



HIGHLANDS SCHOOL DISTRICT

9 WEEK PACING GUIDE

KINDERGARTEN SCIENCE

COURSE Kindergarten Science	UNIT 1: Exploring My Weather Number of Weeks —9—	Big Idea(s): Weather includes conditions that can be observed using our senses and instruments. Patterns and changes in weather can be observed over short and long time periods. Water can exist as a solid, liquid or gas. Weather affects people and other living things.	Essential Question(s): What can we observe about the weather? Why would we want to measure temperature, precipitation, wind, or clouds? How can we use weather patterns to make predictions? How does weather affect humans and other animals?	Materials/Resources /Activities: STC Exploring My Weather Lessons 1-8 (follow teacher’s manual for pacing of each lesson) Materials list Tab 4 of Teacher Manual
Quarter 1	Science and Engineering Practices	Disciplinary Core Idea	Cross Cutting Concepts	
	Developing and using models Obtaining, evaluating, and communicating information Engaging in argument from evidence	K-ESS2-1 Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. K-PS3-1 Sunlight warms Earth’s surface. K-2-ETS1-1 Asking questions, making observations, and gathering information are helpful in thinking about problems.	Patterns Cause and effect	

COURSE Kindergarten Science	UNIT 2: Exploring Forces and Motion Number of Weeks __9__	Big Idea(s): Objects can move at different speeds. They can speed up. Slow down and stop. An object's position can change when it is pulled or pushed by forces. The size and direction of the change is related to the strength and direction of those forces.	Essential Question(s): How can we describe an object's position? Why do some objects move faster than others? How are pushes and pulls the same and different? How are forces related to speed?	Materials/Resources /Activities: STC Exploring Forces and Motion Lessons 1-7 (follow teacher's manual for pacing of each lesson) Materials list Tab 4 of Teacher Manual
Quarter 2	Science and Engineering Practices	Disciplinary Core Idea	Cross Cutting Concepts	
	Planning and carrying out investigations Analyzing and interpreting data Obtaining, evaluating, and communicating information Engaging in argument from evidence	K-PS2-2 Pushes and pulls can have different strengths and directions. Pushing or pulling on an object can change the speed or direction of motion and can start or stop it. K-PS2-1 When objects touch or collide, they push on one another and can change motion. K-ETS1.A Asking questions, making observations, and gathering information are helpful in thinking about problems. K-ETS1.B Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (K-PS2-2), (K-2-ETS1-	Cause and effect Structure and function	

COURSE Kindergarten Science	UNIT 3: Exploring Plants and Animals Number of Weeks __18__	Big Idea(s): Living things are distinguished from non-living things by their ability to grow, feed, reproduce, and move. Plants and animals adapt to their environments. All living things affect the environments they live in.	Essential Question(s): How can we categorize living things? What can you tell about an animal by seeing where it lives? What might happen if a plant or animal did not get what it needed from its environment? How can human beings help and hurt the environment?	Materials/Resources /Activities: STC Exploring Plants and Animals 1-8 (follow teacher's manual for pacing of each lesson) Materials list Tab 4 of Teacher Manual
Quarter 3 & 4	Science and Engineering Practices	Disciplinary Core Idea	Cross Cutting Concepts	
	Ask questions and define problems Developing and using models Planning and carrying out investigations Analyzing and interpreting data Constructing explanations and designing solutions	K-LS1-1 All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. K-ESS3-1 Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. K-ESS2-2 Plants and animals can change their environment. K-ESS3-3 Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. K-2-ETS1-1 Before beginning to design a solution, it is important to clearly understand the problem. A situation that people want to change or create can be approached as a problem to be solved through engineering. Asking questions, making observations, and gathering information are helpful in thinking about problems. K-2-ETS1-2 Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solution to other people.	Patterns Cause and effect Structure and function Systems and system models	