

2nd Grade Science Curriculum Guide

1st Nine Weeks

<p>Strand: Nature of Science <i>Ongoing throughout each nine weeks – addressed within scientific inquiry</i></p> <p>Concept: Processes of Science</p> <p>Resource: Scott Foresman AR Science</p>	<p>NS.1.2.1 Communicate observations orally, in writing, and in graphic organizers:</p> <ul style="list-style-type: none"> • T-charts • pictographs • Venn diagrams • bar graphs <p>NS.1.2.2 Develop questions that guide scientific inquiry</p> <p>NS.1.2.3 Conduct <i>scientific investigations</i> individually and in teams:</p> <ul style="list-style-type: none"> • <i>lab activities</i> • <i>field studies</i> <p>NS.1.2.5 Collect measurable <i>empirical evidence</i> in teams and as individuals</p> <p>NS.1.2.8 Apply lab safety rules as they relate to specific science <i>lab activities</i> (see Arkansas Lab Safety Guide)</p> <p style="background-color: yellow;">MCO: Work in large group and small groups to collect data using tools. Discuss measuring tools that people have used in times past.</p>
<p>Strand: Life Science</p> <p>Concept: Characteristics/ Structure and Function</p> <p>Resource: Scott Foresman AR Science – Chapter 2 – Lesson 2, 3, 4 and Lesson AR-3</p>	<p>LS.2.2.1 Classify animals into major groups according to their structure:</p> <ul style="list-style-type: none"> • mammals • birds • fish <p>LS.2.2.2 Differentiate among herbivores, carnivores, and omnivores</p> <p>LS.4.2.2 Describe characteristics of various habitats</p>
<p>Strand: Life Science</p> <p>Concept: Structure and Function of Living Systems</p> <p>Resource: Scott Foresman AR Science – Lesson AR-5</p>	<p>LS.2.2.5 Identify the major parts and functions of the skeletal system</p> <p style="background-color: yellow;">MCO: Have a student who has broken a bone share what it was like</p>
<p>Strand: Life Science</p> <p>Concept: Cycles</p> <p>Resource: Scott Foresman AR Science – Lesson AR-4</p>	<p>LS.3.2.1 Illustrate embryonic development (e.g., chicken)</p> <p>LS.3.2.2 Compare and contrast embryonic development and <i>incomplete metamorphosis</i></p>

Strand: Life Science	LS.4.2.1
Concept: Change	Compare and contrast living and <i>extinct species</i>
Resource: Scott Foresman AR Science	

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<p>Strand: Earth and Space Science</p> <p>Concept: Properties of the Earth</p> <p>Resource: Scott Foresman AR Science – Chapter 5</p>	<p>ESS.8.2.1 Conduct investigations to distinguish among the following components of soil:</p> <ul style="list-style-type: none"> • <i>clay</i> • <i>sand</i> • <i>silt</i> • <i>humus</i> <p>ESS.8.2.2 Recognize and discuss the different properties of soil:</p> <ul style="list-style-type: none"> • color • texture • ability to retain water • ability to support plant growth <p>ESS.8.2.3 Conduct investigations to determine which soil best supports bean plant growth</p> <p>ESS.8.2.4 Identify products derived from <i>natural resources</i></p> <p style="background-color: yellow;">MCO: Work in small groups to compare and contrast different soil samples</p>

<p>Strand: Life Science</p> <p>Concept: Characteristics (Properties)/ Structure and Function</p> <p>Resource: Scott Foresman AR Science – Chapter 1, 3</p>	<p>LS.2.2.3 Identify basic needs of most plants:</p> <ul style="list-style-type: none"> • <i>nutrients</i> • water • light • air • <i>temperature</i> • space <p>LS.2.2.4 Compare different types of flowering plants and <i>conifers</i></p> <p>LS.2.2.6 Describe the function of the following plant parts:</p> <ul style="list-style-type: none"> • leaves • stems • flowers • roots <p>MCO: Grow plants for neighboring nursing home patients</p>
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3rd Nine Weeks

<p>Strand: Nature of Science <i>Ongoing throughout each nine weeks – addressed within scientific inquiry</i></p> <p>Concept: Processes of Science</p> <p>Resource: Scott Foresman AR Science</p>	<p>NS.1.2.1 Communicate observations orally, in writing, and in graphic organizers:</p> <ul style="list-style-type: none"> • T-charts • pictographs • Venn diagrams • bar graphs <p>NS.1.2.2 Develop questions that guide scientific inquiry</p> <p>NS.1.2.3 Conduct <i>scientific investigations</i> individually and in teams:</p> <ul style="list-style-type: none"> • <i>lab activities</i> • <i>field studies</i> <p>NS.1.2.4 Estimate and measure length and <i>temperature</i> using International System of Units (SI)</p> <p>NS.1.2.5 Collect measurable <i>empirical evidence</i> in teams and as individuals</p> <p>NS.1.2.6 Make predictions in teams and as individuals based upon <i>empirical evidence</i></p> <p style="background-color: yellow;">MCO: Work in large group and small groups to collect data using tools. Discuss measuring tools that people have used in times past.</p>
<p>Strand: Earth and Space Science</p> <p>Concept: Patterns in Weather Systems</p> <p>Resource: Scott Foresman AR Science – Chapter 6 – Lesson AR-6</p>	<p>ESS.8.2.5 Chart weather conditions every day</p> <p>ESS.8.2.6 Demonstrate safety procedures related to severe weather</p> <p>ESS.8.2.7 Describe characteristics of <i>cumulus</i>, <i>stratus</i>, and <i>cirrus</i> clouds</p> <p>ESS.8.2.8 Predict weather based on cloud type</p> <p>ESS.8.2.9 Read a Celsius <i>thermometer</i></p> <p>PS.7.2.2 Compare <i>temperatures</i> using the Celsius scale</p> <p style="background-color: yellow;">MCO: Students keep a log of weather conditions each day. Connect to the internet and see the weather somewhere in the world once or twice a month. Discuss what life would be like living there.</p>

<p>Strand: Earth and Space Science</p> <p>Concept: Space Systems</p> <p>Resource: Scott Foresman AR Science – Lesson AR-11</p>	<p>ESS.10.2.1 Illustrate four <i>moon phases</i>:</p> <ul style="list-style-type: none"> • full • half • crescent • new <p>ESS.10.2.2 Model the movement of Earth and its moon</p> <p>ESS.10.2.3 Contrast the visibility of the sun and moon</p> <p>MCO: Discuss some of the stories of Native American cultures related to the earth and moon</p>
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4th Nine Weeks

<p>Strand: Nature of Science <i>Ongoing throughout each nine weeks – addressed within scientific inquiry</i></p> <p>Concept: Processes of Science</p> <p>Resource: Scott Foresman AR Science</p>	<p>NS.1.2.1 Communicate observations orally, in writing, and in graphic organizers:</p> <ul style="list-style-type: none"> • T-charts • pictographs • Venn diagrams • bar graphs <p>NS.1.2.2 Develop questions that guide scientific inquiry</p> <p>NS.1.2.3 Conduct <i>scientific investigations</i> individually and in teams:</p> <ul style="list-style-type: none"> • <i>lab activities</i> • <i>field studies</i> <p>NS.1.2.6 Make predictions in teams and as individuals based upon <i>empirical evidence</i></p> <p>NS.1.2.7 Use age appropriate equipment and tools in <i>scientific investigations</i> (e.g., balances, hand lenses, rulers, and <i>thermometers</i>)</p> <p>NS.1.2.8 Apply lab safety rules as they relate to specific science <i>lab activities</i> (see Arkansas Lab Safety Guide)</p> <p style="background-color: yellow;">MCO: Work in large group and small groups to collect data using tools. Discuss measuring tools that people have used in times past.</p>
<p>Strand: Physical Science</p> <p>Concept: Force and Motion</p> <p>Resource: Scott Foresman AR Science – Chapter 10</p>	<p>PS.6.2.1 Investigate the relationship between <i>force</i> and motion</p> <p style="background-color: yellow;">MCO: Work as a team to demonstrate real world examples of using force to cause motion (seesaw, pushing an object, etc.)</p>
<p>Strand: Physical Science</p> <p>Concept: Properties of Matter</p> <p>Resource: Scott Foresman AR Science – Lesson AR-9</p>	<p>PS.5.2.1 Classify objects based on two or more properties</p> <p>PS.7.2.1 Classify materials as <i>transparent, translucent, or opaque</i> (e.g., plastic wrap, wax paper, and aluminum foil)</p> <p>PS.5.2.2 Investigate the effect of physical phenomena on various materials (e.g., heat absorption by different colored materials)</p> <p style="background-color: yellow;">MCO: Work in small groups to classify objects based on two or more properties. Discuss their classification</p>
<p>Strand: Physical Science</p> <p>Concept: Energy/ Change</p> <p>Resource: Scott Foresman AR Science – Lesson AR-10</p>	<p>PS.7.2.3 Demonstrate methods of using <i>electricity</i> to produce light, <i>heat</i>, and sound</p> <p style="background-color: yellow;">MCO: Examine musical instruments from other countries and compare them to the instruments used in AR to make music</p>

