Proposed Date/Week	Unit/Section	Topic
TERM 1		
WEEK 1	Agriculture &	1. compare and contrast agricultural
	The Environment	systems in the Caribbean
	Module 1	
WEEK 2		2. explain the roles of agriculture in the
		region
WEEKS 3 & 4		3. assess the impact of agriculture on the
		environment
WEEK 5		4. explain the features of sustainable
		agriculture
		5. discuss threats to sustainable
		agriculture
WEEK 6		6. evaluate environmentally sustainable
		practices in agricultural systems
		7. present and interpret data using
		appropriate charts, tables and graphs
WEEK 7	Pollution on the	1. describe the general sources and nature
	Environment	of pollutants

	Module 3	
		2. identify environmental receptors of
		specific pollutants
WEEK 8		3. describe the various pathways of
		pollution in the ecosystem and the
		biosphere
WEEK 9		4. outline the underlying causes of
		pollution
WEEKS 10 & 11		5. discuss the major sources, impact and
		mitigation of pollution
WEEKS 12 & 13		
TERM 2		
WEEKS 1 & 2		
WEEK 3		6. analyse the environmental impacts
		of pollution from specific sources
		7. assess the effectiveness of measures to
		mitigate environmental impacts of pollution
WEEK 4		8. discuss the importance of international
		conventions and agreements regarding
		pollution control
		9. interpret data using appropriate charts,
		tables and graphs
WEEK 5	Energy and the	1. describe the nature, form and conversion
	Environment	of energy
	Module 2	
		2. explain the importance of energy to
		society
WEEK 6		3. describe the characteristics of various
		energy sources
WEEK 7		4. describe the conventional generation
		and distribution of electricity
		5. evaluate the use of renewable energy

		6. discuss factors affecting electricity
		generating capacity and demand
WEEK 8		7. discuss various methods of energy
		conservation and improving efficiency
WEEK 9		8. outline the impact of various forms of
		energy in the environment
		9. explain the total cost of energy use.
		10. interpret data using appropriate charts,
		tables and graphs.

Modules
Definition of agriculture
Characteristics of Agricultural systems with respect to commercial and small
scale farming including subsistence.
(a) scale of operation;
(b) inputs: agro-chemicals, labour, machinery and equipment, energy, financing
(c) productivity of systems: yield per unit input, for example, tonnes per hectare
(d) mariculture; genetic engineering
(e) aquaculture
(i) Food Security (production of food and non-food materials)
(ii) Production of materials for agroprocessing industries
(iii) Economic: (a) livelihood (income generating activities)
(b) foreign exchange earnings;
(c) contribution to Gross Domestic Product
(i) Technological: (a) increased productivity, (b) increased varieties, (c) improved resistance to pest infestation
(ii) Environmental: (a) health risks, (b) threats to sustainable livelihood of communities, (c) land take (need
for vast amounts of lands for agriculture), (d) pollution from inappropriate use of agro-chemicals (pesticides;
fertilisers); antibiotics and hormones in aquaculture and mariculture; eutrophication, (e) habitat destruction;
loss of biodiversity; (f) soil degradation: erosion; acidification; salinisation; waterlogging, soil compaction,
monoculture leading to reduction in soil fertility; (g) waste production: waste disposal and management; solid
and liquid wastes; (h) water degradation: sedimentation; changes in water discharge to coastal zone surface
and ground water pollution; (i) land degradation: inappropriate use of land types; hillside farming, slash and
burn agriculture; (j) reduced water availability for irrigation, mariculture and aquaculture; (k) Climate change
due to methane production
(i) Ecological integrity. (ii) Economic viability. (iii) Social equity. (iv) Adaptability
(i) Natural disasters: flood, hurricane, volcano. (ii) Climate change: temperature rise, sea level rise. Change
in precipitation patterns. (iii) External shocks: global markets, price fluctuations. (iv) Certification to meet
international standards. (v) Importation of cheap agricultural products
(i) Contour farming. (ii) Terracing. (iii) Crop rotation. (iv) Conservation Tillage. (v) Agro-forestry. (vi) Pest control
(biological and genetic) and Integrated pest management. (vii) Organic farming. (viii) Hydroponics. (ix) Post-
harvest management: waste utilisation and waste minimisation. (x) Genetic engineering. (xi) Plant and animal
breeding
(i) Definition of pollution and pollutant. (ii) Local examples of pollutants and incidences of pollution.
(iii) Nature of pollutants: persistence, mobility, synergistic effects, toxicity. (iv) Movement through the env't

Environmental receptors (micro-organisms, plants, animals, humans).

Environmental pathways (biotic and abiotic), feeding relationships, bioaccumulation and biomagnification.

(i) Resource extraction, transportation, processing and use, (ii) Population growth: behavioural pattern, lifestyle and consumption pattern, (iii) Institutional Framework, (iv) Lack of environmental ethics.

A. Atmospheric Pollution

B. Water Pollution

C. Land Pollution

(i) Sources (medical and industrial waste). (ii) Toxic effects (carcinogenic, mutagenic, tetratogenic effects). (iii) Improper disposal methods.

1. UNFCCC & Kyoto Protocol, 2. Montreal Protocol, 3. MARPOL, 4. Cartagena Convention, 5. Basel Convention, 6. UNCLOS

(i) Definition: energy, kinetic energy, potential energy, power. (ii) Units of measurement: Joule, MJ, TJ, GJ, Watt, MW, KWh. (iii) Types of energy: solar, heat, light, electrical, nuclear, chemical. (iv) Examples of energy and conversion, efficiency of conversion. (v) Renewable and non-renewable sources of energy.

(i) Use of energy within societies. (ii) Socio-economic dependency on energy use

Primary and Secondary Energy sources

(i) Conventional generation. (ii) Transmission.

(i) Generation rates. (ii) Demand patterns. (iii) Energy storage. (iv) Stock piling capability for fossil fuels.
(v) Diversity of energy sources. (vi) Economic cost. (vii) Government policies.
Definitions, approaches and examples
(i) Environmental & (ii) Socio-economic
(i) Political. (ii) Economic. (iii) Social. (iv) Environmental. (v) Technological