Grade 9 Human and Social Biology Unit Plan Terms 1 and 2

DURATION	UNIT AND SUB-TOPICS	GENERAL OBJECTIVES	SPECIFIC OBJECTIVES (refer to syllabus)	METHODOLOGY /STRATEGY	RESOURCES	ASSESSMENT TASKS
4 weeks	**Living organisms and the environment** • Characteristics of living organisation • Cell structure and function • Microbes (bacteria, virus, fungi) • Movement of substances across cell membrane.	For students to understand the processes that govern the interactions of organisms in the environment and the processes by which life is perpetuated.	**SECTION A** Objectives 1-7	Discussion, brainstorming, Lecture, Demonstration, Experimentation	HSB syllabus, Text book, charts with animal & plant cells, lab apparatus	Class-work, homework, quiz, test
4 weeks	**Energy and Feeding Relationships** • Photosynthesis • Definitions of: food web, food chain, herbivores, carnivores and omnivores etc. • Constructing food chain and webs • Cycles carbon	For students to understand the processes that govern the interactions of organisms in the environment and the processes by which life is perpetuated	**SECTION A** Objectives 8 - 14	Brainstorming, discussion, corporative grouping, field trip,	Text book, Biology for cxc, Hand-out with content notes	Class-work, homework, written test, Assignment

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6 weeks	**Life processes** Nutrition – • Heterotrophic and autotrophic • Main nutrients, sources and deficiency diseases – causes , symptoms and treatment • Food tests • Other nutritional diseases • The Teeth- types, structure & function, role in digestion and tooth decay • Enzymes • Digestion and the digestive system.	For students to understand the role nutrition in helping living organisms to obtain their energy and satisfy their physical needs.	Section B 1.1 - 1. 12 Section B 1.13- 1.27	Discussion, lecture, demonstration, experimentation, research, group work, constructing models	Text book, HSB syllabus, CXC biology module, charts, model of the teeth, laboratory materials and equipment, food samples for testing.	Research project, class-work, homework, unit test
DURATION	**UNIT /SUB-TOPICS**	**GEN. OBJ**	**SPECIFIC OBJ.**	**METHODOLOGY**	**RESOURCES**	**ASSESSMENT**

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4 weeks	**THE RESPIRATORY SYSTEM** • Breathing • Structure and function of the respiratory tract • Breathing mechanism • Factors affecting rate of breathing • Vital capacity • Respiratory surfaces and gaseous exchange • Effects of cigarette smoking • Mouth-to-mouth resuscitation.	For students to understand the nature of the interdependence of the processes, structures and functions of the major systems within an organism in the maintenance of health.	**SECTION B** Objectives 2.1 – 2.7, 2.10 and 2.11	Discussion, lecture, demonstration, constructing models, cooperative group, research	Text book, HSB syllabus, CXC biology module, charts, model, materials to construct model, audio-visual devices	Research project, class-work, homework, un it test
2 week	**Types of respiration** • Aerobic and anaerobic • Role of ATP and ADP in energy transfer	Same as above	**SECTION B** Objectives 2.8 - 2.9	Discussion, questioning, lecture	Text book, CXC Biology, Biology for CSEC	Class-work, quiz