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

August

Enguring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language

September

🏠 Grade Kindergarten Science Patterns (Earth Systems and Earth and Human Activities)

Enduring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language
🏠 Patterns are all around 🏠 There are weather and nature patterns.	🏠 How can patterns help you understand the world? 🏠 Why are patterns important?	K-ESS2.1 - Use and share observations of local weather conditions to describe patterns over time. K-ESS3.2 - Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.*	🏠 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.	🏠 Tier 2 Vocabulary air clouds drizzle fog lightening thunder rain storm temperature wind 🏠 Tier 3 Vocabulary hail tornado

October

Enduring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language

November

🏠 Grade Kindergarten Science Motion and Stability

Enduring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language
🏠 Making observations helps to learn about the world around you. 🏠 Objects move in many different ways when pushed or pulled.	🏠 How do objects move? 🏠 How can you make an oject move? 🏠 How can you change an objects direction?	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. 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.* K-2-ETS1.3 - Analyze data from tests of	🏠 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 (such as ramps,	🏠 Tier 2 Vocabulary push pull throw stop fast slow movement 🏠 Tier 3 Vocabulary cause and effect

		two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	blocks, etc.).	direction friction force
		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.		
		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.		

December

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

January

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

February

🏠 Grade Kindergarten Science Molecules to Organisms

Enduring Understandings ✕	Essential Questions ✕	Standards ✕	Knowledge & Skills ✕	Academic Language ✕
🏠 All animals need food, water, air and shelter in order to live and grow. 🏠 Plants need light, water, air and soil to order to survive. 🏠 Plants and animals are similar and different.	🏠 Why do animals and plants need food to grow? 🏠 What do animals and plants need to grow?	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. K-LS1.1 - Use observations to describe patterns of what plants and animals (including humans) need to survive.	🏠 Students will observe and compare plants and animals. 🏠 Students will know how organisms (plants and animals) interact with each other and nonliving part of their habitat to meet their basic needs. 🏠 Students will be able to use reading and writing skills to inquire, think critically, and apply scientific concepts to new situations. 🏠 Students will be able to use their sense to make and describe careful observations. 🏠 Students will recognize that patterns exist in our habitat.	🏠 Tier 2 Vocabulary animal plant habitat living water food light air soil shelter characteristic 🏠 Tier 3 Vocabulary organism nutrients

| | | | | Students will use venn diagrams to compare and contrast animal and plant needs. | |
| | | 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). | | | |

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

May

🏠 Grade Kindergarten Science Energy

Enduring Understandings ✕	Essential Questions ✕	Standards ✕		Knowledge & Skills ✕	Academic Language ✕
🏠 The Earth is made of different surfaces. 🏠 How sunlight has different effects on Earth	🏠 How does a structure refuse the warming effects of sunlight on a surface?	K-PS3.1 - Make observations to determine the effect of sunlight on Earth's surface. K-PS3.2 - Use tools and materials to design and build a structure that will		🏠 Students will be able to make observations, compare/contrast and identify different Earth	🏠 Tier 2 Vocabulary identify Earth surfaces rocks

Surfaces. 🏠 Identify an observable pattern when something comes between the Earth's surface and the sun. 🏠 That some objects reflect/absorv sunlight. 🏠 How different structures will reduce the warming effect on an area.	🏠 What are the effects of sunlight on different surfaces?	reduce the warming effect of sunlight on an area.*	materials (sand, soil, rocks, water) 🏠 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.	soil sand water plants ice effect sunlight observations/observable pattern between sun collect data comparisons/compare materials objects relfects absorbs reduce tools design engineer device solve problem structure build
		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).	🏠 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.	
		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.			
		SL.K.3 - Ask and answer questions in order to seek help, get information, or clarify something that is not understood.			

June	Enduring Understandings ✕	Essential Questions ✕	Standards ✕	Knowledge & Skills ✕	Academic Language ✕
July	Enduring Understandings ✕	Essential Questions ✕	Standards ✕	Knowledge & Skills ✕	Academic Language ✕