

Quarter					Instructional Shifts							
1	2	3	4		<i>Concepts and Skills</i>	Lab inves- tigations	Close Read Strategy	Tier II Vocab	Text Dependent Questions	Evidence Based	Writing Element	Speaking Element
					SR	<b><i>Science Investigation and Reasoning</i></b>						
					SR.A	<b><i>The student conducts classroom and outdoor investigations following home and safety procedures and uses environmentally appropriate and responsible</i></b>						
					1	Identify and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations including:						
					1a	Water safety goggles						
					1b	Washing hands						
					1c	Using materials appropriately						
					2	Describe the importance of safe practices						
					3	Identify and demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reuse or recycling of paper, plastic, and metal.						
					SR.B	<b><i>The student develops the abilities to ask questions and seek answers in classroom and outdoor investigations</i></b>						
					1	Asks questions about organisms, objects, and events observed in the natural world						
					2	Plan and conduct descriptive investigations, such as how organism grow						
					3	Collect data and make observations using simple equipment specifically:						
					3a	Hand lenses						

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					3b	Primary balances						
					3c	Non-standard measurement tools						
					4	Record and organize data and observations using pictures, numbers, and words						
					5	Communicate observations and justify explanations using student-generated data from simple descriptive investigations.						
					6	Compare results of investigations with what students and scientists know about the world						
					<b>SR.C</b>	<b><i>The student knows that information and critical thinking are used in scientific problem solving</i></b>						
					1	Identify and explain a problem in his/her words and propose a task and solution for the problems such as lack of water in a habitat TCC						
					2	Make predictions based on observable patterns						
					3	Identify what a scientist is and explore what different scientists do.						
					<b>SR.D</b>	<b><i>The student uses age appropriate tools and models to investigate the natural world.</i></b>						
					1	Collect information using tools including:						
					1a	computers						
					1b	hand lenses						
					1c	primary balances						

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					1d	cups and bowls						
					1e	collecting nets						
					1f	notebooks						
					1g	timing devices						
					1h	clocks and timers						
					1i	non-standard measuring items such as paper clips, clothespins						
					1j	weather instruments such as thermometers, wind socks, wind vanes, rain gauges						
					1k	materials to support observations of habitats of organisms such as terrariums and aquariums						
					2	Measure and compare organisms and objects using non-standard units that approximate metric units						
					<b>ME</b>	<b><i>Matter and Energy</i></b>						
					1	Classify matter by physical properties including shape, relative mass, relative temperature, texture, flexibility, and whether material is a solid or liquid (PS1-1). Observe (firsthand or from media) different states of matter and how many of them can be either solid or liquid, depending on temperature (PS1-A).						
					2	Compare changes in materials caused by heating and cooling. Plan and conduct investigations to determine the effect of heating or cooling of a substance (PS1-B).						

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					2a	a. Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot (i.e. ice to water, pop popcorn).						
					2b	b. Identify and discuss how heating and cooling are important to everyday life.						
					3	Demonstrate that things can be done to materials to change their physical properties such as cutting, folding, sanding, and melting. Use tools and materials to design and build a variety of objects from a small set of pieces and can be disassembled and made into a new object or shape (PS1-A; PS1-3).						
					4	Combine materials that when put together can do things that they cannot do by themselves such as building a tower or a bridge and justify the selection of those materials based on their physical properties (PS1-2).						
					5	Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose (PS1-2).						
					<b>FME</b>	<b><i>Force, Motion and Energy</i></b>						

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					1	Investigate the effects on an object by increasing or decreasing amounts of light, heat, and sound energy such as how the color of an object appears different in dimmer light how heat melts butter.						
					2	Observe and identify how magnets are used in everyday life.						
					3	Trace the changes in the position of an object over time, such as a cup rolling on the floor and a car rolling down a ramp.						
					4	Compare patterns of movement of objects such as sliding, rolling, and spinning.						
					<b>ES</b>	<b><i>Earth and Space</i></b>						
					1	Observe and describe rocks by size, texture, and color.						
					2	Identify and compare the properties of natural sources of freshwater and saltwater.						
					3	Distinguish between natural and manmade resources.						
					4	Identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation.						

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					5	Explore the processes in the water cycle, including evaporation, condensation, and precipitation as connected to weather conditions.						
					6	Observe, describe, and record patterns of objects in the sky, including the appearance for the Moon.						
					7	Make observations to construct an evidence-based account that wind and water can change the shape of the land (i.e. canyons, sea caves, Great Arches national Park) (ESS2-A).						
					8	Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land (ESS2-C).						
					9	Develop a model to represent the shapes and kinds of land and bodies of water in an area (i.e. play dough models of landforms, constructiona papter treasure map showing landforms) (ESS2-2).						
					10	Explore the processes in the water cycle including evaporation, condensation and precipitation as connected to weather conditions.						
					10a	a. Observe and describe physical properties of natural sources of water including color and clarity.						

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					10b	b. Identify and describe a variety of natural sources of water including streams, lakes, rivers and oceans.						
					10c	c. Identify and compare the properties of natural sources of freshwater and saltwater.						
					10d	d. Obtain information to identify where water is found on Earth and that it can be solid or liquid (ESS2-C).						
					11	Make observations from media to construct an evidence-based account that Earth events can occur quickly or slowly some are too slow to observe in a lifetime (i.e. formation of the Gran Canyon, erosion of mountains) (ESS1-C).						
					<b>OE</b>	<b><i>Organisms and Environments</i></b>						
					1	Identify the basic needs of plants and animals. Plan and conduct investigations to determine if plants need sunlight and water to grow (LS2-1).						
					2	Identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things						

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					3	Compare and give examples of the ways living organisms depend on each other and on their environments such as food chains within a garden park, beach, lake and wooded area.						
					4	Observe, record, and compare how the physical characteristics of plants help them meet their basic needs such as stems carry water throughout the plant.						
					4a	a. Make observations to construct an evidence-based account of how plants depend on animals for pollination or to move their seeds (LS2-A).						
					4b	b. Develop a simple model (sketch, drawing or physical model) that mimicks the function of an animal in dispersing seeds or pollinating plants (LS2-2).						
					4c	c. Make observations to construct an evidence-based account of how the shape and structure of seeds are related to their dispersal method (CC-6).						
					4d	d. Observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower and fruit.						
					5	Observe, record, and compare how the physical characteristics and behaviors of animals help them meet their basic needs such as fins help fish move and balance in the water.						



					<i>Concepts and Skills</i>	Lab investigations	Close Read Strategy	Tier II Vocab	Text Dependent Questions	Evidence Based	Writing Element	Speaking Element
1	2	3	4		6 Investigate and record some of the unique stages that insects undergo during their life cycle. Make observations of plants and animals to compare the diversity of life in different habitats (LS4-1).							























































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