

Cycle 1	27 Days	The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Aug. 23 - Oct. 1, 2021	
Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 1: Structure and Function of Cells</b> Students recognize the levels of organization in living things and the components of the Cell Theory and differentiate between the structure and function in plant and animal cells.	<b>11</b> class periods (90-min. each) or <b>22</b> class periods (45-min. each)  <i>Enrichment Opportunities</i> Aug. 2-13  <i>Teachers Report to Work</i> Aug. 16  <i>Teacher Service Days</i> Aug. 16-17, Aug. 19-20  <i>Teacher Prep Day</i> (no students) Aug. 18  <i>Labor Day</i> Sept. 6  <i>Fall Holiday</i> Sept. 16  <i>Teacher Service Day</i> (no students) Sept. 17	<b>Science process standards are embedded into lessons on science content throughout the entire year.</b>  <b>Science Content Standards:</b> <b>SCI.7.12C</b> Recognize levels of organization in plants, and animals, including cells, tissues, organs, organ systems, and organisms. <b>SCI.7.12D</b> Differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole. <b>SCI.7.12E</b> Compare the functions of cell organelles to the functions of an organ system. <b>SCI.7.12F</b> Recognize the components of cell theory.  <b>Science Process Standards:</b> <b>SCI.7.1A</b> Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency approved safety standards. <b>SCI.7.2A</b> Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. <b>SCI.7.2C</b> Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. <b>SCI.7.2D</b> Construct tables, using repeated trials and means, to organize data and identify patterns. <b>SCI.7.3A</b> analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student. <b>SCI.7.3B</b> Use models to represent aspects of the natural world such as human body systems, and plant and animal cells. <b>SCI.7.3C</b> Identify advantages and limitations of models such as size, scale, properties, and materials. <b>SCI.7.3D</b> Relate the impact of research on scientific thought and society including the history of science and contributions of scientists as related to the content. <b>SCI.7.4A</b> Use appropriate tools including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks and other necessary equipment to collect, record and analyze information.

Cycle 2	29 Days	
	Oct. 5 - Nov. 12, 2021	
<i>The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>		
Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 2: Human Body Systems and STEM</b> Students identify the main functions of the systems by methods of scientific inquiry of the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems of the human body.	12 class periods (90-min. each) or 24 class periods (45-min. each)  <i>Teacher Service Day (no students) Oct. 4</i>	<b>Science Content Standards:</b> Ⓢ <b>SCI.7.12B</b> Identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems.  <b>Science Process Standards:</b> Ⓢ <b>SCI.7.1A</b> Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency approved safety standards. Ⓢ <b>SCI.7.1B</b> Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials. Ⓢ <b>SCI.7.2A</b> Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. Ⓢ <b>SCI.7.2B</b> Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology. Ⓢ <b>SCI.7.2C</b> Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓢ <b>SCI.7.2D</b> Construct tables, using repeated trials and means, to organize data and identify patterns. Ⓢ <b>SCI.7.3A</b> analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student. Ⓢ <b>SCI.7.3B</b> Use models to represent aspects of the natural world such as human body systems, and plant and animal cells. Ⓢ <b>SCI.7.3C</b> Identify advantages and limitations of models such as size, scale, properties, and materials.

Cycle 3	30 Days	The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Nov. 15, 2021 - Jan. 14, 2022	
Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 3: Stimulus and Response</b> Students investigate and describe how organisms respond and relate to responses to internal and external stimuli in human body.	4 class periods (90-min. each) or 8 class periods (45-min. each)  <i>Thanksgiving Break</i> <i>Nov. 22-26</i>  <i>Enrichment Opportunities</i> <i>Dec. 20-21</i>  <i>Winter Break</i> <i>Dec. 20-31</i>  <i>MLK Jr. Day</i> <i>Jan. 17</i>  <i>Teacher Prep Day</i> <i>(no students)</i> <i>Jan. 18</i>	<b>Science Content Standards:</b> <b>SCI.7.13A</b> Investigate how organisms respond to external stimuli found in the environment such as <del>phototropism</del> and fight or flight. <b>SCI.7.13B</b> Describe and relate responses in organisms that may result from internal stimuli such as <del>wilting plants</del> -fever or vomiting in animals that allow them to maintain balance.  <b>Science Process Standards:</b> <sup>PS</sup> <b>SCI.7.1A</b> Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency approved safety standards. <sup>PS</sup> <b>SCI.7.1B</b> Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials. <sup>PS</sup> <b>SCI.7.2A</b> Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. <sup>PS</sup> <b>SCI.7.2B</b> Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology. <sup>PS</sup> <b>SCI.7.2C</b> Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. <sup>PS</sup> <b>SCI.7.2D</b> Construct tables, using repeated trials and means, to organize data and identify patterns. <sup>PS</sup> <b>SCI.7.2E</b> Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. <sup>PS</sup> <b>SCI.7.3A</b> analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student. <sup>PS</sup> <b>SCI.7.3B</b> Use models to represent aspects of the natural world such as human body systems, and plant and animal cells. <sup>PS</sup> <b>SCI.7.3C</b> Identify advantages and limitations of models such as size, scale, properties, and materials. <sup>PS</sup> <b>SCI.7.4A</b> Use appropriate tools, including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks and other necessary equipment to collect, record and analyze information. <sup>PS</sup> <b>SCI.7.4B</b> Use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher.

Cycle 3	30 Days	The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Nov. 15, 2021 - Jan. 14, 2022	
Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 4: Matter and Energy within an Organism</b> Students distinguish and illustrate physical and chemical properties and the relationship between energy transformations within an organism.	8 class periods (90-min. each) or 16 class periods (45-min. each)	<p><b>Science Content Standards:</b></p> <p>Ⓢ <b>SCI.7.6A</b> Distinguish between physical and chemical changes in matter.</p> <p>Ⓢ <b>SCI.7.7A</b> Illustrate the transformation of energy within an organism such as the transfer from chemical energy to thermal energy.</p> <p><b>Science Process Standards:</b></p> <p>Ⓢ <b>SCI.7.1A</b> Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency approved safety standards.</p> <p>Ⓢ <b>SCI.7.1B</b> Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials.</p> <p>Ⓢ <b>SCI.7.2A</b> Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology.</p> <p>Ⓢ <b>SCI.7.2B</b> Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology.</p> <p>Ⓢ <b>SCI.7.2C</b> Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers.</p> <p>Ⓢ <b>SCI.7.2D</b> Construct tables, using repeated trials and means, to organize data and identify patterns.</p> <p>Ⓢ <b>SCI.7.2E</b> Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.</p> <p>Ⓢ <b>SCI.7.3A</b> analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student.</p> <p>Ⓢ <b>SCI.7.3B</b> Use models to represent aspects of the natural world such as human body systems, and plant and animal cells.</p> <p>Ⓢ <b>SCI.7.3C</b> Identify advantages and limitations of models such as size, scale, properties, and materials.</p> <p>Ⓢ <b>SCI.7.4A</b> Use appropriate tools, including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks and other necessary equipment to collect, record and analyze information.</p> <p>Ⓢ <b>SCI.7.4B</b> Use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher.</p>

Cycle 4		27 Days Jan. 19 - Feb. 25, 2022	<i>The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:	
<b>Unit 5: Genetics</b> Students recognize that inherited traits of individuals are governed and define heredity and compare results of offspring from asexual and sexual reproduction.	5 class periods (90-min. each) or 10 class periods (45-min. each)  <i>Teacher Service Day/Presidents' Day            (no students)            Feb. 21</i>	<b>Science Content Standards:</b> <b>SCI.7.14A</b> Define heredity as the passage of genetic instructions from one generation to the next generation. <b>SCI.7.14B</b> Compare the results of uniform or diverse offspring from asexual or sexual reproduction. <b>SCI.7.14C</b> Recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus.  <b>Science Process Standards:</b> <b>SCI.7.2C</b> Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. <b>SCI.7.2D</b> Construct tables, using repeated trials and means, to organize data and identify patterns. <b>SCI.7.2E</b> Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. <b>SCI.7.3A</b> analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student. <b>SCI.7.3B</b> Use models to represent aspects of the natural world such as human body systems, and plant and animal cells. <b>SCI.7.3C</b> Identify advantages and limitations of models such as size, scale, properties, and materials. <b>SCI.7.4A</b> Use appropriate tools, including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks and other necessary equipment to collect, record and analyze information. <b>SCI.7.4B</b> Use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher.	

Cycle 4	27 Days	The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Jan. 19 - Feb. 25, 2022	
<p><b>Unit 6: Variations Within Species</b> Students examine, explain investigate and identify how organisms' genetic variations contribute to sustainability within a population.</p>	<p>6 class periods (90-min. each) or 12 class periods (45-min. each)</p>	<p><b>Science Content Standards:</b></p> <p>Ⓢ <b>SCI.7.11A</b> Examine organisms or their structures such as insects or leaves and use dichotomous keys for identification.</p> <p><b>SCI.7.11B</b> Explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival such as migration, hibernation, or storage of food in a bulb.</p> <p>Ⓢ <b>SCI.7.11C</b> Identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (<i>Geospiza fortis</i>) or domestic animals and hybrid plants.</p> <p><b>SCI.7.12A</b> Investigate and explain how internal structures of organisms have adaptations that allow specific functions such as gills in fish, hollow bones in birds, or xylem in plants.</p> <p><b>Science Process Standards:</b></p> <p>Ⓡ <b>SCI.7.1A</b> Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency approved safety standards.</p> <p>Ⓡ <b>SCI.7.1B</b> Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials.</p> <p>Ⓡ <b>SCI.7.2A</b> Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology.</p> <p>Ⓡ <b>SCI.7.2B</b> Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology.</p> <p>Ⓡ <b>SCI.7.2C</b> Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers.</p> <p>Ⓡ <b>SCI.7.2D</b> Construct tables, using repeated trials and means, to organize data and identify patterns.</p> <p>Ⓡ <b>SCI.7.2E</b> Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.</p> <p>Ⓡ <b>SCI.7.3A</b> analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student.</p> <p>Ⓡ <b>SCI.7.4A</b> Use appropriate tools, including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks and other necessary equipment to collect, record and analyze information.</p> <p>Ⓡ <b>SCI.7.4B</b> Use preventative safety equipment, including chemical splash goggles, aprons, and gloves, and be prepared to use emergency safety equipment, including an eye/face wash, a fire blanket, and a fire extinguisher.</p>

Cycle 5	33 Days	
	Feb. 28 - Apr. 22, 2022	
<i>The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>		
Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 7: Plant Processes</b> Students investigate structures that enhance a plant's survival that recognizes energy transformations during photosynthesis, demonstrates and illustrates forces that effect motion in plants.	13 class periods (90-min. each) or 26 class periods (45-min. each)  <i>Enrichment Opportunities</i> <i>Mar. 14-16</i>  <i>Spring Break</i> <i>Mar. 14-18</i>  <i>Chávez-Huerta Day</i> <i>Mar. 28</i>  <i>Spring Holiday</i> <i>Apr. 15</i>	<b>Science Content Standards:</b> <b>SCI.7.5A</b> Recognize that radiant energy from the Sun is transformed into chemical energy through the process of photosynthesis. <b>SCI.7.7B</b> Demonstrate and illustrate forces that affect motion in organisms such as emergence of seedlings, turgor pressure, geotropism, <del>and circulation of blood.</del> <b>SCI.7.11B</b> Explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival such as <del>migration, hibernation, or storage of food in a bulb.</del> <b>SCI.7.12A</b> Investigate and explain how internal structures of organisms have adaptations that allow specific functions such as <del>gills in fish, hollow bones in birds, or xylem in plants.</del> <b>SCI.7.13A</b> Investigate how organisms respond to external stimuli found in the environment such as phototropism <del>and fight or flight.</del> <b>SCI.7.13B</b> Describe and relate responses in organisms that may result from internal stimuli such as wilting in plants <del>and fever or vomiting in animals that.</del> <b>SCI.7.14B</b> Compare the results of uniform or diverse offspring from asexual or sexual reproduction.  <b>Science Process Standards:</b> <b>PS.7.1A</b> Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency approved safety standards. <b>PS.7.2A</b> Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. <b>PS.7.2B</b> Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology. <b>PS.7.2D</b> Construct tables, using repeated trials and means, to organize data and identify patterns. <b>PS.7.2E</b> Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. <b>PS.7.3A</b> analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student. <b>PS.7.3B</b> Use models to represent aspects of the natural world such as human body systems and plant and animal cells. <b>PS.7.4A</b> Use appropriate tools, including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks and other necessary equipment to collect, record and analyze information.

Cycle 6	31 Days	The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Apr. 25 - June 7, 2022	
Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
<b>Unit 8: Biodiversity</b> Students observe and describe how energy flows through living systems and the role of ecological succession and how it contributes to the biodiversity within an ecosystem.	6 class periods (90-min. each) or 12 class periods (45-min. each)  <i>Memorial Day</i> <i>May 30</i>  <i>Teacher Prep Day</i> <i>(no students)</i> <i>June 8</i>	<b>Science Content Standards:</b> Ⓢ <b>SCI.7.5B</b> Diagram the flow of energy through living systems, including food chains, food webs, and energy pyramids. Ⓢ <b>SCI.7.10A</b> Observe and describe how different environments, including microhabitats in schoolyards and biomes, support different varieties of organisms. Ⓢ <b>SCI.7.10B</b> Describe how biodiversity contributes to the sustainability of an ecosystem. Ⓢ <b>SCI.7.10C</b> Observe, record, and describe the role of ecological succession such as in microhabitat of a garden with weeds.  <b>Science Process Standards:</b> Ⓢ <b>SCI.7.1A</b> Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency approved safety standards. Ⓢ <b>SCI.7.2A</b> Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology. Ⓢ <b>SCI.7.2B</b> Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology. Ⓢ <b>SCI.7.2C</b> Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers. Ⓢ <b>SCI.7.2D</b> Construct tables, using repeated trials and means, to organize data and identify patterns. Ⓢ <b>SCI.7.2E</b> Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends. Ⓢ <b>SCI.7.3A</b> Analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student. Ⓢ <b>SCI.7.3B</b> Use models to represent aspects of the natural world such as human body systems and plant and animal cells. Ⓢ <b>SCI.7.3C</b> Identify advantages and limitations of models such as size, scale, properties, and materials. Ⓢ <b>SCI.7.4A</b> Use appropriate tools, including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks and other necessary equipment to collect, record and analyze information.

<p><b>Unit 9: Catastrophic Events and Ecosystems</b> Students predict and describe the effect of catastrophic events on systems of Earth, and analyze the effects of weathering, erosions and deposition of ecoregions of Texas and model humans' impact on watersheds.</p>	<p>5 class periods (90-min. each) or 10 class periods (45-min. each)</p>	<p><b>Science Content Standards:</b>  <b>SCI.7.8A</b> Predict and describe how catastrophic events such as floods, hurricanes, or tornadoes impact ecosystems.  <b>SCI.7.8B</b> Analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas.  <b>SCI.7.8C</b> Model the effects of human activity on groundwater and surface water in a watershed.</p> <p><b>Science Process Standards:</b>  <b>PS.7.1A</b> Demonstrate safe practices during laboratory and field investigations as outlined in the Texas Education Agency approved safety standards.  <b>PS.7.1B</b> Practice appropriate use and conservation of resources including disposal, reuse, or recycling of materials  <b>PS.7.2A</b> Plan and implement comparative and descriptive investigations by making observations, asking well defined questions, and using appropriate equipment and technology.  <b>PS.7.2B</b> Design and implement experimental investigations by making observations, asking well defined questions, formulating testable hypotheses, and using appropriate equipment and technology.  <b>PS.7.2C</b> Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers.  <b>PS.7.2D</b> Construct tables, using repeated trials and means, to organize data and identify patterns.  <b>PS.7.2E</b> Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.  <b>PS.7.3A</b> analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student.  <b>PS.7.3B</b> Use models to represent aspects of the natural world such as human body systems and plant and animal cells.  <b>PS.7.3C</b> Identify advantages and limitations of models such as size, scale, properties, and materials.  <b>PS.7.4A</b> Use appropriate tools, including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks and other necessary equipment to collect, record and analyze information.</p>
<p><b>Unit 10: Characteristics of Our Solar System</b></p>	<p>2 class periods (90-min. each) or</p>	<p><b>Science Content Standards:</b>  <b>SCI.7.9A</b> Analyze the characteristics of objects in our solar system that allow life to exist such as the proximity of the Sun, presence of water, and composition of the atmosphere.</p>

<p>Students analyze characteristics of objects in our solar system and identify characteristics that enable manned space explorations.</p>	<p>4 class periods (45-min. each)</p>	<p><b>SCI.7.9B</b> Identify the accommodations, considering the characteristics of our solar system that enabled manned space exploration.</p> <p><b>Science Process Standards:</b></p> <p>Ⓡ <b>SCI.7.2C</b> Collect and record data using the International System of Units (SI) and qualitative means such as labeled drawings, writing, and graphic organizers.</p> <p>Ⓡ <b>SCI.7.2D</b> Construct tables, using repeated trials and means, to organize data and identify patterns.</p> <p>Ⓡ <b>SCI.7.2E</b> Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.</p> <p>Ⓡ <b>SCI.7.3A</b> analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning and experimental and observational testing, so as to encourage critical thinking by the student.</p> <p>Ⓡ <b>SCI.7.3B</b> Use models to represent aspects of the natural world such as human body systems and plant and animal cells.</p> <p>Ⓡ <b>SCI.7.3C</b> Identify advantages and limitations of models such as size, scale, properties, and materials.</p> <p>Ⓡ <b>SCI.7.4A</b> Use appropriate tools, including life science models, hand lenses, stereoscopes, microscopes, beakers, Petri dishes, microscope slides, graduated cylinders, test tubes, meter sticks, metric rulers, metric tape measures, timing devices, hot plates, balances, thermometers, calculators, water test kits, computers, temperature and pH probes, collecting nets, insect traps, globes, digital cameras, journals/notebooks and other necessary equipment to collect, record and analyze information..</p>
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