

CURRICULUM MAP

3rd Grade Science

Unit Time Frame	Essential Questions	Content	Skills	Assessment	Standards
Rocks and Minerals 8 weeks	<p><i>Transfer Goal:</i></p> <p>Understand that rocks and minerals found in the Earth have varying properties and potential uses that can be found through experimentation.</p> <p><i>Essential Questions:</i></p> <p>-How do rocks and minerals impact our lives?</p> <p>-Why don't all rocks and minerals have the same properties?</p> <p>-How can knowing properties help you identify uses? Why is continued scientific research</p>	<p><i>Students will understand that...</i></p> <p>-Rocks and minerals have different properties.</p> <p>-The properties of the rocks determine how they are formed.</p> <p>-The properties of rocks and minerals determine how they are used.</p> <p>-New discoveries can impact the way we live in the future.</p> <p>-We use our senses to investigate the world around us.</p>	<p><i>Students will be able to...</i></p> <p>-Compare and contrast rocks and minerals</p> <p>-Observe, describe, and record the properties of rocks and minerals</p> <p>-Perform and interpret the results of tests on the rocks and minerals</p> <p>-Identify the characteristics of rocks and minerals</p> <p>-Make connections on how to use rocks and minerals in daily life</p> <p>-Use tools to test the minerals</p>	<p><i>Performance Task:</i></p> <p>The students will be geologists who have uncovered three unidentified minerals. The students will use the tools and perform the tests on the unidentified minerals to submit a pamphlet for publication. The students will be asked to choose one of the three minerals. The pamphlet will include the properties and uses of the mineral.</p>	5.1.4A-3 5.1.4B1-4 5.1.4C.2 5.1.4.D.1-3 5.4.4.B.1 5.4.4.C.2 5.4.4C.1

CURRICULUM MAP

3rd Grade Science

	important?	<p><i>Students will know...</i></p> <ul style="list-style-type: none"> -The three types of rocks and how they are formed -How rocks are used in everyday life -Where rocks and minerals come from -Minerals differ in color, texture, luster, hardness, smell, transparency, shape, and reaction to magnets 		<p><i>Other Evidence:</i></p> <ul style="list-style-type: none"> -Written quiz -Fashion show or advertisement of mineral -Article comprehension questions -Lab rubric (partner work) -Profile sheets 	
--	------------	---	--	---	--

CURRICULUM MAP

3rd Grade Science

Unit Time Frame	Essential Questions	Content	Skills	Assessment	Standards
Chemical Tests 8 weeks	<p><i>Transfer Goal:</i></p> <p>The students will develop the ability to use the scientific process as well as critical thinking skills while investigating chemicals encountered in their everyday lives.</p> <p><i>Essential Questions:</i></p> <p>-How can the scientific process be used for investigation?</p> <p>-What are the physical and chemical properties of various everyday substances?</p> <p>-How are new substances</p>	<p><i>Students will understand that. . .</i></p> <p>-The scientific process is an organized method used to gather and observe information for the purpose of analysis and drawing accurate conclusions.</p> <p>-The physical and chemical properties of an object or substance are used for identification.</p> <p>-Although many scientific concepts are proven, some conclusions can still be challenged based on new information, supported opinions,</p>	<p><i>Students will be able to. . .</i></p> <p>-Identify chemical and physical properties.</p> <p>-Explain and apply the steps to the scientific process.</p> <p>-Match descriptions of everyday chemicals to previously identified physical and chemical properties.</p>	<p><i>Performance Task:</i></p> <p>Scenario – A scientist has found a spill in his laboratory. It must have come from two of his five containers of white powdered chemicals, but he doesn't know which two. He knows they are not harmful, but needs to know which chemicals have spilled.</p> <p>Task – The third grade chemists have been asked to identify what those two chemicals may be. Conduct experiments to identify properties.</p>	5.1.4 A-D 5.2.4 A1-A3 5.2.4 B.1

CURRICULUM MAP

3rd Grade Science

	<p>created?</p>	<p>and circumstances. <i>Students will know.</i> ..</p> <ul style="list-style-type: none"> -How to identify chemical and physical properties. -The steps of the scientific process. -Types of chemicals used in everyday life. -Humans can impact the creation of chemicals. 		<p>Chart the materials used and the results for each experiment. Use the results (the properties) to determine the identities of the chemicals. Be sure to include an explanation of how the identities were determined.</p> <p><i>Other Evidence:</i></p> <ul style="list-style-type: none"> -Lab Rubrics -Vocab Quiz -Reflective Journal -Record Sheets -Test Results Table -Self-Assessment -Chemical Information Sheet 	
--	-----------------	--	--	---	--

CURRICULUM MAP

3rd Grade Science

Unit Time Frame	Essential Questions	Content	Skills	Assessment	Standards
<p>Solar System</p> <p>12 weeks</p>	<p><i>Transfer Goal:</i></p> <p>The Earth is one part of a solar system that contains many objects (sun, planets, moons, etc.). These objects move in predictable ways.</p> <p><i>Essential Questions:</i></p> <p>-Why do shadows change throughout the day?</p> <p>-What causes the Moon's appearance to change?</p> <p>-Why do objects move downward when released?</p> <p>-Why does the Moon orbit the</p>	<p><i>Students will understand that...</i></p> <p>-The Moon orbits around the Earth, and the Earth orbits around the Sun.</p> <p>-As the Sun "moves" across the sky, shadows indicate the changing position.</p> <p>-The Moon's appearance changes over a cycle that lasts about a month.</p> <p>-Objects fall toward the center of the Earth because of the pull of the force of gravity.</p> <p>-Earth is the third planet from the Sun</p>	<p><i>Students will be able to...</i></p> <p>-Estimate the time of day based on shadows.</p> <p>-Tell the next phase of the moon, based on the current phase.</p> <p>-Explain why objects roll down ramps and fall downward when dropped.</p> <p>-List the names of the planets in order, based on their positions relative to the sun.</p> <p>-Categorize solar system objects based on their characteristics.</p>	<p><i>Performance Tasks:</i></p> <p>1. Students pretend to be an astronaut going on a mission to one of the other planets in the Solar System. They are required to keep a log of their trip.</p> <p>Included in their log would be information such as:</p> <p>-The phase of the moon on the night before they left.</p> <p>-The time of day they blasted off and what kind of shadow was made by their ship before blast off.</p>	<p>5.1.4.A-D 5.4.4.A.1-4</p>

CURRICULUM MAP

3rd Grade Science

	<p>Earth?</p> <p>What are the main objects in our Solar System?</p>	<p>in our solar system, which includes seven other planets.</p> <p><i>Students will know...</i></p> <ul style="list-style-type: none"> -Shadows are longer at the beginning and end of the day, shorter toward midday when the Sun is more directly overhead. -There are 5 main phases of the moon: full, gibbous, quarter, crescent, and new. -Moonlight is sunlight reflected off the surface of the moon. -Gravity is the force that keeps the Moon orbiting 		<ul style="list-style-type: none"> -Objects they see as they travel to their planet. -A description of the planet they visit. -An explanation of why they can land on Earth once they reenter Earth's atmosphere (gravity). -The phase of the moon on the night they return, and an explanation of how the moon's phase tells them how long they were gone. (Does not have to be realistic in terms of how long space travel would actually take.) <p>2. Take on the role of</p>	
--	---	---	--	--	--

CURRICULUM MAP

3rd Grade Science

		<p>around the Earth.</p> <p>-Each planet has a unique position in our Solar System, and has unique characteristics.</p> <p>-Other objects in our Solar System include dwarf planets, moons, asteroids, and comets.</p>		<p>an object in the solar system. Be able to tell about and/or answer questions about that object.</p> <p>3. Imagine that you took a trip to another planet. Write a postcard to your friend describing the planet in detail. Describe how the planet is similar to Earth and how it is different. Use pictures to illustrate your postcard.</p> <p><i>Other Evidence:</i></p> <p>-Science Notebook (Ex. Observation logs)</p> <p>-Self-Assessments</p>	
--	--	--	--	---	--

CURRICULUM MAP
3rd Grade Science

				-Quick-Check Items -Participation	
--	--	--	--	--------------------------------------	--

CURRICULUM MAP

3rd Grade Science

Unit Time Frame	Essential Questions	Content	Skills	Assessment	Standards
<p>Human Body</p> <p>About 1 lesson per week, plus 4 weeks at the end of the year</p>	<p><i>Transfer Goal:</i></p> <p>The students will understand the systems of the human body to be able to make choices to maintain a healthy lifestyle.</p> <p><i>Essential Questions:</i></p> <p>-Why is it important to keep you body healthy?</p> <p>-What are some good choices you can make to keep your body healthy?</p>	<p><i>Students will understand that...</i></p> <p>The systems must work together for the body to be healthy.</p> <p><i>Students will know...</i></p> <p>-The digestive system breaks down the food we eat and absorbs nutrients.</p> <p>-The circulatory system transports blood throughout the body to bring food and oxygen to the cells of the body.</p> <p>-The respiratory system carries oxygen into the bloodstream, and</p>	<p><i>Students will be able to...</i></p> <p>-Name the parts for each system.</p> <p>-Identify the function of major organs and parts of the body.</p> <p>-Explain the basic role of each system.</p> <p>-Tell how good choices/bad choices can impact the body systems.</p>	<p><i>Performance Task:</i></p> <p>Students will create a brochure about living a healthy lifestyle. Each panel will represent a system of the body with three habits that will keep that system healthy. Each panel should include a picture and two facts about the system.</p> <p><i>Other Evidence:</i></p> <p>Content Quizzes Vocabulary Quizzes Comprehension Questions Reflective Journal</p>	<p>5.1.4.A-D 5.3.4.A.3</p>

CURRICULUM MAP

3rd Grade Science

		<p>releases carbon dioxide and water vapor as waste from the body.</p> <p>-The nervous system takes in information, allows communication within the body, and controls body functions.</p> <p>-The skeletal system helps support the body and give it shape.</p> <p>-The muscular system works with the skeletal system to enable the body to move.</p> <p>-There are choices that can lead to positive or negative effects on the body. (Ex: exercise, smoking)</p>			
--	--	--	--	--	--

CURRICULUM MAP
3rd Grade Science