

Grade K	Grade 1	Grade 2
<p>Standard 1 - The Nature of Science and Technology</p> <p><i>Students are actively engaged in beginning to explore how their world works. They explore, observe, ask questions, discuss observations*, and seek answers.</i></p>	<p>Standard 1 - The Nature of Science and Technology</p> <p><i>Students are actively engaged in exploring how the world works. They explore, observe, count, collect, measure, compare, and ask questions. They discuss observations and use tools to seek answers and solve problems. They share their findings.</i></p>	<p>Standard 1 - The Nature of Science and Technology</p> <p><i>Students are actively engaged in exploring how the world works. They explore, observe, count, collect, measure, compare, and ask questions. They discuss observations* and use tools to seek answers and solve problems. They share their findings.</i></p>
<p>Scientific Inquiry</p> <p>K.1.1 Raise questions about the natural world.</p> <p>The Scientific Enterprise</p> <p>K.1.2 Begin to demonstrate that everyone can do science.</p> <p>* observation: gaining information through the use of one or more of the senses, such as sight, smell, etc.</p>	<p>Scientific Inquiry</p> <p>1.1.1 Observe, describe, draw, and sort objects carefully to learn about them.</p> <p>1.1.2 Investigate and make observations to seek answers to questions about the world, such as “In what ways do animals move?”</p> <p>The Scientific Enterprise</p> <p>1.1.3 Recognize that and demonstrate how people can learn much about plants and animals by observing them closely over a period of time. Recognize also that care must be taken to know the needs of living things and how to provide for them.</p> <p>Technology and Science</p> <p>1.1.4 Use tools, such as rulers and magnifiers, to investigate the world and make observations.</p> <p>* observation: gaining information through the use of one or more of the senses, such as sight, smell, etc.</p>	<p>Scientific Inquiry</p> <p>2.1.1 Manipulate an object to gain additional information about it.</p> <p>2.1.2 Use tools — such as thermometers, magnifiers, rulers, or balances — to gain more information about objects.</p> <p>2.1.3 Describe, both in writing and verbally, objects as accurately as possible and compare observations with those of other people.</p> <p>2.1.4 Make new observations when there is disagreement among initial observations.</p> <p>The Scientific Enterprise</p> <p>2.1.5 Demonstrate the ability to work with a team but still reach and communicate one’s own conclusions about findings.</p> <p>Technology and Science</p> <p>2.1.6 Use tools to investigate, observe, measure, design, and build things.</p> <p>2.1.7 Recognize and describe ways that some materials</p>

		<p>— such as recycled paper, cans, and plastic jugs — can be used over again.</p> <p>* observation: gaining information through the use of one or more of the senses, such as sight, smell, etc.</p>
<p>Standard 2 - Scientific Thinking</p> <p><i>Students use numbers, pictures, and words when observing and communicating to help them begin to answer their questions about the world.</i></p>	<p>Standard 2 - Scientific Thinking</p> <p><i>Students begin to find answers to their questions about the world by using measurements, estimation, and observation as well as working with materials. They communicate with others through numbers, words, and drawings.</i></p>	<p>Standard 2 - Scientific Thinking</p> <p><i>Students begin to find answers to their questions about the world by using measurement, estimation, and observation as well as working with materials. They communicate with others through numbers, words, and drawings.</i></p>
<p>Computation and Estimation</p> <p>K.2.1 Use whole numbers*, up to 10, in counting, identifying, sorting, and describing objects and experiences.</p> <p>Communication</p> <p>K.2.2 Draw pictures and write words to describe objects and experiences.</p> <p>* whole number: 0, 1, 2, 3, etc.</p>	<p>Computation and Estimation</p> <p>1.2.1 Use whole numbers*, up to 100, in counting, identifying, measuring, and describing objects and experiences.</p> <p>1.2.2 Use sums and differences of single digit numbers in investigations and judge the reasonableness of the answers.</p> <p>1.2.3 Explain to other students how to go about solving numerical problems.</p> <p>*whole numbers: 0,1,2,3,etc.</p>	<p>Computation and Estimation</p> <p>2.2.1 Give estimates of numerical answers to problems before doing them formally.</p> <p>2.2.2 Make quantitative estimates of familiar lengths, weights, and time intervals and check them by measurements.</p> <p>2.2.3 Estimate and measure capacity using cups and pints.</p> <p>Manipulation and Observation</p> <p>2.2.4 Assemble, describe, take apart, and/or reassemble constructions using such things as interlocking blocks and erector sets. Sometimes pictures or words may be used as a reference.</p> <p>Communication Skills</p> <p>2.2.5 Draw pictures and write brief descriptions that correctly portray key features of an object.</p>

<p>Standard 3 - The Physical Setting</p> <p><i>Students investigate, describe, and discuss their natural surroundings. They begin to question why things move.</i></p>	<p>Standard 3 - The Physical Setting</p> <p><i>Students investigate, describe, and discuss their natural surroundings. They question why things move and change.</i></p>	<p>Standard 3- The Physical Setting</p> <p><i>Students investigate, describe, and discuss their natural surroundings. They wonder why things move and change.</i></p>
<p>Matter and Energy</p> <p>K.3.1 Describe objects in terms of the materials they are made of, such as clay, cloth, paper, etc.</p> <p>Forces of Nature</p> <p>K.3.2 Investigate that things move in different ways, such as fast, slow, etc.</p>	<p>The Earth and the Processes That Shape It</p> <p>1.3.1 Recognize and explain that water can be a liquid or a solid and can go back and forth from one form to the other. Investigate by observing that if water is turned into ice and then the ice is allowed to melt, the amount of water is the same as it was before freezing.</p> <p>1.3.2 Investigate by observing and then describing that water left in an open container disappears, but water in a closed container does not disappear.</p> <p>Matter and Energy</p> <p>1.3.3 Investigate by observing and also measuring that the sun warms the land, air, and water.</p> <p>Forces of Nature</p> <p>1.3.4 Investigate by observing and then describe how things move in many different ways, such as straight, zigzag, round-and-round, and back-and-forth.</p> <p>1.3.5 Recognize that and demonstrate how things near Earth fall to the ground unless something holds them up.</p>	<p>Earth and the Processes That Shape It</p> <p>2.3.1 Investigate by observing and then describe that some events in nature have a repeating pattern, such as seasons, day and night, and migrations.</p> <p>2.3.2 Investigate, compare, and describe weather changes from day to day but recognize, describe, and chart that the temperature and amounts of rain or snow tend to be high, medium, or low in the same months every year.</p> <p>2.3.3 Investigate by observing and then describe chunks of rocks and their many sizes and shapes, from boulders to grains of sand and even smaller.</p> <p>2.3.4 Investigate by observing and then describe how animals and plants sometimes cause changes in their surroundings.</p> <p>Matter and Energy</p> <p>2.3.5 Investigate that things can be done to materials — such as freezing, mixing, cutting, heating, or wetting — to change some of their properties. Observe that not all materials respond in the same way.</p> <p>2.3.6 Discuss how people use electricity or burn fuels, such as wood, oil, coal, or natural gas, to cook their food and warm their houses.</p>

		<p>Forces of Nature</p> <p>2.3.7 Investigate and observe that the way to change how something is moving is to give it a push or a pull.</p> <p>2.3.8 Demonstrate and observe that magnets can be used to make some things move without being touched.</p>
<p>Standard 4 - The Living Environment</p> <p><i>Students ask questions about a variety of living things and everyday events that can be answered through shared observations.</i></p>	<p>Standard 4 - The Living Environment</p> <p><i>Students ask questions about a variety of living things and everyday events that can be answered through observations. They become aware of plant and animal interaction. They consider things and processes that plants and animals need to stay alive.</i></p>	<p>Standard 4 - The Living Environment</p> <p><i>Students ask questions about a variety of living things and everyday events that can be answered through observations. They consider things and processes that plants and animals need to stay alive. Students begin to understand plant and animal interaction.</i></p>
<p>Diversity of Life</p> <p>K.4.1 Give examples of plants and animals.</p> <p>K.4.2 Observe plants and animals, describing how they are alike and how they are different in the way they look and in the things they do.</p>	<p>Diversity of Life</p> <p>1.4.1 Identify when stories give attributes to plants and animals, such as the ability to speak, that they really do not have.</p> <p>1.4.2 Observe and describe that there can be differences, such as size or markings, among the individuals within one kind of plant or animal group.</p> <p>Interdependence of Life</p> <p>1.4.3 Observe and explain that animals eat plants or other animals for food.</p> <p>1.4.4 Explain that most living things need water, food, and air.</p>	<p>Diversity of Life</p> <p>Observe and identify different external features of plants and animals and describe how these features help them live in different environments.</p> <p>Interdependence of Life</p> <p>2.4.2 Observe that and describe how animals may use plants, or even other animals, for shelter and nesting.</p> <p>2.4.3 Observe and explain that plants and animals both need to take in water, animals need to take in food, and plants need light.</p> <p>2.4.4 Recognize and explain that living things are found almost everywhere in the world and that there are</p>

		<p>somewhat different kinds in different places.</p> <p>2.4.5 Recognize and explain that materials in nature, such as grass, twigs, sticks, and leaves, can be recycled and used again, sometimes in different forms, such as in birds' nests.</p> <p>Human Identity</p> <p>2.4.6 Observe and describe the different external features of people, such as their size, shape, and color of hair, skin, and eyes.</p> <p>2.4.7 Recognize and discuss that people are more like one another than they are like other animals.</p> <p>2.4.8 Give examples of different roles people have in families and communities.</p>
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<p>Standard 5 - The Mathematical World</p> <p><i>Students use shapes to compare objects and they begin to recognize patterns.</i></p>	<p>Standard 5 - The Mathematical World</p> <p><i>Students apply mathematics in scientific contexts. They begin to use numbers for computing, estimating, naming, measuring, and communicating specific information. They make picture graphs and recognize patterns.</i></p>	<p>Standard 5 - The Mathematical World</p> <p><i>Students apply mathematics in scientific contexts. They use numbers for computing, estimating, naming, measuring, and communicating specific information. They make picture and bar graphs. They recognize and describe shapes and patterns. They use evidence to explain how or why something happens.</i></p>
<p>Shapes and Symbolic Relationships</p> <p>K.5.1 Use shapes — such as circles, squares, rectangles, and triangles — to describe different objects.</p>	<p>Numbers</p> <p>1.5.1 Use numbers, up to 10, to place objects in order, such as first, second, and third, and to name them, such as bus numbers or phone numbers.</p> <p>1.5.2 Make and use simple picture graphs to tell about observations.</p>	<p>Numbers</p> <p>2.5.1 Recognize and explain that, in measuring, there is a need to use numbers between whole numbers*, such as 2½ centimeters.</p> <p>2.5.2 Recognize and explain that it is often useful to estimate quantities.</p> <p>* whole number: 0, 1, 2, 3, etc.</p>

	<p>Shapes and Symbolic Relationships</p> <p>1.5.3 Observe and describe similar patterns, such as shapes, designs, and events that may show up in nature, such as honeycombs, sunflowers, or shells. See similar patterns in the things people make, such as quilts, baskets, or pottery.</p>	<p>Shapes and Symbolic Relationships</p> <p>2.5.3 Observe that and describe how changing one thing can cause changes in something else, such as exercise and its effect on heart rate.</p> <p>Reasoning and Uncertainty</p> <p>2.5.4 Begin to recognize and explain that people are more likely to believe ideas if good reasons are given for them.</p> <p>2.5.5 Explain that some events can be predicted with certainty, such as sunrise and sunset, and some cannot, such as storms. Understand that people aren't always sure what will happen since they do not know everything that might have an effect.</p> <p>2.5.6 Explain that sometimes a person can find out a lot (but not everything) about a group of things, such as insects, plants, or rocks, by studying just a few of them.</p>
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<p>Standard 6 – Patterns in Science</p> <p><i>Students begin to understand how things are similar and how they are different. They look for ways to distinguish between different objects by observation.</i></p>	<p>Standard 6 - Patterns in Science</p> <p><i>Students begin to understand how things are similar and how they are different. They look for what changes and what does not change and make comparisons.</i></p>	<p>Standard 6 – Patterns in Science</p> <p><i>Students begin to observe how objects are similar and how they are different. They begin to identify parts of an object and recognize how these parts interact with the whole. They look for what changes and what does not change and make comparisons.</i></p>
<p>Models and Scale</p> <p>K.6.1 Describe an object by saying how it is similar to or different from another object.</p>	<p>Models and Scale</p> <p>1.6.1 Observe and describe that models, such as toys, are like the real things in some ways but different in others.</p> <p>Constancy and Change</p> <p>1.6.2 Observe that and describe how certain things change in some ways and stay the same in others, such as in their color, size, and weight.</p>	<p>Systems</p> <p>2.6.1 Investigate that most objects are made of parts.</p> <p>Models and Scale</p> <p>2.6.2 Observe and explain that models may not be the same size, may be missing some details, or may not be able to do all of the same things as the real things.</p> <p>Constancy and Change</p> <p>2.6.3 Describe that things can change in different ways, such as in size, weight, color, age, and movement. Investigate that some small changes can be detected by taking measurements.</p>