



Grade 3 Science Curriculum & Pacing Guide






Symbol Key

 Split: This SOL has been <i>split</i> into more than one nine-week block.					 Integrate: This skill should NOT be taught in isolation. <i>Integrate</i> the skill into daily lessons.			
First Nine Weeks								
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Agriculture & Farming Unit Background for the Annual Gr. 3 Farm Tour at Holland Farms		3.4 Living Systems & Processes The student will investigate and understand that adaptations allow organisms to satisfy life needs and respond to the environment. Key ideas include a) populations may adapt over time; b) adaptations may be behavioral or physical; and c) fossils provide evidence about the types of organisms that lived long			3.1 Scientific & Engineering Practices (Teach general components of the process as outlined through demonstration and modeling.) The student will demonstrate an understanding of scientific and engineering practices by a) asking questions and defining problems <ul style="list-style-type: none">ask questions that can be investigated and predict reasonable outcomesask questions about what would happen if a variable is changeddefine a simple design problem that can be solved through the development of an object, tool, process, or system b) planning and carrying out investigations <ul style="list-style-type: none">with guidance, plan and conduct investigationsuse appropriate methods and/or tools for collecting dataestimate length, mass, volume, and temperaturemeasure length, mass, volume, and temperature in metric and U.S. Customary units using proper toolsmeasure elapsed timeuse tools and/or materials to design and/or build a device that solves a specific problem c) interpreting, analyzing, and evaluating data <ul style="list-style-type: none">organize and represent data in pictographs or bar graphsread, interpret, and analyze data represented in pictographs and bar graphsanalyze data from tests of an object or tool to determine if it works as intended d) constructing and critiquing conclusions and explanations			Pacing Adjustment & Performance Based Assessment

		<ul style="list-style-type: none"> • use evidence (measurements, observations, patterns) to construct or support an explanation • generate and/or compare multiple solutions to a problem • describe how scientific ideas apply to design solutions <p>e) developing and using models</p> <ul style="list-style-type: none"> • use models to demonstrate simple phenomena and natural processes • develop a model (e.g., diagram or simple physical prototype) to illustrate a proposed object, tool, or process <p>f) obtaining, evaluating, and communicating information</p> <ul style="list-style-type: none"> • read and comprehend reading-level appropriate texts and/or other reliable media • communicate scientific information, design ideas, and/or solutions with others 	
Interactive Note Taking Curriculum Framework - pp. 11-12		Interactive Note Taking Curriculum Framework - pp. 7-8	

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Second Nine Weeks								
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
3.1 a-f  Scientific & Engineering Practices 3.5 Living Systems and Processes The student will investigate and understand that aquatic and terrestrial ecosystems support a diversity of organisms. Key ideas include a) ecosystems are made of living and nonliving components of the environment; and b) relationships exist among organisms in an ecosystem.				3.1  Scientific & Engineering Practices (Intentional learning focus on a) and b) for depth of knowledge) The student will demonstrate an understanding of scientific and engineering practices by a) asking questions and defining problems <ul style="list-style-type: none">ask questions that can be investigated and predict reasonable outcomesask questions about what would happen if a variable is changeddefine a simple design problem that can be solved through the development of an object, tool, process, or system b) planning and carrying out investigations <ul style="list-style-type: none">with guidance, plan and conduct investigationsuse appropriate methods and/or tools for collecting dataestimate length, mass, volume, and temperaturemeasure length, mass, volume, and temperature in metric and U.S. Customary units using proper toolsmeasure elapsed timeuse tools and/or materials to design and/or build a device that solves a specific problem 3.6 Earth and Space Systems The student will investigate and understand that soil is important in ecosystems. Key ideas include		3.1 a-f  Scientific & Engineering Practices (Intentional learning focus on c) and d) for depth of knowledge) The student will demonstrate an understanding of scientific and engineering practices by c) interpreting, analyzing, and evaluating data <ul style="list-style-type: none">organize and represent data in pictographs or bar graphsread, interpret, and analyze data represented in pictographs and bar graphsanalyze data from tests of an object or tool to determine if it works as intendedconstructing and critiquing conclusions and explanationsuse evidence (measurements, observations, patterns) to construct or support an explanationgenerate and/or compare multiple solutions to a problemdescribe how 3.3 Matter The student will investigate and understand how materials interact with water. Key ideas include a) solids and liquids mix with water in different ways; and		Pacing Adjustment & Performance Based Assessment

	<p>a) soil, with its different components, is important to organisms; and soil provides support and nutrients necessary for plant growth.</p>	<p>b) many solids dissolve more easily in hot water than in cold water.</p>	
<p>Interactive Note Taking Curriculum Framework - pp. 7-8 & 12-14</p>	<p>Interactive Note Taking Curriculum Framework - pp. 7 & 14</p>	<p>Interactive Note Taking Curriculum Framework - pp. 7-8 & 10-11</p>	

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Third Nine Weeks								
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
3.1 a-f  & Engineering Practices (Intentional learning focus on e) and f) for depth of knowledge) The student will demonstrate an understanding of scientific and engineering practices by e) developing and using models <ul style="list-style-type: none">use models to demonstrate simple phenomena and natural processesdevelop a model (e.g., diagram or simple physical prototype) to illustrate a proposed object, tool, or process f) obtaining, evaluating, and communicating information <ul style="list-style-type: none">read and comprehend reading-level appropriate texts and/or other reliable media 3.7 Earth & Space Systems The student will investigate and understand that there is a water cycle and water is important to life on Earth. Key ideas include <ul style="list-style-type: none">a) there are many reservoirs of water on Earth;b) the energy from the sun drives the water cycle; andc) the water cycle involves specific processes.				3.1 a-f  Scientific & Engineering Practices 3.8 Earth Resources The student will investigate and understand that natural events and humans influence ecosystems. Key ideas include <ul style="list-style-type: none">a) human activity affects the quality of air, water, and habitats;b) water is limited and needs to be conserved;c) fire, flood, disease, and erosion affect ecosystems; andd) soil is a natural resource and should be conserved.				Pacing Adjustment & Performance Based Assessment
Interactive Note Taking Curriculum Framework - pp. 7-8 & 15				Interactive Note Taking Curriculum Framework - pp. 7-8 & 16-17				

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Fourth Nine Weeks								
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3.1 a-f ◆ Scientific & Engineering Practices 3.2 Force, Motion, and Energy The student will investigate and understand that the direction and size of force affects the motion of an object. Key ideas include <ul style="list-style-type: none">a) multiple forces may act on an object;b) the net force on an object determines how an object moves;c) simple machines increase or change the direction of a force; andd) simple and compound machines have many applications.				Introduction to Gr. 4 Content 4.6 Earth and Space Systems The student will investigate and understand that there are relationships among Earth, the moon, and the sun. Key relationships include <ul style="list-style-type: none">a) the motions of Earth, the moon, and the sun;b) the causes for Earth’s seasons;c) the causes for the four major phases of the moon and the relationship to the tide cycles; andd) the relative size, position, age and makeup of Earth, the moon, and the sun.				Pacing Adjustment & Performance Based Assessment
Interactive Note Taking Curriculum Framework - pp. 7-10				Interactive Note Taking				