

Course: Fifth Grade Science Pre-AP			Designated Six Weeks: Fifth Six Weeks		
Unit: Plant and Animal Life Cycles			Days to teach: 4 days		
TEKS/Prerequisites	Guiding Questions/Specificity	Assessment	Vocabulary	Instructional Strategies/ELPS	Resources/ Weblinks
<p>5.10C –describe the differences between complete and incomplete metamorphosis of insects. <i>(Supporting Standard)</i></p> <p>5.9D – identify the significance of the carbon dioxide-oxygen cycle to the survival of plants and animals <i>(Supporting Standard)</i></p>	<p><b>Guiding Questions:</b> -How do insects pollinate a flower?</p> <p><b>Specificity:</b> -Complete metamorphosis is the life cycle of many insects -Complete metamorphosis has four stages: egg, larva, pupa, adult -Complete metamorphosis can be seen in butterflies, moths, beetles, etc. -Incomplete metamorphosis has only three stages Egg, nymph and adult are the 3 stages of incomplete metamorphosis -A nymph looks very much like an adult-The different is the wings -Plants and animals depend on each other -Animals release carbon dioxide as a part of respiration -Plants take in the carbon dioxide that animals release and use it in the process of photosynthesis -Plants release oxygen through the stomata on their leaves -When the number of plants is reduced, the carbon dioxide levels in our environment will increase -Most of the oxygen surrounding Earth is release by plants within our oceans</p> <p><b>Teacher Notes:</b> Review *3.10 (C) investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs, and lady bugs.</p>	<p>Which gas in the air would increase if a large number of trees were cut down?</p> <p>a. Carbon dioxide</p> <p>b. Nitrogen</p> <p>c. Oxygen</p> <p>d. Water Vapor</p>	<p>Metamorphosis (incomplete and complete)</p> <p>Germination</p> <p>Pollination</p> <p>Photosynthesis</p> <p>Chlorophyll</p> <p>Adaptation</p> <p>Cycle</p>	<p><b>Activities</b> -Cycling Through Life -Life Cycle Web Quest <b>-Life Cycle Jumble</b> -Metamorphosis Notes -Metamorphosis Activity Sheet -Frog Life Cycle -Metamorphosis Web quest -Bug’s Life metamorphosis <b>-Photosynthesis Lab (Pre-AP Only)</b>  <b>-Photosynthesis Bingo Chip Model (Pre-AP Only)</b>  -Leafy Green Food Factories -Carbon Cycle Diagram -Carbon Cycle reading passage</p>	<p>Textbook: <u>Science</u> – 5<sup>th</sup> grade; Harcourt 2000</p> <p>Simple Science Solutions Unit Information can be found on Safari Montage 5<sup>th</sup> Grade Playlist.</p> <p>Pollination <a href="http://library.thinkquest.org/3715/pollin5.html">http://library.thinkquest.org/3715/pollin5.html</a></p> <p>Carbon Cycle <a href="http://eo.ucar.edu/kids/green/cycles6.htm">http://eo.ucar.edu/kids/green/cycles6.htm</a></p> <p>Oxygen cycle <a href="http://water.me.vccs.edu/concepts/oxyycle.html">http://water.me.vccs.edu/concepts/oxyycle.html</a></p> <p>Insect Metamorphosis <a href="http://www.uen.org/utahlink/activities/view_activity.cgi?activity_id=2024">http://www.uen.org/utahlink/activities/view_activity.cgi?activity_id=2024</a></p> <p>Life Cycles <a href="http://www.kidzone.ws/animals/lifecycle.htm">http://www.kidzone.ws/animals/lifecycle.htm</a></p>

## Pre-AP Science

Course: Fifth Grade Science Pre-AP			Designated Six Weeks: Fifth Six Weeks		
Unit: Plant and Animal Life Cycles			Days to teach: 4 days		
TEKS/Prerequisites	Guiding Questions/Specificity	Assessment	Vocabulary	Instructional Strategies/ELPS	Resources/ Weblinks
	<p><b>(Supporting Standard)</b>            *4.10 (C) explore, illustrate, and compare life cycles in living organisms such as butterflies, beetles, radishes, or lima beans.</p>			<p>-Life Cycle Quiz 3</p> <p><b>ELPS</b>  <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a></p> <p>4F Graphic Organizers            1C Cloze sentences</p>	<p>Safari Montage:            Bill Nye Life Cycles</p> <p>Bill Nye Plants</p> <p>Bill Nye Insects</p> <p>Bill Nye Flowers</p> <p>Magic School Bus Gets Planted</p>

Course: Fifth Grade Science Pre-AP			Designated Six Weeks: Fifth Six Weeks		
Unit: Adaptations / Ecosystems / Food Chains			Days to teach: 8 days		
TEKS/Prerequisites	Guiding Questions/Specificity	Assessment	Vocabulary	Instructional Strategies/ELPS	Resources/ Weblinks
<p>5.9A-observe the way organisms live and survive in their ecosystem by interacting with the living and non-living elements <i>(Readiness Standard)</i></p> <p>5.9C- predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or building of highways <i>(Supporting Standard)</i></p> <p>5.10A – Compare the structures and functions of different species that help them live and survive such as hooves on prairie animals or</p>	<p><b>Guiding Questions:</b>            -Can you recognize the survival characteristics in any animal or plant?            -What do plants and animals that live in the same biome have in common?            -What is the source of energy that drives the food chain?            -If one organism is taken out of a food chain, how does it affect the other organisms?</p> <p><b>Specificity:</b>            -Organisms depend on each other to survive            -Animals often use other living organisms (such as trees) for shelter            -Nonliving objects such as water, rocks and soil can be used by animals to meet their needs            -When an organism’s environment is changed, the organism must either migrate, adapt or die (M.A.D)            -In a food chain, the increase of organisms at one level will affect the organisms at all other levels-some will increase and others will decrease            -Catastrophic events such as earthquakes, volcanoes, flood and droughts can cause some organisms to thrive and others to perish            -The building of houses, parking lots, etc can lead to a decrease in animal populations that once lived in a particular area            -Organisms with webbed feet are adapted to live/swim in wet environments            -Feet that have sharp claws (talons) on them are adapted for grabbing and ripping prey</p>	<p>Which part of a jackrabbit most helps it escape predators?</p> <p>a. Long legs</p> <p>b. Thick fur</p> <p>c. Short tail</p> <p>d. Small head</p> <p>On a prairie, the herbivores would compete most for</p> <p>–</p> <p>a. Oxygen</p> <p>b. Space</p> <p>c. Grass</p> <p>d. Soil</p>	<p>adaptation</p> <p>camouflage</p> <p>mimicry</p> <p>biomes</p> <p>habitat</p> <p>interact</p> <p>organism</p> <p>drought</p> <p>overpopulation</p> <p>migration</p> <p>grazers</p> <p>niche</p> <p>producer</p> <p>consumer</p> <p>omnivore</p>	<p><b>Activities</b>            -Animal Adaptations            -Plant Adaptations web quest</p> <p>-Bird Adaptations  <b>-Animal Defense web quest</b>            (Pre-AP Only)</p> <p>-Biome Boxes            -Biome web quest            -Ecosystem research project</p> <p><b>-Adopt an Insect Food Chain Flash Cards</b> (Pre-AP Only)</p> <p>-Food Chain web quest            -Web of Life            -Threads of Life            -4-8 Food Chains            -Cougar Hunt</p>	<p>Textbook: <u>Science</u> – 5<sup>th</sup> grade; Harcourt 2000</p> <p>Trees  <a href="http://www.realtrees4kids.org/index.htm">http://www.realtrees4kids.org/index.htm</a></p> <p>Grassland Animals  <a href="http://www.mbgnet.net/sets/grassland/animals/index.htm">http://www.mbgnet.net/sets/grassland/animals/index.htm</a></p> <p>Biomes  <a href="http://www.thewildclassroom.com/biomes/wetlands.html">http://www.thewildclassroom.com/biomes/wetlands.html</a></p> <p>Adopt an Insect  <a href="http://www.sciencespot.net/Pages/adinsless.html">http://www.sciencespot.net/Pages/adinsless.html</a></p>

Course: Fifth Grade Science Pre-AP			Designated Six Weeks: Fifth Six Weeks		
Unit: Adaptations / Ecosystems / Food Chains			Days to teach: 8 days		
TEKS/Prerequisites	Guiding Questions/Specificity	Assessment	Vocabulary	Instructional Strategies/ELPS	Resources/ Weblinks
<p>webbed feet in aquatic animals <i>(Readiness Standard)</i></p> <p>5.9B- describe how the flow of energy derived from the sun, used by producers to create their own food, is transferred through a food chain and food web to consumers and decomposers <i>(Readiness Standard)</i></p>	<p>-Animals with hooves are adapted for running on land. -Hoofed animals are not adapted for swimming -Animals with large, flat padded feet can often be found in snowy environments -When a plant is eaten, it is passing energy to the animal that is eating it -Plants are able to make their own food through a process called photosynthesis -Plants receive the energy that they need to make their own food from the sun -The arrow between organisms in a food chain or food web show the flow of energy and will point towards the organism that is receiving the energy -Decomposers break down dead plants and animals</p> <p><b>Teacher Resources:</b> Review *3.9 (A) observe and describe the physical characteristics of environments and how they support populations and communities within an ecosystem <i>(Supporting Standard)</i> *4.9 (A) investigate that most producers need sunlight, water, and carbon dioxide to make their own food, while consumers are dependent on other organisms for food *3.9 (C) describe environmental changes such as floods and droughts where some organisms thrive and others perish or move to new locations *3.10 (A) explore how structures and functions of plants and animals allow them to survive in a particular environment *4.10 (A) explore how adaptations enable organisms to survive in their environment such as comparing birds' beaks and leaves on plants</p>		<p>carnivore</p> <p>herbivore</p> <p>decomposer</p> <p>predator</p> <p>prey</p> <p>scavenger</p> <p>food chain</p> <p>food web</p>	<p>-Using Color to Survive in Nature (Pre-AP Only)</p> <p>-Life Science quiz 2</p> <p><b>ELPS</b> <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a></p> <p>2F Visuals/Video 3G Think, Pair, Share</p>	<p>Safari Montage: Bill Nye Food Web</p> <p>Bill Nye Ocean Life</p> <p>Bill Nye Wetlands</p> <p>Bill Nye Animal Locomotion</p> <p>Bill Nye Populations</p> <p>Magic School Bus Meets the Rot Squad</p>

Course: Fifth Grade Science Pre-AP			Designated Six Weeks: Fifth Six Weeks		
Unit: Adaptations / Ecosystems / Food Chains			Days to teach: 8 days		
TEKS/Prerequisites	Guiding Questions/Specificity	Assessment	Vocabulary	Instructional Strategies/ELPS	Resources/ Weblinks
	<p>*3.9 (B) identify and describe the flow of energy in a food chain and predict how changes in a food chain affect the ecosystem such as removal of frogs from a pond or bees from a field</p> <p>*4.9 (B) describe the flow of energy through food webs, beginning with the Sun, and predict how changes in the ecosystem affect the food web such as a fire in a fore</p>				

Course: Fifth Grade Science Pre-AP			Designated Six Weeks: Fifth Six Weeks		
Unit: Inherited Traits / Learned Behavior			Days to teach: 3 Days		
TEKS/Prerequisites	Guiding Questions/Specificity	Assessment	Vocabulary	Instructional Strategies/ELPS	Resources/ Weblinks
<p>5.10B-differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a beak and learned behaviors such as an animal learning a trick or a child riding a bicycle (<i>Readiness Standard</i>)</p>	<p><b>Specificity:</b>            -Inherited traits are characteristics that an organism is born with            -Inherited traits can be seen in both plants and animals            -Inherited traits are passed down from parent to offspring            -Learned behaviors can be found in animals            -A learned behavior is anything that an animal learns throughout their lives            -Learned behaviors often make it easier to find food, shelter and survive</p> <p><b>Teacher Notes:</b>            Review            *3.10 (B) explore that some characteristics of organisms are inherited such as the number of limbs on an animal or flower color and recognize that some behaviors are learned in response to living in a certain environment such as animals using tools to get food            *4.10 (B) demonstrate that some likenesses between parents and offspring are inherited, passed from generation to generation such as eye color in humans or shapes of leaves in plants. Other likenesses are learned such as table manners or reading a book and seals balancing balls on their noses</p>	<p>Which of the following characteristics of a field mouse is most likely inherited from its parents?            a. Brown fur            b. Torn ear            c. Scar on its leg            d. Chipped tooth</p>	<p>learned characteristic/ behavior            traits            inherited            offspring            instinct            gene            DNA            acquired</p>	<p><b>Activities</b>            -Studying Traits            -ETs and Punnet Squares            -Heredity</p> <p>Life Science Quiz</p> <p><b>ELPS</b>  <a href="http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html">http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074a.html</a></p> <p>3H Structured conversation            3I            Question/Answer</p>	<p>Textbook: Science – 5<sup>th</sup> grade; Harcourt 2000</p> <p>Inherited Traits  <a href="http://doamaral.myweb.uga.edu/files/traits.pdf">http://doamaral.myweb.uga.edu/files/traits.pdf</a></p> <p>Inherited Traits  <a href="http://www.fi.edu/guide/knox/traits.html">http://www.fi.edu/guide/knox/traits.html</a></p> <p>Discovery Education: Animal Instincts</p> <p>Safari Montage: Animal Behavior and Communication            Bill Nye Genes</p>



## Pre-AP Science

Course: Fifth Grade			Designated Six Weeks: Fifth Six Weeks		
Unit: Science Boot Camp			Days to teach: 10 days		
TEKS/Prerequisites	Guiding Questions/Specificity	Assessment	Vocabulary	Instructional Strategies/ELPS	Resources/ Weblinks
Before TAKS Test: Review Nature of Science Review Physical Science Review Earth Science Review Life Science TAKS TEST					Simple Science Solutions Boot Camp Binder (10 of 15 days in this six weeks)