Select a Course:	Science Grade 1
Teacher:	CORE Science Grade 1
Course:	Science Grade 1
Year:	2016-17
Months:	- All -

August

Enduring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language

September

Enduring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language

October

Science Sun, Moon, and Stars (Unit 1)- Patterns

Enduring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language
Patterns help us predict and understand the world.	How do observations help us make predictions? How do patterns help us understand our world? **Unit Questions** What causes the seasons? What causes sunrise and sunset? What causes moon phases? What objects are in the sky, and how do they move?	K-2.ESS1.A - The universe and its stars ~ Patterns of movement of the sun, moon, and stars as seen from Earth can be observed, described, and predicted. K-2.ESS1.B - Earth and the solar system ~ Patterns of movement of the sun, moon, and stars as seen from Earth can be observed, described, and predicted. K-2.SEP.2.C - Develop and/or use a model to represent amounts, relationships, relative scales (bigger, smaller), and/or patterns in the natural and designed world(s). K-2.SEP.2.D - Develop a simple model based on evidence to represent a proposed object or tool. K-2.SEP.3.D - Make observations (firsthand or from media) and/or measurements to collect data that can be used to make comparisons. K-2.SEP.4.C - Use observations (firsthand or from media) to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems. 1-ESS1.1 - Use observations of the sun, moon, and stars to describe patterns that can be predicted.	Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. Seasonal patterns of sunrise and sunset can be observed, described, and predicted. Stars are not seen in the sky during the day, but they are seen in the sky during the night. The sun is at different positions in the sky at different times of the day, appearing to rise in one part of the sky in the morning and appearing to set in another part of the sky in the evening. The moon can be seen during the day and at night, but the	**Tier 2** pattern cycle observation day night light describe events visible morning afternoon evening predict **Tier 3** sun moon

			1-ESS1.2 - Make observations at different times of year to relate the amount of daylight to the time of year. K-2.CCC.1.A - Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence. K-2.CCC.2.A - Events have causes that generate observable patterns. K-2.NOS.2.A - Scientists look for patterns and order when making observations about the world. K-2.NOS.4.B - Scientists search for cause and effect relationships to explain natural events. K-2.NOS.5.A - Science knowledge helps us know about the world. K-2.NOS.6.A - Science assumes natural events happen today as they happened in the past. K-2.NOS.6.B - Many events are repeated.	sun can only be seen during the day. The moon is at different positions in the sky at different times of the day or night, appearing to rise in one part of the sky and appearing to set in another part of the sky.	world earth stars seasonal sunrise sunset daylight solar system

November

Enduring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language

December

Enduring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language

January

Grade 1 Cause and Effect (Light and Sound Unit 2)

Enduring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language
Sound and light can be used to communcate messgaes.	What is sound? What is light? What is vibration? How do we use light and sound to create messages?	K-2.SEP.3.B - Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. K-2.SEP.4.E - Analyze data from tests of an object or tool to determine if it works as intended. K-2.SEP.6.B - Use tools and/or materials to design and/or build a device that solves a specific problem or a solution to a specific problem. K-2.SEP.3.E - Make observations (firsthand or from media) and/or measurements of a proposed object or tool or solution to determine if it solves a	Sound can make matter vibrate, and vibrating matter can make sound. Objects can be seen if light is available to illuminate them or if they give off their own light. Some materials allow light to pass through them, others allow only some light through and others block all the light and	-communicate / comunicar -device / aparato vibrate/ vibración -illuminate/iluminar -wave/ ola -light/ luz - sound/ sonido

			problem or meets a goal. K-2.SEP.3.F - Make predictions based on prior experiences. K-2.SEP.4.A - Record information (observations, thoughts, and ideas). K-2.SEP.4.B - Use and share pictures, drawings, and/or writings of observations. K-2.SEP.4.D - Compare predictions (based on prior experiences) to what occurred (observable events). K-2.SEP.1.B - Ask and/or identify questions that can be answered by an investigation. K-2.SEP.1.C - Define a simple problem that can be solved through the development of a new or improved object or tool. K-2.SEP.1.A - Ask questions based on observations to find more information about the natural and/or designed world(s). 1-PS4.1 - Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate. 1-PS4.2 - Make observations to construct an evidence-based account that objects can be seen only when illuminated. 1-PS4.3 - Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light. 1-PS4.4 - Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.* K-2.SEP.6.A - Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. K-2.CCC.2.B - Simple tests can be designed to gather evidence to support or refute student ideas about causes. K-2.SEP.8.D - Communicate information or design ideas and/or solutions with others in oral and/or written forms using models, drawings, writing, or numbers that provide detail about scientific ideas, practices, and/or design ideas. K-2.NOS.1.A - Science investigations begin with a question. K-2.NOS.1.B - Scientist use different ways to study the world. K-2.NOS.7.A - People have practiced science for a long time.	create a dark shadow on any surface beyond them, where the light cannot reach. Mirrors can be used to redirect a light beam. People also use a variety of devices to communicate (send and receive information) over long distances. Shadows are made when light is blocked by an object.	-shadow/sombra -beam/rayo artificial light natural light pitch volume strike blow pluck/strum stroke

			K-2.NOS.7.B - Men and women of diverse backgrounds are scientists and engineers. K-2.PS4.A - Wave properties ~ Sound can make matter vibrate, and vibrating matter can make sound. K-2.PS4.B - Electromagnetic radiation ~ Objects can be seen only when light is available to illuminate them. K-2.PS4.C - Information technologies and instrumentation ~ People use devices to send and receive information. 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. 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-ETS1.3 - Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.		

February

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March

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April

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May

Grade 1 Survival (Unit 3) adaptation, change, survival, enviroment, interdependence

Enduring Understandings	Essential Questions	Standards	Knowledge & Skills	Academic Language
Adaptations are essential to survival.	How do adaptations help you survive? How do patterns improve survival?	K-2.LS1.A - Structure and function ~ All organisms have external parts that they use to perform daily functions. K-2.LS1.B - Growth and development of organisms ~ Parents and offspring often engage in behaviors that help the offspring survive. 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.	Different animals use their body parts in different ways. Plants also have different parts that help them survive and grow. Parents and offspring engage in behaviors to help the offspring to survive.	-animal / animal -plant / planta -protect / proteger -survival / supervivencia -similar / similar -young / joven

			K-2.LS1.D - Information Processing ~ Animals sense and communicate information and respond to inputs with behaviors that help them grow and survive. K-2.LS2.A - Interdependent relationships in ecosystems ~ Plants depend on water and light to grow, and also depend on animals for pollination or to move their seeds around. K-2.LS3.A - Inheritance of traits ~ Young organisms are very much, but not exactly, like their parents and also resemble other organisms of the same kind. K-2.LS3.B - Variation of traits ~ Young organisms are very much, but not exactly, like their parents and also resemble other organisms of the same kind. K-2.LS4.D - Biodiversity and humans ~ A range of different organisms lives in different places. K-2.NOS.3.A - Science knowledge can change when new information is found. K-2.NOS.4.A - Scientists use drawings, sketches, and models as a way to communicate ideas. 1-LS1.1 - Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.* 1-LS1.2 - Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive. 1-LS3.1 - Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents. K-2.NOS.8.A - Scientists study the natural and material world. K-2.CCC.7.A - Some things stay the same while other things change. K-2.CCC.7.B - Things may change slowly or rapidly. K-2.SEP.6.A - Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. K-2.SEP.6.B - Use tools and/or materials to design and/or build a device that solves a specific problem or a solution to a specific problem. K-2.SEP.8.A - Read grade-appropriate texts and/or use media to obtain scientific and/or technical information to		-characteristic / caracteristicas -patterns / patrones habitat/ hábitat - environment/ambiente -offspring/crías adaptaion / adaptación patterns of behavior / patrones de comportamiento behavior / comportamiento shelter / refugio

			determine patterns in and/or evidence about the natural and designed world(s).		

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