

# ELEMENTARY SCIENCE YEAR-LONG MAP 2019-2020

ANNUAL SCHOOL THEME: P.188X: EMPOWERING STUDENTS AS THEY TRANSITION TO SUCCESS

Themes	<b>SETTING EXPECTATIONS FOR EMPOWERMENT AND EXCELLENCE</b>	<b>EMPOWERING TRANSITIONS WITHIN THE HOME</b>	<b>EMPOWERING MY TRANSITIONS WITHIN MY COMMUNITY</b>	<b>EMPOWERING MY TRANSITIONS TO THE WORLD</b>	<b>DETERMINING HOW I HAVE BECOME EMPOWERED</b>
Length of Unit	<b>SEPTEMBER</b>	<b>SEP 30th – DEC 23rd UNIT 1</b>	<b>JAN 2nd – MAR 13th UNIT 2</b>	<b>MAR 16th – MAY 29th UNIT 3</b>	<b>JUNE</b>
Enduring Understandings	<p>Students will become familiar with and set routines for a successful school year.</p> <p>Students will conduct baseline assessments in academic fields and use information from assessments to set appropriate goals for themselves.</p>	<p>It is important to know the different seasons and the impact they can have on different things we do.</p> <p>Seasons impact the availability of fresh food that is available to us.</p> <p>Everything is made of matter. Matter comes in three different forms.</p> <p>When we mix matters together, sometimes the matter changes.</p> <p>When we cook or prepare meals it can change the state of matter of different foods.</p> <p>We use different tools to help us in our lives.</p> <p>At different times of the day we use different tools to help us to stay healthy.</p>	<p>The world is made of different habitats and environments.</p> <p>Animals have developed traits to help them thrive in different environments.</p> <p>We can use tools and strategies to help us be comfortable in different environments depending on the weather conditions and season.</p> <p>There are different forces around us that play a major role in our lives. We can see these forces in our communities.</p> <p>We use different basic machines to help us in our lives and communities.</p> <p>People have developed various tools using simple machines that help us.</p>	<p>There are many different resources that occur naturally.</p> <p>There is not an infinite amount of resources.</p> <p>We can help to protect the resources available to us by reducing the amount we use, reusing resources, and recycling used resources.</p> <p>I can help to raise awareness for conservation efforts and play a role in protecting resources.</p> <p>Planting is fun and easy and can help make our environment beautiful and help feed others.</p> <p>I can learn job skills by helping to conserve resources and learning to plant.</p>	

<p><b>Focus / Essential Question</b></p>	<p><b>SEL Organization IEP goals SANDI Level 1 Vocational Assessment</b></p> <p><b>September</b> What is a scientist and what does a scientist do?</p> <p>What are our five senses, and how do we use them to explore (investigate) in our home and school?</p> <p>How can we explore (investigate) like scientists do in our home and school using our five senses?</p> <p>What are the characteristics of an apple using the 5 senses? (i.e: stem, seeds, etc.)</p>	<p><b>October</b> How do we identify fall, winter, spring, and summer?</p> <p>How are the seasons of fall and winter alike and different from one another? i.e compare and contrast from one another</p> <p>What does the fall look like? i.e characteristics of autumn?</p> <p>Using our 5 senses, what does a pumpkin look like? (i.e: characteristics and traits of a pumpkin)</p> <p>Using our 5 senses, how are pumpkins and apples alike and different from each other? (i.e: compare and contrast)</p> <p><b>November</b> What is matter? i.e. different forms of Matter, 3 states of matter.</p> <p>What is a solid? What are it's characteristics?</p> <p>What is a liquid? What are it's characteristics?</p> <p>What is a gas? What are it's characteristics?</p> <p>How can we compare a liquid and a solid?</p> <p>How do we see characteristics of matter in foods?</p>	<p><b>January</b> What are different environments? What types of animals live in different environments?</p> <p>What are characteristics found in different environments and how can we communicate them? (i.e : glaciers, icebergs, freezing temperatures, etc.)</p> <p>How do people adapt to different environments and how do we use our communities to help us be comfortable?</p> <p><b>February</b> What are some forces? How can you move things? (i.e: force and motion-push and pull)</p> <p>What ways do things move? (i.e : velocity, friction, etc.)</p> <p>What is a magnet? What does it attract? (i.e :repel, pulling, attract, etc.) How can I investigate and communicate about different forces?</p> <p><b>March</b> What are some different machines that people use?</p> <p>What are the differences between a lever, a ramp, and a pulley?</p> <p>How do people use machines in the community? ( i.e. uses of simple machines)</p>	<p><b>March</b> What is a natural resource?( i.e: trees, air, animals, etc.)</p> <p>What is a renewable and nonrenewable resource?</p> <p>Why are resources important?</p> <p>How can I categorize different resources?</p> <p><b>April</b> What is conservation and why is it important?</p> <p>What is recycling? (i.e : include products that can be recycled)</p> <p>What are the "Three Rs?"</p> <p>How can I communicate the importance of the Three Rs? How can I demonstrate to others the importance of the Three Rs?</p> <p>How do the Three Rs help me to build employable skills?</p> <p><b>May</b> What are the parts of a plant and their important functions?</p> <p>How does a seed grow?</p> <p>How do plants grow and why are they important? ( i.e: photosynthesis, life cycle of a plant, flower, etc.)</p> <p>How do people use plants?( i.e : eating, shade from the sun,</p>
--	---	---	--	---

		<p>What happens to characteristics of matter when we mix them (prepare a snack with liquids and solids)?</p> <p><b>December</b> What are different tools we use to promote health?</p> <p>When and how do we use different tools to be healthy?</p> <p>How can I use different tools to promote health?</p> <p>How can I make a schedule to help myself to be healthier?</p>	<p>How can I design a simple machine and show how it uses different forces?</p>	<p>medicine, and everyday household items.)</p> <p>How can I develop a garden?</p> <p>What has planting a garden helped me to learn about job skills?</p>	
<b>Resources</b>	<b>Mood Meter PBIS Sheets / Matrix Level 1 Vocational Assessments</b>	<p><b>RETHINK:</b> Coughing and Sneezing Hygiene Doing Laundry Following a Recipe Preparing a Meal Measuring Ingredients Using a Microwave Brushing-Combing Hair Vacuuming</p> <p><b>DLM FAMILIAR TEXTS:</b> <a href="#">Be Clean</a> <a href="#">What to Wear</a> <a href="#">Doing the Laundry</a> <a href="#">Lemonade</a> <a href="#">Things in a Kitchen</a></p> <p><b>BRAINPOP / BRAINPOP JR.</b></p>	<p><b>BRAINPOP / BRAINPOP JR.</b> <b>RETHINK:</b> Dressing According to Weather</p> <p><b>DLM FAMILIAR TEXTS:</b> <a href="#">Sam Went to the Zoo</a> <a href="#">Fred's Food</a> <a href="#">The Fishing Trip</a> <a href="#">Buddy's Nose</a> <a href="#">Stay Warm</a> <a href="#">Cats Climb and Hide</a> <a href="#">Tia Visits a Farm</a> <a href="#">The Planet Earth</a></p> <p><b>BRAINPOP / BRAINPOP JR.</b></p>	<p><b>BRAINPOP / BRAINPOP JR.</b> <b>RETHINK:</b> Collecting Trash Sorting Items for Recycling Watering Plants</p> <p><b>DLM FAMILIAR TEXTS:</b> <a href="#">Machines at Home</a> <a href="#">The Planet Earth</a> <a href="#">Flowers</a> <a href="#">Oak Trees</a></p> <p><b>BRAINPOP / BRAINPOP JR.</b></p>	<p><b>DLM FAMILIAR TEXTS:</b> <a href="#">The Science Fair</a></p>

<p><b>Objectives</b></p>	<p>Students will be introduced to PBIS expectations for the school year. They will create their classroom charter and will familiarize themselves with The Emotional Literacy (Mood Meter) chart. Students will set appropriate goals for themselves for the school year.</p>	<p>A. Students will interact with various forms of matter. Students will Measure &amp; graph quantities to provide evidence that, regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. Students will make observations and measurement to identify materials based on their properties.  B. Students will construct a diagram to show how matter interacts with other forms of matter. Students will Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the Sun.</p>	<p>A. Students will identify different forms of life (i.e. plants and animals). Students will Support an argument that plants get the materials they need for growth chiefly from air and water.  B. Students will recognize that all life needs basic elements to survive and thrive. Students will Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.  C. Students will Support an argument that the gravitational force exerted by Earth on objects is directed down.</p>	<p>3-5  A. Students will Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.  B. Students will Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.  C. Students will identify various natural resources. Students will identify different pollutants and their impact on resources. Students will Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.</p>	
<p><b>Learning Targets</b></p>	<p>I can show commitment to my school.  I can set and strive for appropriate goals.  I can identify my strengths and areas to improve.  I can demonstrate self-control when dealing with others.  I can identify emotions from the emotional literacy chart.</p>	<p>A.  I/D: I can attend to various forms of matter. I can recognize hard and soft. I can Match materials with similar physical properties. I can Recognize the change in state from liquid to solid or from solid to liquid of the same material.  P: I can touch various forms of matter. I can Classify materials by physical properties. (e.g., weight, shape, texture, buoyancy, color, or magnetism).</p>	<p>A.  I/D: I can distinguish between a plant and an animal. I can Distinguish things that grow from things that don't grow  P: I can sort and categorize at least 2 plants and 2 animals. I can Provide evidence that plants grow.  T: I can identify different forms of life (i.e. plants and animals). I can Provide evidence that plants need air and water to grow  B.</p>	<p>A.  I/D: I can Order events in daily routine including sunrise and sunset.  P: I can Recognize patterns about length of daylight hours over time (e.g., week to week, month to month).  T: I can Represent and interpret data on a picture, line, or bar graph to show seasonal patterns in the length of daylight hours.  B.</p>	

		<p>I can Compare the weight of an object before and after it changes from a liquid to a solid and from a solid to a liquid.</p> <p>T: I can interact with various forms of matter. I can classify different matter based on their properties. I can Make observations and measurements to identify materials based on their properties (e.g., weight, shape, texture, buoyancy, color, or magnetism). I can Measure and compare weights of substances before and after heating, cooling, or mixing substances to show that weight of matter is conserved.</p> <p>B.</p> <p>I/D: Identify simple models that show that plants need sunlight to grow.</p> <p>P: I can Use models to describe that plants capture energy from sunlight.</p> <p>T: I can Create a model to describe that energy in animals' food was once energy from the Sun.</p>	<p>I/D: I can recognize water and food. I can Identify common human foods.</p> <p>P: I can match 2 needs of plants and 2 needs of animals. I can Identify a model that shows the movement of matter from plants to animals (e.g. food chain/food web).</p> <p>T: I can identify various things that plants and animals need to thrive. I can Create a model that shows the movement of matter (e.g., plant growth, eating, composting) through living things.</p> <p>C.</p> <p>I/D: I can Recognize the direction an object will go when dropped.</p> <p>P: I can Predict the direction an object will go when dropped.</p> <p>T: I can Demonstrate that the gravitational force exerted by Earth on objects is directed down.</p>	<p>I/D: I can Anticipate routine (e.g., clothes to wear, activities to do) to follow when it is raining.</p> <p>P: I can Recognize how water (hydrosphere) affects people in a region (e.g., floods, droughts, mudslide, tourism, and recreation).</p> <p>T: I can Develop a model showing how water (hydrosphere) affects the living things (biosphere) found in a region.</p> <p>C.</p> <p>I/D: I can recognize three natural resources (water, trees, air,) I can recognize 2 pollutants as being harmful. I can Identify one way to protect a resource of Earth (e.g., put paper in the recycling bin). I can practice recycling and reduction of waste.</p> <p>P: I can select three natural resources from a set of choices with distractors. I can match a pollutant to its' affected resource. I can Compare two methods people can use to help protect the Earth's resources.</p> <p>T: I can identify various natural resources. I can identify different pollutants and their impact on resources. I can identify ways I can protect different resources. I can Use information to describe how people can help protect the Earth's resources and how that affects the environment.</p>	
--	--	--	--	--	--

<b>CCLS</b>		<b>PS1.A, , PS3.D</b>	<b>LS1.C, LS2.A, PS2.B</b>	<b>ESS1.B, ESS2.A, ESS3.C</b>	
-------------	--	-----------------------	----------------------------	-------------------------------	--

<p><b>Product</b></p>	<p><b>-Mood Meter and Mood Meter Journal.</b>  <b>-Classroom Charter</b>  <b>-Student Goals</b>  <b>-Comparison of Interpersonal Qualities</b></p> <p><b>September</b>  Design and create our own apple paint print project/storyboard: Seasons of an apple tree, parts of an apple, and/or life cycle of an apple?</p> <p><b>ADL/Home Connection:</b> I can make healthy food choices</p> <p>i.e I eat apples vs. potato chips</p>	<p><b>October</b>  Students will conduct an investigation using the five senses on an a harvest food based item (i.e. count how many seeds are in the pumpkin, the texture of the pumpkin, is it big or small, etc.) and record their findings on chart paper. Students will identify the season in which the item grows. Students will share findings with on another and other classes in time for the Fall Festival.</p> <p><b>ADL/Home Connection:</b>  Students will demonstrate understanding of different seasons, temperatures, and foods harvested throughout the year.</p> <p><b>November</b>  Students will investigate how an item can change between states of matter and record their findings (i.e. to create a root beer float using a solid, what happens when you mix a liquid with a solid?) Students will develop a hypothesis and record their findings. Students will identify if their hypothesis was correct or incorrect.</p> <p><b>ADL/Home Connection:</b>  Students will engage in activities of following a recipe, preparing a snack, identify items used to prepare a snack, measurement, etc.</p> <p><b>December</b></p>	<p><b>January</b>  Students will create a collage of an animal in its' natural habitat. Students will identify how the animal has adapted to thrive in its' habitat (i.e. fur to keep warm). Students will draw connections to what people do to adapt to different types of weather (i.e. jackets) and identify activities and places to go to meet seasonal needs (i.e. pools in the summer, indoor activities in the winter).</p> <p><b>ADL/Community:</b> Students will explore appropriate dress for their communities and community awareness depending on weather.</p> <p><b>February</b>  Students will work with a partner to investigate magnets and forces (i.e. can they push/pull objects? Can gravity pull on objects). Students will identify how different forces can be seen in their communities (i.e. gravity moves water) develop a .</p> <p>and develop a chart identifying forces at work.</p> <p><b>ADL/Community Connection:</b> Students will investigate how forces can be seen around them i.e. vacuuming, cleaning (top to bottom flow of cleaning material), opening and closing lights, drawers and doors (pushing and pulling).</p> <p><b>March</b></p>	<p><b>March</b>  Students will create information posters, thinking maps, venn diagrams on natural resources? ie sunlight, plants, soil, water, etc. Students will share out their findings with their peers.</p> <p><b>ADL/World Connection:</b> Students will recall information learned regarding different resources on the planet.</p> <p><b>April</b>  Students will create and design a campaign to promote "The Three Rs". Students will share their campaign with others to promote conservation efforts.</p> <p><b>ADL/World Connection:</b> Students will make the connection between conservation efforts and the development of employable skills for themselves.</p> <p><b>May</b>  Students will develop and share a classroom garden. Students will reflect on how the garden helps to promote employable skills and conservation efforts.</p> <p><b>ADL/World Connection:</b> Students will develop employable skills and demonstrate understanding of various job skills.</p>
-----------------------	---	--	--	---

Students will create a flowchart of morning / evening activities that promote health i.e. brushing our teeth, bathing, eating, etc. at home. Students will identify different tools needed to promote health, indicating their importance and appropriate times to use them.

**ADL/Home Connection:**

Students will engage in studying tools and procedures for promoting health i.e. brushing our teeth, bathing, eating, etc.

Students will design a toy or structure using simple mechanics. ( i.e: push, pull, wheel, lever, ramp, pulley and magnet.). Students will identify how different mechanic concepts can be seen in their communities (i.e.wheels on buses or cars). Students will share their developed toy with their peers and test them to identify the mechanical concept.

**ADL/Community Connection:**

Students will following step by step directions, explore community facets, make connections between concepts and the community.



Celebration	SEP 27th	DEC 20th	MAR 13th	MAY 29th	JUN 24th
Bulletin Board Updates	SEP 27th	NOV 1st DEC 13th	JAN 31st MAR 6th	APR 8th MAY 22nd	JUN 18th
STARS / SESIS Progress Report Updates		NOVEMBER 1st	MARCH 6th		JUNE 18th