

Grade 1 Science Curriculum Map 2022

Pacing Guide	Standard Code & Indicator	Sample Learning Activities	Sample Assessments	Additional Standards
---------------------	--------------------------------------	-----------------------------------	---------------------------	-----------------------------

Grade 1 Science Curriculum Map 2022

<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>Investigate the skills that scientists use to learn about new things</p> <p>Discuss the steps scientists use to ask questions and find answers</p> <p>Identify common problems that people want to change</p> <p>Brainstorm and plan a new/improved object or tool to solve an identified problem.</p> <p>Create a model for planned solution</p> <p>Analyze what materials some objects are made of</p> <p>Develop a plan to show how the shape of an object helps it function to solve an identified problem</p> <p>Observe and collect data on two objects aimed to solve the same problem</p> <p>Discuss strengths/weaknesses</p> <p>Develop a chosen object to best solve the problem based off of observation</p> <p>Instructional Resources: <i>National Geographic Science</i> STEM bins Cee Loves Science</p> <p>Teacher Technology: ActivPanel YouTube video Brain Pop Jr. Actiview Camera Flip Charts Science Kids Scholastic Mystery Doug Vooks- Inventors</p>	<p>Formative: Classwork Class Discussions Teacher Observation Interactive Science Notebook</p> <p>Summative: Design and Engineer Part 1 and 2 Test</p> <p>Benchmark: BOY Benchmark</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: W.1.2: Problem/Solution Explanation & Reflection Prompt</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>
---	---	---	--	--

Grade 1 Science Curriculum Map 2022

<p>October-December</p> <p>Waves and their Applications in Technologies for Information Transfer</p>	<p>1-PS4-1 Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.</p> <p>1-PS4-2 Make observations to construct an evidence-based account that objects can be seen only when illuminated</p> <p>1-PS4-3 Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.</p> <p>1-PS4-4 Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance</p>	<p>Explore and investigate: sound and vibrations</p> <p>What makes sound?</p> <p>Discover how to make objects vibrate through sound</p> <p>Design and construct an instrument</p> <p>Explore and list things light can do</p> <p>Define and decipher between transparent and translucent</p> <p>Investigate effects of placing objects in the path of light</p> <p>What makes a shadow?</p> <p>How is light and sound used to communicate?</p> <p>In groups, build a device that uses light or sound</p> <p>Instructional Resources: <i>National Geographic Science</i> Light and Sound Unit <u>Sounds All Around</u> <u>Light Is All Around Us</u></p> <p>Teacher Technology: ActivPanel YouTube video Brain Pop Jr. Activview Camera Flip Charts Science Kids Scholastic Great Websites for Kids-Science</p> <p>Student Technology: iPads Brainpop Jr interactive sound/ light/ energy game Razkids</p>	<p>Formative: Light & Shadow Quiz Classwork Class Discussions Teacher Observation</p> <p>Summative: Chapter 1 Test Instrument Design</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: RI.1.7 Read, discuss, and illustrate how light passes through different materials.</p> <p>Technology Standard: 8.2.2.ED.3: Select and use appropriate tools and materials to build a product using the design process.</p>
--	---	---	--	--

Grade 1 Science Curriculum Map 2022

<p>January-February</p> <p>Earth's Place in the Universe</p>	<p>1-ESS1-1 Use observations of the sun, moon, and stars to describe patterns that can be predicted.</p> <p>1-ESS1-2 Make observations at different times of year to relate the amount of daylight to the time of year</p>	<p>Identify and observe patterns within the sky</p> <p>Make predictions about sky patterns</p> <p>How/why does daylight change throughout the year?</p> <p>Describe patterns that cause day and night</p> <p>Observe and discuss seasonal patterns of sunrise and sunset</p> <p>Research seasonal implications on sky patterns</p> <p>Instructional Resources: <i>National Geographic Science</i> Solar System Unit Plan <u>The Moon Book</u> by Gail Gibbons <u>The Magic School Bus Lost in the Solar System</u> book</p> <p>Teacher Technology: ActivPanel YouTube video Brain Pop Jr. Actiview Camera Flip Charts Science Kids Scholastic</p> <p>Student Technology: iPads Alma Kids Solar Systems Brainpop Jr.</p>	<p>Formative: Classwork Class Discussions Teacher Observation Interactive Science Notebook</p> <p>Summative: Chapter 3 Test Oreo Moon Phase Project</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: RI.1.1 Read, ask, and answer specifics about the moon using <u>The Moon Book</u>.</p> <p>Technology Standard: 8.1.2.DA.3: Identify and describe patterns in data visualizations. • 8.1.2.DA.4: Make predictions based on data using charts or graphs.</p>
--	--	--	--	---

Grade 1 Science Curriculum Map 2022

<p>March/April</p> <p>From Molecules to Organisms: Structure and Processes</p>	<p>1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.</p> <p>1-LS1-2 Read texts and use media to determine patterns in the behavior of parents and offspring that help offspring survive.</p>	<p>Discuss plants/animal needs</p> <p>Identify how animals/plants use parts to help them survive</p> <p>Discuss/observe how plants and animals grow and change</p> <p>List common problems faced by humans</p> <p>Brainstorm and plan a solution using plant/animal parts to help solve a human problem</p> <p>Research a chosen animal and determine survival traits</p> <p>Create an animal survival kit</p> <p>Instructional Resources: <i>National Geographic Science</i> Plants and Animals Unit</p> <p><u>What if You Had...</u> Book Series- Animal Adaptation Read Alouds</p> <p>Student Technology: iPads Raz Kids Brainpop Jr.- Animal Videos, Quizzes, Games</p> <p>Teacher Technology: ActivPanel YouTube video Brain Pop Jr. Actiview Camera Flip Charts Science Kids Scholastic Brainpop Jr.</p>	<p>Formative: Classwork Class Discussions Teacher Observation Human Problem Solution</p> <p>Summative: Chapter 2 Test Animal Survival Kit</p> <p>Accommodations and Modifications</p>	<p>Interdisciplinary Standard: R.I.1.2- Read various animal and plant mentor texts and have students retell and pick out/discuss key details.</p> <p>Technology Standard: 8.1.2.DA.3: Identify and describe patterns in data visualizations.</p>
--	--	--	---	---

Grade 1 Science Curriculum Map 2022

<p>May/June</p> <p>Heredity: Inheritance and Variation of Traits</p>	<p>1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.</p>	<p>Compare and contrast parents and their young</p> <p>Research an animal to determine their traits similar and different to their parents</p> <p>Create a “family photo album or researched animal to document evidence</p> <p>Instructional Resources: <i>National Geographic Science</i> Living Things Unit <u>Living Things Change and Grow</u></p> <p>Student Technology: iPads <u>Raz Kids</u> <u>PBS Kids</u></p> <p>Teacher Technology: ActivPanel YouTube video <u>Brain Pop Jr.</u> Actiview Camera Flip Charts <u>Science Kids</u> <u>Scholastic</u> <u>Mystery Doug</u></p>	<p>Formative: Classwork Class Discussions Teacher Observation Interactive Science Notebook</p> <p>Summative: Family Photo Album</p> <p>Benchmark: EOY Benchmark</p> <p><u>Accommodations and Modifications</u></p>	<p>Interdisciplinary Standard: ELA W.1.7: Participate in shared research and writing projects.</p> <p>Technology Standard: 8.1.2.DA.3: Identify and describe patterns in data visualizations.</p>
--	---	--	---	---

Alternative Assessments: Family Photo Album, Worksheets/Activities

21st Century Standards: 9.2.4.A.4 and 9.2.4.A.1

21st Century Skills: Critical Thinking, Communication, and Creativity

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