TERM	COMPETENCY/OBJECTIVE	DOK LEVEL	PLD	BLUEPRINT DATA
	* This pacing guide is built using the 2001 frameworks for 8th grade science.			
1st Nine Weeks	**Classroom Management: Procedures and Policies** **Grade 8 Mississippi Sample Test (Sample Test 1)** • **Sample Test will be used as a baseline test for student improvement throughout the year.** **Science Process Skills** • **Lab Safety and Equipment** o Safety rules and symbols (school wide), proper care of lab equipment, accuracy and precision in using graduated cylinders, balances, beakers, thermometers, and rulers • **Construct and Analyze Graphs** o Plotting points, labeling graphs appropriately, circle, bar and line graphs • *These process skills should be taught in the first few days and reinforced all year.*			
	8. Analyze the properties of matter. **8g.** Introduce the factor label method for unit conversions in the metric system.			
	8e. Determine the density of regular and irregular objects.			
	8a. Determine experimentally physical and chemical properties including density, conductivity, and reactions with water, acids, and bases.			
	8f. Determine experimentally how acidic or basic a substance is using a pH scale indicator.			
	8b. Interpret information given on the periodic table to predict reactions between elements. • Metals and nonmetals			

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	• Acids and Bases • Chemical changes in matter (e.g. rusting [slow oxidation]; combustion [fast oxidation]; food spoilage			
	8d. Distinguish among atoms, ions, and molecules.			
	8c. Write simple formulas for compounds. • Chemical symbols and chemical formulas for common substances such as NaCl (table salt); H_20 (water); $C_6H_{12}O_6$ (glucose sugar); O_2 (oxygen gas); CO_2 (carbon dioxide gas); and N_2 (nitrogen gas).			
	10. Investigate the transfer of energy.			
	10a. Measure the transfer of heat energy between two objects using the Celsius scale.			
	10c. Research and discuss energy transformation**.**			
	10d. Convert one energy form to another.			
	9. Explore the application of simple and complex machines.			
	9a. Apply and demonstrate Newton's Three Laws of Motion using simple machines.			
	9b. Design and construct simple and complex machines.			
	Review Objectives from 1st Nine Weeks Lab safety and equipment, charts and graphs, 8a, 8b, 8c, 8d, 8e, 8f, 8g, 10a, 10c, and 10d, 9a, and 9b			
	District Assessment I			

TERM	COMPETENCY/OBJECTIVE	DOK LEVEL	PLD	BLUEPRINT DATA
2nd Nine Weeks	**10. Investigate the transfer of energy.**			
	10e. Analyze mechanical waves (sound eaves, water waves, earthquake waves, etc.) and electromagnetic waves (light, infrared, x-rays, etc.)			
	10b. Illustrate wave motion in different media.			
	5. Investigate atmospheric movements that affect the Earth's system.			
	5a. Analyze the cycles including nitrogen, water, carbon dioxide, and oxygen cycle.			
	5b. Use weather maps for analyzing and predicting weather.			
	5c. Construct a weather map to forecast the weather over a region, giving temperature in degrees Celsius.			
	6. Investigate the Earth's geological past.			
	6a. Identify the components/stages of a geological timetable and discuss how the environment (including animals and landforms has changed each period).			
	6b. Describe methods and tools used in dating rocks and fossils.			
	6c. Discuss Mississippi's geological areas.			
	3. Determine the economic factors that influence the regulation and behavior of organisms.			
	3b. Explain environmental degradation to include overpopulation, biodiversity, sea-level rise, and enhanced greenhouse effect.			
	3a. Appraise the economic factors associated with regulations and protection of the environment.			
	Review Objectives from 1st and 2nd 9 weeks; both will be a part of District II Assessment: 10e, 10b, 5a, 5b, 5c, 6a, 6b, 6c, 3b, 3a, Lab safety and equipment, charts and graphs, 8a, 8b, 8c, 8d, 8e, 8f, 8g, 10a, 10c, and 10d, 9a, and 9b			
	District Assessment II			

TERM	COMPETENCY/OBJECTIVE	DOK LEVEL	PLD	BLUEPRINT DATA
3rd Nine Weeks	*Note: The MCT II will be given before the end of this 9 weeks; please keep this in mind as you plan your lessons, as you will need to plan some time to review the main parts of the 8th grade frameworks which will be covered on MCT II.* **4. Examine the physical factors of populations as they relate to the formation of ecosystems.**			
	4c. Analyze how predation and food webs help structure communities.			
	4a. Analyze the adaptation of representative organisms to aquatic or terrestrial environments.			
	4b. Evaluate the effects of urbanization on aquatic or terrestrial ecosystems.			
	7. Describe the appearance and nature of our galaxy and the universe.			
	7a. Explain the relationship between distance and light-travel time (light year).			
	7c. Identify and describe the Milky Way as the galaxy to which we belong.			
	7d. Identify and describe our galaxy in terms of its components (core of older stars, spiral arms of gas and dust with younger stars, halo, "dark matter") and our location within it.			
	7b. Identify and describe deep-sky objects visible from Earth (diffuse nebulae, galactic and globular clusters, planetary nebulae, supernova remnants, "spiral nebulae").			
	7f. Identify and describe different types of galaxies in terms of their shape (spiral, barred spiral, elliptical, irregular) and level of activity.			
	7e. Identify and describe "spiral nebulae" as distant galaxies**.**			

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	Review Objectives from 1st, 2nd, and 3rd nine weeks: 4c, 4a, 4b, 7a, 7c, 7d, 7b, 7f, 7e, 10e, 10b, 5a, 5b, 5c, 6a, 6b, 6c, 3b, 3a, Lab safety and equipment, charts and graphs, 8a, 8b, 8c, 8d, 8e, 8f, 8g, 10a, 10c, and 10d, 9a, and 9b			
	District Assessment III			
4th Nine Weeks	**2. Analyze genetic continuity of organisms.**			
	2a. Define meiosis by relating the process to genetic continuity.			
	2b. Compare and contrast genotype and phenotype.			
	2c. Explain the advantages and disadvantages of both hybrid and purebred species of plants and animals.			
	2d. Examine genes as a section of a DNA molecule that carries the genetic code for inherited traits.			
	1. Analyze and relate structure and function in living systems.			
	1a. Analyze body systems and their functions.			
	1b. Relate interactions among body systems.			
	1c. Identify the parts of and show the interaction between the reproductive and endocrine systems.			
	1d. Examine diseases that are the result of body system failures or infection by other organisms.			
	Review for final exam; A district assessment is NOT given for 4th nine weeks. You will need to prepare your own final exam.			