

Science Center

Month		Materials in the Center	Standards/Content Addressed
September Supporting Life	Weather and you	<p>Observe: leaves, rocks, apples, acorns, bulbs, weather sensory bottles*, potted plant Pan balance for comparing weight (heavier than, lighter than)</p> <p>Explore how trees and plants breathe. Submerge leaf in water and wait a few hours, air bubbles will be visible</p> <ul style="list-style-type: none"> • Glass bowl filled with water, fresh picked leaf, small rock to hold leaf under water <p>Blank book (12" x 18" stapled) for recording observations Balance 10 apples</p> <ul style="list-style-type: none"> • <u>Ten Apples up on Top</u> <p>Sorting apples</p> <p>Harcourt Science pg 162 Weather</p>	<p>K.MD.1 & K.MD.2 classify and compare objects by their measurable attributes SMP5 use appropriate tools strategically K-LS1-1 observe and communicate that plants/animals need food,water, and air to survive K.W.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.</p>
October Supporting Life Changing in the enviro.		<p>Observe: pumpkins: size, color, weight comparison</p> <ul style="list-style-type: none"> • <u>How many seeds in a Pumpkin?</u> <u>How Big Could Your Pumpkin Grow?</u> <p>Pan balance for comparing weight (heavier than, lighter than)</p> <p>Blank book (12" x 18" stapled) for recording observations</p> <p>Explore the local neighborhood to identify habitats and features of the environment</p> <ul style="list-style-type: none"> • Identify two plants, two animals draw or take pictures (clipboards, paper, ipads) 	<p>K.MD.1 & K.MD.2 classify and compare objects by their measurable attributes SMP5 use appropriate tools strategically K-LS1-1 observe and communicate that plants/animals need food,water, and air to survive K-ESS2-2 evidence of how plants, animals and humans can change the environment K.W.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.</p>

<p>November Supporting Life</p>		<p>Explore bulb growth vs. seed growth</p> <ul style="list-style-type: none"> • Paperwhite bulbs in clear vase with marbles & seeds in plastic bag <p>Explore the process of decay</p> <ul style="list-style-type: none"> • pumpkin in a bag/gardening bed, tracking with interactive writing; 	<p>K-LS-1-2 all plants and animals grow and change over time. SP1 asking questions K.SL.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions K.W.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts</p>
<p>December Pushes & Pulls</p>		<p>Marble run; students describe the movement of the marble based on pushes and pulls experienced by the marble</p> <p>Share Rube Goldberg machines found on google. Students describe the movement of the objects from start to finish</p> <p>Provide plans for a paper airplane; construct airplane from different types of paper; ask students to compare and contrast which types worked best and why</p> <p>Rolling & Sliding objects investigation Harcourt science pg. 97 geometric shapes, trays, labels (slide, roll, both)</p> <p>Making a boat move Harcourt science pg 105 craft stick, clay, pan of water foam tray, paper, glue</p> <p>Take a walk and observe motion all around us</p>	<p>SP1 asking questions K.SL.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions K-PS2-1 Compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.</p>
<p>January The Sun's Energy Freezing & Melting</p>		<p>Watch Frozen in Summer video, discuss why the video is silly, what is going on that might be wrong, what should really happen Read White Snow, Bright Snow, discuss what happened to snow as the temperature increased, did the amount change as snow</p>	<p>K-PS3-1 make observations to determine that sunlight warms materials on the earth's surface K-PS1-1 investigate and</p>

		<p>melted and turned to liquid Heat lamp, sun in window, objects in window: sand, grass, soil, soap, chocolate What will melt in the sun activity</p> <ul style="list-style-type: none"> • Muffin tin pan • Lego, Ice, wooden block, rock, Butter, cube of cheese, marble, quarter, square of Hershey's Chocolate, crayons, cube cut off a bar of soap, glue stick • Timer, recording sheet for predictions and results <p>The sun can change paper investigation Harcourt Science Manual pg. 63</p> <p>Brainstorm a list of ideas to slow down/speed up freezing/melting Add density column for observation: stopwatch, video Measuring the temp of warm and cold water Harcourt Science pg 177. Thermometers, 2 cups of water, ice cubes, recording sheet</p>	<p>communicate the idea that different kinds of materials can be a solid or liquid depending on temperature SP1 asking questions K.SL.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions K.W.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts</p>
February			
March		Engineer a leprechaun trap	
April Changing the enviro.		<p>Make picture of where students think trash goes</p> <ul style="list-style-type: none"> • Read the <u>The Three R's</u> compare and contrast picture with book <p>Observe clean and polluted water Sensory bin:</p> <ul style="list-style-type: none"> • Shredded blue paper (alternately you could use blue rice) • Some marine type toy boats animals • 3 containers for waste with labels for trash, compost, and recycling • 12 large metal paper clips • Printout of 12 pieces of garbage • A "fishing pole" with magnet on 	<p>K-ESS2-2 construct an argument supported by evidence for how plants and animals (including humans) can change the environment K-ESS3-3 communicate solutions to reduce the amount of natural resources an individual uses SP1 asking questions K.SL.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon</p>

		<p>the end</p> <ul style="list-style-type: none"> Books: <u>All the Way to the Ocean</u>, <u>Where Does Garbage Go?</u>, <u>Compost Stew AtoZ</u>, <u>Magic School Bus At the Waterworks</u> <p>Can you undo water pollution? Experiment</p> <ul style="list-style-type: none"> Tub of household trash (banana peel, pieces of foam plate/cup, torn paper, pieces of plastic bag) vegetable oil (toxic oil spill) Strainer, tongs Tub of clean water 	<p>rules for discussions K.W.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts</p>
May		Changing the environment	
June The Sun's Energy		<p>Brainstorm a list of how the sun affects/changes things Walk around the outside of the school collect data on the effect of sunlight on various surfaces/colors (hot, warm, cold) to touch</p> <ul style="list-style-type: none"> Clipboard, recording sheet, pencil <p>Investigate the temperatures of earth materials(sun/shade)</p> <ul style="list-style-type: none"> 2 cups of each: water, sand, soil, rocks, grass Thermometer, recording sheet <p>Provide materials to adapt the structure (created in a previous whole class science experience) that decreases the sun's effect on the earth's surface</p>	<p>K-PS3-2 use tools and materials to design and build a model of a structure that will reduce the warming effect of sunlight on an area SP1 asking questions K.SL.1 Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions K.W.2 Use a combination of drawing, dictating, and writing to compose informative/explanatory texts</p>

Connections

Reading the World (We Are Readers): viewing nonfiction text - learning from viewing:

<http://www.simplykinder.com/apple-videos/>

Weather sensory bottles support observation language - hot, cold, opaque, transparent

