GL Physics
Year at a Glance (YAG)
2022-2023

First Semester		Second Semester	
1st Nine Weeks – 40 days		**3rd Nine Weeks – 45 days**	
TEKS **Introduction: Processes of Physics Investigations (1 day for the entire unit)** P.1A, P.1B, P.2A, P.2B, P.2C, P.2D, P.2E, P.2F, P.2G, P.2H, P.2I, P.2J, P.3A, P.3B, P.3C, P.3D, P.3E **Unit 01: Kinematics in One Dimension and Graphing Motion (24 days for the entire unit)** P.1A, P.2A, P.2B, P.2C, P.2D, P.2E, P.2F, P.2G, P.2H, P.2I, P.2J, P.3A, P.3B, P.3E, P.4A, P.4B **Unit 02: Newton's Laws of Motion (14 days for the entire unit)** P.1A, P.2C, P.2D, P.2E, P.2F, P.2G, P.2H, P.2I, P.2J, P.3A, P.3B, P.3C, P.3D, P.3E, P.4D	**: Introduction to Scientific Processes (1 days)** Students will do an introduction to the class, analyze the cover of what Physics is, explore lab safety and inquiry **Unit 1: Kinematics (all year;~3 days for intro)** Students will demonstrate safe practices during laboratory **Unit 1: One Dimensional Motion** Students will know that hypotheses are testable statements that must be supported or not supported by observational evidence, know scientific theories are based on natural and physical phenomena and are capable of being tested by research, distinguish between scientific hypotheses and scientific theories, plan and implement investigations, collect and organize data using kitchen and scientific tools. **Unit 2: Newtons Laws** The student will apply interpersonal communication skills in business and industry settings; explain and recognize the value of collaboration within the workplace; examine the importance of time management to succeed in the workforce; identify work ethics/professionalism in a job setting; and develop problem-solving and critical-thinking skills	**TEKS** **Unit 06: Conservation of Momentum (10 days for the entire unit)** P.1A, P.2C, P.2D, P.2E, P.2F, P.2G, P.2H, P.2I, P.2J, P.3A, P.3B, P.3E, P.6C, P.6D **Unit 07: Thermodynamics (7 days for the entire unit)** P.1A, P.2C, P.2D, P.2E, P.2F, P.2I, P.2J, P.3A, P.3B, P.3C, P.3D, P.3E, P.6E **Unit 08: Waves (18 days for the entire unit)** P.1A, P.2D, P.2E, P.2F, P.2G, P.2H, P.2I, P.2J, P.3A, P.3B, P.3D, P.3E, P.7A, P.7B, P.7C, P.7D, P.7E	**Unit 6: Momentum** Students will discuss the functions of vitamins and minerals in food production, compare the effects of food production on water- and fat-soluble vitamins,and assess the interrelationships among vitamins and minerals in food production **Unit 7: Thermodynamics** The student will evaluate the various types of food additives such as incidental, intentional, natural, and artificial, investigate the various roles of food additives such as food preservation, nutritive value, and sensory characteristics, and research agencies involved in regulating food additives **Unit 8:Waves** Students will describe elements, compounds, mixtures, and formulas related to food science, compare heterogeneous and homogeneous mixtures, use chemical symbols, formulas, and equations in food science
2nd Nine Weeks – 43 days		**4th Nine Weeks – 45 days**	
TEKS **Unit 03: Two Dimensional Motion (9 days for the entire unit)** P.1A, P.2D, P.2E, P.2F, P.2G, P.2I, P.2J, P.3A, P.3B, P.3E, P.4C **Unit 04: Universal Gravitation (5 days for the entire unit)** P.2C, P.2D, P.2E, P.2F, P.2H, P.2I, P.2J, P.3A, P.3B, P.3C, P.3E, P.5A, P.5B **Unit 05: Conservation of Energy (18 days for the entire unit)**	**Unit 3 Projectile Motion (9 days)** Students will discuss photosynthesis, identify the chemical structures of carbohydrates, compare the structures of simple and complex carbohydrates and how these structures affect food production, describe the functions of carbohydrates in food production such as a caramelizing agent, crystallizing agent, and thickening agent, describe various process such as gelatinization, retrogradation, and syneresis in food production, and create food products using simple and/or complex carbohydrates **Unit 4 : Universal Gravitation(10 days)** Students will identify various leavening agents and describe their role,analyze the role of acids as leavening agents, compare doughs and batters,conduct laboratory experiments with various	**TEKS** **Unit 09: Electrical and Magnetic Forces and Fields (12 days for the entire unit)** P.1A, P.2D, P.2E, P.2F, P.2H, P.2I, P.2J, P.3A, P.3B, P.3C, P.3E, P.5A, P.5C, P.5D **Unit 10: Current Electricity (16 days for the entire unit)** P.1A, P.1B, P.2D, P.2E, P.2F, P.2G, P.2H, P.2I, P.2J, P.3A, P.3B, P.3C, P.3D, P.3E, P.5E, P.5F	**Unit 9: Electricity and Magnetism** Students will identify the chemical structure of saturated and unsaturated fats, compare the properties of saturated and unsaturated fats, examine the functions of fats in food production, explore methods for controlling fat oxidation, analyze the effects of temperature on fats in food preparation, conduct laboratory experiments using the scientific processes to explore the functions of fats in food production,and create food products using saturated and unsaturated fats

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P.1A, P.2C, P.2D, P.2E, P.2F, P.2G, P.2H, P.2I, P.2J, P.3A, P.3B, P.3E, P.6A, P.6B, P.6C, P.6D	leavening agents using the scientific processes, and create baked products using various leavening agents **Unit 5: Conservation of Energy** The student will analyze reasons food is fermented, assess the role of bacteria in food fermentation, and prepare various fermented food products	**Unit 11: Atomic, Nuclear, and Quantum Physics (7 days for the entire unit)** P.1A, P.2C, P.2F, P.2H, P.2I, P.2J, P.3A, P.3B, P.3C, P.3D, P.3E, P.5A, P.8A, P.8B, P.8C, P.8D	**Unit 10 Current and ELectricity** The student will research federal food packaging guidelines, analyze components of appropriate commercial food container,describe controlled-atmosphere packaging, and describe information required on a food label, describe reasons for food preservation,compare methods of dehydration and create a food product using dehydration; analyze various methods of personal and commercial food canning; and examine the various methods of personal and commercial food freezing **Unit 11: Atomic Interactions** Students will examine the food irradiation process, and investigate the pasteurization process

Resources

1st Nine Weeks	2nd Nine Weeks	3rd Nine Weeks	4th Nine Weeks
g-online textbook, google drive resources	g-online textbook,google drive resources	g-online textbook,google drive resources	g-online textbook,google drive resources