Course: Science **Grade: 3** **Designer(s): Emily Flowers & Shannon Buri**	**Overview of Course** (Briefly describe what students should understand and be able to do as a result of engaging in this course)**:**

Overarching Big Ideas, Enduring Understandings, and Essential Questions
(These "spiral" throughout the entire curriculum.)

Big Idea	**Standard(s) Addressed**	**Enduring Understanding(s)**	**Essential Question(s)**
1. Systems	S8.A.3.1.1: Describe a system as a group of related parts with specific roles that work together to achieve an observed result.	A system is a group of related parts with specific roles that work together to achieve an observed result.	How are parts working together in a specific system, allowing the system to function correctly?
2. Investigations	S8.A.2.1.5: Use evidence from investigations to clearly communicate and support conclusions S8.A.1.1.3: Use evidence, such as observations or experimental results, to support inferences about a relationship S8.A.1.1.2: Explain how certain questions can be answered through scientific inquiry and/or technological design	Evidence from investigations is needed to support hypothesises, procedures, and conclusions.	What evidence from your investigation can support your hypothesizes, procedures, and conclusions?

Big Ideas, Enduring Understandings, and Essential Questions Per Unit of Study
(These do NOT "spiral" throughout the entire curriculum, but are specific to each unit.)

Month of Instruction	Title of Unit	Big Idea(s)	Standard(s) Addressed	Enduring Understanding(s)	Essential Question(s)	Common Assessment(s)*	Common Resource(s)* Used
Unit 1 1st 9 weeks	Physical Science	Properties Changes Investigations	S3.C.1.1.3: Classify a substance as a solid, liquid, or gas S3.C.1.1.2: Classify matter using observable physical properties (e.g., weight, mass, shape, size, color, texture, state). S3.C.1.1.4: Recognize and identify how water goes through phase changes (i.e., evaporation, condensation, freezing, and melting). S3.C.1.1.5: Describe how the properties of matter can be changed (e.g., heating, cooling, physical weathering).	Matter can take on different properties: solid liquid, gas Physical properties can be measured Matter can undergo a physical change Physical changes can be produced by heating and cooling	How can we describe matter? How are properties of matter measured? What are physical changes in matter? What are some ways to combine matter? What are chemical changes in matter?		STC Science Kit-Chemical Tests (September-November) Journeys Science Stories: 1. Metamorphasis (poem under Poems about Science) 2. Bridges (main selection Pop's Bridge)
Unit 2 2nd 9 weeks	Earth Science	Cycles Patterns Properties	S3.D.2.1.2: Describe how weather variables (i.e., temperature, wind	Measure and predict weather	What makes up weather?		Journeys Science Stories: 1. The Land

		Investigations	speed, wind direction, and precipitation) are observed and measured. S3.D.2.1.3: Identify appropriate instruments to study and measure weather elements (i.e., thermometer [temperature]; wind vane [wind direction]; anemometer [wind speed]; rain gauge [precipitation])	Weather depicts natural patterns of change Compare types of severe weather	How are weather patterns different?		Volcanoes Built (main selection Dog-of-the-Sea-Waves) 2. The Power of Magnets (long article)
Unit 3 3rd 9 weeks	Space and Technology	Systems Patterns Investigations	S3.D.3.1.2: Describe the predictable patterns of change that occur over time in the observable shape of the Moon. S3.D.3.1.1: Describe how Earth rotates on its axis once every 24 hours giving rise to the cycle of night and day. S8.D.3.1.3: Compare and contrast characteristics of celestial bodies found in the solar system (e.g., moons, asteroids, comets, meteors, inner and outer planets).	The movement of Earth in relation to the sun determines the pattern of day and night Days and nights change in length throughout the year The sun is a star Constellations are in patterns Planets have different characteristics and positions	What are some patterns that repeat every day and every year? Why does the moon's shape change? What are star patterns? What are the parts of a solar system? What are the planets?		
Unit 4 4th 9 weeks	Life Science	Classification Investigation Systems	S3.B.1.1: Identify and describe the similarities and differences of living things and their life processes.	Systems are made of smaller parts that play specific roles Adaptations are needed for organisms to live and	What are the main parts of a plant? Why do plants need roots and a stem?		FOSS Science kit Stuctures of Life (March-May) Journeys Science Stories:

			S3.B.2.1: Identify and describe characteristics of plants and animals that help with their survival. S3.B.1.1.1: Identify and describe the functions of basic structures of animals and plants (e.g., animals [skeleton, heart, lungs]; plants [roots, stem, leaves]). S3.B.1.1.3: Describe the basic needs of plants and animals and their dependence on light, food, air, water, and shelter.	thrive in a particular environment Plants and animals are grouped based on characteristics	How are plants grouped? How do new plants grow? How are plants from the past like today's plant? How are animals grouped? How do animals grow and change? How do adaptations help animals? How are animals from the past like today's animals?		1. A Tree is Growing 2. Two Bad Ants 3. The Journey: Story of Migration 4. Paca and the Beetle 5. Save the Rain Forest:(main selection Mr. Rubbish Mood) 6. The Harvest Birds 7. The Dog-of the Sea Waves 8. Finding Fossils for Fun (Main Selection: The Albertosaurus Mystery)