

5th Grade Science Curriculum Unit

Taneyville R-II School

2021-2022

Grade: 5th

Subject: Science

Quarter: 1

Unit Title: Physical Science

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments
<p>5-PS1-1: Develop a model to describe that matter is made of particles too small to be seen.</p> <p>5-PS1-3: Make observations and measurements to identify materials based on their properties</p> <p>5-PS1-2: Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling or mixing substances, the total weight of matter is conserved.</p> <p>5-PS1-4: Conduct an investigation to determine whether the mixing of two or more substances results in a new substance.</p>	<p>Topic 1: Properties of Matter Lesson 1: observe, measure, solubility, and describe. Lesson 2: atom, atomic theory, compound, molecule, conclude. Lesson 3: temperature, mass, volume, organize</p> <p>Topic 2: Changes in Matter Lesson 1: solid, liquid, gas, differentiate Lesson 2: physical change, establish Lesson 3: Chemical change, conservation of matter, chemical reaction, support</p>	<p>Topic 1: Properties of Matter Quest Kickoff: Identify the Mystery Material. Connect lab: What's in the box? Lesson 1: Observe Matter Local-to-Global connection Investigate Lab: How do we describe material? Visual Literacy Connection: Can you tell them apart? Quest Check-In Lab: How can you observe matter? Solve it with Science: Looking for Clues Lesson 2: Model Matter Investigate Lab: How can you detect matter without seeing it? Visual Literacy Connection: What is the matter? Quest Check-In Lab: How do you know that matter is still there? Engineering STEM: Robot Chef Lesson 3: Properties of Matter Investigate Lab: How can you use</p>	<p>Topic 1: Properties of Matter Lesson 1 Check Lesson 2 Check Lesson 3 Check Assessment Evidence-Based Assessment Performance-Based Assessment- How do you know what it is?</p> <p>Topic 2: Changes in Matter Lesson 1 Check Lesson 2 Check Lesson 3 Check Lesson 4 Check Assessment Evidence-Based Assessment Performance-Based Assessment- How does mass change when you make glop?</p>

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	<p>Lesson 4: mixture, solution, component</p>	<p>properties to identify solids? Quest Check-In Lab: How can you compare the properties of matter?</p> <p>Topic 2: Changes in Matter Lesson 1: States of Matter Local-to-Global connection Investigate Lab: Is goop solid or liquid? Visual Literacy Connection: What states of matter can you see? Quest Check-In Lab: It's a Matter or Materials</p> <p>Lesson 2: Physical Changes Investigate Lab: Which properties are affected by temperature? Quest Check-In: Stepping Stone Properties Extreme Science: Look Out for Flying Rocks!</p> <p>Lesson 3: Chemical Change Investigate Lab: How can you identify chemical changes? Visual Literacy Connection: Is matter conserved? Quest Check-In: How can you make modeling dough? Engineering STEM: Foam Sweet Foam</p> <p>Lesson 4: Mixtures and Solutions Investigate Lab: How can you separate a mixture?</p>	
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		Visual Literacy Connection: When is a mixture also a solution? Quest Check-In: How can you make a new and improved formula?	
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Grade: 5th

Subject: Science Quarter:

Unit Title: Earth Science

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments
<p>5-ESS2-1: Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.</p> <p>5-ESS2-2: Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.</p> <p>5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.</p> <p>5-ESS1-1: Support an</p>	<p>Topic 3: Earth's Systems Lesson 1: biosphere, lithosphere, geosphere, system Lesson 2: atmosphere, hydrosphere, distinguish Lesson 3: greenhouse effect, interdependent Topic 4: Earth's Water Lesson 1: water cycle, evaporation, condensation, precipitation, cycle Lesson 2: glacier, aquifer, reservoir, distribute Lesson 3: circulation,</p>	<p>Topic 3: Earth's Systems Lesson 1: Geosphere and Biosphere Investigate Lab: How does water move through soil? Visual Literacy Connection: What are parts of Earth's geosphere and biosphere? Quest Check-In: Raining Acid? Lesson 2: Hydrosphere and Atmosphere Investigate Lab: How does a greenhouse work? Visual Literacy Connection: What are parts of Earth's hydrosphere? Quest Check-In: What are Earth's spheres? Engineering STEM: A New Home Lesson 3: Interactions Among Earth's Systems Investigate Lab: How does the geosphere affect the hydrosphere? Visual Literacy Connection: How does</p>	<p>Topic 3: Earth's Systems Lesson 1 Check Lesson 2 Check Lesson 3 Check Assessment Evidence-Based Assessment Performance-Based Assessment- How are the spheres represented in a terrarium? Topic 4: Earth's Water Lesson 1 Check Lesson 2 Check Lesson 3 Check Assessment Evidence-Based Assessment Performance-Based Assessment- How can water move upward?</p>

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<p>argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.</p> <p>5-PS2-1: Support an argument that the gravitational force exerted by Earth on objects is directed down.</p> <p>5-ESS1-1: Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.</p> <p>5-ESS1-2: Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.</p>	<p>tides, salinity, primary</p> <p>Topic 5: Human Impact on Earth's Systems</p> <p>Lesson 1: natural resources, nonrenewable resources, renewable resources, mineral, rock, classify, efficient</p> <p>Lesson 2: natural gas, hydroelectric energy, transform</p> <p>Lesson 3: pollution, effect</p> <p>Lesson 4: conservation</p> <p>Topic 6: Solar System</p> <p>Lesson 1: Star, apparent</p> <p>Lesson 2: solar system, inner planet, orbit, moon</p> <p>Lesson 3: outer planet, asteroid, comet, characteristics</p> <p>Topic 7: Patterns in Space</p> <p>Lesson 1: gravity,</p>	<p>the ocean affect other systems on Earth?</p> <p>Quest Check-In: Earth's Interactions</p> <p>STEM Math Connection: Interpret a Graph</p> <p>Topic 4: Earth's Water</p> <p>Lesson 1: Water Cycle</p> <p>Investigate Lab: Where did that water come from?</p> <p>Visual Literacy Connection: How does water cycle on Earth?</p> <p>Quest Check-In: Follow the Flow</p> <p>Engineering STEM: It's Melting!</p> <p>Lesson 2: Earth's Freshwater</p> <p>Investigate Lab: How can you find water underground?</p> <p>Visual Literacy Connection: How is fresh water distributed across Earth?</p> <p>Quest Check-In: How do we filter water?</p> <p>Lesson 3: Earth's Ocean</p> <p>Investigate Lab: How can you separate salt from water?</p> <p>Visual Literacy Connection: What is the motion of the ocean?</p> <p>Quest Check-In: Water Resources</p> <p>Solve it with Science: Can People Live on Mars?</p>	<p>Topic 5: Human Impact on Earth's Systems</p> <p>Lesson 1 Check</p> <p>Lesson 2 Check</p> <p>Lesson 3 Check</p> <p>Lesson 4 Check</p> <p>Assessment</p> <p>Evidence-Based Assessment</p> <p>Performance-Based Assessment- How can you use the energy of water?</p>
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	<p>exert</p> <p>Lesson 2: axis, rotation, revolution, pattern</p> <p>Lesson 3: shadow, constellation, related</p>	<p>Topic 5: Human Impact on Earth's Systems</p> <p>Lesson 1: Earth's Natural Resources</p> <p>Investigate Lab: Where are the metals?</p> <p>Quest Check-In: Efficient or Wasteful</p> <p>Engineering STEM: Make Energy the Solar Way</p> <p>Lesson 2: Earth's Energy Resources</p> <p>Investigate Lab: Which color is best at capturing solar energy?</p> <p>Visual Literacy Connection: Where is electrical energy generated?</p> <p>Quest Check-In: Save Energy</p> <p>Lesson 3: Human Activity and Earth's Systems</p> <p>Investigate Lab: What happens to substances over time?</p> <p>Visual Literacy Connection: How can human activities change Earth's systems?</p> <p>Quest Check-In: How do building materials affect energy efficiency?</p> <p>Lesson 4: Protection of Earth's Resources and Environments</p> <p>Investigate Lab: How can you collect rainwater?</p> <p>Visual Literacy Connection: How do people recycle?</p> <p>Quest Check-In: Increase</p>	
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		<p>Conservation Extreme Science: 3,2,1 Touchdown!</p> <p>Topic 6: Solar System Lesson 1: Brightness of the Sun and Other Stars Investigate Lab: How are distance and brightness related? Visual Literacy Connection: How do people recycle? Quest Check-In: Fun in the Sun! Engineering STEM: What's with the dust?</p> <p>Lesson 2: Inner Solar System Investigate Lab: How does a planet's distance from the sun affect its path? Visual Literacy Connection: What is in our solar system? Quest Check-In: What's inside the solar system</p> <p>Lesson 3: Outer Solar System Investigate Lab: How hard do space objects hit Earth? Visual Literacy Connection: How are the outer planets aligned? Quest Check-In: What planets are way out there? STEM Math Connection: How many Earths can line up across the sun?</p>	<p>Topic 6: Solar System Lesson 1 Check Lesson 2 Check Lesson 3 Check Assessment Evidence-Based Assessment Performance-Based Assessment- How can you compare the sizes of objects in space?</p>
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		<p>Topic 7: Patterns in Space Lesson 1: Earth's Gravitational Forces Investigate Lab: How long do objects take to fall? Quest Check-In: How does gravity affect matter? Lesson 2: Earth's Movements in Space Investigate Lab: How are we spinning? Visual Literacy Connections: What is the movement of Earth's moon in space? Quest Check-In: Sun Up, Sun Down STEM Math Connection: How long does it take to orbit? Lesson 3: Patterns Over Time Investigate Lab: What star patterns can you see? Visual Literacy Connections: How do we identify star patterns in the sky? Quest Check-In: Moon Sightings Engineering STEM: Coding Moon Phases</p>	<p>Topic 7: Patterns in Space Lesson 1 Check Lesson 2 Check Lesson 3 Check Assessment Evidence-Based Assessment Performance-Based Assessment- What can we tell from shadows?</p>
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5th Grade Science Curriculum Unit

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2021-2022

Grade: 5

Subject: Science

Quarter:

Unit Title: Life Science

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments
5-PS3-1: Use models to describe that energy in animals' food (used for body	Topic 8: Energy and Food Lesson 1: herbivore,	Topic 8: Energy and Food Lesson 1:Energy in Food Investigate Lab: How is the sun	Topic 8: Energy and Food Lesson 1 Check Lesson 2 Check

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<p>repair, growth, motion, and to maintain body warmth) was once energy from the sun.</p> <p>5-LS1-1: Support an argument that plants get the materials they need from growth chiefly from air and water.</p> <p>5-LS2-1: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.</p> <p>5-LS2-1: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.</p>	<p>carnivore, omnivore Lesson 2: photosynthesis, chlorophyll, obtain Lesson 3: endotherm, ectotherm, metabolism, maintain Topic 9: Matter and Energy in Ecosystems Lesson 1: ecosystem, abiotic, biotic, community, interact Lesson 2: producer, decomposer, microbe, consumer, food chain, food web Lesson 3: succession, competition, stable Lesson 4: cycle</p>	<p>involved with your meals? Quest Check-In: Sorting Foods Lesson 2: How Plants Make Food Investigate Lab: What matter do plants need to make food? Quest Check-In: What plant foods provide the most energy and nutrients? Engineering STEM: A Code for Plant Matter Lesson 3: How Animals Use Food Investigate Lab: How do animals get energy from the sun? Quest Check-In: Animals Using Energy Extreme Science: The Hungriest Animals! Topic 9: Matter and Energy in Ecosystems Lesson 1:Ecosystems Investigate Lab: How do the parts of an ecosystem work together? Visual Literacy Connection: How do factors interact in a forest ecosystem? Quest Check-In: Unwelcome Inhabitants Lesson 2: Organisms within Ecosystems Investigate Lab: How can matter change in an ecosystem? Visual Literacy Connection: Who eats whom?</p>	<p>Lesson 3 Check Assessment Evidence-Based Assessment Performance-Based Assessment- How does matter move through an ecosystem?</p> <p>Topic 9: Matter and Energy in Ecosystems Lesson 1 Check Lesson 2 Check Lesson 3 Check Lesson 4 Check Assessment Evidence-Based Assessment Performance-Based Assessment- How can you model matter cycles in the Earth system?</p>
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		<p>Quest Check-In: Connections to Others</p> <p>STEM Math Connection: Solve Word Problems</p> <p><i>Lesson 3: Change within Ecosystems</i></p> <p>Investigate Lab: How does change affect organisms in an ecosystem?</p> <p>Visual Literacy Connection: What happens to a forest ecosystem after a fire?</p> <p>Quest Check-In: How does change affect organisms in an ecosystem?</p> <p><i>Lesson 4: Matter and Energy Transfer Within Ecosystems</i></p> <p>Investigate Lab: How does matter move through an ecosystem?</p> <p>Visual Literacy Connection: How does carbon move through an ecosystem?</p> <p>Quest Check-In: Moving Matter and Energy</p> <p>Engineering STEM: Ecosystems in a box</p>	
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