

Quarter					<i>Concepts and Skills</i>	Instructional Shifts						
1	2	3	4			Lab investigations	Close Read Strategy	Tier II Vocab	Text Dependent Questions	Evidence Based	Writing Element	Speaking Element
				SR	<i>Science Investigation and Reasoning</i>							
				SR.A	<i>The student conducts classroom and outdoor investigations following home and safety procedures and uses environmentally appropriate and responsible practices.</i>							
				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	Discuss the importance of safe practices to keep self and others safe and healthy							
				3	Demonstrate how to use, conserve, and dispose of nature resources and materials, specifically:							
				3a	Conserving water							
				3b	Reusing or recycling paper, plastic, and metal							
				SR.B	<i>The student develops the abilities to ask questions and seek answers in classroom and outdoor investigations</i>							
				1	Asks questions about organisms, objects, and events observed in the natural world							

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				2	Plan and conduct simple descriptive investigations, such as ways objects move							
				3	Collect data and make observations using simple equipment specifically:							
				3a	Hand lenses							
				3b	Primary balances							
				3c	Non-standard measurement tools							
				4	Record and organize data and observations using patterns, numbers, and words							
				5	Communicate observations with others about simple descriptive investigations							
				SR.C	<i>The student knows that information and critical thinking are used in scientific problem solving</i>							
				1	Identify and explain a problem (e.g. Impact of littering on the playground) and propose a solution in his own words							
				2	Make predictions based on observable pattern in nature such as shapes of leaves							
				3	Explore that scientists investigate different things in the natural world and use tools to help in their investigations							
				SR.D	<i>The student uses age appropriate tools and models to investigate the natural world.</i>							
				1	Collect information using tools including:							
				1a	computers							
				1b	hand lenses							

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					1c	primary balances						
					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						
					1k	habitats of organisms such as terrariums, and aquariums						
					2	Use senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment.						
					ME	<i>Matter and Energy</i>						
					1	Observe and record properties including relative and mass, such as bigger or smaller and heavier or lighter, shape, color, and texture						
					2	Observe, record, and discuss how materials can be changed by heating or cooling						
					FME	<i>Force, Motion and Energy</i>						
					1	Use the five senses to explore different forms of energy such as light, heat, and sound						
					2	Explore interactions between magnets and various materials						

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					3	Observe and describe the locations on an object in relation to another such as above, below, behind, in front of, beside, closer to, nearer to and farther from.						
					4	Observe and describe the ways that objects can move such as in a straight line, zigzag, up and down, back and forth, round and round, and fast and slow.						
					5	Compare patterns of movement of objects, such as sliding, rolling, and spinning.						
					6	effects of different strengths or different directions of pushes and pulls on the motion of an object (PS2-1).						
					7	Understand that a bigger push or pull makes things go faster (PS3-C).						
					8	Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or pull (PS2-2)						
					9	Plan and conduct investigations to show that when objects touch or collide, they push on one another an can change motion (PS2-B).						
					10	Design simple tests to gather evidence to support or refute student ideas about causes and how problems have many acceptable solutions (CC-2; ETS1-A)						
					ES	<i>Earth and Space</i>						

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					1	Observe, describe, compare and sort rocks by size, shape, color, and texture						
					2	Observe and describe physical properties of natural sources of water, including color and						
					3	Give examples of ways rocks, soil, and water are useful						
					4	Observe and describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun.						
					4a	a. Observe and record the effect of sunlight on the Earth's surface (PS3-1).						
					4b	b. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area (PS3-2).						
					5	Identify events that have repeating patterns, including seasons, of the year and day and night						
					6	Observe and describe weather changes from day to day and over seasons.						
					7	Measure, record and graph weather information, including temperature, wind conditions, precipitations, and cloud coverage in order to identify patterns in the data. Understand that people measure these conditions to describe and record the weather and to notice patterns over time (ESS2-D).						

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					8	Ask questions and provide evidence to show that some kinds of severe weather are more likely than others in a given region (i.e. hurricanes). Understand that weather scientists forecast severe weather so that the communities can prepare for and respond to these events (ESS3-B).						
					OE	<i>Organisms and Environments</i>						
					1	Differentiate between living and nonliving things based upon whether they have basic needs and produce offspring						
					2	Examine evidence that living organisms have basic needs such as food, water, and shelter for animals and air, water, nutrients, sunlight, and space for plants. (LS1-C; LS1-C; LS1-1)						
					3	Sorts plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape						
					4	Identify parts of plants such as roots, stem, and leaves and parts of animals such as head, eyes, and limbs						
					5	Identify ways that young plants resemble the parent plant						
					6	Observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower and fruit						

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					7	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs (ESS2-2).						
					8	Communicate solutions that will reduce the impact of humans on the land, water, air and/or other living things in the local environment (ESS3-3).						
					9	Demonstrate that air is all around us and observe that wind is moving air.						
					10	Create a model (sketch, drawing, or physical model) to represent the relationship between the needs of different plants or animals and their habitats (including humans). Give examples of ways living organisms depend on each other and on their environments, such as food chains within a garden, park, beach, lake and wooded area (ESS3-1).						

















































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