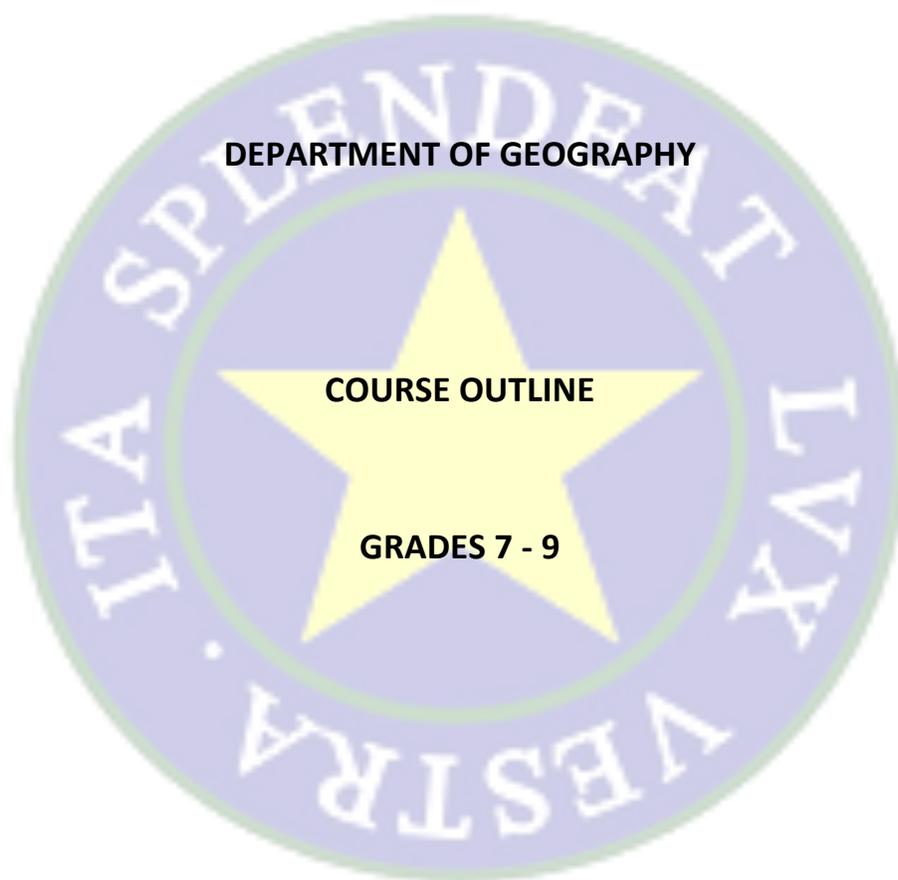


MEADOWBROOK HIGH SCHOOL



DEPARTMENT OF GEOGRAPHY

COURSE OUTLINE

GRADES 7 - 9

GRADE 7**Unit 1: Introduction to Geography*****Sub Topics***

Definition of Geography Branches and sub-branches of Geography

The five themes of Geography

Statistical Diagrams – Flow Charts and Tables

Careers in Geography

Objectives

Students will be able to

1. Formulate definitions of the concept Geography.
2. Describe the two main branches of Geography.
3. Identify and classify sub-branches of Geography as physical or human.
4. Explain the importance of Geography
5. Create flow charts to show relationships between the sub-branches of Geography and the main branches.
6. Explain and apply the five themes of Geography to their environments.
7. Interpret geographical information from photographs.
8. Create tables from geographical information.
9. Identify at least five career options that require the use of geographic skills

Unit 2: Planetary Science***Sub Topics***

Components of the Solar System Comets

Meteors and Asteroids

Objectives

Students will be able to:

1. Formulate definitions for the terms Universe, Galaxy, Solar System, Planet, Outer Space, Dwarf Planet, Star, Meteor, Meteoroid, Meteorite, Moon, Asteroid, Comet
2. Describe and explain the characteristics of the components of the Solar System

3. Identify and classify planets according to composition and size
4. Calculate changes in the weight of objects in space due to changes in gravitational pull.
5. Determine the orbit and circumference of celestial bodies
6. Investigate the impact that objects in Space have on Earth
7. Appreciate the importance of developing an understanding of objects in Space

Unit 3: Introduction to Map Reading and Photograph

Interpretation Features of Maps

Photographs and Plans

Types of Maps

Photographs and Plans

Importance of Maps

Photographs and Plans

Simple Map Symbols

Simple Map and Photograph Interpretation

Direction

Bearings and Straight line distance

Latitude and Longitude – Location

Objectives

Students will be able to:

1. Define the terms map, photograph and plan
2. Distinguish among different types of maps
3. Identify the types of photographs
4. List the uses of photographs
5. Distinguish among ground level and aerial photographs and satellite imagery.
6. Create a list of the essential features of a map
7. Associate colours and symbols on maps with landscape features
8. Explain the uses of the essential features of maps
9. Interpret simple ground level and aerial photographs; satellite imageries and maps.
10. Develop a logical argument to explain the importance of maps photographs and plans.

11. Differentiate among maps, photographs, and plans
12. Draw simple sketch maps and plans
13. Use Cardinal Points to establish direction and angular bearing between two locations.
14. Use map scales to measure straight line distances between two points
15. Locate places using lines of latitude and longitude

TERM 2

Unit 1 – Weather and the Hydrological Cycle

Sub-topics

Definition of weather

Weather elements and instruments

Weather symbols/Simple Weather Maps

The Hydrological Cycle

Objectives

Students will be able to:

1. Formulate a definition for the term weather.
2. Revise definition of weather based on standard text definition.
3. Describe the characteristics of each element of weather.
4. Identify weather instruments for each element of weather.
5. Identify the various units of measurement for each instrument.
6. Read each weather instrument to gather information about the elements of weather.
7. Draw simple outlines of each weather instrument.
8. Correctly label the main characteristics of each weather instrument.
9. Write a simple weather report from weather data collected.
10. Use weather symbols to create simple weather maps.
11. Outline the main components of the Hydrological Cycle.
12. Define the concept Hydrological /Water Cycle.
13. Define key terms: precipitation, condensation, surface run off, evaporation, transpiration, infiltration, groundwater, aquifers, source, and river.
14. Describe the stages in the hydrological cycle.
15. Create flow charts to establish the relationship among the components of the hydrological cycle in different environments.
16. Identify the processes in the hydrological cycle that give rise to rivers

17. Appreciate the importance of the various components of the water cycle in maintaining a balance in the supply of water for human and animal use.

Unit 2 – Case Studies: Extreme Weather

Sub-topics

Define the concept “Extreme Weather”

Case study of a hurricane , flood or drought in the Caribbean: preparation, effects

Tracking Hurricanes/Synoptic Charts

Global Warming and Extreme Weather Systems

Objectives

Students will be able to:

1. Describe the concept of “extreme weather” event.
2. Differentiate between normal atmospheric events and extreme weather events.
3. Describe the following extreme weather events: floods, hurricanes and drought.
4. Formulate a definition for the term “flash flood”
5. Differentiate between a flood/hurricane “watch” and “warning”
6. Determine the main reasons for the increase in the occurrence of extreme weather events.
7. Create a simple description of the concept Global Warming.
8. Determine the relationship between increases in atmospheric temperatures and increases in extreme weather events.
9. Investigate an extreme weather event in a selected Caribbean country.
10. Evaluate the effects of a selected extreme event on a community in a named Caribbean country.
11. Propose plans to prepare adequately for droughts, floods and hurricanes.
12. Plot the track of a tropical wind system and discuss reasons it developed into an extreme event.
13. Describe the preparation made by government agencies or Non Governmental Organisations (NGOs) in Jamaica for hurricane, drought or flooding.
14. Categorise activities undertaken by the individual or agencies for selected hazardous events into the following groups: Before the Event, During the Event, and After the Event.
15. Propose ways improvements may be made in national plans for hurricane, drought or flooding prevention and mitigation.
16. Recognise the importance of individual and group participation and planning to prepare for extreme weather events.
17. Appreciate the importance of avoiding hazardous locations during extreme weather events.

Unit 3 – Introduction to Rocks and Soils

Sub-topics

Definition of rocks and Soils

Formation of rocks and Soils

Rock types in Jamaica

Uses of rocks Soils in Jamaica

Weathering and Erosion

Simple Geology Maps

Objectives

Students will be able to:

1. Formulate definitions for the terms rock and soil.
2. Examine rock and soil samples to determine their characteristics.
3. Describe the characteristics of each rock and soil type
4. Classify rocks as igneous, metamorphic or sedimentary
5. Classify soils as sand, silt or clay
6. Explain how each rock type forms.
7. Differentiate between plutonic and igneous rocks
8. Use a simple Geology Map of Jamaica to identify areas where various rock types are found.
9. Show the relationship among the three types of rocks
10. Design a model to show the rock cycle.
11. Give at least three examples of each rock type
12. List the uses of rocks and soils found in Jamaica.
13. Propose new ways different types of rocks may be used.
14. Define the terms erosion and weathering.
15. Determine how erosion and weathering of rocks occur.
16. Analyse the value of rocks and soils as economic resources
17. Determine the characteristics of various types of soils ICT

Unit 4 - Fieldwork and Investigation

Sub-topics

Simple fieldwork techniques

Drawing conclusions based on data collected using fieldwork

Ethics in research

Objectives

Students will be able to:

1. Define the concept field work
2. Identify the purposes of carrying out field work
3. Outline the general steps in carrying out field work
4. Use simple field work techniques to gather and record data on a selected problem
5. Record primary data correctly
6. Identify the types of secondary information that would be obtained from maps, texts, internet and newspapers.
7. Present information in written project format
8. Draw conclusion about study area/problem
9. Create a simple bibliography using a given template
10. Demonstrate ethical behaviours when conducting research
11. Ask precise questions, listen attentively to answers and make accurate recordings.

TERM 3**Unit 1 – Resources and Economic Activities*****Sub-topics***

Definition of Resources

Types of Resources used in Primary Economic Activities

Types of Primary Economic Activities in Jamaica

Statistical Diagrams – Pie Charts

Objectives

Students will be able to:

1. Formulate a definition for the term resource
2. Identify at least four uses of selected resources
3. Classify resources found in Jamaica as Human or Natural
4. Categorise natural resources as renewable and non-renewable
5. Identify resources in their immediate environment as renewable or non-renewable.
6. Locate various types of natural resources on a map of Jamaica
7. Give examples of human resources
8. Recognise that Human and Natural resources have economic value
9. Formulate a definition of the concept economic activity
10. Categorise economic activities as primary, secondary and tertiary
11. Identify the types of resources used in primary economic activities
12. Graphically represent the contribution of the various types of economic activities to Jamaica's economy.
13. Appreciate the importance of physical resources in their daily lives

Unit 2 – Jamaica: Agriculture***Sub-topics***

Types of Resources used in Agriculture

Location of Agriculture in Jamaica

Types and Characteristics of Agriculture in Jamaica

Deforestation in Jamaica

Deforestation and Global Warming

Agricultural Sustainability Economic and Land-Use Maps

Objectives

Students will be able to:

1. Recall the types of resources needed for agriculture – human and natural
2. Formulate a definition for the terms agriculture
3. Outline the characteristics of various types of agricultural activity in Jamaica
4. Differentiate among commercial arable farming, peasant farming, mixed farming, mixed cropping, market gardening, commercial pastoral farming
5. Develop a logical argument to explain the location of various types of agricultural activity
6. Identify on a blank map the major agricultural areas in Jamaica
7. Justify the pattern of types of crops cultivated in Jamaica in the major agricultural areas
8. Suggest reasons why particular types of crops are planted in the major agricultural areas in Jamaica
9. Make a list of activities practised by farmers that may encourage the removal of trees in Jamaica
10. Formulate a definition of the term deforestation
11. Explain how plants may contribute to an increase or reduction in atmospheric temperatures.
12. Formulate a simple definition for the term sustainable
13. Compare two farms which plant the same crop, but use different techniques, to determine which is more sustainable
14. Discuss innovative techniques that may be used to increase production of crops in Jamaica
15. Propose methods farmers may use to make agriculture sustainable

Unit 3 – Management of Food In Jamaica

Sub-topics

Food Production and Distribution – Food safety and security

Impact of Climate Change on Agriculture

Changes in Technology in Agriculture

Objectives

Students will be able to:

1. Investigate the benefits of “growing what you eat and eating what you grow”

2. Discuss measures used by the Government to make food safe in Jamaica
3. Determine the place of origin of the food they consume.
4. Formulate a definition for the terms food security and food safety.
5. Construct pie charts to show the origin of various food items consumed in Jamaica
6. Use the graph to discuss implications for Jamaica's food security and safety
7. Design a method to increase the production of selected crops in Jamaica
8. Propose ways that may be used to ensure food security in Jamaica
9. Implement a plan to make the home or school community more food secure.
10. Simply explain the concepts "climate change" and "global warming"
11. Cite evidence to prove that climate change is occurring in Jamaica
12. Determine how changes in climate change may affect weather patterns in Jamaica
13. Conduct a case study of a selected crop to investigate how climate change will affect agriculture
14. Outline methods which may be used to combat the effects of climate change on agriculture.



GRADE 8**TERM 1****Unit 1: Movement of the Earth*****Sub-topics***

Rotation and Revolution

Latitude and Longitude – Calculating Time

Eclipses

Evidence of the Earth's shape

Objectives

Students will be able to:

1. Formulate definitions for the terms rotation and revolution
2. Identify the effects of rotation and revolution on the Earth
3. Calculate time using lines of longitude
4. Explain why the International Date Line is not straight.
5. Explain the effect of the tilt of the earth on the length of daylight hours.
6. Recognise that the tilt of the Earth does not change.
7. Connect the Earth's tilt and revolution to seasonal changes in atmospheric temperature.
8. Define the term eclipse
9. Differentiate between a solar eclipse and a lunar eclipse
10. Appreciate the significance of studying eclipses.
11. Examine and test the evidence used to support the shape of the Earth

Unit 2: Interpreting Maps and Photographs***Sub-topics***

Map Symbols

Direction and Bearings

Measuring Curved distances

Four figure grid references

Representing Height – Simple Cross-Sections

Objectives

Students will be able to:

1. Formulate definitions for the terms scale; height; contour; vertical interval; bearing
2. Use the eight point compass to find direction on a map from one place to another
3. Use a protractor to calculate angular bearing on a map from one point from another
4. Explain why angular bearing is important
5. Use the linear scale to measure straight line and simple curved distances between two places.
6. Express the scale of a map as a ratio or a statement
7. Construct grids using intersecting vertical and horizontal lines
8. Identify Eastings and Northings on maps
9. Find locations using four figure grid references
10. Draw simple maps to scale.
11. Identify how height is represented on maps
12. Identify simple landform features from contours
13. Associate the landforms shown on maps to features shown in photographs, satellite imagery and in the natural environments
14. Draw simple cross-sections from contour lines

Unit 4: Jamaica: Population, Migration and Settlement

Sub-topics

Population Size and Distribution in Jamaica

Migration Types

Migration in Jamaica

Settlement Types in Jamaica

Simple Dot Maps and Flow Line Maps

Statistical Diagrams – Simple Bar Graphs

Objectives

Students will be able to:

1. Define the terms population, migration and settlement
2. Using a dot map, describe Jamaica's population distribution

3. Given population data, create a simple dot map.
4. Outline how major physical landform features influence population distribution in Jamaica
5. Explain the concentration of Jamaica's population in coastal zones.
6. Draw simple bar graphs to show population of Jamaica by parish
7. Compare urban settlements to rural settlements in Jamaica.
8. Identify the two main categories of migration
9. Citing evidence, from given scenarios, explain why people move from one place to another in Jamaica.
10. Identify the main types of migration in Jamaica.
11. Identify the effects of migration on rural and urban settlements in Jamaica
12. Construct flow charts/flow maps to show the migration of people Understand how population data is obtained
13. Cooperate with census takers

Unit 3 : Caribbean: Population, Migration and Settlement

Sub-topics

Population Size and Distribution in Select Caribbean Islands

Regional Migration

Settlement Patterns

Mapping Settlement Patterns

Dot maps and Flow Line Maps

Statistical Diagrams – Proportional Circles

Objectives:

Students will be able to:

1. Compare population size of Caribbean countries
2. Explain using Caribbean maps, the general distribution of population in Caribbean countries
3. Outline reasons for the pattern of population distribution across the Caribbean
4. Recall definitions of the terms population; migration, emigration, immigration, migrants, internal migration, external migration
5. Explain why people move within the Caribbean region
6. Discuss, with the use of a map, the pattern of migration within the Caribbean

7. Investigate the various push and pull factors which cause people to migrate within the Caribbean
8. Assess the effects of migration within the Caribbean on both the country of origin and the destination
9. Investigate the challenges of Caribbean intra-regional migration.
10. Identify patterns of settlement which form in the Caribbean
11. Cite evidence obtained from maps and photographs to explain the formation of each settlement pattern
12. Draw sketch maps to show patterns of settlement in Jamaica.
13. Use maps to identify the main activities within major settlements in Caribbean countries.

Unit 4: Pollution and Disease Spread

Sub-topics

Types of pollution

Impact of pollution

Diseases Spread

Climate Change and Disease Spread

Objectives

Students will be able to:

1. Formulate a definition for the terms pollution, pollutant greenhouse gas, greenhouse effect and global warming
2. Categorise pollution as air, water or land pollution
3. Identify natural pollutants
4. Create a list of common anthropogenic pollutants
5. Discuss the effects of different types of pollution on the environment
6. Link air pollution to increasing atmospheric temperatures
7. Investigate ways of reducing pollution
8. Link pollution to the generation and spread of diseases.
9. Use models to show how diseases are spread
10. Assess maps showing the spread of diseases
11. Link changes in global climate to the spread of emerging diseases
12. Link global warming to increases in health issues in human beings

TERM 2**Unit 1: Weather, Climate and Vegetation*****Sub-topics***

Types of Rainfall Vegetation in Tropical Marine Climate

Statistical Diagrams – Line and bar Graphs

Objectives

Students will be able to:

1. Revise the elements of weather and their associated instruments.
2. Differentiate between weather and climate.
3. Using data obtained from a weather station, plot a line graph to show variation in temperature.
4. Using data obtained from a weather station, draw a bar graph to show rainfall amounts.
5. Interpret various climographs from Caribbean countries.
6. Define the following terms: Precipitation; Rain; Hail; Snow; Sleet;
7. Differentiate between the following: Dew; Mist; Fog; Cloud.
8. Investigate the conditions required for clouds to form.
9. Identify the conditions necessary for rainfall to occur
10. Differentiate between the following types of rainfall: Convectional; Relief/Orographic; Frontal/Cyclonic.
11. Using thematic maps, describe the variations in weather patterns in Jamaica.
12. Calculate the following: range of temperature; average (mean) temperature
13. Describe the characteristics of the vegetation of the Tropical Marine Climate

Unit 2 – Rivers and Sustainable Use of Water**Sub-topics**

Major Rivers in Jamaica

Importance of Rivers

Sustainable Use of Water in Jamaica

Influence of Climate Change on Water Resources in Jamaica

Objectives

Students will be able to:

1. Identify major rivers in Jamaica
2. Formulate a simple definition for the terms: drought, river, and groundwater.
3. Define the terms conservation and sustainable
4. Investigate the source of domestic water in the immediate community.
5. Outline the importance of rivers and wells.
6. Explain the impact of drought conditions on the physical nature of rivers and wells
7. Recognise the impact of drought on the local community
8. Design one method to harvest water for domestic or industrial use
9. Determine ways water may be conserved at home and school.
10. Suggest how water can be used in a sustainable manner

Unit 3 – Limestone Weathering

Sub-topics

Definition of Weathering

Characteristics of Limestone Rocks

Limestone Features

Value of Limestone Landscapes

Geology Maps

Objectives

Students will be able to:

1. Formulate definitions for the terms weathering and erosion.
2. Describe the characteristics of limestone rocks.
3. Identify the chemical composition of limestone rocks.
4. List the types of limestone rocks
5. Investigate how limestone rocks are formed
6. Conduct experiments to show how limestone rocks are weathered.
7. Link the formation of surface and underground features to the characteristics of limestone rocks.
8. Identify limestone features on geology maps
9. Compare the features of the Limestone landscape in Jamaica to that in Barbados.

10. Citing evidence, explain the value of limestone landscapes.
11. Propose reasons for the barren nature of some limestone landscapes

Unit 4 - Fieldwork and Investigation

Sub-topics

Simple fieldwork techniques

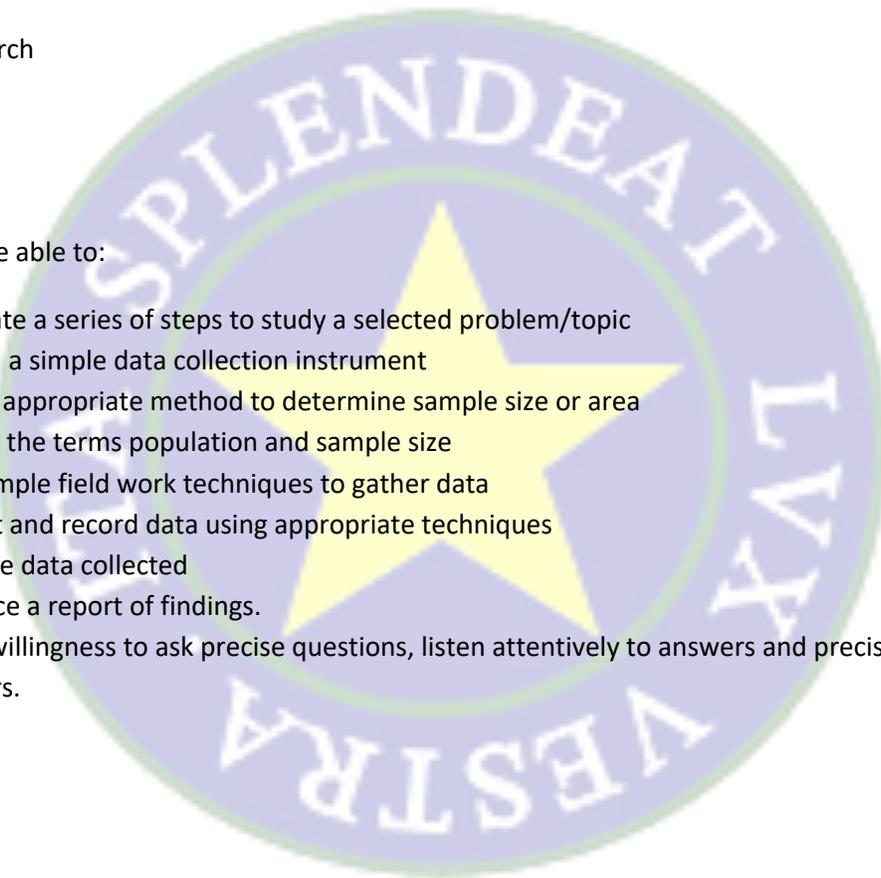
Drawing conclusions based on data collected using fieldwork

Ethics in research

Objectives

Students will be able to:

1. Generate a series of steps to study a selected problem/topic
2. Design a simple data collection instrument
3. Use an appropriate method to determine sample size or area
4. Define the terms population and sample size
5. Use simple field work techniques to gather data
6. Collect and record data using appropriate techniques
7. Analyse data collected
8. Produce a report of findings.
9. Show willingness to ask precise questions, listen attentively to answers and precisely record the answers.



TERM 3**Unit 1 – Resources and Economic Activities****Sub-topics**

Definition of Resources

Types of Resources used in Secondary Economic Activities

Types of Secondary Economic Activities in Jamaica

Objectives

Students will be able to:

1. Recall the definition of the key concepts: resources; renewable; nonrenewable; economic activity; value added
2. Formulate a definition for secondary economic activity
3. Identify the types of secondary economic activities in Jamaica.
4. Outline the types of resources used in secondary economic activities
5. Establish the relationship between primary and secondary economic activities
6. Assess how value is added to products as they move from a primary to secondary stage
7. Formulate a definition the concept economic linkage
8. Explain simply the importance of establishing economic linkages

Unit 2 – Jamaica: Agro-Processing**Sub-topics**

Importance of agro-processing

Methods used to Process Food

Economic and Land-Use Maps

Statistical Diagrams – Pie Charts

Objectives

Students will be able to:

1. Formulate a definition for the concept of agro-processing.
2. Outline the various types of agro-processing

3. Discuss the importance of agro-processing
4. Develop logical arguments to explain the location of agro-processing plants
5. Investigate the various ways food and other products are processed from agricultural items in Jamaica
6. Differentiate between food preservation and processing
7. Explain the importance of food processing
8. Suggest new ways agricultural items may be processed
9. Suggest environmentally friendly ways of processing agricultural products.
10. Conduct a case study of an agro-processing plant in Jamaica.

Unit 3 – Climate Change: Causes, Effects and Conflicts in Small Island Developing States

Sub-topics

Deforestation and Conflicts in the use of Forest Resources

Emissions from Manufacturing and Refining Industries

Reducing Jamaica's Carbon Footprints

Indicators of a Warming World Mapping

The Impact of Climate Change on Jamaica's Resources

Objectives

Students will be able to:

1. Simply explain how the Earth's atmosphere is heated.
2. Formulate a definition for the concept of Climate Change
3. Identify the most common green-house gasses and generate a list of their possible natural and anthropogenic/human origins
4. Define the terms greenhouse gases, greenhouse effect, carbon credit
5. Identify indicators of a warming world and determine which indicators apply to Jamaica.
6. Outline the various activities in Jamaica which may contribute to Climate Change
7. Assess the benefits of preserving and using forest resources
8. Connect changes in vegetation to climatic changes on Earth
9. Explain the possible changes to each weather elements and weather systems in the Caribbean due to increases in green-house gasses in the atmosphere
10. Suggest how proposed changes in climate will affect the natural and human environments in the Jamaica.

11. Propose the impact that human induced climate change will have on the coastal resources in Jamaica.
12. Suggest possible benefits of climate change
13. Interpret maps which show changes to the physical landscape in Jamaica due to sea-level rise
14. Calculate the carbon foot prints generated from various human activities.
15. Implement measures to reduce the carbon footprint of the school or household
16. Propose ways in which the effects of climate change may be reduced or prevented
17. Design a poster to show how the possible impact of climate change on the immediate community



GRADE 9**TERM 1****Unit 1: Earth System Science*****Sub-topics***

The Atmosphere, Hydrosphere, Biosphere and Lithosphere

Caring for the Earth

Objectives

1. Describe the components of Earth's System
2. Formulate definitions for lithosphere; hydrosphere; biosphere; atmosphere; system; open system; closed system
3. Describe the characteristics of each of the Earth's spheres.
4. Given specific scenarios, explain the interactions between a natural or human induced event and the four components of the Earth's System
5. Given specific natural or human induced events, explain the cause and effect relationships which exists between the four components of the Earth
6. Show how some events which lead to interactions between Earth's systems may contribute to global warming.
7. Identify the effects of global warming of the atmosphere on the other components of the Earth's System.
8. Conduct Earth System Science Analyses for local and global events
9. Explain the importance of understanding the interactions between the various components of the Earth
10. Identify the components of Green Technology and explain how Green Technology may be used to care for the Earth
11. Demonstrate ways to care for the Earth

Unit 2: Interpreting Maps and Photographs***Sub-topics***

Map Symbols

Direction and Bearings

Measuring Curved distances

Six figure Grid References

Cross-Sections and Intervisibility

Gradient Sketch Maps

Analysing Maps

Objectives

1. Construct a sixteen point compass
2. Use a protractor to measure angular bearing from one point to another
3. Explain the relationship between compass direction and angular bearing
4. Establish the direction and bearing of one point from another point on a map
5. State the absolute location of places using six figure grid references
6. Identify the ways in which a map scale may be represented and convert the scale from one form to another
7. State map scales as statements
8. Measure curved and straight line distances between points on maps
9. Calculate distances using map scales
10. Enlarge and reduce map sections to scale
11. Calculate the new scale for enlarged or reduced sections of maps
12. Describe landforms represented by contours on maps
13. Describe in simple terms the types of slopes that are represented by contours
14. Calculate the gradient of slopes
15. Construct cross-sections and determine intervisibility between points
16. Use the Legend/Key to identify the human activities that are undertaken in a given area
17. Suggest reasons for the distribution of specific activities over an area
18. Sketch a base map from an aerial photograph or satellite imagery

Unit 3 : World: Population, Migration and Settlement

Sub-topics

International Migration

Human Trafficking

Global Security and Safety

Flow Line Maps

Statistical Diagrams

Objectives

1. Explain how world population changes
2. Calculate population change for selected Caribbean countries.
3. Formulate definitions for international migration; migrant; immigrant; emigration; emigrant
4. Outline reasons Jamaicans migrate internationally and evaluate reasons for the selection of destinations.
5. Create a flow map to show movement of people internationally
6. Use Jamaica as a case study, to evaluate the impact of international migration on the source and the destination countries.
7. Recognise the importance of remittances to the Jamaican economy
8. Examine how migration influences the nature and amount of trade (import and export) between countries)
9. Recognise and critically examine the impact of migration on social structures in Jamaica.
10. Interpret flow maps showing movement of people
11. Evaluate the impact of international migration on the source country and the destination
12. Critically examine the following aspects of global security and safety systems - border security; immigration laws and controls; passports and visas
13. Propose a new method to increase the security of a country's borders and explain how the measures will work.
14. Define and outline the elements of the concept human trafficking
15. Recognise and discuss ways in which human trafficking may be reduced nationally, regionally and internationally
16. Develop and present a comprehensive strategy to prevent human trafficking, protect victims of trafficking and prosecute trafficking offenders.
17. Assess how settlements may change over time due to migration

Unit 4: Careers in Geography

Identify at least five career options that require the use of geographic skills

TERM 2

Unit 1 – Weather, Climate and Vegetation

Sub-topics

Types of Biomes

Characteristics of Tropical Biomes

Influence of Climate on Biomes

Objectives

1. Define the concept biome.
2. Label large biomes on a blank map of the world.
3. Examine how variations in temperature and rainfall influence the vegetation of places.
4. Locate the Tropics on a World map.
5. Name the various biomes in the Tropics.
6. Use latitude to locate major areas of tropical rainforest and savannah globally.
7. Outline the characteristics of the tropical rainforest and savannah.
8. Assess the relationship between climate (temperature, rainfall and amount of sunshine) and the structure of the vegetation of the rainforest and savannah.
9. Outline how vegetation changes due to changes in the temperature and rainfall amounts in Jamaica.
10. Investigate how rainforests and savannahs are valuable to humans.
11. Investigate how varying weather patterns and the presence of various vegetation types influence human activities in Jamaica and the rest of the world.
12. Show willingness to work on assigned tasks.
13. Investigate the structure and location of the following types of Caribbean vegetation: coastal vegetation; grasslands/savannah; rainforest.
14. Propose how vegetation changes due to changes in temperature and rainfall amounts in Jamaica.
15. Investigate how varying weather patterns and the presence of various vegetation types influence human activities in Jamaica.

Unit 2 – Internal Forces and Processes of the Earth

Sub-topics

Structure of the Earth

Plate Tectonics

Natural Hazards

Objectives

1. Label the internal structure of the Earth.
2. Describe the characteristics of the core, mantle and crust.
3. Formulate a definition for plate tectonics.
4. Revise the definition for plate tectonics based on textbook definition.
5. Identify possible reasons the Earth's crust moves.

6. Label major continental and oceanic plates.
7. Differentiate between oceanic crust and continental crust.
8. Describe the Caribbean plate and the adjacent plates.
9. Define the characteristics of an earthquake
10. Explain ways earthquakes are recorded and measured
11. Classify earthquakes according to depth and origin
12. Describe the types of plate boundaries.
13. Describe the processes occurring at each plate boundary.
14. Assess the nature of the movement along normal, transform and reverse faults.
15. Account for the occurrence of earthquakes, volcanoes, island arcs, Fold Mountains, mid-ocean ridges, rift valleys, lava plateaux, subduction zones and faults at plate boundaries.
16. Connect the occurrence of earthquakes and volcanoes to plate margins
17. Compare the structures of shield cones, composite cones, ash and lava cones and dome cones
18. Classify volcanic landforms as intrusive or extrusive
19. Link the formation of hot springs and geysers to volcanic activity.
20. Distinguish among natural events, natural hazards and disasters.
21. Using the theory of plate tectonics, explain the occurrence of earthquake in Haiti and volcanic eruption in Montserrat.
22. Explain the effects of earthquake and volcanic eruption on a selected Caribbean country.

Unit 3 – Field Work and Investigation Preparation for Fieldwork

Sub-topics

Data Collection Instruments

Report Writing

Objectives

1. Design suitable data collection instruments.
2. Use fieldwork techniques to collect data to answer a given question or solve a problem.
3. Justify the selection of specific methodology and instruments for collecting data.
4. Compile data collected in tables.
5. Use the data in tables to propose reasons for distributions seen.
6. Use the gathered data to construct appropriate statistical diagrams (bar graphs; pie charts; histograms; flow charts; dot maps or choropleth maps)
7. Prepare a written report to present findings

TERM 3**Unit 1 – Resources and Economic Activities*****Sub-topics****Types of Resources used in Tertiary Economic Activities**Types of Tertiary Economic Activities*

9. Formulate a definition for tertiary economic activity
10. Identify the types of tertiary economic activities in Jamaica.
11. Outline the types of resources used in tertiary economic activities
12. Establish the relationship between primary, secondary and tertiary economic activities
13. Assess how value is added to products as they move from a secondary to tertiary stage

Unit 2 – Jamaica: Tourism***Sub-topics****Types of Resources used in Tourism**Location of Tourism in Jamaica**Types and Characteristics of Tourism in Jamaica**Importance of Tourism**Impact of Climate Change on Tourism in Jamaica**Coral Reefs***OBJECTIVES**

1. Identify the types of resources used to attract tourists
2. Locate tourist area on an outline map of Jamaica
3. Identify and differentiate between the different types of tourism
4. Explain the importance of tourism to the socio-economic environment
5. Assess the social, economic and political effects of tourism
6. Examine the impact of climate change on tourism in Jamaica
7. Discuss the impact of tourism on coral reefs

Unit 3 – Caribbean Weather Systems

Depressions, Tropical Storms and Hurricanes

Cold Fronts

Weather Systems

Impact of Climate Change on Caribbean – El Nino Southern Oscillation

Weather Maps and Symbols

OBJECTIVES

1. Define the term associated with weather systems: depression, storm, hurricane, cold front, stationary front
2. Explain how each weather system is formed
3. Analyse the effectiveness of disaster preparedness methods
4. Account for climate change in the Caribbean
5. Assess the impact of climate change
6. Interpret weather symbols and weather maps

