

Course Title: STEAM Kindergarten

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Grade	Big Idea	Essential Questions	Concepts	Proposed Labs	Competencies	Vocabulary	NGSS Standards	SAS Standards	Assessment Anchor Eligible Content	Resources
K	5 Senses	How do living things use body parts to meet their needs?	Use the five senses and simple equipment to gather data	5 Sense flipbook ELA Connection 5 Senses Experience Stations Wrap up activity	Use the five senses and simple equipment to gather data	Smell Taste Hear Touch See		S.K-2.A.1.1.1 Identify a scientific fact as something that can be observed using the five senses.	S.K-2.A.1.1 Identify the applications of scientific, environmental, or technological knowledge.	Flipbook Story Recording Sheets Multimedia Assorted items to experience each sense first hand
K	Water Cycle	How can one explain and predict interactions between objects within systems? How can one explain the structure, properties, and interactions of matter?	The amount and position of mass affect how an object moves. Sunlight warms the Earth's surface.	Water Cycle Experiments	Make observations to determine the effect of sunlight on the Earth's surface.	Water Evaporation Condensation Precipitation Collection Changes Predict Sunlight Earth Surface Observe		3.2.K.A3 Describe the way matter can change.	S4.A.1.3 S4.A.2.1 S4.A.3.3 S4.D.2.1	Songs Hands on Experiments Recording Sheet

K	Coding	How is the movement of the object affected by the code?	Changing the code changes the motion.	Code.org introduction	Navigate to the appropriate webpage.	Code Website Direction Right Left Up Down Arrow keys		1B.AP.10 Create programs that include sequences, events, loops, and conditionals.		Code.org website Smartboard/computers/ iPad
K	Weather by Season	The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of temporal and spatial scales. (EQ) How and why is Earth constantly changing?	Weather is constantly changing.	Seasons Activities	Use and share observations of local weather conditions to describe patterns over time. (K-ESS2-1)	Sunny Changes Cloudy Cold Cool Describe Foggy Hot Observe Partly Cloudy Patterns Predict Rainy Snowy Warm Weather Windy		3.3.3.A5 3.3.4.A5	S4.A.1.1 S4.A.1.3 S4.A.2.1 S4.A.2.2 S4.A.3.1 S4.A.3.2 S4.A.3.3 S4.A.3.3.1	Assorted recycled materials String Straws Pipe cleaners Magnets Paperclips Popsicle sticks Craft Sticks Yarn Rubber bands Tape Pond structure for the fish
K	Shapes	How can application of attributes of geometric shapes support mathematical reasoning and problem solving?	Two and three dimensional shapes.	Identify shapes Matching tangram shapes Create random tangram shapes	Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms such as	Square Triangle Rhombus Rectangle Circle Vertices Oval Angles Trapezoid Hexagon Pentagon		CC.2.3.K.A.1 Identify and describe two- and three-dimensional shapes CC.2.3.K.A.2 Analyze, compare, create, and		Manipulative shapes Tangram patterns Dice Tangram mat Geoboards

					above, below, beside, in front, behind, and next to.			compose two- and three-dimensional shapes.		
K	Plant/ Insect Life Cycle	How do organisms live, grow, respond to their environment, and reproduce?	Animals need food (plants and other animals) and water in order to live and grow. (LS1.C)	Seed Plantings Journaling visible plant/ insect developmental changes.	Use observations to describe what animals need to survive. (K-LS1-1)	Environment Leaves Organism Patterns Roots Stems Structure Survive		3.1.4.A.2 Describe the different resources that plants and animals need to live.	S4.A.2.1.3 S4.B.1.1.1 S4.B.1.1.2 S4.B.1.1.3 S4.B.1.1.4	Mini Greenhouse Plant Germination Effects of External Environmental Variations