

| F e t c h |

|IB Diploma Geography|
|Student Information Package|
| 2019-2020 |



This package includes the following:

- 2-year course syllabus
- external and internal assessment breakdown
- method of internal assessment

The purpose of this package is to inform each student on the structure and content of the 2-year course. The detailed course syllabus will assist students who want to plan ahead.

Student Performance

To enhance your performance in this course, consider the following:

1. Homework, assignments and tests are essential instruments of evaluation, thus providing you with invaluable feedback of your current understanding of the topic.
2. The subject matter for this course is such that you are required to read a great deal from various sources of information. The best way to approach your reading tasks and at the same time staying abreast of the main issues, is to read on a regular basis from the textbook, Twitter, Diigo, National Geographic, geographyods.com and blogs to be introduced over the duration of the course (**three times a week**).
3. It is your responsibility and right to seek out help from us when you require it. Staying “muddled” can be both distressing and disabling for you, thus clear up immediately any confusion you may have about the course.

Mr. Roberts will publish all the work on an online (www.fetchededucation.org) where you will be able to access syllabus details, helpful web links and other information related to the course.

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IB Geography 2018 - 2020

The following topics will be covered over the two years. As indicated in the table, the Geographical Skills and Topographic Mapping will not be studied as separate topics but will be incorporated throughout the course.

Make sure that you refer to these syllabus details as we go through the course. There is a space for notes so that you can note when each piece of content has been covered in class. We will not necessarily go over everything in detail in class - it will be up to you to cover some of the material at home.

Geography and international-mindedness

The geography course conceptually and contextually embodies international and global awareness in several distinctive approaches. It examines key world issues, such as the nexus of sustainable environmental, societal and economic development, and climate change. It considers examples and case studies at a variety of scales, from local to regional, national, international and global. Throughout the course, teachers have considerable flexibility in their choice of examples and case studies as content in order to ensure that Diploma Programme geography is a highly appropriate way to meet the needs of all students, regardless of their geographical location. Inherent to the syllabus is a consideration of different perspectives, economic circumstances and social and cultural diversity.

Geography seeks to develop international understanding and foster a concern for global issues as well as to raise students' awareness of their own responsibility at a local level. Geography also aims to develop values and attitudes that will help students reach a degree of personal commitment in trying to resolve these issues, appreciating our shared responsibility as citizens of an increasingly interconnected and ever shrinking world.

The IB learner profile

The geography syllabus is closely linked to the IB learner profile, which strives to develop internationally minded people who recognize their common humanity and shared guardianship of the planet, and who help create a better and more peaceful world. By following the geography syllabus, students will have fulfilled the attributes of the IB learner profile. For example, the requirements of the internal assessment provide opportunities for students to develop every aspect of the profile.

For each attribute of the learner profile, a number of examples selected from the skills and content of the geography syllabus are given below.

Learner profile attribute	Geography syllabus
Inquirers	
Knowledgeable	
Thinkers	
Communicators	
Principled	
Open-minded	
Caring	
Risk-takers	
Balanced	
Reflective	

Geography Discipline

Geography is a dynamic subject that is firmly grounded in the real world and focuses on the interactions between individuals, societies and the physical environment in both time and space. It seeks to identify trends and patterns in these interactions and examines the processes behind them. It also investigates the way that people adapt and respond to change and evaluates management strategies associated with such change. Geography describes and helps to explain the similarities and differences between spaces and places. These may be defined on a variety of scales and from a range of perspectives.

Within group 3 subjects, geography is distinctive in that it occupies the middle ground between social sciences and natural sciences. The Diploma Programme geography course integrates both physical and human geography and ensures that students acquire elements of both scientific and socio-economic methodologies. Geography takes advantage of its position between both these groups of subjects to examine relevant concepts and ideas from a wide variety of disciplines. This helps students develop an appreciation of, and a respect for, alternative approaches, viewpoints and ideas.

Geography and theory of knowledge (TOK)

Students of group 3 subjects study individuals and societies. This means that they explore the interactions between humans and their environment in time and place. As a result, these subjects are often known collectively as the “human sciences” or “social sciences”. As with other subject areas, there is a variety of ways of gaining knowledge in group 3 subjects. For example, archival evidence, data collection, experimentation, observation, and inductive and deductive reasoning can all be used to help explain patterns of behaviour and lead to knowledge claims. Students in group 3 subjects are required to evaluate these knowledge claims by exploring knowledge issues such as validity, reliability, credibility, certainty and individual as well as cultural perspectives.

The relationship between each subject and theory of knowledge is important and fundamental to the Diploma Programme. Having followed a course of study in group 3, students should be able to reflect critically on the various ways of knowing and methods used in human sciences. In doing so, they will become “inquiring, knowledgeable and caring young people” (IB mission statement). During the Diploma Programme geography course, a number of issues will arise that highlight the relationship between theory of knowledge and geography. Some of the questions that might be considered during the course are identified below.

TOK Presentation Ideas

- Are the findings of the natural sciences as reliable as those of the human sciences? What is the meaning of “a scientific law” in each area?
- To what extent do maps reflect reality?
- Do regions have boundaries?
- To what extent might it be true that geography combines the methods of human and natural sciences?
- Some geographical topics, such as climate change, are controversial. How does the scientific method attempt to address them? Are such topics always within the scope of the scientific method?
- What scientific or social factors might influence the study of a complex phenomenon such as global warming?
- Often in geography a model of reality is created. What does this mean? What are the advantages and disadvantages of creating a geographic model? In what areas of geography are models most common?
- Arguably, while some aspects of geography can be measured, others cannot. Is this the case? What is it about a quality that means it cannot be quantified?
- If humans are individual and unique, does this mean that there can be no reliable laws in human geography?
- Many geographers and others value diversity in human affairs. Is globalization therefore a bad thing

Group 3 aims

The aims of all subjects in **group 3, individuals and societies** are to:

1. encourage the systematic and critical study of: human experience and behaviour; physical, economic and social environments; and the history and development of social and cultural institutions
2. develop in the student the capacity to identify, to analyse critically and to evaluate theories, concepts and arguments about the nature and activities of the individual and society
3. enable the student to collect, describe and analyse data used in studies of society, to test hypotheses, and to interpret complex data and source material
4. promote the appreciation of the way in which learning is relevant both to the culture in which the student lives, and the culture of other societies
5. develop an awareness in the student that human attitudes and beliefs are widely diverse and that the study of society requires an appreciation of such diversity
6. Enable the student to recognize that the content and methodologies of the subjects in group 3 are contestable and that their study requires the toleration of uncertainty.

Geography aims

In addition, the aims of the geography syllabus at SL and HL are to enable students to:

1. develop an understanding of the interrelationships between people, places, spaces and the environment
2. develop a concern for human welfare and the quality of the environment, and an understanding of the need for planning and sustainable management
3. Appreciate the relevance of geography in analysing contemporary issues and challenges and develop a global perspective of diversity and change.

Student Reading List

IB Geography Textbooks and Wider Reading

Below is a list of books that I have used in the past and can be found either in the school library or the local libraries. It is also possible to buy nearly all of these books off online retailers such as Amazon.

General Textbooks [SL/HL]

- Planet Geography by Stephen Codrington
- Geography: An integrated approach by David Waugh
- Geography Course Companion by Garrett Nagle and Briony Cooke
- Geography IB Study Guide by Garrett Nagle and Briony Cooke
- Advanced Geography by Garrett Nagle

Textbooks for the Core Themes [SL/HL]

- Geography for the IB Diploma - Patterns and Change by Paul Guinness
- Population, Resources and Development by Jane Chrispin and Francis Jegede
- Access to Geography - Migration by Paul Guinness
- Access to Geography - Development by Garrett Nagle
- Access to Geography - Population by Jack Gillett
- Access to Geography - Economic Activity and Change by Paul Sheppard
- EPICS - Development, Globalisation and Sustainability by John Morgan

Freshwater - Issues and Conflict [SL/HL]

- Water Resources: Process and Management by Victoria Bishop and Robert Prosser
- Access to Geography - Rivers and Water Management by Garrett Nagle
- Advanced Topic Masters - Rivers by Michael Raw

Hazards and Disasters - Risk Assessment and Response [SL/HL]

- Hazards and Responses by Victoria Bishop
- Access to Geography - Hazards by Malcolm Skinner
- Advanced Topic Masters - Weather and Hazards by Michael Raw

Geographic skills

Geographic skills are essential to the study of geography and reflect the subject's distinctive methodology and approach. Teaching and learning these skills enrich the students' understanding of geography and enables them to apply and use appropriate techniques and terminology. It is essential that the skills should be covered throughout the **whole** syllabus and that they are introduced and integrated where appropriate, depending on the context, in the different themes and the SL/HL core and HL extension. It is essential that the skills should be all taught at some stage of the course and are not treated in isolation.

Students are expected to demonstrate competence in the use of geographic skills in examination papers and internal assessment as appropriate. Those skills indicated below in italics are **not** assessed in the externally assessed examination papers.

It is recognized that the ability to use GIS as a tool is a valuable geographic skill that goes beyond many of those listed below. Where GIS is accessible and practical, its use is encouraged.

Skill	Examples
Locate and differentiate elements of the Earth's surface	<p>Using:</p> <ul style="list-style-type: none"> • direction • latitude • longitude • grid references and area references • scale • political units.
Interpret, analyse and, when appropriate, construct tables, graphs, diagrams, cartographic material and images	<p>All kinds of maps, including:</p> <ul style="list-style-type: none"> ◦ isoline and isopleth maps ◦ choropleth maps ◦ topological maps ◦ dot maps ◦ flow maps ◦ thematic maps (including mental maps) ◦ topographic maps • proportional symbols • aerial photographs • ground-level photographs • satellite images • graphs, including scatter, line, bar, compound, triangular, logarithmic, bipolar graphs • pie charts • flow diagrams/charts • population pyramids • Lorenz curves • cross-profiles (sections) • rose diagrams • development diamonds.

<p>Undertake statistical calculations to show patterns and summarize information</p>	<p>Such as:</p> <ul style="list-style-type: none"> • totals • averages (means, medians, modes) • frequencies • ranges of data (differences between maximum and minimum) • densities • percentages • ratios.
<p>Research, process and interpret data and information</p>	<p>Types of data and information:</p> <ul style="list-style-type: none"> • <i>measures of correlation (including Spearman rank and chi-squared)</i> • <i>measures of concentration and dispersion (including nearest neighbour and location quotients)</i> • <i>measures of spatial interactions</i> • <i>measures of diversity</i> • indices and ratios (including Gini coefficient, ecological footprint, Human Development Index (HDI), dependency ratio) • textual information • observations • opinions, values and perceptions. <p>Processing and interpreting:</p> <ul style="list-style-type: none"> • classify data and information • analyse data and information • describe patterns, trends and relationships • make generalizations and identify anomalies • make inferences and predictions • make and justify decisions • draw conclusions • evaluate methodology.

<p>Collect and select relevant geographic information</p>	<p><i>Making:</i></p> <ul style="list-style-type: none"> • <i>observations, including field sketches and sketch maps</i> • <i>images.</i> <p><i>Conducting:</i></p> <ul style="list-style-type: none"> • <i>interviews.</i> <p><i>Taking:</i></p> <ul style="list-style-type: none"> • <i>measurements.</i>
<p>Evaluate sources of geographic information</p>	<p>In terms of:</p> <ul style="list-style-type: none"> • accuracy • relevance • bias.
<p>Produce written material (including essays, reports and investigations)</p>	<p>Presenting:</p> <ul style="list-style-type: none"> • material in a clear and well-structured way. <p>Responding:</p> <ul style="list-style-type: none"> • appropriately to command terms.

Option A: Freshwater

This optional theme encompasses the physical geography of freshwater in a systems framework, including core elements of hydrology (and the factors and processes that give rise to bank full discharge and flooding) and fluvial geomorphology (including river process and landform study).

It also covers the study of water on the land as a scarce resource requiring careful management, including freshwater bodies such as lakes and aquifers. This includes the ways in which humans respond to the challenges of managing the quantity and quality of freshwater, as well as the consequences (whether intended or unintended, positive or negative) of management within drainage basins.

The importance of integrated planning is emphasized, in addition to the geopolitical consequences of growing pressures on internationally shared water resources.

Through study of this optional theme, students will develop their understanding of processes, places, power and geographical possibilities. They will additionally gain understanding of other concepts including **systems** (the hydrological cycle), **flood mitigation** (attempts to tackle flooding) and **water security**.

Geographic inquiry	Geographic knowledge and understanding
1. Drainage basin hydrology and geomorphology Suggested teaching time 6–8 hours	
How physical processes influence drainage basin systems and landforms	The drainage basin as an open system with inputs (precipitation of varying type and intensity), outputs (evaporation and transpiration), flows (infiltration, throughflow, overland flow and base flow) and stores (including vegetation, soil, aquifers and the cryosphere) River discharge and its relationship to stream flow, channel characteristics and hydraulic radius River processes of erosion, transportation and deposition and spatial and temporal factors influencing their operation, including channel characteristics and seasonality The formation of typical river landforms, including waterfalls, floodplains, meanders, levees and deltas
2. Flooding and flood mitigation Suggested teaching time 6–8 hours	
How physical and human factors exacerbate and mitigate flood risk for different places	Hydrograph characteristics (lag time, peak discharge, base flow) and natural influences on hydrographs, including geology and seasonality How urbanization, deforestation and channel modifications affect flood risk within a drainage basin, including its distribution, frequency and magnitude Attempts at flood prediction, including changes in weather forecasting and uncertainty in climate modelling Flood mitigation, including structural measures (dams, afforestation, channel modification and levee strengthening) and planning (personal insurance and flood preparation, and flood warning technology) <ul style="list-style-type: none"> • <i>Two contrasting detailed examples of flood mitigation of drainage basins</i>

3. Water scarcity and water quality

Suggested teaching time 6–8 hours

The varying power of different actors in relation to water management issues	<p>Physical and economic water scarcity, and the factors that control these including the causes and impacts of droughts; the distinction between water quantity and water quality</p> <p>Environmental consequences of agricultural activities on water quality, to include pollution (eutrophication) and irrigation (salinization)</p> <ul style="list-style-type: none">• <i>Detailed examples to illustrate the role of different stakeholders</i> <p>Growing human pressures on lakes and aquifers, including economic growth and population migration</p> <p>Internationally shared water resources as a source of conflict</p> <ul style="list-style-type: none">• <i>Case study of one internationally shared water resource and the role of different stakeholders in attempting to find a resolution</i>
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4. Water management futures

Suggested teaching time 6–8 hours

Future possibilities for management intervention in drainage basins	<p>The importance of strengthening participation of local communities to improve water management in different economic development contexts, including sustainable water use and efficiency, and ensuring access to clean, safe and affordable water</p> <p>Increased dam building for multipurpose water schemes, and their costs and benefits</p> <ul style="list-style-type: none">• <i>Case study of contemporary dam building expansion in one major drainage basin</i> <p>The growing importance of integrated drainage basin management (IDBM) plans, and the costs and benefits they bring</p> <ul style="list-style-type: none">• <i>Case study of one recent IDBM plan</i> <p>Growing pressures on major wetlands and efforts to protect them, such as the Ramsar Convention</p> <ul style="list-style-type: none">• <i>Case study of the future possibilities for one wetland area</i>
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Synthesis (Sy), Evaluation (Ev) and Skills (Sk) opportunities

These suggestions aim to synthesize the learning throughout the unit.	<p>How natural processes or human interference in one part of a drainage basin may bring spatial interactions with other parts/places [Sy]</p> <p>How water management actions take place at personal to global scales [Sy/Ev]</p> <p>Different perspectives on the costs and benefits of water management strategies [Ev]</p> <p>How water cycling and water system flows can be represented graphically [Sk]</p>
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Option G: Urban environments

More than 50% of the world's population now lives in urban environments, with many living in megacities. This optional theme considers the hierarchy of cities and other urban places as sites of intense social interaction and as focal points of production, wealth generation and consumption. They exhibit diversity in patterns of wealth and deprivation, which can result in conflict. They may share common characteristics and processes irrespective of the national level of economic development.

Transport improvements have led to rapid growth and shifts in population and economic activities, producing stresses and challenges for urban planners. The theme also considers issues of sustainability, wherein cities need to be managed to minimize harmful social and environmental impacts.

Through study of this optional theme, students will develop their understanding of processes, places, power and geographical possibilities. They will additionally gain understanding of more specialized concepts including **hierarchies** (of settlements), **systems** (in relation to movements of people and the management of transport and waste flows) and **sustainability**.

Geographic inquiry	Geographic knowledge and understanding
1. The variety of urban environments Suggested teaching time 6–8 hours	
The characteristics and distribution of urban places, populations and economic activities	Characteristics of urban places, including site, function, land use, hierarchy of settlement (including megacities) and growth process (planned or spontaneous) Factors affecting the pattern of urban economic activities (retail, commercial, industrial), including physical factors, land values, proximity to a central business district (CBD) and planning Factors affecting the pattern of residential areas within urban areas, including physical factors, land values, ethnicity and planning The incidence of poverty, deprivation and informal activity (housing and industry) in urban areas at varying stages of development
2. Changing urban systems Suggested teaching time 6–8 hours	
How economic and demographic processes bring change over time to urban systems	Urbanization, natural increase and centripetal population movements, including rural–urban migration in industrializing cities, and inner city gentrification in post-industrial cities Centrifugal population movements, including suburbanization and counter-urbanization Urban system growth including infrastructure improvements over time, such as transport, sanitation, water, waste disposal and telecommunications <ul style="list-style-type: none"> • <i>Case study of infrastructure growth over time in one city</i> The causes of urban deindustrialization and its economic, social and demographic consequences

<p>3. Urban environmental and social stresses</p> <p>Suggested teaching time 6–8 hours</p>	
<p>The varying power of different stakeholders in relation to the experience of, and management of, urban stresses</p>	<p>Urban microclimate modification and management, including the urban heat island effect, and air pollution patterns and its management</p> <ul style="list-style-type: none"> • <i>Case study of air pollution in one city and its varying impact on people</i> <p>Traffic congestion patterns, trends and impacts</p> <ul style="list-style-type: none"> • <i>Case study of one affected city and the management response</i> <p>Contested land use changes, including slum clearances, urban redevelopment and the depletion of green space</p> <ul style="list-style-type: none"> • <i>Detailed contrasting examples of two affected neighbourhoods and their populations</i> <p>Managing the impacts of urban social deprivation, including the cycle of deprivation and geographic patterns of crime</p>

<p>4. Building sustainable urban systems for the future</p> <p>Suggested teaching time 6–8 hours</p>	
<p>Future possibilities for the sustainable management of urban systems</p>	<p>Urban growth projections for 2050, including regional/continental patterns and trends of rural–urban migration and changing urban population sizes and structures</p> <p>Resilient city design, including strategies to manage escalating climatic and geopolitical risks to urban areas</p> <ul style="list-style-type: none"> • <i>Two detailed examples to illustrate possible strategies</i> <p>Eco city design, including strategies to manage the urban ecological footprint</p> <ul style="list-style-type: none"> • <i>Two detailed examples to illustrate possible environmental strategies</i> <p>Smart city design and the use of new technology to run city services and systems, including purpose-built settlements and retrofitting technology to older settlements</p>
<p>Synthesis (Sy), Evaluation (Ev) and Skills (Sk) opportunities</p>	
<p>These suggestions can be integrated into the study of the above. No additional teaching time is required.</p>	<p>How urban changes over time are affected by a place's economic and demographic spatial interactions with other places [Sy]</p> <p>Contrasts in the scale of changes and challenges facing different urban areas [Sy/Ev]</p> <p>Varying perspectives of different social groups on the costs and benefits of different urban strategies, and priorities for action [Ev]</p> <p>How urban patterns, movements, flows and trends/temporal changes can best be represented graphically [Sk]</p>

Option D: Geophysical hazards

This optional theme focuses on geophysical hazard events. This includes internal earth processes, such as earthquakes and volcanic activity. It also encompasses mass movements such as landslides, rockslides, debris or mud flows. The theme also includes human impacts and responses. Case studies of contrasting geophysical hazard events need to be undertaken ("contrasting" can be interpreted as severity of impacts and/or locations with different socio-economic realities):

- **two** earthquake hazard events of similar magnitudes but with **contrasting** human impacts
- **two** volcanic hazard events in **contrasting** plate boundary locations
- **two** mass movement hazard events with **contrasting** physical characteristics (fast/slow; solid/loose).

Through study of this optional theme, students will develop their understanding of processes, places, power and geographic possibilities. They will additionally gain understanding of more specialized concepts including **risk** and **vulnerability** (both of which vary according to the local context) and also **resilience** and **adaptation** (in relation to pre-event and post-event disaster management).

Geographic inquiry	Geographic knowledge and understanding
1. Geophysical systems Suggested teaching time 6–8 hours	
How geological processes give rise to geophysical events of differing type and magnitude	Mechanisms of plate movement including internal heating, convection currents, plumes, subduction and rifting at plate margins Characteristics of volcanoes (shield, composite and cinder) formed by varying types of volcanic eruption; and associated secondary hazards (pyroclastic flows, lahars, landslides) Characteristics of earthquakes (depth of focus, epicentre and wave types) caused by varying types of plate margin movement and human triggers (dam building, resource extraction); and associated secondary hazards (tsunami, landslides, liquefaction, transverse faults) Classification of mass movement types according to cause (physical and human), liquidity, speed of onset, duration, extent and frequency
2. Geophysical hazard risks Suggested teaching time 6–8 hours	
How geophysical systems generate hazard risks for different places	The distribution of geophysical hazards (earthquakes, volcanoes, mass movements) The relevance of hazard magnitude and frequency/recurrence for risk management Geophysical hazard risk as a product of economic factors (levels of development and technology), social factors (education, gender), demographic factors (population density and structure) and political factors (governance) Geographic factors affecting geophysical hazard event impacts, including rural/urban location, time of day and degree of isolation

3. Hazard risk and vulnerability Suggested teaching time 6–8 hours	
The varying power of geophysical hazards to affect people in different local contexts	<ul style="list-style-type: none"> • <i>Two contemporary contrasting case studies each for volcanic hazards, earthquake hazards and mass movement hazards (see guidance above)</i> • <i>For each geophysical hazard type, the case studies should develop knowledge and understanding of:</i> <ul style="list-style-type: none"> ◦ geophysical hazard event profiles, including any secondary hazards ◦ varied impacts of these hazards on different aspects of human well-being ◦ why levels of vulnerability varied both between and within communities, including spatial variations in hazard perception, personal knowledge and preparedness

4. Future resilience and adaptation Suggested teaching time 6–8 hours	
Future possibilities for lessening human vulnerability to geophysical hazards	<p>Global geophysical hazard and disaster trends and future projections, including event frequency and population growth estimates</p> <p>Geophysical hazard adaptation through increased government planning (land use zoning) and personal resilience (increased preparedness, use of insurance and adoption of new technology)</p> <p>Pre-event management strategies for mass movement (to include slope stabilization), earthquakes and tsunami (to include building design, tsunami defences), volcanoes (to include GPS crater monitoring and lava diversions)</p> <p>Post-event management strategies (rescue, rehabilitation, reconstruction), to include the enhanced use of communications technologies to map hazards/disasters, locate survivors and promote continuing human development</p>
Synthesis (Sy), Evaluation (Ev) and Skills (Sk) opportunities	
These suggestions can be integrated into the study of the above. No additional teaching time is required.	<p>How hazard risk is a function of spatial interactions between different human and physical processes [Sy]</p> <p>The varying spatial scale of the processes and challenges associated with different kinds of geophysical event and their aftermaths [Sy/Ev]</p> <p>Different perspectives on how geophysical hazard risks should be managed [Ev]</p> <p>How spatial patterns of risk and vulnerability can be represented graphically [Sk]</p>

Unit 1: Changing population

Geographic inquiry	Geographic knowledge and understanding
1. Population and economic development patterns Suggested teaching time 7–8 hours	
How population varies between places	Physical and human factors affecting population distribution at the global scale Global patterns and classification of economic development: <ul style="list-style-type: none"> • low-income countries • middle-income countries and emerging economies • high-income countries Population distribution and economic development at the national scale, including voluntary internal migration, core-periphery patterns and megacity growth <ul style="list-style-type: none"> • <i>Two detailed and contrasting examples of uneven population distribution</i> Synthesis, evaluation and skills opportunities The relative importance of different influences on where people live and spatial interactions between places at varying scales

2. Changing populations and places Suggested teaching time 7–8 hours	
Processes of population change and their effect on people and places	Population change and demographic transition over time, including natural increase, fertility rate, life expectancy, population structure and dependency ratios <ul style="list-style-type: none"> • <i>Detailed examples of two or more contrasting countries</i> The consequences of megacity growth for individuals and societies <ul style="list-style-type: none"> • <i>One case study of a contemporary megacity experiencing rapid growth</i> The causes and consequences of forced migration and internal displacement <ul style="list-style-type: none"> • <i>Detailed examples of two or more forced movements, to include environmental and political push factors, and consequences for people and places</i> Synthesis, evaluation and skills opportunities How the impacts of population change and spatial interactions between places can be categorized and represented graphically

3. Challenges and opportunities

Suggested teaching time 7–8 hours

<p>Population possibilities and power over the decision-making process</p>	<p>Global and regional/continental trends in family size, sex ratios, and ageing/greying</p> <p>Policies associated with managing population change, focusing on:</p> <ul style="list-style-type: none">• policies related to ageing societies• pro-natalist or anti-natalist policies• gender equality policies and anti-trafficking policies <p>The demographic dividend and the ways in which population could be considered a resource when contemplating possible futures</p> <ul style="list-style-type: none">• <i>One case study of a country benefiting from a demographic dividend</i> <p>Synthesis, evaluation and skills opportunities</p> <p>How population change may affect the power balance between groups of people at local, national and international scales</p>
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Unit 2: Global climate—vulnerability and resilience

Geographic inquiry	Geographic knowledge and understanding
1. Causes of global climate change Suggested teaching time 7–8 hours	
How natural and human processes affect the global energy balance	<p>The atmospheric system, including the natural greenhouse effect and energy balance (incoming shortwave radiation and outgoing longwave radiation)</p> <p>Changes in the global energy balance, and the role of feedback loops, resulting from:</p> <ul style="list-style-type: none">• solar radiation variations, including global dimming due to volcanic eruptions• terrestrial albedo changes and feedback loops• methane gas release and feedback loops <p>The enhanced greenhouse effect and international variations in greenhouse gas sources and emissions, in relation to economic development, globalization and trade</p> <p>Synthesis, evaluation and skills opportunities</p> <p>The complexity of the dynamic climate system and the spatial interactions of different processes and feedback mechanisms</p>

2. Consequences of global climate change Suggested teaching time 7–8 hours	
The effects of global climate change on places , societies and environmental systems	<p>Climate change and the hydrosphere, atmosphere and biosphere, including:</p> <ul style="list-style-type: none">• water stored in ice and oceans, and changing sea levels• carbon stored in ice, oceans and the biosphere• incidence and severity of extreme weather events, including drought• spatial changes in biomes, habitats and animal migration patterns• changes to agriculture, including crop yields, limits of cultivation, soil erosion <p>Impacts of climate change on people and places, including health hazards, migration and ocean transport routes</p> <p>Synthesis, evaluation and skills opportunities</p> <p>The uneven spatial distribution of effects and uncertainty about their timing, scale and impacts for individuals and societies</p>

3. Responding to global climate change

Suggested teaching time 7–8 hours

Possibilities
for responding
to climate
change and
power over the
decision-
making process

Disparities in exposure to climate change risk and vulnerability, including variations in people's location, wealth, social differences (age, gender, education), risk perception

- *Detailed examples of two or more societies with contrasting vulnerability*

Government-led adaptation and mitigation strategies for global climate change:

- global geopolitical efforts, recognizing that the source/s of greenhouse gas emissions may be spatially distant from the countries most impacted
- carbon emissions offsetting and trading
- technology, including geo-engineering

Civil society and corporate strategies to address global climate change

- *Case study of the response to climate change in **one** country focusing on the actions of non-governmental stakeholders*

Synthesis, evaluation and skills opportunities

Why **perspectives** and viewpoints may be different about the need for, practicality and urgency of action on global climate change

Unit 3: Global resource consumption and security

Geographic inquiry	Geographic knowledge and understanding
1. Global trends in consumption Suggested teaching time 7–8 hours	
How global development processes affect resource availability and consumption	Global and regional/continental progress towards poverty reduction, including the growth of the “new global middle class” Measuring trends in resource consumption, including individual, national and global ecological footprints An overview of global patterns and trends in the availability and consumption of: <ul style="list-style-type: none">• water, including embedded water in food and manufactured goods• land/food, including changing diets in middle-income countries• energy, including the relative and changing importance of hydrocarbons, nuclear power, renewables, new sources of modern energy Synthesis, evaluation and skills opportunities How different patterns and trends are interrelated and involve spatial interactions between different places

2. Impacts of changing trends in resource consumption

Suggested teaching time 7–8 hours

How pressure on resources affects the future security of **places**

The water–food–energy “nexus” and how its complex interactions affect:

- national water security, including access to safe water
- national food security, including food availability
- national energy security, including energy pathways and geopolitical issues

The implications of global climate change for the water–food–energy nexus

- *Detailed examples of two countries with contrasting levels of resource security*

The disposal and recycling of consumer items, including international flows of waste

Synthesis, evaluation and skills opportunities

How **perspectives** on, and priorities for, national resource security vary between places and at different **scales**

3. Resource stewardship

Suggested teaching time 7–8 hours

Possibilities for managing resources sustainably and **power** over the decision-making process

Divergent thinking about population and resource consumption trends:

- pessimistic views, including neo-Malthusian views
- optimistic views, including Boserup
- balanced views, including resource stewardship

Resource stewardship strategies, including:

- the value of the circular economy as a systems approach for effective cycling of materials and energy
- the role of the UN Sustainable Development Goals and progress made toward meeting them

Synthesis, evaluation and skills opportunities

Different **perspectives** on global resource use and the likely effectiveness of management actions at varying **scales**

Unit 4: Power, places and networks

Geographic inquiry	Geographic knowledge and understanding
<p>1. Global interactions and global power Suggested teaching time 6–7 hours</p>	
<p>How global power and influence varies spatially</p>	<p>Globalization indices showing how countries participate in global interactions</p> <p>Global superpowers and their economic, geopolitical and cultural influence</p> <ul style="list-style-type: none"> • <i>Detailed examples of at least two actual or potential global superpowers</i> <p>Powerful organizations and global groups:</p> <ul style="list-style-type: none"> • G7/8, G20 and Organization for Economic Cooperation and Development (OECD) groups • Organization of the Petroleum Exporting Countries' (OPEC) influence over energy policies • global lending institutions, including the International Monetary Fund (IMF) and New Development Bank (NDB) <p>Synthesis, evaluation and skills opportunities</p> <p>How wealthy and powerful places exist at varying scales, and how the global map is complex and subject to change</p>

<p>2. Global networks and flows Suggested teaching time 6–7 hours</p>	
<p>How different places become interconnected by global interactions</p>	<p>An overview of contemporary global networks and flows:</p> <ul style="list-style-type: none"> • global trade in materials, manufactured goods and services • an overview of international aid, loans and debt relief • international remittances from economic migrants • illegal flows, such as trafficked people, counterfeit goods and narcotics <p>Foreign Direct Investment (FDI) and outsourcing by transnational corporations (TNCs), and ways in which this networks places and markets</p> <ul style="list-style-type: none"> • <i>Two contrasting detailed examples of TNCs and their global strategies and supply chains</i> <p>Synthesis, evaluation and skills opportunities</p> <p>The relative importance of different flows, and the suitability of different methods for graphically representing flows and interactions</p>

3. Human and physical influences on global interactions

Suggested teaching time 6–7 hours

How political, technological and physical **processes** influence global interactions

Political factors that affect global interactions:

- multi-governmental organizations (MGOs) and free trade zones
- economic migration controls and rules

Our “shrinking world” and the forces driving technological innovation:

- changing global data flow patterns and trends
- transport developments over time
- patterns and trends in communication infrastructure and use

The influence of the physical environment on global interactions:

- natural resource availability
- the potentially limiting effect of geographic isolation, at varying scales

Synthesis, evaluation and skills opportunities

How processes that influence **spatial interactions** are interlinked in complex ways that accelerate globalization

Unit 5: Human development and diversity

Geographic inquiry	Geographic knowledge and understanding
<p>1. Development opportunities Suggested teaching time 6–7 hours</p>	
<p>Ways of supporting the processes of human development</p>	<p>The multidimensional process of human development and ways to measure it:</p> <ul style="list-style-type: none"> • UN Sustainable Development Goals criteria • validity and reliability of development indicators and indices, including the human development index (HDI) and gender inequality index (GII) • empowering women and indigenous or minority groups • <i>Detailed illustrative examples of affirmative action to close the development gap</i> <p>The importance of social entrepreneurship approaches for human development:</p> <ul style="list-style-type: none"> • the work of microfinance organizations and their networks • alternative trading networks such as "Fairtrade" • TNC corporate social responsibility frameworks and global agreements <p>Synthesis, evaluation and skills opportunities</p> <p>How actions to support human development involve spatial interactions from local to global scales</p>

<p>2. Changing identities and cultures Suggested teaching time 6–7 hours</p>	
<p>How global interactions bring cultural influences and changes to places</p>	<p>The global spectrum of cultural traits, ethnicities and identities, and ways in which the spectrum of diversity is widening or narrowing at different scales</p> <p>The effects of global interactions on cultural diversity in different places:</p> <ul style="list-style-type: none"> • the diffusion of cultural traits, and cultural imperialism • glocalization of branded commodities, and cultural hybridity • cultural landscape changes in the built environment <p>How diasporas influence cultural diversity and identity at both global and local scales</p> <ul style="list-style-type: none"> • <i>Case study of a global diaspora population and its cultures(s)</i> <p>Synthesis, evaluation and skills opportunities</p> <p>Differing evidence and perspectives on how diversity is changing at local, national and global scales</p>

3. Local responses to global interactions

Suggested teaching time 6–7 hours

The varying power of local places and actors to resist or accept change

Local and civil society resistance to global interactions:

- rejection of globalized production, including campaigns against TNCs and in favour of local sourcing of food and goods by citizens
- rise of anti-immigration movements

Geopolitical constraints on global interactions:

- government and militia controls on personal freedoms to participate in global interactions
- national trade restrictions, including protectionism and resource nationalism

The role of civil society in promoting international-mindedness and participating in global interactions, including social media use and campaigning for internet freedom

- *Two detailed examples of places where restricted freedoms have been challenged*

Synthesis, evaluation and skills opportunities

How acceptance of, or resistance to, global interactions takes different forms and occurs at different scales

Unit 6: Global risks and resilience

Geographic Inquiry	Geographic knowledge and understanding
<p>1. Geopolitical and economic risks Suggested teaching time 6–7 hours</p>	
<p>How technological and globalizing processes create new geopolitical and economic risks for individuals and societies</p>	<p>Threats to individuals and businesses:</p> <ul style="list-style-type: none"> • hacking, identity theft and the implications of surveillance for personal freedoms • political, economic and physical risks to global supply chain flows <p>New and emerging threats to the political and economic sovereignty of states:</p> <ul style="list-style-type: none"> • profit repatriation and tax avoidance by TNCs and wealthy individuals • disruptive technological innovations, such as drones and 3D printing <p>The correlation between increased globalization and renewed nationalism/tribalization</p> <ul style="list-style-type: none"> • <i>Two detailed examples to illustrate geopolitical tension/conflict</i> <p>Synthesis, evaluation and skills opportunities How the advantages of globalization must be weighed against heightened possibilities of new geopolitical and economic risks</p>

<p>2. Environmental risks Suggested teaching time 6–7 hours</p>	
<p>How global interactions create environmental risks for particular places and people</p>	<p>Transboundary pollution (TBP) affecting a large area/more than one country</p> <ul style="list-style-type: none"> • <i>One TBP case study including the consequences and possible responses</i> <p>Environmental impacts of global flows at varying scales:</p> <ul style="list-style-type: none"> • localized pollution, including impacts along shipping lanes • carbon footprints for global flows of food, goods and people <p>Environmental issues linked with the global shift of industry:</p> <ul style="list-style-type: none"> • polluting manufacturing industries • food production systems for global agribusiness <p>Synthesis, evaluation and skills opportunities How global interactions affect the physical environment by varying degrees at different scales</p>

3. Local and global resilience

Suggested teaching time 6–7 hours

New and emerging
possibilities for
managing global
risks

The success of international civil society organizations in attempting to raise awareness about, and find solutions for, environmental and social risks associated with global interactions

- *Detailed examples of one environmental and one social civil society organization action*

Strategies to build resilience:

- re-shoring of economic activity by TNCs
- use of crowd-sourcing technologies to build resilience by government and civil society
- new technologies for the management of global flows of data and people, including cybersecurity and e-passports

Synthesis, evaluation and skills opportunities

How **perspectives** vary on the severity of different risks and priorities for action

Command terms with definitions

Students should be familiar with the following key terms and phrases used in examination questions, which are to be understood as described below. Although these terms will be used frequently in examination questions, other terms may be used to direct students to present an argument in a specific way.

The assessment objectives (AOs) listed in the table are those referred to in the geography syllabus.

Analyse - AO2 Break down in order to bring out the essential elements or structure.

Annotate - AO4 Add brief notes to a diagram or graph.

Classify - AO2 Arrange or order by class or category.

Compare - AO3 Give an account of the similarities between two (or more) items or situations, referring to both (all) of them throughout.

Compare and contrast - AO3 Give an account of similarities and differences between two (or more) items or situations, referring to both (all) of them throughout.

Construct - AO4 Display information in a diagrammatic or logical form.

Contrast - AO3 Give an account of the differences between two (or more) items or situations, referring to both (all) of them throughout.

Define - AO1 Give the precise meaning of a word, phrase, concept or physical quantity.

Describe - AO1 Give a detailed account.

Determine - AO1 Obtain the only possible answer.

Discuss - AO3 Offer a considered and balanced review that includes a range of arguments, factors or hypotheses. Opinions or conclusions should be presented clearly and supported by appropriate evidence.

Distinguish - AO2 Make clear the differences between two or more concepts or items.

Draw - AO4 Represent by means of a labelled, accurate diagram or graph, using a pencil. A ruler (straight edge) should be used for straight lines. Diagrams should be drawn to scale. Graphs should have points correctly plotted (if appropriate) and joined in a straight line or smooth curve.

Estimate - AO1 Obtain an approximate value.

Evaluate - AO3 Make an appraisal by weighing up the strengths and limitations.

Examine - AO3 Consider an argument or concept in a way that uncovers the assumptions and interrelationships of the issue.

Explain - AO2 Give a detailed account including reasons or causes.

Identify - AO1 Provide an answer from a number of possibilities.

Justify - AO3 Give valid reasons or evidence to support an answer or conclusion.

Label - A04 Add labels to a diagram.

Outline - A01 Give a brief account or summary.

State - A01 Give a specific name, value or other brief answer without explanation or calculation.

Suggest - A02 Propose a solution, hypothesis or other possible answer.

To what extent - A03 Consider the merits or otherwise of an argument or concept. Opinions and conclusions should be presented clearly and supported with empirical evidence and sound argument.

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