



Geography Option Classes Syllabus

Scholastic Year 2020 - 2021

Year 11

GEOGRAPHY OPTION SYLLABUS YEAR 11

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5.1 Map Reading and Interpretation	5.2 Weather and Climate	5.3 Landforms and Processes	5.4 Socio-Economic Human Systems	5.5 Environmental Concerns	5.6 Location and Places
<p>5.1.1 Basic cartographic skills: section drawing; intervisibility and gradients.</p> <p>5.1.2 Interpretation of communication patterns and location of economic activity.</p>	<p>Tropical Rainforest 5.2.1 Equatorial climate.</p> <p>5.2.2 Appearance (vegetation levels) and adaptation of the vegetation.</p> <p>5.2.3 Rainforest water and nutrient cycle.</p> <p>Tropical Savanna Grasslands 5.2.4 Tropical Continental Climate. Appearance of Tropical Savanna Grasslands and adaptation of the vegetation.</p> <p>Mediterranean Climate 5.2.5 Mediterranean type of Climate. Natural Vegetation: Woodland and scrub (maquis and garigue). Adaptation of the vegetation to the summer drought.</p>	<p>The Earth as a Planet 5.3.1 Effects of the Earth’s revolution – (a) the seasons; (b) the varying lengths of day and night.</p>	<p>Industrial Activity 5.4.1 Classification of economic activities – Primary, Secondary, Tertiary and Quaternary.</p> <p>5.4.2 Comparing employment structures – triangular graphs.</p> <p>5.4.3 Industry as a system: inputs, processes and outputs.</p> <p>5.4.4 Factors affecting industrial location. Footloose Industries.</p> <p>5.4.5 Industrial change – deindustrialisation (decline in primary and in manufacturing industries) – South Wales or the Rhine –Ruhr industrial region as an example.</p>	<p>Ecosystems 5.5.1 How an ecosystem works.</p> <p>5.5.2 Basic processes of an ecosystem: flow of energy and the recycling of nutrients.</p> <p>5.5.3 Distribution of major world natural vegetation zones (biomes).</p> <p>5.5.4 Case Study: Causes and effects of deforestation in the Amazon Rainforest.</p> <p>5.5.5 Sustainable Forestry.</p> <p>5.5.6 Case Study: Desertification in the Sahel</p>	<p>5.6.1 Distribution of major world biomes: Tundra, Taiga (coniferous forests), Temperate deciduous forests, Temperate Grasslands, Mediterranean, Hot Desert, Tropical Rainforests, Savanna Grasslands.</p> <p>5.6.2 The location of these major ports: Vancouver, Seattle, San Francisco, Los Angeles, New York, Caracas, Rio de Janeiro, São Paulo, Buenos Aires, Rotterdam, Antwerp, Barcelona, Marseilles, Trieste, Genoa, Valletta, Istanbul, Port Said, Cape Town, Mumbai, Madras, Singapore, Hong Kong, Shanghai, Tokyo, Osaka-Kobe, Sydney, Melbourne.</p>

	<p>Tropical Desert Climate 5.2.6 Climate characteristics of tropical deserts. How plants and wildlife survive in tropical deserts.</p> <p>Monsoon Climate 5.2.7 Monsoon climate characteristics with special reference to the Indian sub-continent.</p>		<p>5.4.6 High technology industry – the M4 corridor in the UK.</p> <p>5.4.7 Multinational or transnational corporations (TNCs). Positive and negative impacts of TNCs.</p> <p>5.4.8 Global Industry.</p> <p>5.4.9 Emergence of newly industrialised countries (NICs) – The Pacific Rim.</p> <p>5.4.10 Case Study: Industry in Osaka-Kobe conurbation.</p> <p>5.4.11 Case Study: Industry in São Paolo.</p>	<p>5.5.7 Destruction of the natural vegetation by deforestation, grazing animals and fire.</p>	
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Geography Option Year 11 Learning Outcomes

Map Reading and Interpretation	5.1.1	Basic cartographic skills: section drawing; intervisibility and gradients.	<ul style="list-style-type: none"> • Carry out simple calculations to find out the gradient of slopes between two places on a topographic map. • Draw an accurate cross-section between two given points on a topographic map. • Noting and labeling given features on the cross-section. • Determining intervisibility between two points on the cross-section. • Identify the following slope patterns by means of contours: concave slope, convex slope, even slope, compound slope and cliff.
	5.1.2	Interpretation of communication patterns and location of economic activity.	<ul style="list-style-type: none"> • Differentiate between classifications of transport networks including types of railways and roads, electricity transmission lines, bridges, stations, tunnels, heliports, ferries, quays, jetties, docks and lighthouses. • Identifying evidence of primary industry including mining and quarrying, that is mines, waste heaps, quarries, freight lines. • Understand the rural landscapes in topographic maps by noting high or low density of farms and fields, noting and distinguishing between coniferous and deciduous woodland and other features relating to farming activities such as reservoirs, wind-pumps, water tanks, drainage ditches, glasshouses and windmills.

Weather and Climate		.	<ul style="list-style-type: none"> • Understanding recreational land use in rural landscapes on topographic maps by noting parks, nature reserves, lakes and golf courses. • Identify evidence of tourist activity including information centers, telephone booths, public convenience, hotels, inns, youth hostels, restaurants, golf courses, swimming pools, public houses, museums, places of interest and view points, parking areas, picnic, camping and caravan sites, mountain restaurants and inns, ski lifts and cable railways. • Interpreting industrial land use on topographic maps by identifying factories, works, industrial estates, round storage tanks, rail links, oil refineries, jetties, power stations, round cooling towers, power transmission lines and docks. Exploring relationships in the functions and workings of the above named features.
	5.2.1	Tropical Rainforest Equatorial climate.	<ul style="list-style-type: none"> • On a world map locate the three major areas of the tropical rainforest biome namely the Amazon, Congo and Indonesia. • Describe the main characteristics of the equatorial type of climate. • Know the daily pattern of the weather experienced in such areas. • Interpret a climate graph of this type of climate.
	5.2.2	Appearance (vegetation levels) and adaptation of the vegetation.	<ul style="list-style-type: none"> • Describe the appearance of the layers of a tropical rainforest including the shrub layer, under canopy, main canopy and emergents. • Explore the particular adaptations and their reasons including straight tree trunks, large buttress roots, lianas, leaves with drip-tips and lack of undergrowth.

Weather and Climate	5.2.3	Rainforest water and nutrient cycle.	<ul style="list-style-type: none"> • Apply the nutrient cycle to the tropical rainforest. • Aware of the consequences of tree clearance to the nutrient cycle of the tropical rainforest.
	5.2.4	<p>Tropical Savanna Grasslands Tropical Continental Climate. Appearance of Tropical Savanna Grasslands and adaptation of the vegetation.</p>	<ul style="list-style-type: none"> • On a world map locate the five major areas of the tropical continental climate (savanna) namely the Mexico, Venezuela, Brazil (Mato Grosso), Sahel region and east Africa, and parts of northern Australia. • Describe the main characteristics of the tropical continental type of climate (savanna). • Know the seasonal pattern of the weather experienced in such areas. • Interpret a climate graph of this type of climate. • Understand how the natural vegetation of the savanna has adapted to the hot temperatures and drought during the dry season.
	5.2.5	<p>Mediterranean Climate Mediterranean type of Climate. Natural Vegetation: Woodland and scrub (maquis and garigue). Adaptation of the vegetation to the summer drought.</p>	<ul style="list-style-type: none"> • On a world map locate the six areas of the Mediterranean type of climate namely the Mediterranean region, California, Central Chile, South Africa, South-west Australia and South Australia. • Identifying the general position of such areas that is between 30° and 40° latitude on the western margins of continents. • Describe the main characteristics of the Mediterranean type of climate. • Know the seasonal pattern of the weather experienced in such areas. • Interpret a climate graph of this type of climate.

Weather and Climate			<ul style="list-style-type: none"> • Describe the two main types of Mediterranean natural vegetation namely woodland and scrub (maquis and garigue). • Name examples of trees typical of Mediterranean woodland including evergreen oaks and conifers. • Name examples of plants typical of the garigue such as rosemary, lavender and thyme. • Recognise the difference between maquis and garigue environments using illustrations. • Explain how these plants adapt to the summer drought including small waxy glossy leaves, thorns, protective barks, long tap roots, short life cycle during winters and lying dormant during the summer drought. • Aware of man's intervention in this ecosystem by means of massive deforestation, grazing of animals and fire.
	5.2.6	<p>Tropical Desert Climate Climate characteristics of tropical deserts. How plants and wildlife survive in tropical deserts.</p>	<ul style="list-style-type: none"> • On a world map locate the seven areas of the hot desert climate namely the Sahara, Arabian, Kalahari/Namib, Californian, Arizona, Atacama, and Australian. • Identifying the general position of such areas that is between 10° and 30° latitude north or south of the equator and in regions of high pressure. • Describe the main characteristics of the desert type of climate namely that summers are very hot; winters are cool; very little rain (less than 250mm per year); and daily range of temperatures. • Interpret a climate graph of this type of climate.

Weather and Climate			<ul style="list-style-type: none"> • Name examples of plants and wildlife surviving in the desert areas such as the prickly pear cactus, saguaro cactus, camels, antelope, lizards, kangaroos, rattlesnakes, rats, scorpions and other insects. • Explain how plants adapt to the summer drought including thin, spiky or glossy leaves, long tap roots, store moisture in bulbs, seeds can lie dormant for several years, and thorns instead of leaves to stop animals from eating them. • Explain how wildlife have adapted to the desert climate by nocturnal activity, burrowing into the sand to avoid the high day temperatures, storing water eg. camel, obtaining water from plants. Some creatures are cold blooded.
	5.2.7	<p>Monsoon Climate Monsoon climate characteristics with special reference to the Indian sub- continent.</p>	<ul style="list-style-type: none"> • On a world map locate areas of Monsoon Climate including the Indian Sub-continent and South East Asia. • Know the seasonal pattern of the weather experienced in such areas. • Explain the causes of the dry and wet monsoon. • Interpret a climate graph of this type of climate.

Landforms and Processes	5.3.1	<p>The Earth as a Planet</p> <p>Effects of the Earth's revolution</p> <p>(a) the seasons;</p> <p>(b) the varying lengths of day and night.</p>	<ul style="list-style-type: none"> • Explain how the earth's tilt and revolution round the sun cause the sun's rays to heat in differing amounts throughout the year. • Interpret a diagram of the earth's journey round the sun showing its position on 21st March, 21st June, 21st September and 21st December. • Know the meaning of the terms Northern Solstice, Southern Solstice, and Equinoxes. • Understand how the earth's orbit around the sun affects the varying lengths of day and night according to latitude and time of year. • Know the concept of Midnight Sun and 24 hours darkness at the poles. • Know that places on the equator always receive 12 hours daylight and 12 hours darkness throughout the year.
Socio-Economic Human Systems	5.4.1	<p>Industrial Activity</p> <p>Classification of economic activities – Primary, Secondary, Tertiary and Quaternary.</p>	<ul style="list-style-type: none"> • Classify economic activities according to type of work. • Know the meaning of Primary, Secondary, Tertiary and Quaternary industries. • List specific jobs under the right economic activity.
	5.4.2	<p>Comparing employment structures – triangular graphs.</p>	<ul style="list-style-type: none"> • Know and understand that employment structures change over time and vary between places. • Interpret pie charts, showing percentage of people employed in the various sectors according to economic activities, to indicate and compare levels of development. • Interpret triangular graphs according to percentage employed in the three main economic activities.

Socio-Economic Human Systems	5.4.3	Industry as a system: inputs, processes and outputs.	<ul style="list-style-type: none"> • Know and understand that industry or a factory can be regarded as a system with inputs, processes and outputs. • Complete flow diagrams of a particular factory with examples of inputs, processes and outputs.
	5.4.4	Factors affecting industrial location. Footloose Industries.	<ul style="list-style-type: none"> • Appreciate that industrial location is determined by physical, human and economic factors. • Realise that these locational factors can change over a period of time. Physical factors were more important in the past. Nowadays human and economic factors are more important. • Know the meaning of the term footloose industries that have come about due to the development in the transport network.
	5.4.5	Industrial change – deindustrialisation (decline in primary and in manufacturing industries) – South Wales or the Rhine –Ruhr industrial region as an example.	<ul style="list-style-type: none"> • Know the meaning of the term deindustrialisation. • Understand the reasons for the decline in primary and secondary industries including mechanisation and automation, lack of money for upgrading factories, competition from newly industrialised countries producing similar products that are cheaper. • Locate South Wales or the Rhine-Ruhr industrial region on a map of Europe. • Locate the more important places connected with the industry on a map of the region of South Wales or the Rhine-Ruhr area. • Account for the physical factors that contributed to the original development of industry in South Wales or the Rhine-Ruhr area. • Understand the reasons for the decline in the chosen area. • Know the contributing factors that led to the regeneration of industry within the chosen area.

Socio-Economic Human Systems	5.4.6	High technology industry – the M4 corridor in the UK.	<ul style="list-style-type: none"> • Know the meaning of the terms high-tech industry, science and business parks. • Know the factors encouraging the location of high-tech industry in the M4 corridor namely accessibility (transport), universities, cultural and social attractions, labour supply and attractive countryside.
	5.4.7	Multinational or transnational corporations (TNCs). Positive and negative impacts of TNCs.	<ul style="list-style-type: none"> • Define the terms multinational or transnational corporations (TNCs). • Aware of the functions and scope of multinational or transnational corporations (TNCs). • Identify some world renowned multinational corporations. • Understand the advantages and disadvantages of TNCs.
	5.4.8	Global Industry.	<ul style="list-style-type: none"> • Understand the meaning of the term globalisation.
	5.4.9	Emergence of newly industrialised countries (NICs) – The Pacific Rim.	<ul style="list-style-type: none"> • Define the term NIC as Newly Industrialised Countries. • Locate the newly industrialised countries of China, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand on a map of Asia. • Explain the reasons for the rapid economic growth of NICs of the Pacific Rim.
	5.4.10	Case Study: Industry in Osaka-Kobe conurbation.	<ul style="list-style-type: none"> • Locate Osaka-Kobe conurbation on a map of Japan. • Identify the reasons for the industrial growth within this conurbation. • Aware of the different sized companies which compose Japan's industrial pyramid. • Describe a particular important industry in the Osaka-Kobe area. • Recognise the problems of the chosen industry and the attempted solutions.

	5.4.11	Case Study: Industry in São Paulo.	<ul style="list-style-type: none"> • Locate São Paulo on a map of South America. • Account for the main features of São Paulo's rapid economic growth including early industry and the nature of more recent industrial development. • Distinguish between the formal and informal industrial sectors. • Recognise the problems caused by this rapid industrial growth in São Paulo and the attempted solutions.
Environmental Concerns	5.5.1	Ecosystems How an ecosystem works.	<ul style="list-style-type: none"> • Define the term ecosystem. • Distinguish between micro, meso and global ecosystems giving most common examples. • Identify the roles of flora, fauna, rocks and soils as components of an ecosystem. • Aware of the interaction between the living and non-living aspects of an ecosystem.
	5.5.2	Basic processes of an ecosystem: flow of energy and the recycling of nutrients.	<ul style="list-style-type: none"> • Understand the terms and functions of the food chain including producers, consumers (herbivores), consumers (carnivores), decomposers. • Recognise the energy flow in a simple ecosystem through the process of photosynthesis and the food chain. • Able to draw a simple labelled flow diagram to show the nutrient cycle within an ecosystem.

	5.5.3	Distribution of major world natural vegetation zones (biomes).	<ul style="list-style-type: none"> Identify and locate on a world map the distribution of the following major natural vegetation zones (biomes): tropical rainforest, savanna, desert, Mediterranean, temperate deciduous, temperate grasslands, northern coniferous, and tundra.
	5.5.4	<p>Case Study:</p> <p>Causes and effects of deforestation in the Amazon Rainforest.</p>	<ul style="list-style-type: none"> Locate the Amazon Rainforest on a map of South America. Define the term deforestation. List the main reasons for deforestation within the Amazon Rainforest including shifting agriculture (slash and burn), subsistence farming, cattle ranching, hydroelectric power schemes, mining, logging, new roads, and settlements. Recognise the following effects of forest clearance in Brazil namely loss of species and forest ecosystem, reduction of Amerindians and loss of their traditional culture, less rainfall in the region, soil erosion, soil infertility and Global Warming.
	5.5.5	Sustainable Forestry.	<ul style="list-style-type: none"> Understand the term sustainable forestry. Aware of how the forest can be managed to ensure sustainability by protection of forest, creation of national parks, controlled and selective logging, heli-logging, replanting of forested areas that have been felled and restriction of logging licenses.

	5.5.6	Case Study: Desertification in the Sahel	<ul style="list-style-type: none"> Define the term desertification. Locate the countries within the Sahel Region on a map of Africa including Ethiopia, Sudan, Chad, Niger and Somalia. Classify the natural and human causes leading to desertification including decrease in rainfall, effects of global warming, overgrazing, overcultivation and population growth. Analyse how the growth of population in the Sahel results in overgrazing, overcultivation and deforestation which lead to desertification. Aware of the possible solutions to stop the desert from advancing.
	5.5.7	Destruction of the natural vegetation by deforestation, grazing animals and fire.	<ul style="list-style-type: none"> Consolidate how deforestation is a major cause of desertification.
	Location and Places	5.6.1	Distribution of major world biomes: Tundra, Taiga (coniferous forests), Temperate deciduous forests, Temperate Grasslands, Mediterranean, Hot Desert, Tropical Rainforests, Savanna Grasslands.
5.6.2		The location of these major ports: Vancouver, Seattle, San Francisco, Los Angeles, New York, Caracas, Rio de Janeiro, São Paulo, Buenos Aires, Rotterdam, Antwerp, Barcelona, Marseilles, Trieste, Genoa, Valletta, Istanbul, Port Said, Cape Town, Mumbai, Madras, Singapore, Hong Kong, Shanghai, Tokyo, Osaka-Kobe, Sydney, Melbourne.	Know the position of and locate the following major ports on a world map: Vancouver, Seattle, San Francisco, Los Angeles, New York, Caracas, Rio de Janeiro, São Paulo, Buenos Aires, Rotterdam, Antwerp, Barcelona, Marseilles, Trieste, Genoa, Valletta, Istanbul, Port Said, Cape Town, Mumbai, Madras, Singapore, Hong Kong, Shanghai, Tokyo, Osaka-Kobe, Sydney, and Melbourne.

Annexe 1 The Annual Examination Paper

The examination will consist of one paper of 1 hour 45 minutes duration. Papers will be set in English and candidates are expected to answer in good English.

The use of non-programmable calculators, geometrical instruments, pencil colours, piece of string and blank sheet of paper for calculating curved distances on Topographic Maps is permitted during the examination.

The exam paper will reflect the topics covered as indicated by the present document. However, in regard to Map Reading and Interpretation the exam paper for Year 11 will also refer to the topics covered during the previous years (except for map enlargement and reduction and calculating area on maps). The exam paper for Year 11 is prepared by the Education Assessment Unit at the Department for Learning and Assessment Programmes. It will carry a maximum of 90 marks consisting of eight structured questions as indicated in the table below. The remaining 10 marks must be awarded to each student even though fieldwork is not presented.

Strands	No. of questions	Marks
Map Reading and Interpretation	1	18
Location and Places	1	8
Weather and Climate	1	16
Landforms and Processes	1	10
Socio-Economic Human Systems	2	18
Environmental Concerns	2	20
		Total: 90

Annexe 2

Priorities for Year 11

The following are the areas of study which should be given priority for the Annual Examination for Year 11 which is held during the month of March.

5.1 Map reading and Interpretation	5.1.1, 5.1.2
5.2 Weather and Climate	5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5, 5.2.7
5.3 Landforms and Processes	5.3.1
5.4 Socio-Economic Human Systems	5.4.1, 5.4.2, 5.4.3, 5.4.4, 5.4.5, 5.4.6, 5.4.7, 5.4.8, 5.4.9, 5.4.10, 5.4.11
5.5 Environmental Concerns	5.5.1, 5.5.2, 5.5.3, 5.5.4, 5.5.5
5.6 Location and Places	5.6.1, 5.6.2

