

Ganado Unified School District

(Chemistry II/ Grade 11, 12)

PACING Guide SY 2018 - 2019

Timeline & Resources	AZ College and Career Readiness Standard	Essential Question (HESS Matrix)	Learning Goal	Vocabulary (Content/Academic)
Quarter 1 Chapter 21 Hydrocarbons Section 1 – Intro to Hydrocarbons Section 2 – Alkanes Section 3 – Alkenes and Alkynes Section 4 – Hydrocarbon Isomers Section 5 – Aromatic Hydrocarbons	2.1 PO 3. Analyze how specific changes in science have affected society. 2.2 PO 3. Distinguish between pure and applied science.	How are structural formulas written for linear, branched, and cyclic alkanes, alkenes, and alkynes? What distinguishes different isomers of a given hydrocarbon? What is the relationship between fossil fuels and organic chemicals?	I will be able to: -describe the bonding capabilities of carbon atoms and explain why these leads to an abundance of organic compounds. -present the structure, naming and properties of each of the various classes of hydrocarbons including alkanes, alkenes, alkynes, and aromatics.	saturated hydrocarbon alkane isomer unsaturated hydrocarbon alkene alkyne aromatic hydrocarbon fractional distillation cracking reforming



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<p>Quarter 2</p> <p>Chapter 22 Substituted Hydrocarbons and their Reactions</p> <p>Section 1 – Alkyl Halides and Aryl Halides</p> <p>Section 2 – Alcohols, Ethers and Amines</p> <p>Section 3 – Carbonyl Compounds</p> <p>Section 4 – Other Reactions of Organic Compounds</p>	<p>2.1 PO 3. Analyze how specific changes in science have affected society.</p> <p>2.2 PO 3. Distinguish between pure and applied science.</p>	<p>How do the structures of the major classes of substituted hydrocarbons compare and contrast? What are some properties and uses of each class of substituted hydrocarbons?</p>	<p>I will be able to:</p> <ul style="list-style-type: none"> -discuss organic compounds that contains atoms of elements other than carbon and hydrogen. 	<p>substituted hydrocarbons functional group</p>

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Section 5 - Polymers				
Quarter 3 Chapter 23 – The Chemistry of Life Section 1 – Proteins Section 2 – Carbohydrates Section 3 – Lipids Section 4 – Nucleic Acids Section 5 – Metabolism	4.2 PO 1. Analyze the relationships among nucleic acids (DNA, RNA), genes, and chromosomes. 4.5 PO 2. Describe the role of organic and inorganic chemicals (e.g., carbohydrates, proteins, lipids, nucleic acids, water, ATP) important to living things.	How do the structures and functions of proteins, carbohydrates, lipids, and nucleic acids compare? What is the relationship between the three-dimensional shape of a protein and its function? 	I will be able to: -examine the structures and functions of proteins, carbohydrates, lipids, nucleic acids, and vitamins.	biochemistry protein amino acid denaturation substrate active site carbohydrate lipid fatty acid steroid nucleic acid DNA RNA Nucleotide vitamin coenzyme

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Quarter 4 Chapter 24 – Nuclear Chemistry Section 1 – Nuclear Radiation Section 2 – Radioactive Decay Section 3 – Nuclear Reactions Section 4 – Applications and Effects of Nuclear Reactions	5.3 PO 1. Describe the following ways in which energy is stored in a system: mechanical, electrical, chemical, nuclear.	How was radioactivity discovered? What are the properties of alpha, beta, and gamma radiation? How are the half-lives of various radioactive elements used to date materials? How do nuclear fission and nuclear fusion compare and contrast?	I will be able to: -discuss the discovery and early study of radioactivity by Becquerel and Curies. -learn nuclear notation and use it in the explanation of alpha, beta, and gamma decay. -describe the characteristics and detection of the three types of radiation. -explain half-life and its use in radioactive dating.	radioactivity alpha particle beta particle gamma ray half-life nuclear fission nuclear reactor nuclear fusion deuterium tritium