Immaculate Conception High School

Grade 10-Geography Syllabus (2012/2013)

Class Organization:

- Each grade 10 class has three (5) 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 and draft preparations)

**Physical Geography/Natural Systems**

- **Coasts**
  - Characteristics of coastline
  - Define crest, wave length, wave height, trough, etc.
  - Types of waves-constructive and destructive
  - Wave processes 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

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

- **Limestone Environments**
  - Characteristics of the rock
  - Chemical processes occurring (Carbonation)
  - Karst Landscapes & features formed
  - Types of Limestone features-surface and underground
  - Swallow/ sink holes, caves, stalactites, stalagmites, rock pillars, disappearing rivers and resurgence streams, poljes, uvala, dolines, etc.

**External Forces**

- **Weathering**
  - Define denudation, weathering and erosion
  - Factors affecting weathering
  - Types of weathering
    - Physical weathering processes
      - Pressure release, frost action, temperature changes, salt weathering
    - Chemical weathering processes
      - Oxidation, carbonation, solution, hydrolysis, hydration, chelation
    - Biological weathering processes
      - Tree root wedging, burrowing action of animals etc.
Human Geography/Human Systems

Types of Resources
- Renewable and Non-renewable resources
- Examples of Resources

Types of Industries/ Economic Activities
- Primary, Secondary, Tertiary
- Definition, Characteristics and Examples in the Caribbean
- Importance of each type of economic activity to the Caribbean

Economic Development in the Caribbean
- Define Key terms (economic, human and sustainable development, GNP, GDP)
- Factors hindering Development in the Caribbean (Natural Disasters, Fragmentation, cultural differences etc.)
- Challenges to Caribbean Economies (Abandonment of trading deals, globalization and new Technology)
- Benefits and Challenges of Transnational in the Caribbean
- Role of CSME and CARICOM and how they differ
- Formal and Informal Sector

Classification of Agricultural Systems
- According to size, Type of Produce, Main purpose of farming unit
- Size: Small-scale, Medium scale and large scale
- Type of Produce: Arable, pastoral and mixed
- Main purpose: subsistence, semi-subsistence and commercial

Peasant Farming
- Characteristics of Farming
- Physical, human and economic factors influencing location
- Problems and solutions of farming
- Case study: 1) Peasant Farming in Jamaica and 2) Peasant Farming in Guyana

Commercial Arable Farming
- Characteristics of Farming
- Physical, human and economic factors influencing location
- Problems and Solutions of farming
- Case Study:
  1) Commercial Arable Farming of Sugar Cane in Jamaica
  2) Commercial Arable Farming of Sugar Cane in Guyana
  3) Commercial Arable Farming of Banana in Jamaica
  4) Coffee in Blue Mountains Jamaica

Commercial Arable Farming in the Prairie Provinces of Canada - wheat cultivation
- Location, characteristics and trends
- Problems and solutions
- Produce a study area map of Canadian Prairies
  - Importance of agriculture
  - Changing role of agriculture in the Caribbean (trends in employment, contribution to GDP, acreage, diversification and marketing arrangements)
TERM 2 - January to March

- **Physical Geography / Natural Systems**
  - **Weather and Climate**
    - Differentiate between weather and climate
    - Weather elements, instruments & units of measurement
    - Weather symbols & Station models
      - Identify, draw and interpret symbols and models
    - Differentiate between high and low pressure systems- characteristics and associated weather
    - Caribbean Weather Systems & Weather Maps
      - Hurricanes, Cold Fronts, Anticyclones, Easterly Waves, I.T.C.Z
      - Location of each system in the Caribbean
      - Characteristics and associated weather conditions as each systems passes through the Caribbean
    - Influence of relief on the climate in the Caribbean
      - Relief impact on wind speed, rainfall and temperature throughout the Caribbean
      - Types of rainfall
  - **External Forces**
    - **Mass movements**
      - Landslides and Soil creep
        - Definition and causes of
        - Conditions influencing occurrence
        - Impact on landscape and human activity
        - Case study on landslide in the Caribbean
    - **Human Geography / Human Systems**
      - **Fishing Industry**
        - Fishing in the Caribbean- Jamaica and Belize
        - Location in study areas (produce map)
        - Factors influencing location of freshwater and marine fisheries (physical, human and economic factors)
        - Characteristics of freshwater and marine fisheries
        - Trends and Challenges in case study areas
      - **Bauxite Mining/ Alumina Industry**
        - Bauxite Mining in Jamaica/ Guyana
        - Location in study areas (produce a map)
        - Factors influencing location (physical, human and economic factors)
        - Trends and Challenges
      - **Garment Industry**
        - Garment industry in Trinidad/ Jamaica/Haiti
        - Garment Industry in Singapore/ Hong Kong
        - Location in study areas (produce maps)
        - Factors influencing location ( physical, human and economic factors)
        - Trends and Challenges
      - **Food Processing**
        - Food processing in Trinidad
        - Food processing in Singapore/Hong Kong
• Location in study areas (produce maps)
• Factors influencing location (physical, human, and economic factors)
• Trends and Challenges

TERM 3- April – May

Human- Environment Systems

➤ Global Warming
  • Definition and causes of
  • Long-term changes in global temperatures
  • Functioning of the greenhouse effect
  • Consequences of global warming on Mauritius and Maldives
  • Measures to reduce global warming in Mauritius and Maldives
  • Measures to reduce global warming in North America and Europe (M.E.D.Cs)

➤ Deforestation
  • Causes, Consequences and Mitigation measures
  • Cast Study: Deforestation in Blue Mountains, Jamaica/ and Cockpit Country, Jamaica
  • Case Study: Deforestation in Haiti

➤ Natural Hazards
  • Differentiate between natural disasters and natural hazards
  • Impact of Hurricanes on life and property
    - Case Study Hurricane Ivan and Jeanne of 2004 on Caribbean Countries

➤ Pollution
  • Types classified by cause-Urban, Industrial and Agricultural
  • Types classified by area affected – Air, Water (fresh water and coastal) and land Pollution
  • Definition of, causes of and consequences of each type of pollution
  • Case study of areas with serious pollution problems in the Caribbean. A case study for each type of pollution.
    Example: Air pollution caused by Riverton city dump and coastal pollution of Kingston Harbour and evidences of land pollution in a Caribbean Country

Mapwork Geography (throughout the entire year)

NB. As each topic under physical and human geography is covered, they must be applied to Mapwork or related Geographical skills if applicable.
- Identification and description of limestone features on topographical maps
- Read and interpret conventional symbols
- Draw and interpret cross sections of landforms
- Describe landforms through the reading of contour lines
- Calculate gradients ratios
- Construction and interpretation of weather station models
- Identification of and description of weather changes associated with Caribbean weather systems on synoptic/weather charts
- Identification and description of different types of industrial/economic activities on a topographic map.
- Construct bar and line graphs, divided circles and pie charts
- Interpret bar graphs, line graphs and divided circles
- Revise calculation of time of places using longitude
- Identification and description of coastal features on topographical maps
- Construct climatic graph—rainfall and temperature info