

Select a Course:	Science Grade K
Teacher:	CORE Science Grade K
Course:	Science Grade K
Year:	2016-17
Months:	- All -

August	<p>Enduring Understandings ✕ Essential Questions ✕ Standards ✕ Knowledge & Skills ✕ Academic Language ✕</p>					
September	<p>Grade Kindergarten Science Patterns (Earth Systems and Earth and Human Activities)</p> <p>Enduring Understandings ✕ Essential Questions ✕ Standards ✕ Knowledge & Skills ✕ Academic Language ✕</p> <table border="1"> <tr> <td> <ul style="list-style-type: none"> Patterns are all around There are weather and nature patterns. </td> <td> <ul style="list-style-type: none"> How can patterns help you understand the world? Why are patterns important? </td> <td> <p>K-ESS2.1 - Use and share observations of local weather conditions to describe patterns over time.</p> <p>K-ESS3.2 - Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.*</p> </td> <td> <ul style="list-style-type: none"> Students will know how to collect data, in order to keep a picture weather journal, recording the temperature and the type of weather for the day. Students will be able to determine patterns from their weather journal. </td> <td> <ul style="list-style-type: none"> Tier 2 Vocabulary <ul style="list-style-type: none"> air clouds drizzle fog lightening thunder rain storm temperature wind Tier 3 Vocabulary <ul style="list-style-type: none"> hail tornado </td> </tr> </table>	<ul style="list-style-type: none"> Patterns are all around There are weather and nature patterns. 	<ul style="list-style-type: none"> How can patterns help you understand the world? Why are patterns important? 	<p>K-ESS2.1 - Use and share observations of local weather conditions to describe patterns over time.</p> <p>K-ESS3.2 - Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.*</p>	<ul style="list-style-type: none"> Students will know how to collect data, in order to keep a picture weather journal, recording the temperature and the type of weather for the day. Students will be able to determine patterns from their weather journal. 	<ul style="list-style-type: none"> Tier 2 Vocabulary <ul style="list-style-type: none"> air clouds drizzle fog lightening thunder rain storm temperature wind Tier 3 Vocabulary <ul style="list-style-type: none"> hail tornado
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November	<p>Grade Kindergarten Science Motion and Stability</p> <p>Enduring Understandings ✕ Essential Questions ✕ Standards ✕ Knowledge & Skills ✕ Academic Language ✕</p> <table border="1"> <tr> <td> <ul style="list-style-type: none"> Making observations helps to learn about the world around you. Objects move in many different ways when pushed or pulled. </td> <td> <ul style="list-style-type: none"> How do objects move? How can you make an object move? How can you change an object's direction? </td> <td> <p>K-PS2.1 - Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.</p> <p>K-PS2.2 - Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.*</p> </td> <td> <ul style="list-style-type: none"> Students will know that pushes and pulls can have different strengths and directions. Students will be able to push and pull on an object using a variety of materials </td> <td> <ul style="list-style-type: none"> Tier 2 Vocabulary <ul style="list-style-type: none"> push pull throw stop fast slow movement Tier 3 Vocabulary </td> </tr> </table>	<ul style="list-style-type: none"> Making observations helps to learn about the world around you. Objects move in many different ways when pushed or pulled. 	<ul style="list-style-type: none"> How do objects move? How can you make an object move? How can you change an object's direction? 	<p>K-PS2.1 - Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object.</p> <p>K-PS2.2 - Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.*</p>	<ul style="list-style-type: none"> Students will know that pushes and pulls can have different strengths and directions. Students will be able to push and pull on an object using a variety of materials 	<ul style="list-style-type: none"> Tier 2 Vocabulary <ul style="list-style-type: none"> push pull throw stop fast slow movement Tier 3 Vocabulary
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		<p> What causes moving objects to stop?</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>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-ETS1.1 - 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>(such as ramps, blocks, etc.).</p>	<p>cause and effect direction friction force</p>
December	<p>Enduring Understandings ✕</p>	<p>Essential Questions ✕</p>	<p>Standards ✕</p>	<p>Knowledge & Skills ✕</p>	<p>Academic Language ✕</p>
January	<p>Enduring Understandings ✕</p>	<p>Essential Questions ✕</p>	<p>Standards ✕</p>	<p>Knowledge & Skills ✕</p>	<p>Academic Language ✕</p>
February	<p> Grade Kindergarten Science Molecules to Organisms</p>				
	<p>Enduring Understandings ✕</p>	<p>Essential Questions ✕</p>	<p>Standards ✕</p>	<p>Knowledge & Skills ✕</p>	<p>Academic Language ✕</p>
	<p> All animals need food, water, air and shelter in order to live and grow.</p> <p> Plants need light, water, air and soil to order to survive.</p> <p> Plants and animals are similar and different.</p>	<p> Why do animals and plants need food to grow?</p> <p> What do animals and plants need to grow?</p>	<p>K-2.LS1.C - Organization for matter and energy flow in organisms ~ Animals obtain food they need from plants or other animals. Plants need water and light.</p> <p>K-LS1.1 - Use observations to describe patterns of what plants and animals (including humans) need to survive.</p>	<p> Students will observe and compare plants and animals.</p> <p> Students will know how organisms (plants and animals) interact with each other and nonliving part of their habitat to meet their basic needs.</p> <p> Students will be able to use reading and writing skills to inquire, think critically, and apply scientific concepts to new situations.</p> <p> Students will be able to use their sense to make and describe careful observations.</p> <p> Students will recognize that patterns exist in our habitat.</p>	<p> Tier 2 Vocabulary animal plant habitat living water food light air soil shelter characteristic</p> <p> Tier 3 Vocabulary organism nutrients</p>

				<p>🏠 Students will use venn diagrams to compare and contrast animal and plant needs.</p>
			<p>W.K.7 - Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).</p>	

March

Enduring Understandings ✕ **Essential Questions** ✕ **Standards** ✕ **Knowledge & Skills** ✕ **Academic Language** ✕

April

🏠 Grade Kindergarten Science Earth and Human Activity Interdependence & Cause and Effect

Enduring Understandings ✕ **Essential Questions** ✕ **Standards** ✕ **Knowledge & Skills** ✕ **Academic Language** ✕














<p>🏠 A persons actions effect and influence other people and places.</p> <p>🏠 All living things depend on each other to survive.</p>	<p>🏠 What are the needs of humans to survive in an environment?</p> <p>🏠 What choices can people make to reduce their impact on the land, water, air and other living things?</p> <p>🏠 How do people's choices and actions impact the environment?</p>	<p>K-ESS3.1 - Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.</p> <p>K-ESS3.3 - Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.*</p> <p>K-ESS2.2 - Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.</p>	<p>🏠 Students will be able to describe the relationship between living things and their environment and what they need to survive.</p> <p>🏠 Students will be able to describe the relationship between their needs and where they live.</p> <p>🏠 Students will know the effects of their choices on the environment and other living things.</p> <p>🏠 Students will be able to give an example on how to reduce their impact on the environment and/or living things.</p> <p>🏠 Students will know humans use natural resources for everything they do.</p>	<p>🏠 Tier 2 Vocabulary observe gather explore communicate investiage solutions experiences models questions impact technology</p> <p>🏠 Tier 3 Vocabulary Big Categories Natural resources animals habitats recycling</p>
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May

🏠 Grade Kindergarten Science Energy

Enduring Understandings ✕ **Essential Questions** ✕ **Standards** ✕ **Knowledge & Skills** ✕ **Academic Language** ✕

<p>🏠 The Earth is made of different surfaces.</p> <p>🏠 How sunlight has different effects on Earth</p>	<p>🏠 How does a structure refuse the warming effects of sunlight on a surface?</p>	<p>K-PS3.1 - Make observations to determine the effect of sunlight on Earth's surface.</p> <p>K-PS3.2 - Use tools and materials to design and build a structure that will</p>	<p>🏠 Students will be able to make observations, compare/contrast and identify different Earth</p>	<p>🏠 Tier 2 Vocabulary identify Earth surfaces rocks</p>
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<p>Surfaces.</p> <ul style="list-style-type: none">  Identify an observable pattern when something comes between the Earth's surface and the sun.  That some objects reflect/absorb sunlight.  How different structures will reduce the warming effect on an area. 	<ul style="list-style-type: none">  What are the effects of sunlight on different surfaces? 	<p>reduce the warming effect of sunlight on an area.*</p>	<p>materials (sand, soil, rocks, water)</p> <ul style="list-style-type: none">  Students will be able to make observations to determine the effect of sunlight on the Earth's surface.  Students will be able to observe a pattern when something comes between the Earth's surface and the sun.  Students will be able to compare 2 different materials to see which objects reflects/absorbs more sunlight.  Students will be able to use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area. 	<p>soil sand water plants ice effect sunlight observations/observable pattern between sun collect data comparisons/compare materials objects reflects absorbs reduce tools design engineer device solve problem structure build</p>
		<p>W.K.7 - Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).</p>	<ul style="list-style-type: none">  Students will explore (touch & look) different examples of Earth surfaces. Learn new vocabulary. Label different Earth surfaces.  Students will be able to make observations, making comparisons, collecting data, having discussions about the effects sunlight has on the different Earth surfaces.  Students will be able to act out what happens when an observable pattern blocks sunlight.  Students will be able to comparing/contrasting 2 materials to see which one reflects/absorbs more sunlight.  Students will be able to build a structure that will reduce the warming effect of sunlight on an 	

				area.	
			<p>K.MD.A.2 - Describe and compare measurable attributes ~ Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference.</p> <p>SL.K.3 - Ask and answer questions in order to seek help, get information, or clarify something that is not understood.</p>		
June	Enduring Understandings ✕	Essential Questions ✕	Standards	✕	Knowledge & Skills ✕ Academic Language ✕
July	Enduring Understandings ✕	Essential Questions ✕	Standards	✕	Knowledge & Skills ✕ Academic Language ✕