



Science
Pre-Advanced Placement
Grade 5

Unit Name: 1 st 6 Weeks			
Date Taught	TEKS and AP Required Elements	Content/Vocabulary	Guiding Questions
	<p style="text-align: center;"><u>Scientific Method</u> <u>Designing Experiments</u> <u>Understanding constants and variables</u> <u>Developing and testing hypothesis</u> <u>Data Collecting</u> <u>Using SI units</u> <u>Estimating, Graphing</u></p> <p>TEKS</p> <p>5.1A- demonstrate safe practices during field and laboratory investigations.</p> <p>5.2A- plan and implement descriptive and simple experimental investigations including asking well-defined questions, formulating testable hypotheses, and selecting and using equipment and technology.</p> <p>5.2B- collect information by observing and measuring;</p> <p>5.2C-analyze and interpret information to construct reasonable explanations from direct and indirect</p>	<p>safety symbol vocabulary model graduated cylinder triple beam balance thermometer hand lens beaker flask tongs hot plate meter stick measurement units (SI) Materials Handler Recorder Data Collector Reporter/Discussion leader</p>	<p>Where is everything located in the lab?</p> <p>What precautions are used to ensure safety in the science lab?</p> <p>What are procedures for using equipment?</p> <p>Is note taking a skill?</p> <p>How do students use roles in groups to develop successful skills and concepts in labs?</p>



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	<p>evidence;</p> <p>5.2D-communicate valid conclusions;</p> <p>5.2E-construct simple graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate information.</p> <p>AP courses all contain a laboratory component</p>		
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	<p style="text-align: center;"><u>Scientific Method</u> <u>Designing Experiments</u> <u>Understanding constants and variables</u> <u>Developing and testing hypothesis</u> <u>Data Collecting</u> <u>Using SI units</u> <u>Estimating, Graphing</u></p> <p>TEKS</p> <p>5.2A-plan and implement descriptive and simple experimental</p>	<p>hypothesis conclusion procedure experiment evaluate evidence investigation inquiry design strategies develop questioning</p>	<p>What is Scientific Technology?</p> <p>What is a testable question/experiment/hypothesis?</p> <p>How do you design and implement a testable experiment? If then.... statements?</p> <p>What is a hypothesis and how do you form one?</p> <p>What is a variable in an experiment?</p> <p>How do you collect data?</p>



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	<p>investigations including asking well-defined questions, formulating testable hypotheses, and selecting and using equipment and technology.</p> <p>5.2B-collect information by observing and measuring;</p> <p>5.2C-analyze and interpret information to construct reasonable explanations from direct and indirect evidence;</p> <p>5.2D-communicate valid conclusions;</p> <p>5.2E-construct simple graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate information.</p> <p>5.3A- analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information;</p>	<p>limitations analyze observe evaluate comparing measuring process testing valid testable control independent variable dependent variable repeatable responsible communicate line graph data chart bar graph centimeter(cm) meter(m) gram(g) millimeter (ml) kilometer(km) kilogram(kg)</p>	<p>What should a data table and graph look like?</p> <p>Why do I need to communicate my findings and how is it done?</p>
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	AP science courses all contain a laboratory component where the scientific method will be used		
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	<p style="text-align: center;"><u>Inherited /Learned Behaviors in humans and animals</u></p> <p>TEKS</p> <p>5.2E-construct simple graphs, tables, maps, and charts using tools including computers to organize, examine, and evaluate information.</p> <p>5.10A-identify traits that are inherited from parent to offspring in plants and animals;</p> <p>5.10B-give examples of learned characteristics that result from the influence of the environment.</p> <p>AP Biology Connections: II. Heredity and Evolution</p>	<p>learned characteristic/behavior traits</p> <p>inherited offspring survival instinct gene DNA</p>	<p>What is the difference between a learned behavior and an inherited trait?</p> <p>How and why do animals use traits?</p>

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Grade 5

	<p style="text-align: center;"><u>Habitats\Ecosystems and Biomes</u> <u>Food Chains</u></p> <p>TEKS</p> <p>5.9A-compare the adaptive characteristics of species that improve their ability to survive and reproduce in an ecosystem;</p> <p>5.9C-predict some adaptive characteristics required for survival and reproduction by an organism in an ecosystem.</p> <p>5.6B-identify the significance of the water, carbon , and nitrogen cycle. Animal/Plant Adaptations</p> <p>AP Biology: III. organisms and populations B. structure and function of plants and animals 2. structural, physiological, and behavioral adaptations</p>	<p>adaptation survival camouflage mimicry biomes niche habitat species physical characteristics behavioral characteristics energy interact organism producer consumer omnivore carnivore herbivore decomposer predator prey</p>	<p>What do plants do/use to survive in their biome?</p> <p>How do adaptive characteristics/traits change?</p> <p>Can you recognize the survival characteristics in any animal or plant?</p> <p>Can an animal change a biome and still survive?</p> <p>What do plants and animals that live in the same biome have in common?</p>
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	<p style="text-align: center;"><u>Tree Rings</u></p> <p>TEKS</p> <p>5.11B-draw conclusions about “what happened before” using data such as from tree-growth rings and sedimentary rock sequences.</p> <p>AP Biology Connections: III. organisms and populations B. structure and function of plants and animals</p>	<p>drought abundant tree cookie cross-section rings evidence</p>	<p>How can you estimate the age of a tree?</p> <p>What environmental factors can you infer from a tree cookie?</p>