

Grade 1 Science Instructional Focus / Toolkit

The Grade 1 Science Instructional Focus Toolkit has been created to assist teachers in identifying activities that are well aligned to the standards. This toolkit is not intended to replace your district’s curriculum or to be solely used to address the benchmarks. Care was given to identify multiple activities that could be executed via hands-on inquiry, virtually and in some cases infused with the literacy block. Resources have been pulled from CPALMS. For all activities, a materials list resides on the first page once you click the link. There may be materials listed that are not accessible to you. Do not let this discourage you. There are talking points and alternative activities built within the resources. Again, the toolkit serves as a suggestion of activities that can be used to support your instruction and should not be mistaken for your [course description](#).

Benchmark	Verbiage	Instructional Guidance and Vocabulary	Resources
SC.1.E.5.1	Observe and discuss that there are more stars in the sky than anyone can easily count and that they are not scattered evenly in the sky.		“Handy” Constellations (Lesson Plan) Students explore constellations and learn there are more stars in the sky than can be easily counted.
SC.1.E.5.2	Explore the Law of Gravity by demonstrating that Earth's gravity pulls any object on or near Earth toward it even though nothing is touching the object.		Dive, Drop, Down (Lesson Plan) Students will discover how gravity affects household objects. Look Out Below! (Lesson Plan) Students test gravity’s pull with parachutes.
SC.1.E.5.3	Investigate how magnifiers make things appear bigger and help people see things they could not see without them.		Telescopes and Constellations (Lesson Plan) Students will use a real telescope to observe how objects appear closer in an artificial night sky. Students will create a telescope model and

			also make a pictorial record of their findings.
SC.1.E.5.4	Identify the beneficial and harmful properties of the Sun.		Sunwise a Program that Radiates Good Ideas : (K-2 Introductory Lesson PowerPoint) A program that teaches students how to protect themselves from the sun.
SC.1.E.6.1	Recognize that water, rocks, soil, and living organisms are found on Earth's surface.		Your Own Backyard Students discuss and explore environmental features.
SC.1.E.6.2	Describe the need for water and how to be safe around water		Why We Need Water and Water Safety This lesson uses pictures and a story to illustrate why we need water and the difference between safe and unsafe practices around water. Water Safety Fun Students will role-play how to be safe around water and learn important safety rules.

<p>SC.1.E.6.3</p>	<p>Recognize that some things in the world around us happen fast and some happen slowly.</p>		<p>Go With the Flow (Teaching Idea) Students experiment with a simulated river bed and learn that erosion takes place faster with a young, fast-moving river than with a slow, older river.</p> <p>As the Earth Changes (Unit/Lesson Sequence) In this PBL experience, students will explore the ways the world changes around us and describe the conditions of fast and slow land changes. As teams, students will create various models to represent fast and slow land changes. Individually, students will create a flap book with two fast changes and two slow changes.</p>
<p>SC.1.L.14.1</p>	<p>Make observations of living things and their environment using the five senses.</p>		<p>Webcams: Animal Inquiry and Observation Students observe animal habits and habitats using one of the many webcams broadcasting from zoos and aquariums around the United States and the world in this inquiry-based activity that focuses on observation logs, class discussion, questioning, and research.</p>

			<p>Walking Stick (Image/Photograph) This resource is a visual representation to help students understand that some animals can camouflage themselves in such a way as to appear to be an actual element of their environment.</p> <p>Investigating Local Ecosystems (Lesson Plan) This lesson provides students with opportunities to investigate the habitats of local plants and animals and explore some of the ways animals depend on plants and each other.</p>
SC.1.L.14.2	Identify the major parts of plants, including stem, roots, leaves, and flowers.		<p>Learn About the Parts of a Plant (Lesson Plan) Students interact with nature and provides them with a framework for their observations by offering them opportunities to explore, question, and document similarities and differences among plant parts.</p> <p>Growing Plants (Virtual Manipulative) Students learn about the necessary requirements for the growth of the plants like sunlight, water</p>

			<p>and air.</p> <p>They can also learn and play with activities such as labeling various parts of the plants and test their knowledge with a quiz.</p> <p>Biology of Plants (Text Resource) Topics include characteristics of living things, germination and growth, the basic parts of plants, photosynthesis, reproduction, and ecological adaptations of plants.</p>
SC.1.L.14.3	Differentiate between living and nonliving things.		<p>Living and Nonliving (Teaching Idea) Students practice how scientists observe and record. Going outside they will record in their journal the things they observe under the heading they think it belongs in - living or nonliving.</p> <p>Living VS nonliving (Lesson Plan) By examining video clips and still photographs students learn about the characteristics that distinguish living things from nonliving things. Students gather evidence and develop criteria to decide if something is living or nonliving.</p>

<p>SC.1.L.16.1</p>	<p>Make observations that plants and animals closely resemble their parents, but variations exist among individuals within a population.</p>		<p>Same Yet Different (Teaching Idea) As a result of this activity, students will understand that there are differences among the same kinds of plants and animals.</p> <p>Learning About Mealworms (Unit/Lesson Sequence) Students learn about metamorphosis and how animals change from birth to the adult stage through observing and collecting data as mealworm larvae progress through their life cycle to the adult stage (beetles)</p> <p>Butterfly Life Cycle: Biography of a Caterpillar (Lesson Plan) Students observe and write about the life cycle of a caterpillar.</p>
<p>SC.1.L.17.1</p>	<p>Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space.</p>		<p>Flower Garden (Lesson Plan) Students will determine which flowers are the best to plant in a flower garden. The students will receive data about the hardiness of each flower, the amount of sun and water each needs, and the number of flowers each plant will produce.</p>

			<p>Microhabitats (Lesson Plan) students explore the surroundings of the school and observe different types of habitats, recording the environment and what conditions allow animals and plants to thrive there.</p>
<p>SC.1.N.1.1</p>	<p>Raise questions about the natural world, investigate them in teams through free exploration, and generate appropriate explanations based on those explorations.</p>		<p>A Slick Operation: Oil Spill Lab-SeaWorld Classroom Activity (Teaching Idea) Students will be able to demonstrate and discuss the effects of oil on a bird's feathers and discuss a variety of ways humans might be able to remove it.</p> <p>Birds' Bills (Lesson Plan) Students will compare and contrast different kinds of birds' bills and categorize pictures. After drawing the bills in each category, they will then compare the bill types with common household items.</p> <p>Wiggly Worms (Lesson Plan) students will compare and contrast red worms and earthworms through exploration</p>

			(magnifying glasses provided) and a read-aloud.
SC.1.N.1.2	Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others.		<p>Blankets for Babies (Lesson Plan) Students will choose which baby blanket a store should buy to sell, based on these factors; size, how soft it is, color, and safety. Students will rank four blankets from best to worst.</p> <p>Classification Performance Task (Assessment) The task assesses primary students' abilities to perform process skills such as classification by using observable differences and similarities.</p> <p>Kool Aid Chemistry (Lesson Plan) Students will investigate dilution with Kool-Aid. The students will use their five senses to explore the solution</p> <p>Taste vs. Smell (Teaching Idea) Students practice observation by using their sense of taste and smell.</p>
SC.1.N.1.3	Keep records as appropriate - such as pictorial and written records - of investigations conducted.		Focused Observation: Recording A Hike (Lesson Plan) Students will learn how to focus their observations during a nature hike. Observation paper is

			divided to record things observed above a student's head, below the student's knees and in between the student's head and knees.
SC.1.N.1.4	Ask "how do you know?" in appropriate situations.		<p>How do Objects Move Engineering Design Challenge (Unit/Lesson Sequence) Students explore and explain the many different ways that an object moves and how its properties affect its movements using an engineering challenge.</p> <p>Sink or Float? Students explore different objects that may sink or float using science process skills.</p>
SC.1.P.12.1	Demonstrate and describe the various ways that objects can move, such as in a straight line, zigzag, back-and-forth, round-and-round, fast, and slow.		<p>Push and Pull Magnet Art – an Engineering Design Challenge (Lesson Plan) This Engineering Design Challenge is intended to help first grade students apply the concepts of the various ways objects can move, and that the way to change the motion of an object is to apply a push or a pull.</p> <p>Investigating Motion With Marbles Students will use 2 marbles of different size and a</p>

			<p>box to investigate what makes the marbles move and what will cause the marbles to change speed and direction.</p>
<p>SC.1.P.13.1</p>	<p>Demonstrate that the way to change the motion of an object is by applying a push or a pull.</p>		<p>Forces and Movement (Virtual Manipulative) Learners will understand that pushes or pulls can make somethings speed up, slow down or change direction. The students will also identify different causes that can affect speed and movement and will be able to make simple predictions about the outcome of an experiment.</p> <p>Give it a Push! (Lesson Plan) Students learn about forces on objects such as a push or a pull. Students interact with items in their classroom testing pushes and pulls. Students explore the strength of pushes through a toy race investigation.</p> <p>Playing with Science: Push & Pull (Original Tutorial) Learn how to change the motion of an object by applying pushing and pulling forces using a variety of toys.</p>

SC.1.P.8.1	Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light), texture, and whether objects sink or float.		<p>Observing and Sorting (Unit Lesson/Sequence) Students learn to make observations that clearly distinguish specific objects from others and how to sort items by different attributes (e.g., color, size, weight).</p> <p>Shell Sorts (Lesson Plan) Students learn about sorting objects by texture, size and shape.</p> <p>Sink or Float (Lesson Plan) Students make predictions and test and sort a variety of objects based on whether they sink or float.</p> <p>Matter is EVERYWHERE Part 3 (Lesson Plan) Students will classify matter by temperature. Students will explore and come to conclusions about the temperature (hot or cold) of matter.</p>
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