

Second Grade Science Curriculum 2022

Pacing Guide	Core Standard & Indicator	Sample Learning Activities	Sample Assessments	Additional Standards
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<p>August-September</p> <p>Engineering Design</p>	<p>K-2-ETS1-1 Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.</p> <p>K-2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.</p> <p>K-2-ETS1-3 Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.</p>	<p>Construct an argument for why investigations should be repeated.</p> <p>Identify and explore problems in which people want to change/solve</p> <p>Ask questions and make observations in order to gather information about a problem</p> <p>Brainstorm and develop a plan to create a solution for a problem</p> <p>Discuss reasons materials/objects were chosen as part of the solution</p> <p>Communicate solutions for recording and showing data</p> <p>Determine ways to make a solution more effective</p> <p>Observe and model the process people use to design new things.</p> <p>Instructional Resources: <i>National Geographic Science</i></p> <p>Teacher Technology: ActivPanel YouTube video Brain Pop Jr. Activview Camera Flip Charts Science Kids</p>	<p>Formative Assessments: Classwork Journal Entries Teacher Observation</p> <p>Summative Assessments: STEM Project</p> <p>Benchmark Assessment: BOY Benchmark</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: SL 2.1 Students will participate in scientific discussions based on observations, questions and data analysis.</p> <p>Technology Standard: 8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.</p>
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<p>October-December</p> <p>Matter and Its Interactions</p>	<p>2-PS1-1 Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.</p> <p>2-PS1-2 Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.</p> <p>2-PS1-3 Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.</p> <p>2-PS1-4 Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.</p>	<p>Carry out investigations to observe the properties of matter.</p> <p>Analyze the properties of solids, liquids, and gasses.</p> <p>Investigate ways that matter can be changed.</p> <p>Observe and classify water in its solid, liquid, and gaseous states and compare volume and temperature.</p> <p>Observe that materials have different properties and provide evidence that materials can be combined to form different things.</p> <p>Discuss and explore ways heating/cooling can change a piece of matter</p> <p>Instructional Resources: <i>National Geographic Science</i></p> <p>Teacher Technology: ActivPanel YouTube video Brain Pop Jr. Actiview Camera Flip Charts States of Matter Video Science Kids</p> <p>Student Technology: iPads Brain Pop games Quizlet</p>	<p>Formative Assessments: Classwork Journal Entries Teacher Observation</p> <p>Summative Assessments: STEM Project</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: W.2.1: Writing an opinion about Oobleck.</p> <p>Technology Standard: 8.1.2.DA.4: Make predictions.</p>
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<p>January-March</p> <p>Earth's Place in the Universe and Earth's System</p>	<p>2-ESS1-1 Use information from several sources to provide evidence that Earth events can occur quickly or slowly.</p> <p>2-ESS2-1 Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land.</p> <p>2-ESS2-2 Develop a model to represent the shapes and kinds of land and bodies of water in an area.</p> <p>2-ESS2-3 Obtain information to identify where water is found on Earth and that it can be solid or liquid.</p>	<p>Compare and contrast landforms and bodies of water.</p> <p>Investigate how changes on Earth can occur quickly or slowly.</p> <p>Explore Earth events such as volcanic explosions and earthquakes.</p> <p>Create a solution to solve/prevent wind or water from changing the land</p> <p>Compare class solutions to determine effectiveness</p> <p>Create a model to show land/bodies of water</p> <p>Make a model of fossils to help explain how fossils provide evidence of change over time.</p> <p>Instructional Resources: <i>National Geographic Science</i></p> <p>Student Technology: iPads Brain Pop games Quizlet</p> <p>Teacher Technology: ActivPanel YouTube video Brain Pop Jr. Google Earth Activview Camera Flip Charts Science Kids</p>	<p>Formative Assessments: Classwork Journal Entries Teacher Observation</p> <p>Summative Assessments: STEM Project</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: RI.2.9 Compare and contrast two books about landforms.</p> <p>Technology Standard: 8.2.2.NT.1: Model and explain land/bodies of water.</p>
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<p>April-June</p> <p>Ecosystems: Interactions, Energy and Dynamics</p>	<p>2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.</p> <p>2-LS2-1 Plan and conduct an investigation to determine if plants need sunlight and water to grow.</p> <p>2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.</p>	<p>Classify the different parts of plants.</p> <p>Observe how animal groups are alike and different.</p> <p>Make models of animal parts and will investigate how animals use body parts to meet their needs.</p> <p>Provide evidence that plants and animals live in habitats that meet their needs.</p> <p>Create an experiment to observe if plants need sun/water to grow</p> <p>Obtain information about how a food chain works.</p> <p>Plan and design a model to show how an animal can disperse seeds</p> <p>Instructional Resources: <i>National Geographic Science</i></p> <p>Teacher Technology: ActivPanel YouTube video Brain Pop Jr. Actiview Camera Flip Charts Science Kids</p> <p>Student Technology: iPads Brain Pop games Quizlet</p>	<p>Formative Assessments: Classwork Journal Entries Teacher Observation</p> <p>Summative Assessments : STEM Project</p> <p>Benchmark: EOY Assessment</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: Math MD.A.1 Students will measure the growth of a seed during sun/water needs experiment</p> <p>Technology Standard: 8.2.2.NT.1: Model and explain the growth of a seed.</p>
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Alternative Assessments: Bridge Design Project & Landform Creation, Worksheets and Activities

21st Century Standards: 9.2.4.A.1, 9.2.4.A.2

21st Century Skills: Communication, Collaboration, Creativity

Career Ready Practices: CRP 2, CRP 5, CRP6 , CRP8