



## Wylie ISD Curriculum

<p><b>5.11 The student knows that certain past events affect present and future events.</b></p>	<p><b>5.9C</b> Predict some adaptive characteristics required for survival and reproduction by an organism in an ecosystem.</p> <p><b>5.11B</b> Draw conclusions about “what happened before” using data such as from tree-growth rings and sedimentary rock sequences.</p>	<ul style="list-style-type: none"> <li>▪ Stems</li> <li>▪ Flowers</li> <li>○ Reproduction             <ul style="list-style-type: none"> <li>▪ Flowering/nonflowering</li> <li>▪ Coniferous</li> </ul> </li> <li>○ Protection             <ul style="list-style-type: none"> <li>▪ Spines/Thorns</li> <li>▪ Coloration (wards off predators)</li> <li>▪ Irritants (Poison Ivy)</li> </ul> </li> </ul> <p><b>5.9C</b> Including:</p> <ul style="list-style-type: none"> <li>• <b>Adaptations</b> needed in order to:             <ul style="list-style-type: none"> <li>○ Obtain water</li> <li>○ Obtain space</li> <li>○ Obtain nutrients</li> <li>○ Reproduce</li> <li>○ Protect</li> </ul> </li> </ul> <p><b>5.11B</b> Including:</p> <ul style="list-style-type: none"> <li>• Tree-growth rings             <ul style="list-style-type: none"> <li>○ Using rings to discuss phototropism of plants</li> <li>○ Using the number of rings to determine approximate tree age</li> <li>○ Using black rings to hypothesize about past fires</li> </ul> </li> </ul>
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<b>Subject Area</b>	Science	<b>Bundle #:</b>	2
<b>Grade/Level</b>	5	<b>Weeks:</b>	4-6
<b>Overview</b>			
<b>TEKS - Texas Knowledge &amp; Skills</b>			
<b>Knowledge &amp; Skill Statement</b>	<b>Student Expectation</b>	<b>Student Learning Outcome Clarification</b>	
<p><b>5.5 The student knows that a system is a collection of cycles, structures, and processes that interact.</b></p> <p><b>5.6 The student knows that some change occurs in cycles.</b></p> <p><b>5.9 The student knows that adaptations may increase the survival of members of a species.</b></p>	<p><b>5.5A</b> Describe some cycles, structures, and processes that are found in a simple system.</p> <p><b>5.6B</b> Identify the significance of the water, carbon, and nitrogen cycles.</p> <p><b>5.6C</b> Describe and compare life cycles of plants and animals.</p> <p><b>5.9A</b> Compare the adaptive characteristics of species that improve their ability to compete, survive, and reproduce in an ecosystem.</p>	<p><b>5.5A</b> Including:</p> <ul style="list-style-type: none"> <li>• Cycles               <ul style="list-style-type: none"> <li>○ Life                   <ul style="list-style-type: none"> <li>▪ Metamorphosis</li> <li>▪ Incomplete metamorphosis</li> <li>▪ Direct development</li> </ul> </li> </ul> </li> </ul> <p><b>5.6B</b> Including:</p> <ul style="list-style-type: none"> <li>• Use these symbols as terminology in class:               <ul style="list-style-type: none"> <li>○ Oxygen = O</li> <li>○ Carbon = C</li> <li>○ Hydrogen = H</li> <li>○ Nitrogen = N</li> <li>○ Carbon dioxide = CO<sub>2</sub></li> <li>○ Water = H<sub>2</sub>O</li> </ul> </li> </ul> <p><b>5.6C</b> Including:</p> <ul style="list-style-type: none"> <li>• Direct development</li> <li>• Metamorphosis               <ul style="list-style-type: none"> <li>○ Complete (4 stages)                   <ul style="list-style-type: none"> <li>▪ Egg</li> <li>▪ Larva</li> <li>▪ Pupa</li> <li>▪ Adult</li> </ul> </li> <li>○ Incomplete (3 stages)                   <ul style="list-style-type: none"> <li>▪ Egg</li> <li>▪ Nymph</li> <li>▪ Emerging Adult</li> </ul> </li> </ul> </li> <li>• Compare life cycles of animals</li> </ul> <p><b>5.9A</b> Including how the <b>adaptations</b> relate to:</p> <ul style="list-style-type: none"> <li>• Animals – Focus on the species and not the individual organism. In order for a species to survive, individuals of that species must reproduce and pass on their genetic traits to future generations. Organisms do not consciously adapt to their environments – genetic variations allow for adaptations that may or may not be an advantage.</li> </ul>	

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<p><b>5.10 The student knows that likenesses between offspring and parents can be inherited or learned.</b></p>	<p><b>5.9C</b> Predict some adaptive characteristics required for competition, survival and reproduction by an organism in an ecosystem.</p> <p><b>5.10A</b> Identify traits that are inherited from parent to offspring in plants and animals.</p> <p><b>5.10B</b> Give examples of learned characteristics that result from the influence of the environment.</p>	<ul style="list-style-type: none"> <li>○ Regulation of body temperature             <ul style="list-style-type: none"> <li>▪ Ear size</li> <li>▪ Ability to sweat</li> <li>▪ Ability to burrow</li> <li>▪ Ability to pant</li> </ul> </li> <li>○ Securing food (pack hunting, speed), water, and shelter (burrowing, climbing, nesting)</li> <li>○ Reproduction – in relation to the survival of a species, not as a human body process (multiple eggs, litters)</li> <li>○ Evading predators             <ul style="list-style-type: none"> <li>▪ Spines</li> <li>▪ Venom</li> <li>▪ Claws</li> <li>▪ Stingers</li> <li>▪ Camouflage</li> </ul> </li> </ul> <p><b>5.9C</b> Including:</p> <ul style="list-style-type: none"> <li>• <b>Adaptations</b> needed in order to:             <ul style="list-style-type: none"> <li>○ Obtain water</li> <li>○ Obtain space</li> <li>○ Obtain nutrients</li> <li>○ Reproduce</li> <li>○ Protect</li> </ul> </li> </ul> <p><b>5.10A</b> Including inherited traits:</p> <ul style="list-style-type: none"> <li>• Securing food, shelter, and a mate (the instinct to have these things is inherited, but they still have to learn HOW to do each)</li> <li>• Physical attributes             <ul style="list-style-type: none"> <li>○ Hair/Fur/Feathers/Skin</li> <li>○ Eye color</li> <li>○ Dominant/Recessive trait</li> <li>○ Leaf shape</li> <li>○ Plants’ response to light</li> <li>○ Bird Beak</li> </ul> </li> </ul> <p><b>5.10B</b> Including:</p> <ul style="list-style-type: none"> <li>• Learned behaviors from exposure to external stimuli             <ul style="list-style-type: none"> <li>○ learning a language</li> <li>○ learning what <b>type</b> of nest to build</li> <li>○ learning <b>how</b> to catch food</li> <li>○ learning to play fetch</li> </ul> </li> </ul>
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<p><b>5.9 The student knows that adaptations may increase the survival of members of a species.</b></p>	<p><b>5.9B</b> Analyze and describe adaptive characteristics that result in an organism's unique niche in an ecosystem.</p>	<ul style="list-style-type: none"><li>○ Carbon = C</li><li>○ Hydrogen = H</li><li>○ Nitrogen = N</li><li>○ Carbon dioxide = CO<sub>2</sub></li><li>○ Water = H<sub>2</sub>O</li></ul> <p><b>5.9B</b> Including:</p> <ul style="list-style-type: none"><li>• <b>Unique Niche:</b> organisms possess characteristics allowing them to play specialized roles in their ecosystems<ul style="list-style-type: none"><li>○ Example: Rabbits are primary consumers (herbivores) in a habitat where grasses are the producers. Coyotes are secondary consumers (carnivores), preys on the rabbit in this habitat. The rabbits are considered both consumers and prey. This is one characteristic that defines the rabbits' niche in the habitat.</li></ul></li><li>• Habitat – the place in an ecosystem where a population of species live</li><li>• Ecosystem – all the living (biotic) and non-living (abiotic) factors in an environment</li><li>• Competition for:<ul style="list-style-type: none"><li>○ Food</li><li>○ Water</li><li>○ Shelter</li><li>○ Mates</li></ul></li></ul>
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## Wylie ISD Curriculum

<b>Subject Area</b>	Science	<b>Bundle #:</b>	5
<b>Grade/Level</b>	5	<b>Weeks:</b>	13-15
<b>Overview</b>			
<b>TEKS - Texas Knowledge &amp; Skills</b>			
<b>Knowledge &amp; Skill Statement</b>	<b>Student Expectation</b>	<b>Student Learning Outcome Clarification</b>	
<p><b>5.8</b> The student knows that energy occurs in many forms.</p>	<p><b>5.8A</b> Differentiate among different forms of energy</p> <p><b>5.8B</b> Identify and demonstrate everyday examples of how light is reflected, and refracted.</p> <p><b>5.8D</b> Verify that vibrating an object can produce sound.</p>	<p><b>5.8A</b> Including:</p> <ul style="list-style-type: none"> <li>• Light</li> <li>• Sound</li> </ul> <p><b>5.8B</b> Including:</p> <ul style="list-style-type: none"> <li>• Reflection – also angle of reflection                             <ul style="list-style-type: none"> <li>○ Mirrors</li> <li>○ Tinted windows</li> <li>○ Water</li> <li>○ Light from the moon</li> </ul> </li> <li>• Refraction                             <ul style="list-style-type: none"> <li>○ Cameras</li> <li>○ Rainbows</li> <li>○ Telescope</li> <li>○ Eye glasses</li> <li>○ Water</li> <li>○ Prisms</li> <li>○ Microscopes</li> <li>○ Lens                                     <ul style="list-style-type: none"> <li>▪ Convex</li> <li>▪ Concave</li> </ul> </li> </ul> </li> </ul> <p><b>5.8D</b> Including:</p> <ul style="list-style-type: none"> <li>• Tuning forks</li> <li>• Drums</li> <li>• Vibrating strings</li> <li>• Change does not happen by itself – to vibrate guitar strings one has to strum the guitar</li> </ul>	









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<p><b>the sky.</b></p>	<p>forces.</p>	<ul style="list-style-type: none"><li>• Weathering<ul style="list-style-type: none"><li>○ Chemical</li><li>○ Physical</li></ul></li><li>• Erosion<ul style="list-style-type: none"><li>○ Natural<ol style="list-style-type: none"><li>1. Rivers (canyons)</li><li>2. Glaciers</li><li>3. wind</li></ol></li><li>○ Man-made</li><li>○ Deposition of sediment<ol style="list-style-type: none"><li>1. deltas</li></ol></li></ul></li></ul>
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**Wylie ISD Curriculum**

<b>Subject Area</b>	Science	<b>Bundle #:</b>	11
<b>Grade/Level</b>	5	<b>Weeks:</b>	31-33
<b>Overview</b>			
<b>TEKS - Texas Knowledge &amp; Skills</b>			
<b>Knowledge &amp; Skill Statement</b>	<b>Student Expectation</b>	<b>Student Learning Outcome Clarification</b>	
Process Skills	Process Skills	Process Skills	

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<b>Subject Area</b>	Science	<b>Bundle #:</b>	12
<b>Grade/Level</b>	5	<b>Weeks:</b>	34-36
<b>Overview</b>			
<b>TEKS - Texas Knowledge &amp; Skills</b>			
<b>Knowledge &amp; Skill Statement</b>	<b>Student Expectation</b>	<b>Student Learning Outcome Clarification</b>	
Process Skills	Process Skills	See "Materials" and Process Skills	