ASCOT HIGH SCHOOL

DEPARTMENT OF SCIENCE

HUMAN AND SOCIAL BIOLOGY

GRADE 11

TERM 1: SEPTEMBER-DECEMBER 2025

National Goals: Jamaica Has A Healthy Natural Environment

Jamaicans are Empowered To Achieve their Fullest Potential

Unit	Duration	Topic	Specific Objectives	Suggested Teaching and Learning Activities	Assessment
Life Processes	**2 Weeks** Sept. 1 – 12	Revision	Students will: 1. Review key concepts and content covered in previous lessons/sessions. 2. Clarify any misunderstandings or misconceptions. 3. Reinforce knowledge through discussion and interactive activities. 4. Build confidence in the ability to recall and apply information. 5. Encourage peer learning through collaborative review activities. 6. Identify and address	▪ Learning Style Self-Assessment ▪ Revision of End of Year Examination.	▪ ***Diagnostic Test***

			learning gaps before moving forward.		
Life Processes	**3 Weeks** Sept. 15 – Oct.3	Respiratory System	Students will: 1. Explain the importance of breathing in humans. 2. Relate the structure of the respiratory tract to their functions. 3. Draw and label the human respiratory system. 4. Describe the breathing mechanism. 5. Outline the factors affecting rate of breathing. 6. Explain the concept of vital capacity. 7. Distinguish between gaseous exchange and breathing.	▪ Students will draw and label a diagram of the human respiratory system. ▪ Perform activities to demonstrate factors affecting rate of breathing. ▪ Students will watch a video entitled, "Gaseous Exchange" from which questions will be asked.	▪ Students will practice CSEC past paper questions on the respiratory system. ▪ Group Debates: Groups of three will chose randomly from the following topics ➢ "Teenager starts smoking at 15; by 25, experiences health implications." ➢ "Governments should implement stricter regulations to eliminate smoking among teenagers." ➢ "Smoking should be banned completely due to its harmful effects on public health." ➢ "Tobacco

			8. Identify characteristics common to gaseous exchange surfaces. 9. Differentiate between aerobic and anaerobic respiration. 10. Explain the role of adenosine diphosphate (ADP) and adenosine triphosphate (ATP) in the transfer of energy. 11. Explain the technique of mouth-to-mouth resuscitation. 12. Explain the effects of cigarette smoking. 13. Use tables, graphs, and charts to represent data on the respiratory system.	▪Students will perform a simple yeast fermentation experiment: Mix yeast, sugar, and warm water in a test tube. ▪ **Real-life applications of anaerobic respiration e.g. Brewing and baking.** ▪ **Invite personnel from the Red Cross Society or other health personnel to demonstrate Cardiopulmonary Resuscitation (CPR).**	companies are responsible for the social and economic costs of smoking and should be held accountable.”
	3 Weeks Oct. 6-24	Circulatory System	Students will 1. Explain the need for a transport system in the human body. 2. Identify the materials which need to be transported around the human body.	▪ **Students will watch a video entitled, “Circulatory System”,** from which they will be questioned.	**PRACTICAL (20%):** ▪ Students will make a model of a cross section of the human heart. ▪ Students will practice

			3. Relate the components of the blood to its function. 4. Relate the structures of red blood cells, phagocytes and lymphocytes to their functions. 5. Relate the structures of the arteries, veins and capillaries to their functions. 6.Relate the structures of the heart to their functions. 7. Explain the concept of blood pressure. 8.Describe the structure and function of the circulatory system in humans. 9.Discuss blood groups. 10. .Explain the process and the importance of blood clotting. 11.Discuss the causes and effects of heart diseases.	▪ Students use prepared **slides of blood samples** to observe under microscopes and identify Red blood cells (RBCs), White blood cells (WBCs), Platelets. ▪ Students will draw a cross section of a human heart. ▪ Teacher will have students determine their own pulse rate using fingers and a stopwatch.	CSEC past paper questions on the Circulatory System. ▪ Group presentations on heart diseases.

			12.Use tables, charts and graphs to represent data on diseases of the circulatory system. 13. Describe the structure and function of the lymphatic system.		
October 16 – 20 NATIONAL HEROES DAY & MID TERM BREAK					
SESSIONAL TEST (20%)					
Life Processes	**2 Weeks** Oct. 21–Nov. 4	Skeletal System	At the end of the lesson, students should be able to: 1. Identify the major bones of the skeleton. 2. Relate the structure of the skeleton to its functions. 3. Relate the structure of a long bone to its functions. 4. Distinguish between bone and cartilage. 5. Distinguish between tendons and ligaments. 6. Discuss the types of	▪ Students will play the game bony bingo.	▪ Students will practice CSEC past paper questions on the Skeletal System.

			joints. 7. Describe movement in the hinge and ball and socket joints. 8. Discuss the three types of muscles. 9. Explain how skeletal muscles function in the movement of a limb. 10.Identify the biceps and triceps of the upper arm. 11.Explain the importance of locomotion to man. 12.Evaluate the factors which adversely affect the skeletal system.	▪ Students create model of arms to demonstrate the working of antagonistic muscles.	
Life Processes	**2 Weeks** Nov. 5 – 19	Excretion & Homeostasis	At the end of the lesson, students should be able to: 1. Discuss the importance of excretion in human beings. 2. Explain the roles of the organs involved in excretion. 3. Relate the structures of the kidney to their function.	▪ Students will engage in an activity where they compare a picture of a dirty city to the importance of excretion in the body in order to activate prior knowledge. ▪ Students will play Kahoots based on the various topics covered.	**Graded Classwork:** ▪ Kidney Worksheets ▪ Skin Worksheet. ▪ Homeostasis Worksheet. ▪ Students will practice CSEC past paper

			4. Relate the structures of the skin to their functions. 5. Explain the concept of homeostasis 6.Explain the concept of feedback 7. Discuss the regulation of blood sugar 8. Explain the regulation of water 9. Distinguish between heat and temperature 10. Discuss the regulation of temperature.	▪ **Guest Speaker on Kidney Failure and Dialysis.** ▪ Students will play Excretion "Who wants to be a millionaire?" ▪ **Students will watch videos from which they will formulate definitions for homeostasis and negative feedback.** ▪ Group presentations on the regulation of blood, osmoregulation & temperature.	questions on Excretion & Homeostasis.
Life Processes	**2 Weeks** Nov. 20-Dec. 5	Coordination & Control	At the end of the lesson, students should be able to: 1. Describe the main divisions of the nervous system 2. Describe the functions of the parts of the brain. 3. Distinguish between a	▪ **Students will watch a video entitled '001 An Introduction to the Nervous System'** from which they will be required to engage in a discussion about the main divisions of the nervous system.	**Graded Classwork:** • Nervous System Worksheet • Voluntary and Involuntary action Worksheet • Endocrine System Worksheet

			neurone and a nerve. 4. Explain the functions of motor and sensory neurones and spinal synapses. 5. Describe the mechanisms of a reflex action. 6. Explain the process by which voluntary actions occur. 7. Distinguish between a voluntary and involuntary action. 8. Explain the response of the sense organs to stimuli. 9. Relate the internal structures of the eye to their functions. 10. Explain how images are formed in the eye. 11. Explain accommodation in the eye. 12. Describe the causes of, and corrective measures for eye defects. 13. Distinguish between endocrine (hormonal) and nervous control systems.	▪ **After watching a video entitled 'What are Nerve Cells, Neurons & Synapses?'** students will form pairs and identify the difference between the neurone and nerve. ▪ Demonstration of reflex arc. ▪ Students will form pairs and complete a table on simple reflexes.	**Graded Homework:** • Nervous System Worksheet.

			14. Identify the sites of hormone production. 15. Explain the roles of selected hormones in the human body.	▪ Students will complete a table outlining the Endocrine System glands and their functions. ▪ Students will create a Venn Diagram comparing the Nervous and Endocrine System	
END OF YEAR EXAMINATION					