Immaculate Conception High School

Grade 11-Geography Syllabus)

Class Organization:

- Each grade 11 class has three (5 periods) scheduled contact periods each week for geography- 2 double (1 hr & 10 mins. Each) and a single period (35 mins)
- Physical Geography is covered during a double period.
- Human geography is covered during the other double period.
- Mapwork geography is covered during the single period.

Topics:

TERM 1 September-December

(SBA fieldwork, draft preparations and final submissions)

❖ Physical Geography/Natural Systems

- ***Coasts (September to October)***
  - Characteristics of coastline
  - Define crest, wave length, wave height, trough, etc.
  - Types of waves-constructive and destructive
  - Wave processes (erosion, transportation and deposition) and landforms
  - Formation of cliff, notch, wave-cut platform, headland, bay, caves, arches, stacks, beaches, spit, tombolo, bars

- ***Coral Reefs***
  - Definition and types
  - Definition of coral polyps
  - Location and distribution of coral reefs in the Caribbean
  - Conditions necessary for successful formation *(water-depth, salinity, temperature, turbidity: the presence of beneficial algae and fish).*
  - Importance of coral reefs – coastal protection; raw material for beaches; ecological and economic benefits.

- ***Coral Destruction***
  - Causes of destruction/marine pollution
  - Consequences of destruction
  - Measures to reduce impact in a Caribbean country.

Importance of mangrove wetlands: coastal protection; ecological; socio-economic benefits.

- ***Climate, Vegetation and Soil (November to December)***

  - Define climate, ecosystem, natural vegetation, soil
  - Components of an ecosystem- (living and non-living) human, climate, vegetation, soil etc.
  - Location of equatorial, tropical marine and tropical continental regions (produce map)
  - Climate*(temperature, precipitation & pressure*), vegetation and soil in equatorial, tropical marine and tropical continental regions
  - Adaptations of vegetation to the environmental factors of climate, soil, biotic conditions (including humans).
  - Relationship between climate, vegetation and soil in equatorial rainforest biome (types of trees, types of leaves and roots, structure, species composition and seasonality)

- Positive impacts (sustainable management) and negative impacts (deforestation (Haiti, soil erosion, soil exhaustion) of human activities on tropical forests' biomes
- Causes and consequences of deforestation
- How to conserve forest with an examination of the Iwokrama project in Guyana
- Major constituents of soil: organic and inorganic matter, bacteria, water and air.
- Factors influencing the formation of latosols: interaction amongst climate, vegetation, biota, and water in soil.
- Causes and conservation methods for soil erosion

❖ Human Geography/ Human Systems

- ***Population and Settlement***
  - Define Population and Settlement
  - Factors influencing a population – birth rate, death rate, natural increase and decrease, etc.
  - Factors influencing population distribution and density in a named Caribbean Country *(historical, cultural, physical and socio-economic)*
  - Compare factors influencing population growth in the Caribbean with EITHER India or China, or Nigeria: ***birth rate, death rate, natural increase, migration, fertility rate, life expectancy, government policies.***
  - Definition of migration
  - External vs. internal migration types, causes and consequences (in-migration and out-migration)
  - Patterns and consequences of international migration in one named Caribbean country over the last 20 years
  - Types of settlement (hierarchy)
  - Definition of and reasons for urbanization, urban growth and urban sprawl
  - Benefits and consequences of urbanization
  - Benefits and consequences of urbanization in a capital city e.g. Kingston, Jamaica (look at the growth of the city). ***Causes of population growth in capital cities and other urban areas: for example, natural increase; migration (internal, regional and international); benefits: for example, labour supply, economic growth; and problems: for example, overcrowding, crime, housing, environmental).***
  - Methods of controlling urbanization in the Caribbean. ***(Attempts to control urbanisation: for example, zoning, decentralisation of services, development of housing schemes, upgrade of rural areas, and diversification of agriculture_***

TERM 2: February –March

❖ Physical Geography/Natural Systems

Revision of Plate tectonics Earthquakes and Volcanoes ***(see content taught in grade 9)***

- Revise the structure of the earth (continental and oceanic plates, crust, mantle and Core).
- Global distribution of plates.
- Explain the theory of plate tectonics and continental drift
- Identify the types of plate margins and features associated with each type of plate margin.

Volcanoes

- Explain the formation of volcanoes at each plate margin
- Label appropriately the parts of a volcano
- Identify and describe the intrusive and extrusive volcanic features

Characteristics of:

(a) Intrusive volcanic features (sills, dykes, plugs and batholiths);

(b) Extrusive volcanic features (caldera, shield volcano, composite cone, lava plateau

- Explain how these volcanic features change over time.
- Volcano case study

Earthquakes

- Identify areas in the Caribbean vulnerable to earthquakes
- ***Revise the content as done in grade 9***
- Explain the cause of an earthquake
- Describe the short and long term effects of an earthquake event on a named Caribbean country.
- Look at the effects of the event on the physical and human landscapes, especially in areas of high population density.
- Responses of individuals, national and regional agencies to the risk of the hazards and the effects of natural disasters in the Caribbean.

❖ Human Geography/ Human Systems

- ***Tourism Industry***

  - Tourism Industry in Jamaica and Barbados
  - Location in each Caribbean country (draw map)
  - Factors influencing development and growth of the industry in the Caribbean (physical, cultural, man-made attractions and role of government)
  - Benefits of the industry
  - Challenges (coral reef destruction, pollution, destruction of mangroves)
  - Solution to problems in tourism (ecotourism)

❖ Human-Environment Systems

- ***Natural Hazards***

  - Define natural disasters and hazards
  - Define CDEMA and ODPEM
  - Brief history, role and functions of ODPEM and CDEMA
  - The stages in the hazard/disaster management cycle
    - Revise Volcanic Eruption, Hurricanes and Earthquake impact on life and property in the Caribbean
    - Individual, National and Regional responses to Volcanic Eruptions, Hurricane, landslides, flooding and Earthquakes in Caribbean Countries

<u>TERM 3- April</u>

- Revision of syllabus (particularly plate tectonics and hazards)
- Exam question answering strategies

❖ **Mapwork Geography** (throughout the year)

NB. As each topic under physical and Human Geography is covered, they must be applied to Mapwork or related Geographical skills if applicable.

- Construct and interpret population pyramids, dot and choropleth maps
- Construct and interpret bar graphs, line graphs, divided circles/pie charts, population pyramids etc. displaying population data.
- Draw a sketch maps to show relative location and spatial distribution
- Draw and interpret sketch sections for topographical maps
- Reduce and enlarge a section of a map
- Given a ground or aerial photograph, sketch map or a diagram, students should be able to: interpret geographical features
- Describe settlement types and patterns on topographical maps
- Describe the following on topographical maps: natural vegetation types and distribution, land use types and distribution, communication types and distribution, settlement types, patterns and functions
- Explain the relationship among the patterns of: relief, drainage, vegetation, land use, settlement and communication on topo. maps
- Interpret isopleth maps, lines graphs etc.
- Identification and description of coastal features on topographical maps
- Identify and describe volcanic landscape features on a topographical map
- Draw and interpret cross sections of landforms
- Sketch sections
- intervisibility
- Describe landforms through the reading of contour lines
- Calculate gradients ratios and differentiate slope steepness using gradient (as a ratio or percentage)
- Construction and interpretation of weather station models
- Identification of and description of weather changes associated with Caribbean weather systems on synoptic/ weather charts (isobars)
- Identification and description of different types of industrial / economic activities on a topographic map.
- use descriptive statistics (mean, median and mode) to summarize data;
- (c) Interpret graphs, tables, statistical maps and diagrams as specified in the content.
- Construct and interpret tables, bar graphs, line graphs, divided circles and pie charts
- revise calculation of time of places using longitude
- construct climatic graph-rainfall and temperature info
- draw diagrams to illustrate geographical features

SBA PREPARATION:

- *In September, classes must be held prior to and after the planned SBA field exercise, on the SBA topic, study area, preparation of study area maps and the SBA drafts.*
- *Special mapwork classes must be held for guidance in the preparation of the three (3) study area maps for SBA*
- *Field exercise needs to be carried out by the third week in September*
- *First draft should be due within three weeks after the field exercise (2nd to 3rd week in October)*
- *Second draft should be due within the 1st to 2nd week in November*
- *Final draft MUST be handed in before Christmas holidays*