

Crest Memorial School Curriculum and Pacing Guide

Grade: 4th Subject: Science

Adoption Date: Revision Date:04/09/22

	MP1	MP2	MP3	MP4
Pacing Guide	<p>1. What is Science and how can it affect our lives? (2 weeks)</p> <p>2. How can you understand how living things interact with their environment?(3 weeks).</p> <p>3.How can you evaluate how an alteration or change in an ecosystem can cause changes throughout the environment over time?(3 weeks).</p> <p>4. How do we analyze how organisms change as they go through their life cycle?(4 weeks).</p>	<p>1. How can we remember the major biomes of the Earth and what are the characteristics of each (such as food chains and weather)?(2 weeks)</p> <p>2.How can you understand the patterns of soil, minerals and rocks/fossils on Earth?(3 weeks)</p> <p>3. Can you evaluate other planets like the Earth and understand what patterns can be identified in space?(4 weeks).</p> <p>4. How can humans affect the earth in positive and negative ways? (2-3 weeks)</p>	<p>1. Understand how matter can be described and measured (3 weeks).</p> <p>2. Analyze when water changes to a solid does it change its mass(3 weeks).</p> <p>3. Evaluate what happens if I mix baking soda and vinegar, Mentos and Soda and/or food coloring and Milk (4 weeks).</p> <p>4. What is the periodic table and how can we use the information it provides? (1 week)</p>	<p>1. Create ways to make that bulb light up(2 weeks).</p> <p>2.Understand what you can do with a magnet(2 weeks).</p> <p>3. Evaluate how electricity and magnetism are transformed(2 weeks).</p> <p>4. Explore how energy is a part of our daily lives. (1-2 weeks)</p>

<p>Instructional Materials</p>	<p><u>Interactive Science</u> Pearson, 2012</p> <p>Lab materials, print-outs, worksheets, BrainPop, Mystery Science lessons, TrueFlix/Scholastic Go, and Google applications.</p>	<p><u>Interactive Science</u> Pearson, 2012</p> <p>Lab materials, print-outs, worksheets, BrainPop, Mystery Science lessons, TrueFlix/Scholastic Go, and Google applications.</p>	<p><u>Interactive Science</u> Pearson, 2012</p> <p>Lab materials, print-outs, worksheets, BrainPop, Mystery Science lessons, TrueFlix/Scholastic Go, and Google applications.</p>	<p><u>Interactive Science</u> Pearson, 2012</p> <p>Lab materials, print-outs, worksheets, BrainPop, Mystery Science lessons, TrueFlix/Scholastic Go, and Google applications.</p>
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	<p>BrainPop, TrueFlix and Mystery Science  Topics: Science, the scientific method, technology, Ecosystems, Food web and food Chains, Life cycle of a butterfly(metamorphosis), types of animals, vertebrates/invertebrates.</p>	<p>-- Biomes of the world online websites and videos.  --Fossil images/videos and hands-on samples  -- Mystery Science and BrainPops on these topics: Earth's movement, Star patterns, Sun, Earth, &amp; Moon System, Solar System, Environmental health of the earth, Human impact on Earth's environment</p>	<p>Mystery Science and BrainPops on these topics: Properties of matter, Measuring Matter, Phases of Matter, Mixtures, Changes in Matter, the Periodic table, chemistry.</p>	<p>Mystery Science and BrainPops on these topics: Electricity, Magnetism, Electricity/magnetism transformation, PHet website simulations/interactive digital labs.</p>
Standards	<p>Activity One: 3-5-ETS1  Activity Two: 4-LS1 and 2  Activity Three: 4-LS1 and 2  Activity Four: 4-LS1 and 2</p>	<p>Activity One: 4-ESS1-2  Activity Two: 4-ESS1-1  Activity Three: 4-PS2-1  Activity Four: 4-ESS3-1, 4-ESS3-2</p>	<p>Activity One: 5-PS1-3  Activity Two: 5-PS1-2  Activity Three: 5-PS1-4  Activity Four: 4-SL1-2</p>	<p>Activity One: 4-PS3-4  Activity Two: 4-PS3-3  Activity Three: 4-PS3-4  Activity Four: 4-PS3-1, 2, 3 and 4</p>

<p>Activities</p>	<p>One: Research and investigate different ways that science is a part of our every-day life. Watch Mystery Science Mini-lessons and complete discussion questions/STEM building activities.</p> <p>Two: Research and prepare presentation independently with a poster visual with teacher assistance.</p> <p>Three: Compare and contrast the life cycle of a butterfly to various other organisms' life cycles in a</p>	<p>One: Create a Biome Display of one biome of the Earth. Include animals, plants, food chain, weather, etc. See other student work on biomes.</p> <p>Two: Conduct research and create trading cards of the solar system. Compare</p> <p>Three: Research environmental interactions and impacts between humans and the Earth.</p> <p>Four: Research and discuss different negative and positive ways in which humans can change the environment.</p>	<p>One: Design and carry out an experiment to test and observe different materials' properties.</p> <p>Two: Complete several Mystery Science experiments to explain how properties of objects Change.</p> <p>Three: Classify various objects by their properties and charts.</p> <p>Four: Research and understand how different materials are used.</p>	<p>One: Use a magnet to test whether objects are magnetic or not</p> <p>Two: Create an electrical circuit.</p> <p>Three: Test and correct electrical circuits.</p> <p>Four: PhET online labs.</p>
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	<p>class created a nature show.</p> <p>Four: Research the needs of an animal-habitat, food, and characteristics.</p>			
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<p>Modifications</p>	<p><b>English language learners:</b> Work with English speaking partner / group, use translation program for vocab as needed.</p> <p><b>At Risk of School Failure:</b> Work in a cooperative group, adjust time for completion.</p> <p><b>Gifted and Talented Students:</b> Give opportunities to teach other students, produce work beyond minimum Requirements such as adding additional facts/images to projects or displays.</p> <p><b>Students with 504 plans:</b> Provide notes and assignments on computer.</p> <p><b>Special Education:</b> Reduce the number and/or difficulty of questions or tasks on projects and homework assignments. Limit and/or explain new vocabulary and highlight terms in reading materials as needed. Provide listening/reading alternatives for difficult science texts.</p>	<p><b>English language learners:</b> Work with English speaking partner / group, use translation program for vocab as needed.</p> <p><b>At Risk of School Failure:</b> Work in a cooperative group, adjust time for completion.</p> <p><b>Gifted and Talented Students:</b> Give opportunities to teach other students, produce work beyond minimum Requirements such as adding additional facts/images to projects or displays.</p> <p><b>Students with 504 plans:</b> Provide notes and assignments on computer.</p> <p><b>Special Education:</b> Reduce the number and/or difficulty of questions or tasks on projects and homework assignments. Limit and/or explain new vocabulary and highlight terms in reading materials as needed. Provide listening/reading</p>	<p><b>English language learners:</b> Work with English speaking partner / group, use translation program for vocab as needed.</p> <p><b>At Risk of School Failure:</b> Work in a cooperative group, adjust time for completion.</p> <p><b>Gifted and Talented Students:</b> Give opportunities to teach other students, produce work beyond minimum Requirements such as adding additional facts/images to projects or displays.</p> <p><b>Students with 504 plans:</b> Provide notes and assignments on computer.</p> <p><b>Special Education:</b> Reduce the number and/or difficulty of questions or tasks on projects and homework assignments. Limit and/or explain new vocabulary and highlight terms in reading materials as needed. Provide listening/reading alternatives for difficult science texts.</p>	<p><b>English language learners:</b> Work with English speaking partner / group, use translation program for vocab as needed.</p> <p><b>At Risk of School Failure:</b> Work in a cooperative group, adjust time for completion.</p> <p><b>Gifted and Talented Students:</b> Give opportunities to teach other students, produce work beyond minimum Requirements such as adding additional facts/images to projects or displays.</p> <p><b>Students with 504 plans:</b> Provide notes and assignments on computer.</p> <p><b>Special Education:</b> Reduce the number and/or difficulty of questions or tasks on projects and homework assignments. Limit and/or explain new vocabulary and highlight terms in reading materials as needed. Provide listening/reading</p>
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Interdisciplinary Connections	<p>Activity One: Read non-fiction articles about scientific material.</p> <p>Activity Two: Create artistic projects to show wood chains and food webs.</p>	<p>Activity One: Read non-fiction articles about scientific material.</p> <p>Activity Two: Kinesthetic learning—students will measure and walk the</p>	<p>Activity One: Read non-fiction articles about scientific material.</p> <p>Activity Two: Separate materials based on properties (Kinesthetic).</p>	<p>Activity One: Read non-fiction articles about scientific material.</p> <p>Activity Two: Draw, color and design an electric circuit card (art).</p>

	<p>Activity Three: Kinesthetic learning activities—mammal scavenger hunt.</p> <p>Activity Four: Use a digital platform such as Google Slides to create and design a research project.</p>	<p>distances of a model of the solar system.</p> <p>Activity Three: Technology connection—create a research PowerPoint on a planet</p>	<p>Activity Three: Measuring activities and connecting this to cooking/baking.</p>	<p>Activity Three: Create a mathematically correct quiz with multiple choice answers and make that into an electrical circuit.</p>
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<p>Assessments</p>	<p><b>Benchmarks:</b> Chapter Quizzes Teacher Observation</p> <p><b>Ongoing Formative Assessments:</b> Current Event Classwork</p> <p><b>Summative assessments:</b> Projects in Class</p>	<p><b>Benchmarks:</b> Chapter Quizzes Teacher Observation</p> <p><b>Ongoing Formative Assessments:</b> Current Event Classwork</p> <p><b>Summative assessments:</b> Projects in Class</p>	<p><b>Benchmarks:</b> Chapter Quizzes Teacher Observation</p> <p><b>Ongoing Formative Assessments:</b> Current Event Classwork</p> <p><b>Summative assessments:</b> Projects in Class</p>	<p><b>Benchmarks:</b> Chapter Quizzes Teacher Observation</p> <p><b>Ongoing Formative Assessments:</b> Current Event Classwork</p> <p><b>Summative assessments:</b> Projects in Class</p>
<p>21st Century Themes and Skills/Engineering and Design</p>	<p>3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3 9.4.5.IML.2 9.4.5.TL.3</p>	<p>3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3 9.4.5.IML.2 9.4.5.TL.3</p>	<p>3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3 9.4.5.IML.2 9.4.5.TL.3</p>	<p>3-5-ETS1-1 3-5-ETS1-2 3-5-ETS1-3 9.4.5.IML.2 9.4.5.TL.3</p>