 - plants and animals change as they grow, have varied life cycles, and eventually die; and
 - offspring of plants and animals are similar but not identical to their parents or to one another.

- K.2 The student will investigate and understand that humans have senses that allow them to seek, find, take in, and react or respond to information in order to learn about their surroundings. Key concepts include
- the five senses and corresponding sensing organs; and
 - sensory descriptors used to describe common objects and phenomena.
- K.10 The student will investigate and understand that change occurs over time and rates may be fast or slow. Key concepts include
- natural and human-made things may change over time; and
 - changes can be observed and measured.

2nd Nine Weeks

Matter

- K.4 The student will investigate and understand that the position, motion, and physical properties of an object can be described. Key concepts include
- colors of objects;
 - shapes and forms of objects;
 - textures and feel of objects;
 - relative sizes and weights of objects; and
 - relative positions and speed of objects.
- K.5 The student will investigate and understand that water flows and has properties that can be observed and tested. Key concepts include
- water occurs in different phases;
 - water flows downhill; and
 - some materials float in water, while others sink.

Force, Motion, and Energy

- K.3 The student will investigate and understand that magnets have an effect on some materials, make some things move without touching them, and have useful applications. Key concepts include
- magnetism and its effects; and
 - useful applications of magnetism.

3rd Nine Weeks

Earth Patterns, Cycles, and Change

- K.9 The student will investigate and understand that there are simple repeating patterns in his/her daily life. Key concepts include
- a) weather observations;
 - b) the shapes and forms of many common natural objects including seeds, cones, and leaves; and
 - c) animal and plant growth.

Interrelationships in Earth/Space Systems

- K.8 The student will investigate and understand that shadows occur when light is blocked by an object. Key concepts include
- a) shadows occur in nature when sunlight is blocked by an object; and
 - b) shadows can be produced by blocking artificial light sources.

4th Nine Weeks

Earth Resources

- K.11 The student will investigate and understand that materials can be reused, recycled, and conserved. Key concepts include
- a) materials and objects can be used over and over again;
 - b) everyday materials can be recycled; and
 - c) water and energy conservation at home and in school helps ensure resources are available for future use.

Kindergarten Science: First Nine Weeks

VA Standards of Learning (SOL) Instructional Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.1 Scientific Investigation</p> <ul style="list-style-type: none"> The nature of science refers to the foundational concepts that govern the way scientists formulate explanations about the natural world. The nature of science includes the following concepts: <ol style="list-style-type: none"> the natural world is understandable; science is based on evidence, both observational and experimental; science is a blend of logic and innovation; scientific ideas are durable yet subject to change as new data are collected; science is a complex social endeavor; and scientists try to remain objective and engage in peer review to help avoid bias. <p>In kindergarten, an emphasis should be placed on concepts a, b, and e.</p> <ul style="list-style-type: none"> Science assumes that the natural world is understandable. Scientific inquiry can provide explanations about nature. This expands students' thinking from just a knowledge of facts to understanding how facts are relevant to everyday life. Science demands evidence. Scientists develop their ideas based on evidence and they change their ideas when new 	<p>Standard K.1 does not require a discrete unit on scientific investigation because the inquiry skills that make up the standard should be incorporated in all the other kindergarten science standards.</p> <p>Each skill has been connected to specific content within this curriculum guide, but teachers may also provide instruction in any of the skills throughout the school year.</p> <p>In order to meet this standard, it is expected that students should be able to:</p> <ul style="list-style-type: none"> observe objects and describe their basic properties. These properties include color, shape (circle, triangle, square, and rectangle), size (big, little, large, small), texture (rough, smooth, hard, soft), and weight (heavy, light). observe an object or objects from multiple positions to achieve different perspectives. In order to accomplish this, the student should look at the object from top, bottom, front, and back, and describe what he/she sees. arrange a set of objects in sequence according to size. separate a set of objects into two 		<p>OrganWise Guys Emotions Kit Activity Book</p> <p>Heart to Start Activity Book</p> <p>Smart From the Inside Out Book</p> <p>SHIP Animal Call</p>

<p>evidence becomes available or the old evidence is viewed in a different way.</p> <ul style="list-style-type: none"> • Science is a complex social endeavor. It is a complex social process for producing knowledge about the natural world. Scientific knowledge represents the current consensus as to what is the best explanation for phenomena in the natural world. This consensus does not arise automatically, since scientists with different backgrounds from all over the world may interpret the same data differently. To build a consensus, scientists communicate their findings to other scientists and attempt to replicate one another's findings. In order to model the work of professional scientists, it is essential for kindergarten students to engage in frequent discussions with peers about their understanding of their investigations. • Observation is an important skill that enables us to learn about the world. Observations are expressed as descriptive statements about natural phenomena that are accessible to the senses either directly or with the use of technology. Through observation one can learn to compare, contrast, and note similarities and differences. • An object can appear very different depending on how it is oriented. To describe an object fully and accurately, it should be observed from several different positions. • Putting objects in a sequence allows one to understand how things are related. A sequence can illustrate 	<p>groups based on a single physical characteristic, including color, shape, size, texture, and weight.</p> <ul style="list-style-type: none"> • measure common objects with nonstandard units. Examples of nonstandard units include hands, pennies, and paper clips for determining length; holding and comparing two different objects for determining mass; and liquids put in drinking cups for determining volume. • predict an unseen member in a sequence of objects to complete a pattern. • develop a question from one or more observations about the natural world. • make a prediction based on observations. • record observations using pictures. • construct picture graphs using 10 or fewer units. • identify unusual or unexpected results in an activity. • describe objects both pictorially and verbally. 		
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<p>incremental changes over time.</p> <ul style="list-style-type: none">• A nonstandard unit of measure, such as the length of a paper clip, can be used to describe and communicate the dimensions of an object. For the nonstandard unit to be most useful, it should be consistent and easily applied.• Sequenced objects or events can show patterns over time. Occasionally, items are missing in a sequence, but observations of patterns in the sequence can offer clues to predict the item(s) that are missing.• Observations about familiar objects or events often lead to the development of predictions and important questions that can spark further investigation.• Observations that are made can be recorded in a variety of ways. Picture graphs are useful ways to display and report information.• It is important to observe the results of an investigation carefully. Results that are unexpected or unusual may be of interest for further study.• Observations can be communicated through pictures and discussions.			
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Kindergarten Science: First Nine Weeks

VA Standards of Learning (SOL) Instructional Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.6 The student will investigate and understand basic needs and life processes of plants and animals.</p> <ul style="list-style-type: none"> • Living is used to describe anything that is or has ever been alive (e.g., dog, flower, seed, log). • Nonliving is used to describe anything that is not now nor has ever been alive (e.g., rock, mountain, glass, wristwatch). • All living things grow, breathe, reproduce, excrete, respond to stimuli, and have similar basic needs like nourishment. 	<p>In order to meet this standard, it is expected that students:</p> <ul style="list-style-type: none"> • identify and describe the basic characteristics of living things (growth, movement, response to the environment, having offspring, and the need for food, air, and water). • identify living organisms and nonliving objects found at home and at school. • classify items by living or nonliving. <p>Skills</p> <ul style="list-style-type: none"> a. basic characteristics or properties of objects are identified by direct observation. c. a set of objects is sequenced according to size. f. observations and predictions are made for an unseen member in a sequence of objects. k. objects are described both pictorially and verbally. 	<p>VASOL p. 8-10</p>	<p>AIMS <u>Primarily Plants</u> A Seed Grows What do Plants Need to Grow? A Seed Grows</p> <p><u>Cycles of Knowing and Growing</u> Just a Little Sprout A Time of Their Own</p> <p><u>Critters</u> Mealworms on Stage Undercover</p> <p><u>Enhanced Scope and Sequence Plus</u> Living and Nonliving</p> <p>Suggestions <u>Life Cycle of an Apple Tree</u></p> <p>OrganWise Guys It's a Teethday Party</p> <p>Keeping your "Pets" Healthy</p>

Kindergarten Science: First Nine Weeks

VA Standards of Learning (SOL) Essential Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.7 The student will investigate and understand basic needs and life processes of plants and animals.</p> <ul style="list-style-type: none"> Plants and animals change as they grow. Plants and animals need food, water, and gases in the air to live. (Many animals and plants that live in water use the gases that are dissolved in the water.) Plants and animals live and die. This is part of the life cycle. Many offspring of plants and animals are like their parents but not identical to them. 	<p>In order to meet this standard, it is expected that students:</p> <ul style="list-style-type: none"> Describe the life needs of animals and plants. The life needs are food, water, and air. Predict what will happen to animals and plants if life needs are not met. Describe some simple changes animals and plants undergo during the life cycle. For animals this may include changes in color, body covering, and overall size. For plants this may include size, presence of leaves and branches, and ability to produce flowers and fruits. Compare and contrast young plants and animals with their parents, using pictures and/or live organism. Describe how animals and plants change as they grow. <p>Skills</p> <ul style="list-style-type: none"> Basic properties of objects are identified by direct observation. A set of objects is sequenced according to size. An unseen member in a sequence of objects is predicted. 	<p>VASOL p. 8-10</p>	<p>AIMS <u>Primarily Plants</u> A Seed Grows What do Plants Need to Grow? A Seed Grows</p> <p><u>Cycles of Knowing and Growing</u> Just a Little Sprout A Time of Their Own</p> <p><u>Critters</u> Mealworms on Stage Undercover</p> <p><u>Enhanced Scope and Sequence Plus</u> Plant and Animal Needs Plant Life Cycles Plant and Animal Offspring</p> <p>SHIP <u>Butterfly Life Cycle Relay</u></p>

Kindergarten Science: First Nine Weeks

VA Standards of Learning (SOL) Instructional Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.2 Investigate and understand that humans have senses that allow one to seek, find, take in, and react or respond to information in order to learn about one's surroundings.</p> <ul style="list-style-type: none"> A particular sensing organ (eye, ear, nose, tongue, and skin) is associated with each of the five senses. Using the senses, we can make careful observations about the world. To communicate what is observed, descriptors should be used. 	<p>In order to meet this standard, it is expected that students:</p> <ul style="list-style-type: none"> identify and describe the five senses: taste, touch, smell, hearing, and sight. match each sensing organ (eye, ear, nose, tongue, and skin) with its associated sense. match sensory descriptors with the senses (taste: sweet, sour, bitter, salty; touch: rough, smooth, hard, soft, cold, warm, hot; hearing: loud, soft, high, low; sight: bright, dull, color, black, white; smell: strong, faint, bad, and good.) <p>Skills</p> <ul style="list-style-type: none"> a. basic characteristics or properties of objects are identified by direct observation. c. a set of objects is sequenced according to size. f. observations and predictions are made for an unseen member in a sequence of objects. k. objects are described both pictorially and verbally. 	<p>VASOL p. 5-6</p>	<p>AIMS <u>Sense-able Science</u> Home Free Eggstra Special Scramble Touch and Tell Kid Gloves</p> <p><u>Spring Into Math and Science</u> Reach for a Rainbow</p> <p><u>Glide Into Winter with Math and Science</u> Only the Nose Knows Do You Have a Snoot For Fruit</p> <p><u>Primarily Physics</u> Eggs-Full of Sound Traveling Sounds Big Ears</p> <p><u>Bats Incredible</u> Family Sense</p> <p><u>Enhanced Scope and Sequence Plus</u> Sight Smell Hearing Taste Touch</p> <p>SHIP <u>Color Fitness</u> <u>States of Matter Relay</u></p>

Kindergarten Science: First Nine Weeks

VA Standards of Learning (SOL) Essential Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.10 The student will investigate and understand that change occurs over time, and rates may be fast or slow.</p> <ul style="list-style-type: none"> • Change occurs over time. • Change can be fast or slow depending upon the object and conditions. • As people grow, they change. • Not all things change at a rate that can be observed easily. • Many changes can be measured. 	<p>In order to meet this standard, it is expected that students:</p> <ul style="list-style-type: none"> • Identify some changes that people experience over time (e.g., height, weight, and color of hair). • Predict how their own height will change over the school year. Measure and graph the information. • Describe how people cause things to change (e.g., demolition of buildings, construction of buildings, cutting down trees, planting trees, and building highways). • Describe how things change naturally. This includes seasonal changes, the growth in seeds and common plants, the growth of common animals, and the weather. • Identify examples of fast changes and slow changes. Slow changes should be the kinds of familiar changes that occur over weeks, months, or seasons. (Students are not responsible for long-term changes.) <p>Skills</p> <ul style="list-style-type: none"> a. basic properties of objects are identified by direct observation. c. a set of objects is sequenced according to size. f. an unseen member in a sequence of objects is predicted. k. objects are described both pictorially and verbally. 	<p>VASOL p. 13</p>	<p><u>Enhanced Scope and Sequence Plus</u> Natural and Human-Made Changes Measuring Changes</p> <p>SHIP <u>Season Sort</u> <u>Act Out The Season</u> <u>5 Senses Snow Ball Fight</u></p>

Kindergarten Science: Second Nine Weeks

VA Standards of Learning (SOL) Instructional Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.4 The student will investigate and understand that the position, motion, and physical properties of an object can be described.</p> <ul style="list-style-type: none"> An object may have many properties that can be observed and described. An object can be described readily in terms of color. Visible light waves are the only electromagnetic waves that we can see with the naked eye. We see these waves as the colors of the rainbow. Each color has a different wavelength. Red has the longest wavelength and violet has the shortest wavelength. When all the waves are seen together, they make white light. When white light shines through a prism, the white light is broken apart into colors. Water vapor in the atmosphere can act as a prism and break apart the white light, creating a rainbow. The order of the colors in the visible spectrum is red, orange, yellow, green, blue, and violet. Most scientists no longer include the color indigo, which used to be included between blue and violet. At the kindergarten level, violet is referred to as purple. It is not required at the kindergarten level that students know the term violet. Black and white are not spectral colors, but students should recognize them by name. Black is the total absence of light and is when a material absorbs all the light. White is a 	<p>In order to meet this standard, it is expected that students should be able to:</p> <ul style="list-style-type: none"> identify and name six basic colors, including red, orange, yellow, green, blue, and purple; and identify and name black and white. identify and name a circle, triangle, square, and rectangle. compare and contrast objects that are flexible, stiff, straight, and/or curved. compare and contrast objects that are rough, smooth, hard, and/or soft. compare objects using the concepts of heavy/light, long/short, wide/thin, big/little, and large/small. measure objects, using nonstandard units, and direct comparisons. identify the position of an object, using position words over/under, in/out, above/below, and left/right. group objects according to their speed — fast or slow. <p>Skills</p> <ul style="list-style-type: none"> observations are made from multiple positions to achieve different perspectives. a set of objects is separated into two groups based on a single physical characteristic. observations are recorded. objects are described both pictorially and verbally. 	<p>VASOL p. 15-22</p>	<p>AIMS <u>Primarily Physics:</u> I Love Color</p> <p><u>Sense-able Science:</u> Color My World Bags of Beads</p> <p><u>Fall Into Math and Science:</u> Shape Up</p> <p><u>Primarily Bears:</u> Gummy Bears Let me Count the Ways</p> <p><u>Primarily Earth:</u> My Rock</p> <p><u>Under Construction:</u> Mitts for Kits</p> <p><u>Spring Into Math and Science:</u> Feet Findings</p> <p><u>Enhanced Scope and Sequence Plus</u> Colors and Shapes Properties of Objects</p> <p>Suggestions</p> <ul style="list-style-type: none"> Graph your favorite color, shape, and/or individual characteristics of students Color/shape bingo Identify objects in a box (Feely Box) as rough, smooth, hard, soft Use balance scale and bear counters to compare heavy/light

reflection of all visible light together. <ul style="list-style-type: none">• An object can be described in terms of shape, size, and texture.• An object can be described according to its position relative to another object and according to its motion.			
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Kindergarten Science: Second Nine Weeks

VA Standards of Learning (SOL) Instructional Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.5 The student will investigate and understand that water flows and has properties that can be observed and tested.</p> <ul style="list-style-type: none"> • Water can be a solid, liquid, or gas. • The phase of water can be changed by heating or cooling it. • The natural flow of water is from a higher to a lower level. • Some objects float in water, while others do not. 	<p>In order to meet this standard, it is expected that students should be able to:</p> <ul style="list-style-type: none"> • classify examples of the different phases of water (solid, liquid, and gas). • describe the natural flow of water. • predict where a stream of water will flow. • predict whether items will float or sink when placed in water. Items to use include wood, metal, paper, and plastics. <p>Skills</p> <ul style="list-style-type: none"> b. observations are made from multiple positions to achieve different perspectives. d. a set of objects is separated into two groups based on a single physical characteristic. h. observations are recorded. k. objects are described both pictorially and verbally. 	<p>VASOL p. 23-24</p>	<p>AIMS <u>Spring into Math and Science</u> Floating Fruit What Do you Sink Will Float</p> <p><u>Primarily Earth</u> Water to Ice to Water Where is Water</p> <p><u>Primarily Physics</u> Melt A Cube</p> <p><u>Water Precious Water</u> A Little Cup Will Do It</p> <p>Suggestions Water flow: make valleys and mountains from aluminum foil. Pour food colored water into foil and observe the flow.</p> <p>Gifted Resource Water Works</p>

Kindergarten Science: Third Nine Weeks

VA Standards of Learning (SOL) Instructional Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.3 The student will investigate and understand that magnets have an effect on some materials, make some things move without touching them, and have useful application.</p> <ul style="list-style-type: none"> A magnet has two ends called poles, one of which is called a north pole or north-seeking pole, and the other is called a south pole or south-seeking pole. The north pole of one magnet attracts the south pole of a second magnet, while the north pole of one magnet repels the other magnet's north pole. One way to state this is that like poles repel and unlike poles attract. Repulsion is the force that pushes like poles of magnets apart. A magnet creates an invisible area of magnetism all around it called a magnetic field. The north end of a magnetic compass always points roughly toward Earth's North Pole and the south end of the compass needle always points toward Earth's South Pole. That is because Earth itself contains magnetic materials and behaves like a gigantic magnet. If you cut a bar magnet in half, you get two new, smaller magnets, each with its own north and south pole. Magnets will attract certain metals (iron-bearing, nickel, and cobalt). Magnets have an effect on some items and can cause them to move. Some items are not affected by magnets and remain stationary. Because some metals are attracted to magnets, magnets have many simple useful applications in the home such as can openers, magnetized 	<p>In order to meet this standard, it is expected that students should be able to:</p> <ul style="list-style-type: none"> predict and test which common objects will be attracted to magnets and which will not be attracted to magnets. classify objects as being attracted or not attracted to magnets, such as an iron nail, an iron-bearing paper clip, cereal, and a book. explain in their own words how an object such as an iron nail, an iron-bearing paper clip, cereal, or a book is affected by a magnet. identify items in the home or school that contain a magnet or magnets, such as can openers, magnetized screwdrivers, magnetic games, magnetic cabinet door latches, refrigerator magnets, and magnetic letters. <p>Skills</p> <ul style="list-style-type: none"> g. a question is developed and predictions are made from one or more observations. j. unusual or unexpected results in an activity are recognized. 		<p>AIMS <u>Mostly Magnets</u> Stick to It What Will A Magnet Attract</p> <p><u>Enhanced Scope and Sequence Plus</u> Magnetism</p>

<p>screwdrivers, magnetic cabinet door latches, and magnetic games.</p> <ul style="list-style-type: none">• The force of a magnet can move something without actually touching it.• Students will be introduced to the vocabulary attract/repel, nonattraction, metal, and nonmetal in grade two. The focus of the investigations in this standard should be on the concepts, not the terminology.			
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Kindergarten Science: Third Nine Weeks

VA Standards of Learning (SOL) Instructional Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.9 The student will investigate and understand that there are simple repeating patterns in his/her daily life.</p> <ul style="list-style-type: none"> One can make simple predictions in weather patterns. On a cloudy, warm day, it may rain. On a cloudy day that is very cold, it may snow. On a clear day there most likely will be no rain or snow. As animals and plants grow, they get larger according to a pattern. Natural objects such as leaves, seeds, and cones have patterns we can see. 	<p>In order to meet this standard, it is expected that students:</p> <ul style="list-style-type: none"> observe and identify daily weather conditions — sunny, rainy, cloudy, snowy, windy, warm, hot, cool, and cold. predict daily weather based on basic observable conditions. chart daily weather conditions. identify simple patterns in natural objects — veins in a leaf, spiral patterns in cones, shapes and colors of common seeds. describe how animals and plants change as they grow. (Related to K.7.) <p>Skills</p> <ul style="list-style-type: none"> a. basic characteristics or properties of objects are identified by direct observation. c. a set of objects is sequenced according to size. f. observations and predictions are made for an unseen member in a sequence of objects. k. objects are described both pictorially and verbally. 	<p>VASOL p. 13</p>	<p>AIMS <u>Primarily Earth</u> Watching the Weather</p> <p><u>Primarily Plants</u> Seed Sort The Seed Within Observe a Leaf</p> <p><u>Fall Into Math and Science</u> Fall Leafs Me Happy</p> <p><u>Enhanced Scope and Sequence Plus</u> Weather Patterns Patterns in Nature Animal Growth Patterns</p> <p>Suggestions Go on a nature walk and collect various seeds, cones, and leaves. Create a collage.</p>

Kindergarten Science: Third Nine Weeks

VA Standards of Learning (SOL) Instructional Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.8 The student will investigate and understand that shadows occur when light is blocked by an object.</p> <p>The concepts developed in this standard include the following:</p> <ul style="list-style-type: none"> • A shadow is an image of an object created when light is blocked by that object. • Shadows can occur whenever light is present. • People can make shadows. • Living and nonliving things can make shadows. 	<p>In order to meet this standard, it is expected that students should be able to:</p> <ul style="list-style-type: none"> • identify a shadow. • describe how shadows occur. • identify and describe sources of light — sun, electric lights, and flashlights — that can produce shadows. • match objects with the shadow they would create. • demonstrate that shadows change as the direction of the light source changes. <p>Skills</p> <ul style="list-style-type: none"> g. a question is developed and predictions are made from one or more observations. j. unusual or unexpected results in an activity are recognized. 		<p>AIMS Cycles of Knowing and Growing Mr. Groundhog, Mr. Groundhog</p> <p>Enhanced Scope and Sequence Plus Light and Shadows</p> <p>Suggestions</p> <ul style="list-style-type: none"> • Shine artificial light on wall or board and have students make shadows and change shadows by moving body parts and by moving the source of light. • Use overhead projector to put up objects previously shown to children and have them match the shadow to the object. <p>OrganWise Guys Smart from the Inside Out</p> <p>SHIP Groundhog Day</p> <p>Gifted Resource How the Sun Makes Our Day</p>

Kindergarten Science: Fourth Nine Weeks

VA Standards of Learning (SOL) Instructional Understandings	Content Knowledge and Skills	MCPS Adopted Materials	Supporting Materials
<p>K.11 The student will investigate and understand that materials can be reused, recycled, and conserved.</p> <ul style="list-style-type: none"> • Natural resources such as water and energy should be conserved. • Recycling helps to save our natural resources. Recycling recovers used materials. Many materials can be recycled and used again, sometimes in different forms. Examples include newspapers that are turned into writing tablets. • Reusing materials means using them more than once. Examples include using dishes and utensils that are washed after use rather than using paper plates and plastic utensils and putting them in the trash. • Recycling, reusing, and conserving helps preserve resources for future use. • Resources will last longer if we recycle, reuse, and reduce consumption. 	<p>In order to meet this standard, it is expected that students should be able to:</p> <ul style="list-style-type: none"> • give examples of objects, such as paper, plastic containers, and glass containers, that can be recycled. • identify materials that can be reused. • describe the difference between recycle and reuse. • name ways to conserve water and energy. • describe how to properly dispose of a given material — paper, oil, aluminum, glass and plastics — by recycling. • predict what would happen if recycling and reusing were not practiced. <p>Skills</p> <ul style="list-style-type: none"> e. nonstandard units are used to measure the length, mass, and volume of common objects. i. picture graphs are constructed. 		<p>AIMS <u>Water Precious Water</u> A Little Cup Will Do It Drip Drop Flip Flop</p> <p><u>Primarily Earth</u> Where is Water The Earth's Has What We Need</p> <p><u>Enhanced Scope and Sequence Plus</u> Recycling</p> <p>SHIP <u>Recycle It</u></p>