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Academy Worcester*

**AQA A-Level
Geography**





Revision Guide

Contents

The aim of Geography is to have the confidence to explore and question the world around us, recognising the great differences in cultures, political systems, economies, landscapes and environments across the world.



Think

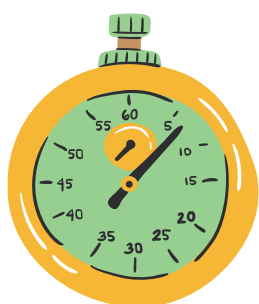
Geography is about finding patterns in the complexity of natural and human places, and so thinking outside of the box is vital. Ask yourself questions like;

- How does this link to other things I've already learned?
- How has this part of Geography changed over time, and how will it change in the future?



Find

Geography is endless – it's always been here and it always will be and what that means for you is that the subject is one you can never 'complete'. The best Geographers are the ones fully embrace the fact that the subject has and will continue to influence your life. Leaning into that, by reading around the subject, engaging with the Super Curriculum and taking your learning beyond the classroom, will increase your chances of success.



Build

This handbook is full of the following helpful information that you can refer back to when needed to help build the strong foundation needed for success.

Revision tips: To help you not just at exam time, but throughout the year

Pupil Learning Checklist: Everything you need to know for the topic

Pratice Planning Sheets: Every question that's ever been asked at A-Level Geography, with planning guidance to help you think about how to answer the questions.



Topics Of A-Level Geography

Studying Geography at A-Level means deepening and widening your existing knowledge. Some of the topics we cover we have touched on elements of before, such as Global Systems and Global Governance, and some we have done in more detail already, such as Coastal Systems and Coastal Landscapes. What sets A-Level Geography apart however, is really thinking about how those topics are interlinked.

Over the two years, you will study the following:

Paper 1: Physical



Water and Carbon
Cycles
36 marks



Coastal Systems and
Landscapes
36 marks



Hazards
48 marks

Paper 2: Human



Global Systems and
Global Governance
36 marks



Changing Places
36 marks



Population and the
Environment
48 marks

In addition to the two exams, you will also complete one piece of coursework:

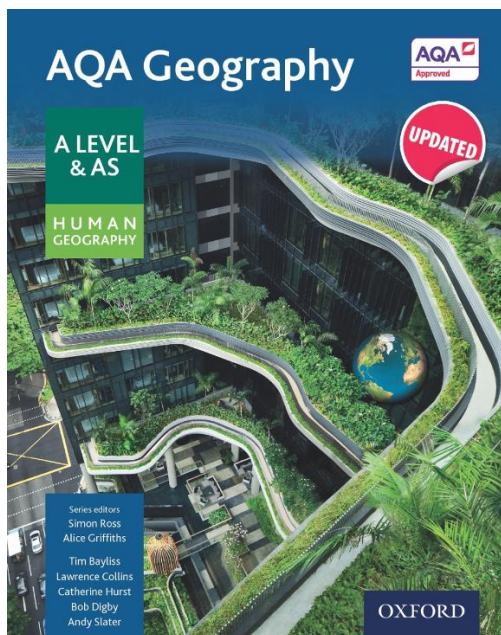


Non Examined
Assessment
3000 – 4000 project
60 marks
20% of grade



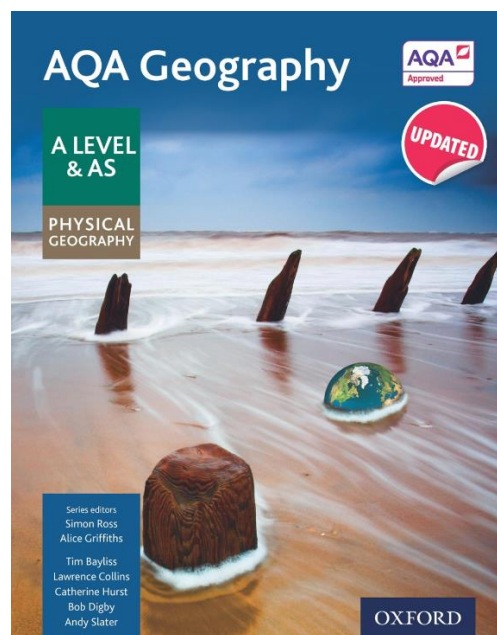
Reading In Geography

There are two key textbooks for your content, and one workbook for the NEA that we recommend you invest in.



AQA Geography A Level & AS Human Geography Student Book

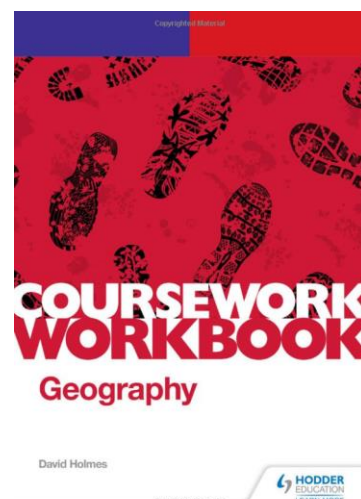
by Simon Ross, Alice Griffiths, Tim Bayliss, Lawrence Collins



AQA Geography A Level & AS Physical Geography Student Book

by Simon Ross, Alice Griffiths, Tim Bayliss, Lawrence Collins

AQA A-level Geography Coursework Workbook: Component 3: Geography fieldwork investigation (non-exam assessment) by David Holmes





Reading In Geography

You could also use skimming and scanning when reading other texts.

Scanning (to pick out specific information using key words).

1. Read every 4th word.
 - Scanning is about searching for specific information.
 - It may take you sometimes to get the hang of this.
 - By doing this you will find that you are using your prior knowledge to support your reading.
2. Linger on subject-specific words.
 - Stop when you reach a subject-specific word and look it up in the glossary or a dictionary.
 - Write down the meaning of these words to aid you in remembering them.
3. Focus on paragraph signposts and link sentences.
 - Clearly signposted paragraphs.
 - Look for topic sentences that have explanations and examples that illustrate a point.
4. Read the conclusion if there is one to what you are reading.
 - Scan it this time.

Skimming.

1. Look at titles.
 - Look at the title. What do you think the chapter/ article is about?
 - Do you have any prior knowledge and understanding of this topic?
 - What do you think it is going to be about?
 - You should ask yourself these questions before you begin skimming. It may also help you to make a note of your answers for future reference.
2. Look at the headings.
 - Skim over the sub-headings.
 - Do you have a further understanding of what the chapter/article is about?
3. Look at the summary box.
 - This will help you to get a feel of what you are about to read.
 - It will also act as a reminder of the content you are about to read.
4. Look at the conclusion if there is one.
 - Knowing what the final destination is can help to steer you in the right direction when you read something.
 - Don't just read this and leave it at that because you do not have enough information.
5. Ask questions.
 - What do you expect to get from this text?
 - Write down the answers to this question to help you remain focused throughout the reading process.



Reading In Geography



Unless you are set specific tasks with your GeoFiles, your directed study will often be to access them using the guide below so that you get the most out of them.

**R**

Read

- Put your phone down, and distractions away
- Find somewhere quiet
- Simply read through the text in its entirety

**U**

Underline

- Go through and underline key terms you know in one colour
- Underline key terms you don't know the definition of in another colour
- Use your subject specific vocabulary guides first, and then a traditional dictionary to work out the meaning

**L**

Link

- For each paragraph in the GeoFile/GeoActive etc., write in the margin links to two other areas of Geography
- These can be either different topics entirely, or concepts you have recently studied

**E**

Explain

- Number each paragraph/two paragraphs if they are short
- On a sheet of paper, write down a title for the paragraph in the form of a question
- Leave two lines beneath it, and do the same for the other paragraphs

**S**

Summarise

- Underneath each paragraph title question, write ONE sentence to summarise what the paragraph tells you
- Underline any key terminology you have written in your sentences

You have now taken a lengthy piece of text, and summarized it into a one page list of questions and corresponding answers, reducing it to key messages and takeaways that you can apply to your writing.



Water and Carbon Cycles

Specification



Water and carbon cycles as natural systems

Systems in physical geography: systems concepts and their application to the water and carbon cycles inputs – outputs, energy, stores/components, flows/transfers, positive/negative feedback, dynamic equilibrium.

The water cycle

Global distribution and size of major stores of water – lithosphere, hydrosphere, cryosphere and atmosphere.

Processes driving change in the magnitude of these stores over time and space, including flows and transfers: evaporation, condensation, cloud formation, causes of precipitation and cryospheric processes at hill slope, drainage basin and global scales with reference to varying timescales involved.

Drainage basins as open systems – inputs and outputs, to include precipitation, evapo-transpiration and runoff; stores and flows, to include interception, surface, soil water, groundwater and channel storage; stemflow, infiltration overland flow, and channel flow. Concept of water balance.

Runoff variation and the flood hydrograph.

Changes in the water cycle over time to include natural variation including storm events, seasonal changes and human impact including farming practices, land use change and water abstraction.

The carbon cycle

Global distribution, and size of major stores of carbon – lithosphere, hydrosphere, cryosphere, biosphere, atmosphere.

Factors driving change in the magnitude of these stores over time and space, including flows and transfers at plant, sere and continental scales. Photosynthesis, respiration, decomposition, combustion, carbon sequestration in oceans and sediments, weathering.

Changes in the carbon cycle over time, to include natural variation (including wild fires, volcanic activity) and human impact (including hydrocarbon fuel extraction and burning, farming practices, deforestation, land use changes).

The carbon budget and the impact of the carbon cycle upon land, ocean and atmosphere, including global climate.

Water, carbon, climate and life on Earth

The key role of the carbon and water stores and cycles in supporting life on Earth with particular reference to climate. The relationship between the water cycle and carbon cycle in the atmosphere. The role of feedbacks within and between cycles and their link to climate change and implications for life on Earth.

Human interventions in the carbon cycle designed to influence carbon transfers and mitigate the impacts of climate change.

Quantitative and qualitative skills

Students must engage with a range of quantitative and relevant qualitative skills, within the theme water and carbon cycles. Students must specifically understand simple mass balance, unit conversions and the analysis and presentation of field data.

Case studies

Case study of a tropical rainforest setting to illustrate and analyse key themes in water and carbon cycles and their relationship to environmental change and human activity.

Case study of a river catchment(s) at a local scale to illustrate and analyse the key themes above, engage with field data and consider the impact of precipitation upon drainage basin stores and transfers and implications for sustainable water supply and/or flooding.



Water and Carbon Cycles

Topic Dictionary



Acidification - The gradual reduction of pH of the oceans, due to dissolving carbon dioxide from the atmosphere.

Afforestation - Planting trees and vegetation in the aim of increasing forest cover.

Anticyclone - A system of high pressure, causing high temperatures and unseasonably high evaporation rates.

Aquifer - A permeable or porous rock which stores water.

Biofuel - Burning crops and vegetation for electricity and heat.

Carbon Capture & Storage (CCS) - The capture of carbon dioxide emissions directly from the factory, pumped into disused mines rather than being released into the atmosphere.

Carbon Fluxes - The movement of carbon between stores.

Carbon Neutral - A process that has no net addition of carbon dioxide to the environment.

Carbon Stores - Places where carbon accumulates for a period of time such as rocks and plant matter.

Channel Flow - Water flowing in a rivulet, stream or river.

Choke Points - Points in the logistics of energy and fuel that are prone to restriction.

Combustion - The process of burning a substance, in the presence of oxygen, to release energy.

Convective Precipitation - Solar radiation heats the air above the ground, causing it to rise, cool & condense forming precipitation (often as thunderstorms).

Cryosphere - The global water volume locked up within a frozen state (i.e. snow and ice).

Decomposition - The break down of matter, often by a decomposer which releases carbon dioxide through their own respiration.

Depression - A system of low pressure, with fronts of precipitation where low and high pressure air masses meet.

Desalination Plant - The conversion of seawater to freshwater, suitable for human consumption.

Desublimation - The change of state of water from gas to solid, without being a liquid (the opposite process to sublimation).

Drainage Basin - The area of land drained by a river and its tributaries.

Drainage Density - The total length of all rivers & streams divided by the area of the drainage basin.

Drought - An extended period of deficient rainfall relative to the statistical average for the region (UN).

Economic Water Scarcity - When water resources are available but insufficient economic wealth limits access to it.

Energy Mix - The composition of a country's energy sources.

Energy Security - The ownership and full control of a country's energy source, production and transportation.

Energy Pathway - The movement of energy from its extraction or source, through pipes, freight logistics or cabling.

Energy Players - Key companies and individuals who own, distribute and sell energy and energy sources.

Enhanced Greenhouse Effect - The build-up of greenhouse gases in the atmosphere, reducing the amount of solar radiation reflected into space.

ENSO Cycles - El Niño Southern Oscillations - naturally occurring phenomena that involves the movement of warm water in the Equatorial Pacific.

Evapotranspiration - The combined total moisture transferred from the Earth to the atmosphere, through evaporation and transpiration.

Frontal Precipitation - Where air masses of different temperatures meet at a front, one mass will be forced over another, causing precipitation beneath the front.

Global Hydrological Cycle - The continuous transfer of water between land, atmosphere and oceans. The Earth is a closed system.

Groundwater Flow - Water moving horizontally through permeable or porous rock due to gravity.

Hydrological Drought - Insufficient soil moisture to meet the needs of vegetation (crops, trees, plants) at a particular time

Infiltration - The movement of water vertically through the pores in soil.



Water and Carbon Cycles

Topic Dictionary



Integrated Drainage Basin Management - Establishing a frame of coordinated efforts between administrations (e.g. local government) and stakeholders (e.g businesses) to achieve balanced management of a basin (World Bank).

Inorganic Carbon - Carbon stored in carbonated rocks.

Interception - Raindrops are prevented from falling directly onto the ground, instead hitting the leaves of a tree.

Meteorological Drought - When long-term precipitation trends are below average.

Monsoon - The drastic variation between wet and dry seasons for sub-tropical areas, caused by a changed prevailing wind. Can lead to annual flooding.

Non-Renewable - A source of energy that can only be used once to generate electricity or takes thousands of years to replace e.g. Fossil Fuels.

Nuclear Fusion - The process of joining atomic nuclei together, to produce energy.

OPEC - Oil and Petroleum exporting countries. An organisation that supports and coordinates fossil fuel exporting countries.

Open System - A system affected by external flows and inputs (such as a drainage basin, or a sediment cell).

Organic Carbon - Carbon stored in plant material and living organisms.

Outgassing - The release of dissolved carbon dioxide (e.g. at plate boundaries, warming the oceans).

Percolation - Water moving vertically from soil into permeable rock.

Photosynthesis - The process of converting carbon dioxide and water into glucose and oxygen. All plants and some organisms rely on this process to survive.

Physical Water Scarcity - A physical lack of available freshwater which cannot meet demand.

Phytoplankton - Small organisms that rely on photosynthesis to survive, so intake carbon dioxide from the atmosphere.

Primary Energy - The initial source of energy, as it is naturally found. This could be natural ores, water, crops or radioactive material.

Relief Precipitation - Precipitation caused when air masses are forced to rise over high land, determined by the relief/ morphology of the land.

Renewable - Primary energy that can be re-used to produce electricity or has a short lifetime, therefore any used can be replaced quickly e.g. Hydroelectric, biomass, solar.

Respiration - The process of converting glucose and oxygen into carbon dioxide and energy. Some organisms rely on respiration to survive.

River Regime - The pattern of river discharge over a year.

Runoff - Water flowing over the surface of the ground eg. after precipitation or snowmelt.

Salinisation - Where salt water contaminates freshwater stores or soils, creating saline conditions and reducing human use/ consumption.

Saltwater Encroachment - The movement of saltwater into freshwater aquifers or soils. This may be caused by sea level rise, storm surges or over-extraction.

Secondary Energy - The product of primary energy, mostly electricity.

Sequestration - The transfer of carbon from the atmosphere to stores elsewhere - living biosphere, inorganic rocks, etc.

Smart Irrigation - Providing crops with a water supply less than optimal, to make crops resistant to water shortages.

Storm Hydrograph - Variation of river discharge over a short period of time (days).

Sublimation - The change of state of water from solid to a gas, without being a liquid.

Thermohaline Circulation - The movement of volumes of seawater from cold deep water to warm water surface water.

Throughflow - Water moving horizontally through the soil, due to gravity.

Tipping Point - A critical threshold where any changes to a system after the tipping point are irreversible.



Water and Carbon Cycles

Topic Dictionary



Transpiration - The process through which water evaporates through the stomata in plants' leaves.

Urbanisation - The growth of populations in towns and cities.

Water Budget - The annual balance between inputs and outputs within a system.

Water Conservation - Strategies to reduce water usage and demand.

Water Recycling - The treatment and purification of waste water, to increase supply.

Water Scarcity - There are limited renewable water sources (between 500 and 1000 cubic metres per capita per year).

Water Security - The ability to protect and access a sustainable source to adequately meet demand.

Water Sharing Treaty - International agreements for transboundary sources.

Water Transfer - Hard engineering projects, such as pipelines or aqueducts, that divert water between basins to meet demand.

Watershed - The boundary between neighbouring drainage basins.



Water and Carbon Cycles

Super Curriculum



	Geography Education Online Lecture - The global energy paradox: towards a New Energy Order hosted by Professor Michael Bradshaw
	Geography Education Online Lecture - Tackling the climate emergency: carbon, climate, ecological and energy systems hosted by Professor Zoe Robinson
	Geography Education Online Lecture - Sustainability – a key geographical concept hosted by Professor Mark Whitehead
	Routes Journal Article - World War 'V': Emissions change if Birmingham became vegetarian and contemporary attitudes towards vegetarianism
	Routes Journal Article - Investigating whether carbon storage varies significantly between areas of deciduous woodland on the North East and South West facing slopes of St. Cyres' Hill, East Devon
	Routes Journal Article - How can Brazil ensure that sustainable land use planning will meet conservation and agricultural demands by the year 2030?
	Routes Journal Article - The impact of the loss of top predators on terrestrial ecosystems
	RGS Podcast - Asian mega-deltas with Professor Large and Dr Henderson
	RGS Podcast - Professor Kate Heppell on chalk stream environments and the threats to these beautiful rivers
	Is eliminating fossil fuels genuinely feasible?
	Storymap - Repairing nature's carbon store, Restoring our peatlands is vital in the fight for a safe climate
	Storymap - The Water Cycle by Jakeb Lovejoy
	'The Global Carbon Cycle' by David Archer (2010)
	'Land Use and the Carbon Cycle: Advances in Integrated Science, Management, and Policy' by Daniel Brown and others (2013)
	Carsington Water Severn Trent Visitor Centre - Water from the River Derwent travels by tunnels and aqueduct to Carsington Water, nestled in the Derbyshire hills between Wirksworth and Kniveton.



These are possible essay titles, not 20 markers, but opportunities to read and research concepts we may have touched on but not delved into fully, and then bring it together in 500-1000 word essay.



Water and Carbon Cycles

Subject component KO



3.1.1.1 - WATER AND CARBON CYCLES AS NATURAL SYSTEMS	R	A	G
Systems concepts and their application to the water cycle			
Systems concepts and their application to the carbon cycle			
3.1.1.2 - THE WATER CYCLE	R	A	G
Distribution and size of major water stores			
Flows and transfers in the water cycle at hillslope scale			
Flows and transfers in the water cycle at drainage basin scale			
Flows and transfers in the water cycle at global scale			
Drainage basin system			
Concept of the water balance			
Flood hydrograph and runoff variation			
Natural changes to the water cycle over time			
Human impacts on the water cycle – farming practices, land use changes, water abstraction			
3.1.1.3 - THE CARBON CYCLE	R	A	G
Distribution and size of major carbon stores			
Flows and transfers in the carbon cycle at plant scale			
Flows and transfers in the carbon cycle at sere scale			
Flows and transfers in the carbon cycle at continental scale			
Natural variation in the carbon cycle (including wild fires, volcanic activity)			
Human impacts on the carbon cycle (including fossil fuel extraction and burning, farming, deforestation and land use change)			
The carbon budget and the impact of the carbon cycle on land, oceans and atmosphere			
3.1.1.4 - WATER, CARBON, CLIMATE AND LIFE ON EARTH	R	A	G
The role of water and carbon supporting life on Earth			
The role of feedbacks within and between cycles, linking to climate change			
Human intervention in the carbon cycle to mitigate climate change			
3.1.1.5 - QUANTITATIVE AND QUALITATIVE SKILLS	R	A	G
Know a range of quantitative and relevant qualitative skills, within the theme water and carbon cycles, including simple mass balance, unit conversion and analysis and presentation of field data			
3.1.1.6 - CASE STUDIES	R	A	G
Case study of a tropical rainforest to illustrate key themes in carbon			
Case study of a tropical rainforest - human activity and environmental change			
Case study of a river catchment at a local scale – impact of precipitation on stores and transfers			
Case study of a river catchment at a local scale – implications for sustainable water supply and/or flooding			



Coastal Systems and Landscapes

Specification



Coasts as natural systems

Systems in physical geography: systems concepts and their application to the development of coastal landscapes – inputs, outputs, energy, stores/components, flows/transfers, positive/negative feedback, dynamic equilibrium. The concepts of landform and landscape and how related landforms combine to form characteristic landscapes.

Systems and processes

Sources of energy in coastal environments: winds, waves (constructive and destructive), currents and tides. Low energy and high energy coasts.

Sediment sources, cells and budgets.

Geomorphological processes: weathering, mass movement, erosion, transportation and deposition.

Distinctively coastal processes: marine: erosion – hydraulic action, wave quarrying, corrasion/abrasion, cavitation, solution, attrition; transportation: traction, suspension (longshore/littoral drift) and deposition; sub-aerial weathering, mass movement and runoff.

Coastal landscape development

This content must include study of a variety of landscapes from beyond the United Kingdom (UK) but may also include UK examples.

Origin and development of landforms and landscapes of coastal erosion: cliffs and wave cut platforms, cliff profile features including caves, arches and stacks; factors and processes in their development.

Origin and development of landforms and landscapes of coastal deposition. Beaches, simple and compound spits, tombolos, offshore bars, barrier beaches and islands and sand dunes; factors and processes in their development.

Estuarine mudflat/saltmarsh environments and associated landscapes; factors and processes in their development.

Eustatic, isostatic and tectonic sea level change: major changes in sea level in the last 10,000 years.

Coastlines of emergence and submergence. Origin and development of associated landforms: raised beaches, marine platforms; rias, fjords, Dalmatian coasts.

Recent and predicted climatic change and potential impact on coasts.

The relationship between process, time, landforms and landscapes in coastal settings.

Coastal management

Human intervention in coastal landscapes. Traditional approaches to coastal flood and erosion risk: hard and soft engineering. Sustainable approaches to coastal flood risk and coastal erosion management: shoreline management/integrated coastal zone management.

Quantitative and qualitative skills

Students must engage with a range of quantitative and relevant qualitative skills, within the theme landscape systems. These should include observation skills, measurement and geospatial mapping skills and data manipulation and statistical skills applied to field measurements.

Case studies

Case study(ies) of coastal environment(s) at a local scale to illustrate and analyse fundamental coastal processes, their landscape outcomes as set out above and engage with field data and challenges represented in their sustainable management.

Case study of a contrasting coastal landscape beyond the UK to illustrate and analyse how it presents risks and opportunities for human occupation and development and evaluate human responses of resilience, mitigation and adaptation.



Coastal Systems and Landscapes

Topic Dictionary



Abrasion - A form of erosion where loose material 'sandpapers' the walls and floors of the river, cliff or glacier. Also known as attrition.

Backshore - The upper beach closest to the land, including any cliffs or sand dunes.

Beach Morphology - The surface shape of the beach.

Coastal Recession - The retreat of a coastline due to erosion, sea-level rise or submergence.

Concordant Coast - A coastline where bands of alternate geology run parallel to the coast.

Corrasion - A form of erosion when breaking waves fling material (rocks, sediment, shells, etc) at a cliff face, physically knocking off material.

Corrosion - The acid in seawater and some types of seaweed attacks particular rock minerals, causing erosion and weakening.

Dalmatian Coast - A concordant coastline with several river valleys running perpendicular to the coast. They become flooded to produce parallel long islands and long inlets.

DEFRA's 1:1 Cost-Benefit Analysis - The evaluation of a coastal town's economic value compared to the cost of the management required. Costs are tangible and intangible and can be economic or other costs such as a visual impact.

Discordant Coast - A coastline where bands of alternate geology run perpendicular to the shore.

Dynamic Equilibrium - Where a natural system tries to achieve a balance by making constant changes in response to a constantly changing system.

Emergent Coast - A coastline that is advancing relative to the sea level at the time.

Eustatic - Global changes to sea levels.

Fetch - The distance the wave travels before it reaches the coastline. Distance to the nearest land mass in the direction in which the wave travels.

Fjord - Long narrow inlet deeper in the middle section than at the mouth, created when sea levels rise relative to the land, flooding coastal glacial valleys.

Foreshore - The lower part of the beach covered twice a day at high tide (the part of the beach that receives the most regular wave action).

Freeze Thaw - A form of physical sub-aerial weathering where water freezes in the cracks of a rock, expands and enlarges the crack, therefore weakens the rock.

Geology - The structure and arrangement of a rock.

Glacial Erosion - The removal of loose material by glacier ice, involving plucking, abrasion, crushing and basal meltwater. (necessary in the formation of Fjords).

Grading - The layering of sediments based on their size.

High-energy Environment - A coast where wave action is predominantly large destructive waves, causing much erosion.

Hydraulic Action - The pressure of compressed air forced into cracks in a rock face will cause the rock to weaken and break apart.

Integrated Coastal Zone Management (ICZM) - Large sections of coastline (often sediment cells) are managed with one integrated strategy and management occurs between different political boundaries.

Impermeable - A rock that does not allow rainwater to pass through.

Isostatic - A change in local coastline or land height relative to sea level.

Littoral Cell - A section of the coast, within which involves much sediment movement. A littoral cell is not a closed system.

Longshore Drift - The transportation of sediment along a beach. Longshore Drift is determined by the direction of the prevailing wind.

Low-energy Environment - A coast where wave action is predominantly small constructive waves, causing deposition and leading to beach accretion.

Mass Movement - The falling or movement of rock, often due to Gravity.



Coastal Systems and Landscapes

Topic Dictionary



Nearshore - The area before the shore where the wave steepness and breaks before they reach the shore and then reform before breaking on the beach. It extends from the low-tide zone and then out to sea.

Permeable - A rock that allows rainwater to pass through it.

Plant Succession - Change to a plant community due to growing conditions adapting (eg. sand dunes and salt marshes).

Ria - Narrow winding inlet which is deepest at the mouth, formed when sea levels rise causing coastal valleys to flood.

Saltation - Smaller sediment bounces along the sea bed, being pushed by currents. The sediment is too heavy to be picked up by the flow of the water.

Sediment Cell - Sections of the coast bordered by prominent headlands. Within these sections, the movement of sediment is almost contained and the flows of sediment should act in dynamic equilibrium.

Sediment Budget - Use data of inputs, outputs, stores and transfers to assess the gains and losses of sediment within a sediment cell.

SMP - Identifies all of the activities, both natural and human which occur within the coastline area of each sediment cell and then recommends a combination of four actions for each stretch of that coastline: Hold the Line, Advance the Line, Managed Realignment and No Active Intervention.

Subaerial Processes - The combination of mass movement and weathering that affects the coastal land above sea.

Submergent Coast - A coast that is sinking relative to the sea level of the time.

Till - Deposits of angular rock fragments in a finer medium.

Wave Quarrying - When air is trapped and compressed against a cliff which causes rock fragments to break off the cliff over time.



Coastal Systems and Landscapes

Super Curriculum



	Global Flooding over the next 100 years by National Geographic Flood (2007)
	Extreme Engineering: Venice Flood Gates (2004)
	How far does geology and lithology help to create unique coastal landscapes?
	'Coast: the journey continues' By Christopher Somerville (2006)
	'The Beach Book: Science of the Shore' by Carl Hobbs (2012)
	'Coastal flooding impacts and adaptation measures for Bangladesh' By Saquib Ahmed Khan and Ali Hossain (2012)
	Geography Education Online Lecture - Dynamic Dunes: Shifting Sands hosted by Tim Braund
	Geography Education Online Lecture - Coastal environments: understanding the impacts of sea-level rise and climate change hosted by Dr Katie Szkornik
	Geography Education Online Lecture - Coastal landscape development hosted by Dr Chris Spencer
	Routes Journal Article - Examining the impact of the East Coast Low Storm, June 2016 on Narrabeen-Collaroy Beach, Sydney, Australia
	RGS Podcast - Dr Anjana Khatwa and the UNESCO World Heritage Jurassic Coast
	'The Geography of Risk: Epic Storms, Rising Seas, and the Cost of America's Coasts' by Gilbert M. Gaul (2019)
	'The Wave Watcher's Companion: From Ocean Waves to Light Waves Via Shock Waves, Stadium Waves, and All the Rest of Life's Undulations' by Gavin Pretor-Pinney (2010)
	Storymap - Changing Minds Changing Coasts, Mapping 100 years of coastal change on Mersea Island
	Storymap - Resilient Coastal Roads, California's Key Insights on Protecting Transportation Infrastructure from Sea-level Rise and Flooding
	Storymap - Our Dynamic Marine Economy, An Updated Look at Its Value



These are possible essay titles, not 20 markers, but opportunities to read and research concepts we may have touched on but not delved into fully, and then bring it together in 500-1000 word essay.



Coastal Systems and Landscapes

Subject component KO



3.1.3.1 - COASTS AS NATURAL SYSTEMS	R	A	G
Systems concepts and their application to the development of coastal landscapes			
The concepts of landform and landscape and how they relate			
3.1.3.2 - SYSTEMS AND PROCESSES	R	A	G
Sources of energy in coastal environments: winds, waves (constructive and destructive), currents and tides			
Low energy and high energy coasts.			
Sediment sources, cells and budgets			
Geomorphological processes: weathering, erosion, transportation, deposition			
Marine coastal processes			
Sub-aerial coastal processes			
3.1.3.3 - COASTAL LANDSCAPE DEVELOPMENT	R	A	G
Origin and development of landforms and landscapes of coastal erosion			
Origin and development of landforms and landscapes of coastal deposition. Beaches, simple and compound spits, tombolos, offshore bars, barrier beaches and islands and sand dunes; factors and processes in their development			
Estuarine mudflat/saltmarsh environments and associated landscapes; factors and processes in their development			
Eustatic, isostatic and tectonic sea level change: major changes in sea level in the last 10,000 years			
Coastlines of emergence and submergence. Origin and development of associated landforms: raised beaches, marine platforms; rias, fjords, Dalmation coasts			
Recent and predicted climatic change and potential impact on coasts			
The relationship between process, time, landforms and landscape in coastal settings			
3.1.3.4 - COASTAL MANAGEMENT	R	A	G
Human intervention in coastal landscapes. Traditional approaches to coastal flood and erosion risk: hard and soft engineering			
Sustainable approaches to coastal flood risk and coastal erosion management: shoreline management/integrated coastal zone management			
3.1.3.5 - QUANTITATIVE AND QUALITATIVE SKILLS	R	A	G
Know a range of quantitative and relevant qualitative skills, within the theme landscape systems: observation skills, measurement and geospatial mapping skills, data manipulation and statistical skills applied to field measurements			
3.1.3.6 - CASE STUDIES	R	A	G
Case study(ies) of coastal environment(s) at a local scale to illustrate and analyse fundamental coastal processes, their landscape outcomes as set out above and engage with field data			
Case study(ies) of coastal environment(s) at a local scale to illustrate and analyse challenges represented in their sustainable management			
Case study of a contrasting coastal landscape beyond the UK to illustrate and analyse how it presents risks and opportunities for human occupation and development			
Case study of a contrasting coastal landscape beyond the UK to illustrate and evaluate human responses of resilience, mitigation and adaptation			



Hazards

Specification



The concept of hazard in a geographical context

Nature, forms and potential impacts of natural hazards (geophysical, atmospheric and hydrological). Hazard perception and its economic and cultural determinants. Characteristic human responses – fatalism, prediction, adjustment/adaptation, mitigation, management, risk sharing – and their relationship to hazard incidence, intensity, magnitude, distribution and level of development. The Park model of human response to hazards. The Hazard Management Cycle.

Plate tectonics

Earth structure and internal energy sources. Plate tectonic theory of crustal evolution: tectonic plates; plate movement; gravitational sliding; ridge push, slab pull; convection currents and sea-floor spreading.

Destructive, constructive and conservative plate margins. Characteristic processes: seismicity and vulcanicity. Associated landforms: young fold mountains, rift valleys, ocean ridges, deep sea trenches and island arcs, volcanoes.

Magma plumes and their relationship to plate movement.

Volcanic hazards

The nature of vulcanicity and its relation to plate tectonics: forms of volcanic hazard: nuées ardentes, lava flows, mudflows, pyroclastic and ash fallout, gases/acid rain, tephra. Spatial distribution, magnitude, frequency, regularity and predictability of hazard events.

Impacts: primary/secondary, environmental, social, economic, political. Short and long-term responses: risk management designed to reduce the impacts of the hazard through preparedness, mitigation, prevention and adaptation.

Impacts and human responses as evidenced by a recent volcanic event.

Seismic hazards

The nature of seismicity and its relation to plate tectonics: forms of seismic hazard: earthquakes, shockwaves, tsunamis, liquefaction, landslides. Spatial distribution, randomness, magnitude, frequency, regularity, predictability of hazard events.

Impacts: primary/secondary; environmental, social, economic, political. Short and long-term responses; risk management designed to reduce the impacts of the hazard through preparedness, mitigation, prevention and adaptation.

Impacts and human responses as evidenced by a recent seismic event.

Storm hazards

The nature of tropical storms and their underlying causes. Forms of storm hazard: high winds, storm surges, coastal flooding, river flooding and landslides. Spatial distribution, magnitude, frequency, regularity, predictability of hazard events.

Impacts: primary/secondary, environmental, social, economic, political. Short and long-term responses: risk management designed to reduce the impacts of the hazard through preparedness, mitigation, prevention and adaptation.

Impacts and human responses as evidenced by two recent tropical storms in contrasting areas of the world.

Fires in nature

Nature of wildfires. Conditions favouring intense wild fires: vegetation type, fuel characteristics, climate and recent weather and fire behaviour. Causes of fires: natural and human agency.

Impacts: primary/secondary, environmental, social, economic, political. Short and long-term responses; risk management designed to reduce the impacts of the hazard through preparedness, mitigation, prevention and adaptation.

Impact and human responses as evidenced by a recent wild fire event.

Case studies

Case study of a multi-hazardous environment beyond the UK to illustrate and analyse the nature of the hazards and the social, economic and environmental risks presented, and how human qualities and responses such as resilience, adaptation, mitigation and management contribute to its continuing human occupation.

Case study at a local scale of a specified place in a hazardous setting to illustrate the physical nature of the hazard and analyse how the economic, social and political character of its community reflects the presence and impacts of the hazard and the community's response to the risk.



Hazards

Topic Dictionary



Accretion Wedge - The accumulation of material at the point of subduction.

Aseismic Buildings - Buildings designed to withstand or minimise destruction during an earthquake.

Asthenosphere - The upper mantle layer of the Earth. It is semi-molten and approximately 2000km wide.

Ash - Fine particles and dust ejected during an eruption, which can remain airborne as clouds or accumulate on the ground.

Continental Crust - Crust that forms the continents of the lithosphere, on average 35km thick.

Continental Drift - The movement of tectonic plates, due to varying weights of crust. It was originally thought that convection currents caused the movement of the plates, but now slab pull is thought of as the primary driving force.

Controlled Burning - Intentionally burning vegetation with the aim of reducing fuel available for a wildfire and disrupting the fire's path.

Convection Currents - The circulation of magma within the mantle (asthenosphere). Magma is heated by radioactive processes in the core and cools at the surface, and so circulates between the two places.

Coriolis Effect - The Earth's spin affects the movement of air masses and winds, depending on a location's latitude.

Crown Fires - Wildfires that burn the entirety of a tree (from top to bottom), often the most destructive and dangerous type of wildfire.

Degg's Model - This model shows that a hazard becomes a disaster if it affects a vulnerable population.

Epicentre - The point on the surface, directly above the earthquake's origin.

Fatalism - The belief that hazards are uncontrollable, so any losses should be accepted and mitigation is unnecessary.

Fire Breaks - The felling of trees and clearing vegetation to create a gap to disrupt a wildfire's path.

Focus - The place in the crust where the pressure/seismic energy is released.

Ground Fires - Wildfires that burn through the peat and vegetation beneath the surface, making them slow but difficult to extinguish.

Hazard Management Cycle - The sequence of governance of a natural hazard: preparedness, response, recovery, and mitigation.

Hot Spot - Volcanoes found away from the plate boundary, due to a magma plume closer to the surface.

Jokulhaup - A sudden glacial flood caused by a glacier on top of or near a volcano melting due to the heat from the eruption.

Lahar - A flow of mud and debris.

Lithosphere - The upper crust of the Earth (average thickness = 100km).

Love Waves - A surface earthquake wave with horizontal displacement.

Mid-Ocean Ridge - Parting oceanic plates at a constructive plate boundary creates a ridge, with new land at the base of the oceanic valley.

Moment Magnitude Scale - A measure of an earthquake's energy released, considered the most accurate measure.

Oceanic Crust - Crust, usually thinner than continental crust, that forms the sea floor. It is on average 7km thick.

Paleomagnetism - The alternating polarisation of new land created. As magma cools, the magnetic elements within will align with the Earth's magnetic field, which can alternate over thousands of years.

Park's Model - A model describing the decline and recovery of a country over time, following a natural disaster.

Partial Melting - Elements within the lithosphere have different melting points, and so rock is partially melted, partially solid.

Primary Waves - An earthquake wave causing compressions within the body of rock.

Pyroclastic Flow - A mixture of gases and rock fragments, at high temperatures travelling at rapid speeds.



Hazards

Topic Dictionary



Rayleigh Waves - A surface earthquake wave causing both horizontal and vertical displacement.

Richter Scale - A logarithmic measure of earthquake's intensity.

Secondary Waves - An earthquake wave causing vertical displacement within the body of rock.

Seismic Waves - The energy released during an earthquake, in the form of Primary, Secondary, Love and Rayleigh Waves.

Slab Pull - The force contributing to the movement of tectonic plates. Slab pull is due to the weight of the plate.

Subduction - Oceanic plate is forced below continental plate, due to the oceanic plate being more dense than the continental plate.

Surface Fires - Wildfires that only burn the leaf litter, and so are the easiest kind to extinguish.

Tropical Storm - A low pressure system of spiralling winds (due to the Coriolis Effect). Also called hurricanes, cyclones, and typhoons depending on the location they occur in.

Tsunami - Initial vertical water displacement (often from a submarine earthquake) creates waves, with large destructive power.

Volcanic Explosivity Index (VEI) - A measure of the magnitude of a volcano's eruptions.

Volcanic Island Arc - A series of volcanoes (often in the shape of an arc) that are formed consecutively, as a tectonic plate moves across a magma plume.

Wadati-Benioff Zone - A region of the subducting plate, most affected by pressure and friction, where most destructive margin earthquakes originate.

Wildfire - A large, uncontrolled fire that quickly spreads through vegetation.



Hazards

Super Curriculum



	Geography Education Online Lecture - Geomorphical hazards in deserts hosted by Prof Andrew Goudie
	Geography Education Online Lecture - Volcanoes: from inception to eruption hosted by Dr Tom Pering
	Geography Education Online Lecture - Faults and earthquake hazards: the past is the key to the present hosted by Laura Gregory
	Geography Education Online Lecture - Tectonic hazards in the Caribbean: hazard, vulnerability, impact and risk hosted by Serval Miller
	Geography Education Online Lecture - How can we live with risk? Hosted by Leanne Hunt
	Routes Journal Article - Examining the impact of the East Coast Low Storm, June 2016 on Narrabeen-Collaroy Beach, Sydney, Australia
	Routes Journal Article - The role of tectonic setting and country development on volcanic risk
	Routes Journal Article - Earthquake early warning systems: An evaluation and exploration of their future
	Routes Journal Article - A spatiotemporal study on the impact of storms on shingle beach deposits at Mgarr il-Xini Bay, Gozo, Malta
	RGS Podcast - The dark geocultural heritage of La Soufrière with Jazmin Scarlett
	RGS Podcast - Why live in fire prone areas and how do people cope? Dr Christine Eriksen
	RGS Podcast - How do graphic novels help understanding of natural disasters? Dr Gemma Sou
	Why are there technically no natural disasters?



These are possible essay titles, not 20 markers, but opportunities to read and research concepts we may have touched on but not delved into fully, and then bring it together in 500-1000 word essay.



Hazards

Subject component KO



3.1.5.1 - THE CONCEPT OF HAZARD IN A GEOGRAPHICAL CONTEXT	R	A	G
Nature, forms and potential impacts of natural hazards			
Hazard perception and its economic and cultural determinants			
Characteristic human responses and their relationship to hazard incidence, intensity, magnitude, distribution and level of development			
The Park model of human response to hazards			
The Hazard Management Cycle			
3.1.5.2 - PLATE TECTONICS	R	A	G
Earth structure and internal energy sources			
Plate tectonic theory of crustal evolution, including ridge push, slab pull (etc.)			
Processes and associated landforms at destructive plate margins			
Processes and associated landforms at constructive plate margins			
Processes and associated landforms at conservative plate margins			
Magma plumes and their relationship to plate movement			
3.1.5.3 - VOLCANIC HAZARDS	R	A	G
The nature of vulcanicity and its relation to plate tectonics.			
Forms of volcanic hazard			
Spatial distribution, magnitude, frequency, regularity and predictability of volcanic events			
Impacts of volcanic events			
Short and long-term responses to volcanic events			
Impacts and human responses as evidenced by a recent volcanic event			
3.1.5.4 - SEISMIC HAZARDS	R	A	G
The nature of seismicity and its relation to plate tectonics - forms of seismic hazard			
Spatial distribution, randomness, magnitude, frequency, regularity, predictability of seismic events			
Impacts of seismic events			
Short and long-term responses to seismic events			
Impacts and human responses as evidenced by a recent seismic event			
3.1.5.5 - STORM HAZARDS	R	A	G
The nature of tropical storms and their underlying causes; forms of storm hazard			
Spatial distribution, magnitude, frequency, regularity, predictability of storm events			
Impacts of storm events			
Short and long-term responses to storm events			
Impacts and human responses as evidenced by two recent tropical storms in contrasting areas of the world			
3.1.5.6 - FIRES IN NATURE	R	A	G
Characteristic human responses to wildfires – fatalism, prediction, adjustment/adaptation, mitigation, management, risk sharing – and their relationship to hazard incidence, intensity, magnitude, distribution and level of development			
Nature of wildfires. Conditions favouring intense wildfires: vegetation type, fuel characteristics, climate and recent weather and fire behaviour. Causes of fires: natural and human agency			
Impacts: primary/secondary, environmental, social, economic, political			
Short and long-term responses to wildfire events			
Impacts and human responses as evidenced by a recent wildfire event			
3.1.5.7 - CASE STUDIES	R	A	G
Case study of a multi-hazardous environment beyond the UK to illustrate and analyse the nature of the hazards and the social, economic and environmental risks presented			
Case study of a multi-hazardous environment beyond the UK to illustrate and analyse how human qualities and responses such as resilience, adaptation, mitigation and management contribute to its continuing human occupation			
Case study at a local scale of a specified place in a hazardous setting to illustrate the physical nature of the hazard			
Case study at a local scale of a specified place in a hazardous setting to analyse how the economic, social and political character of its community reflects the presence of the hazard and the community's response to the risk			



Global Governance and Global Systems Specification



Globalisation

Dimensions of globalisation: flows of capital, labour, products, services and information; global marketing; patterns of production, distribution and consumption.

Factors in globalisation: the development of technologies, systems and relationships, including financial, transport, security, communications, management and information systems and trade agreements.

Global systems

Form and nature of economic, political, social and environmental interdependence in the contemporary world.

Issues associated with interdependence including how:

- unequal flows of people, money, ideas and technology within global systems can sometimes act to promote stability, growth and development but can also cause inequalities, conflicts and injustices for people and places
- unequal power relations enable some states to drive global systems to their own advantage and to directly influence geopolitical events, while others are only able to respond or resist in a more constrained way.

International trade and access to markets

Global features and trends in the volume and pattern of international trade and investment associated with globalisation.

Trading relationships and patterns between large, highly developed economies such as the United States, the European Union, emerging major economies such as China and India and smaller, less developed economies such as those in sub-Saharan Africa, southern Asia and Latin America.

Differential access to markets associated with levels of economic development and trading agreements and its impacts on economic and societal well-being.

The nature and role of transnational corporations (TNCs), including their spatial organisation, production, linkages, trading and marketing patterns, with a detailed reference to a specified TNC and its impacts on those countries in which it operates.

World trade in at least one food commodity or one manufacturing product

Analysis and assessment of the geographical consequences of global systems to specifically consider how international trade and variable access to markets underlies and impacts on students' and other people's lives across the globe.

Global governance

The emergence and developing role of norms, laws and institutions in regulating and reproducing global systems.

Issues associated with attempts at global governance, including how:

- agencies, including the UN in the post-1945 era, can work to promote growth and stability but may also exacerbate inequalities and injustices
- interactions between the local, regional, national, international and global scales are fundamental to understanding global governance.

The 'global commons'

The concept of the 'global commons'. The rights of all to the benefits of the global commons. Acknowledgement that the rights of all people to sustainable development must also acknowledge the need to protect the global commons.

Antarctica as a global common

An outline of the contemporary geography, including climate, of Antarctica (including the Southern Ocean as far north as the Antarctic Convergence) to demonstrate its role as a global common and illustrate its vulnerability to global economic pressures and environmental change.

Threats to Antarctica arising from:

- climate change, fishing and whaling, the search for mineral resources, tourism and scientific research.

Critical appraisal of the developing governance of Antarctica. International government organisations to include United Nations (UN) agencies such as United Nations Environment Programme (UNEP) and the International Whaling Commission. The Antarctic Treaty (1959), the Protocol on Environmental Protection to the Antarctic Treaty (1991); IWC Whaling Moratorium (1982) – their purpose, scope and systems for inspection and enforcement.

The role of NGOs in monitoring threats and enhancing protection of Antarctica.

Analysis and assessment of the geographical consequences of global governance for citizens and places in Antarctica and elsewhere to specifically consider how global governance underlies and impacts on students' and other people's lives across the globe.

Globalisation critique

The impacts of globalisation to consider the benefits of growth, development, integration, stability against the costs in terms of inequalities, injustice, conflict and environmental impact.



Global Governance and Global Systems

Topic Dictionary



Acquisition - A transaction where a TNC buys another company in order to expand (usually a smaller company).

Asylum Seeker - People who have left their country and are seeking asylum in another, waiting to be granted residency and to become a refugee.

China's Open Door Policy - 1978 - China allows foreign industry and TNCs in to promote a modern and thriving China.

Containerisation - A logistical system of transporting large amounts of goods in steel containers (each carrying 25000kg of goods).

Core Region - Wealthier, industrially developed countries that benefit and control global markets, making periphery regions depend on them.

Cultural Diffusion - The spread of cultural beliefs and social activities into different cultures.

Cultural Erosion - The reduction of a culture due to globalisation.

Cumulative Causation - Like a multiplier effect, "Success breeds Success". As the core regions increase in prosperity the periphery regions will too due to their links with the core.

Deindustrialisation - A reduction in industrial capacity, leading to social and economic change within a region.

Diaspora - 'To scatter about' - People displaced from their homeland, voluntarily or forced.

Downward Transition Zones - A country or city with predicted economic decline, industrial reduction or switched off from globalisation (e.g. Scotland, Turkey, Brazil).

Economic Migration - Movement of migrants to improve financial income or standard of living.

Economies of Scale - The concept of increasing profits by producing a larger amount of products, as overall the average price to manufacture each product is lowered.

Foreign Direct Investment (FDI) - An investment by one country or business with an interest in another country.

Global Common - An area that does not belong to one country, but instead belongs to everyone, including: the atmosphere, international waters, outer space, and Antarctica.

Global Governance - The process of global management, where multiple nations act together in matters that affect the entire world.

Global Hubs - Cores that demonstrate connections to the world (through trade, ideas, migration, etc). TNCs and foreign direct investors will show an interest to base here.

Globalisation - The growing interdependence of countries through cross-border transactions (capital, technology, migration, knowledge, culture, etc).

Glocalisation - The adaptation of a good offered by a TNC to suit a local market.

High-Level Service - Services that require skilled employees and can have complicated processes e.g. financial services.

Interdependence - The theory that nations depend on each other economically, politically, socially and environmentally.

International Bank for Reconstruction & Development (IBRD) and World Bank Group (WBG) - Both offer loans and temporary financial assistance to developing countries.

International Monetary Fund (IMF) - A fund of 189 member countries with the aim to aid each other to achieve financial stability and provide loans for development.

KOF - Index of Globalisation which takes into account the social, economic and political globalisation of a state.

Liberalisation - A reduction in government control within industry, creating opportunity for greater participation from private businesses and TNCs within an industry.

Low-Level Service - Services that require little training or skills that can be easily learnt e.g. customer service call centres.



Global Governance and Global Systems

Topic Dictionary



Merger - TNCs join to form one larger company, helping to form foreign links if the TNC is from a foreign country.

NGOs - Non-government Organisations - these organisations usually have a weaker influence over global governance.

Offshoring - Company moves parts of its operations to another country, often to save money.

Outsourcing - A business contracts outside businesses to complete some of their work, with the aim to reduce costs.

Periphery Region - Less wealthy, developing/ less developed countries that have less power over global markets.

Potential Areas of Growth - Regions where future economic development are predicted due to their undeveloped resources (e.g. Canada, Qatar).

Privatisation - When national public services become owned by private businesses.

Refugee - Those granted permanent or temporary residency by the host country or the UN refugee agency (UNHCR), who have been forced to leave their homes and travel to another country due to fleeing conflict, political or religious persecution.

Sovereignty - Control over a country's own laws and regulations.

Special Economic Zones (SEZ) - Regions where the government offer incentives to attract industry.

Transnational Company (TNC) - A company which operates in different countries to where they are originally based.

Trade Bloc - A group of countries that act together to promote trade and a free movement of goods/services between member states.

Transformationalist - This is the belief that globalisation won't lead to the formation of a homogeneous culture. Instead, the flow of culture is two-way.

Upward Transition Zones - A country or city with predicted industrial and economic increase (e.g. Mexico, Iceland, "The Asian Tigers").

World Trade Organisation (WTO) - Members seek substantial reductions on tariffs and trade barriers and the elimination of preferences on a mutually advantageous basis.



Global Governance and Global Systems

Super Curriculum



	Previous RGS School Essay Competition – 1000 word limit. What are the environmental costs of current consumer trends, behaviours and purchasing decisions? Various subthemes available to write about.
	Geography Education Online Lecture – Putting the ‘geo’ in geopolitics, and why it matters hosted by Dr Alasdair Pinkerton
	Geography Education Online Lecture – New geographies of global money? Chinese finance in London hosted by Dr Sarah Hall
	Geography Education Online Lecture – Trading with the dragon: China in Africa hosted by Gill Miller
	Routes Journal Article – An analysis of China’s Belt and Road initiative and its neo-colonial ambitions
	Routes Journal Article – ‘Globalisation and global events impact all places’. To what extent is this true?
	Routes Journal Article – Two competing goals: can sustainability and development ever be compatible?
	Routes Journal Article – Does globalisation lead to good health outcomes?
	Routes Journal Article – Post COVID-19: Are we entering a new phase of globalisation?
	Routes Journal Article – How do communities in different parts of the world govern the negative effects of globalisation?
	Would a one world government ever be a good idea?
	RGS Podcast – The geopolitics of Chinese investment and influence in Africa with Dinko Hanaan Dinko
	RGS Podcast – How is climate and its science governed in Russia? Dr Jon Oldfield
	RGS Podcast – What do cartoons tell us about global politics? Dr Daniel Hammett
	RGS Podcast – Why is the Weddell Sea important? Professor Julian Dowdeswell
	RGS Podcast – Ocean governance and political seas with Dr Kim Peters



These are possible essay titles, not 20 markers, but opportunities to read and research concepts we may have touched on but not delved into fully, and then bring it together in 500-1000 word essay.



Global Governance and Global Systems

Subject component KO



3.2.1.1 – GLOBALISATION	R	A	G
Dimensions of globalisation: flows of capital, labour, products, services and information; global marketing; patterns of production, distribution and consumption			
Factors in globalisation: the development of technologies, systems and relationships, including financial, transport, security, communications, management and information systems and trade agreements			
3.2.1.2 – GLOBAL SYSTEMS	R	A	G
Form and nature of economic, political, social and environmental interdependence			
Issues associated with interdependence: unequal flows ... can sometimes act to promote stability, growth and development but can also cause inequalities, conflicts and injustices for people and places			
Issues associated with interdependence: unequal power relations enable some states to drive global systems to their own advantage and to directly influence geopolitical events, while others are only able to respond or resist in a constrained way			
3.2.1.3 – INTERNATIONAL TRADE AND ACCESS TO MARKETS	R	A	G
Global features and trends in international trade and investment			
Trading relationships and patterns between large HDEs, EMEs and smaller LDEs			
Flows and transfers in the carbon cycle at sere scale			
Differential access to markets associated with levels of economic development and trading agreements and its impacts on economic and societal well-being			
The nature and role of TNCs, including their spatial organisation, production, linkages, trading and marketing patterns			
Human impacts on the carbon cycle (including fossil fuel extraction and burning, farming, deforestation and land use change)			
Detailed reference to a specific TNC including its impacts on those countries in which it operates			
3.2.1.4 – GLOBAL GOVERNANCE	R	A	G
The emergence and developing role of norms, laws and institutions in regulating and reproducing global systems			
The role of feedbacks within and between cycles, linking to climate change			
Human intervention in the carbon cycle to mitigate climate change			
3.2.1.5 – ‘THE GLOBAL COMMONS’	R	A	G
The concept of the global commons			
The physical environment of Antarctica and the continent as a fragile ecosystem			
Threats to Antarctica arising from: climate change, fishing and whaling, the search for mineral resources, tourism and scientific research			
Critical appraisal of the developing governance of Antarctica. International government organisations to include UN agencies such as the UNEP and the IWC. The Antarctica Treaty (1959), the Protocol on Environmental Protection to the Antarctic Treaty (1991); IWC Whaling Moratorium (1982) – their purpose, scope and systems for inspection and enforcement			
The role of NGOs in monitoring threats and enhancing protection of Antarctica			
Analysis and assessment of the geographical consequences of global governance (Antarctica)			
3.2.1.6 – GLOBALISATION CRITIQUE	R	A	G
The impacts of globalisation to consider the benefits of growth, development, integration, stability against the costs of inequalities, injustice, conflict and environmental impact			



Changing Places Specification



The nature and importance of places

The concept of place and the importance of place in human life and experience. Insider and outsider perspectives on place.

Categories of place:

- near places and far places
- experienced places and media places. Factors contributing to the character of places:
- Endogenous: location, topography, physical geography, land use, built environment and infrastructure, demographic and economic characteristics.
- Exogenous: relationships with other places.

Changing places – relationships, connections, meaning and representation

In relation to the local place within which students live or study and then at least one further contrasting place and encompassing local, regional, national, international and global scales:

- the ways in which the following factors: relationships and connections, meaning and representation, affect continuity and change in the nature of places and our understanding of place AND
- the ways in which students' own lives and those of others are affected by continuity and change in the nature of places and our understanding of place.

Relationships and connections

The impact of relationships and connections on people and place with a particular focus on:

Either changing demographic and cultural characteristics **or** economic change and social inequalities.

- How the demographic, socio-economic and cultural characteristics of places are shaped by shifting flows of people, resources, money and investment, and ideas at all scales from local to global.
- The characteristics and impacts of external forces operating at different scales from local to global, including **either** government policies **or** the decisions of transnational corporations **or** the impacts of international or global institutions.
- How past and present connections, within and beyond localities, shape places and embed them in the regional, national, international and global scales.

Meaning and representation

The importance of the meanings and representations attached to places by people with a particular focus on people's lived experience of place in the past and at present.

- How humans perceive, engage with and form attachments to places and how they present and represent the world to others, including the way in which everyday place meanings are bound up with different identities, perspectives and experiences.
- How external agencies, including government, corporate bodies and community or local groups make attempts to influence or create specific place-meanings and thereby shape the actions and behaviours of individuals, groups, businesses and institutions.
- How places may be represented in a variety of different forms such as advertising copy, tourist agency material, local art exhibitions in diverse media (eg film, photography, art, story, song etc) that often give contrasting images to that presented formally or statistically such as cartography and census data.
- How both past and present processes of development can be seen to influence the social and economic characteristics of places and so be implicit in present meanings.



Changing Places

Specification cont'd.



Quantitative and qualitative skills

Students must engage with a range of quantitative and qualitative approaches across the theme as a whole. Quantitative data, including the use of geospatial data, must be used to investigate and present place characteristics, particular weight must be given to qualitative approaches involved in representing place, and to analysing critically the impacts of different media on place meanings and perceptions. The use of different types of data should allow the development of critical perspectives on the data categories and approaches.

Place studies

Local place study exploring the developing character of a place local to the home or study centre.

Contrasting place study exploring the developing character of a contrasting and distant place.

Place studies must apply the knowledge acquired through engagement with prescribed specification content and thereby further enhance understanding of the way students' own lives and those of others are affected by continuity and change in the nature of places. Sources must include qualitative and quantitative data to represent places in the past and present.

Both place studies must focus equally on:

- people's lived experience of the place in the past and at present
- **and either**
- changing demographic and cultural characteristics
- **or**
- economic change and social inequalities. Suitable data sources could include:
 - statistics, such as census data
 - maps
 - geo-located data
 - geospatial data, including geographic information systems (GIS) applications
 - photographs
 - text, from varied media
 - audio-visual media
 - artistic representations
 - oral sources, such as interviews, reminiscences, songs etc.



Changing Places

Topic Dictionary



Accessibility - How easy it is to travel to a place or interact with an individual.

Attachment - A sense of binding to a particular location due to positive and intense experiences.

Built Environment - The buildings and infrastructure within an urban area.

Capital - Productive assets, goods or financial stakes.

Commuter - An individual who regularly travels a distance between their residence and their employment.

Cultural Enrichment - The addition of ideas, traditions and beliefs due to the arrival of new people.

Culture - The way of life of a particular group of people at a particular time, generally customs and beliefs.

Demographic - The characteristics of a population.

Deprivation - Individuals lack basic services or objects they would expect to have in the 21st Century.

Diversity - Variation within a population, in their characteristics, background and behaviour.

Endogenous Factor - Factors based on local characteristics or perspective originating from inside the place.

Ethnicity - The cultural background of a group of people, often based on religion or country of origin.

Ethnic Clustering - Residential areas with similar cultures, ethnicity or religions. This may be to avoid isolation or to live locally to special services and facilities (places of worship, local shops, etc.).

Exogenous Factor - Factors based on characteristics or perspective originating from outside the place, commonly referred to as flows.

Experienced Places - Locations a person has visited in their lifetime.

Far Places - Places that feel distant, physically or emotionally.

Genius Loci - The 'spirit' of a place, based on its history, culture and daily atmosphere.

Gentrification - Renovation of older/deteriorating buildings or areas with the aim of attracting high-income individuals or elite businesses to a place.

Governance - The management of a place or group of people.

Idyll - A location with ideal living conditions and good qualities. Often based on a perception.

Inequality - Differences in income, well-being and wealth between individuals, communities and society.

Insiders - People who feel like they are 'part of' a place; they feel included within the place and have a strong connection to it.

Internal Migration - The movement of people within a country.

International Migration - The movement of people from one country to another.

Life Expectancy - The average number of years an individual is likely to live, determined at birth.

Lived Experience - The contribution of experiences and opportunities to an individual's views and values.

Locales - Locations of different daily activities, e.g. school, theatre, shops, etc.

Media - The publishing of information and production of entertainment (e.g. BBC, local newspapers, radio stations).

Media Places - Places an individual hasn't visited but has a reputation based from media representation.

Multicultural - The existence, acceptance or promotion of multiple cultural traditions within a single geographic area.

Near Places - Places that feel close, physically or emotionally.



Changing Places

Topic Dictionary



Outsiders - People who feel like they are not 'part of' a place; they feel isolated and may not have a strong connection to the place.

Perception - A person's view of a place or issue based on feelings, experience and outside forces such as the media.

Placelessness - Places that lack unique character or reputation, due to chain stores replacing local independent shops or a lack of attachment experienced by people visiting the location.

Population Density - The number of people per square kilometre.

Rebranding - Creating a new look or reputation for an area.

Segregation - The separation of a group from other groups this can be through force or voluntarily. Segregation can often occur due to housing strategies or regeneration projects.

Social Clustering - Groups of people with similar background frequently living together.

Social Exclusion - The inability of a group of people to become involved in the cultural activities of a place.

'The Other' - People of different background or identity to an individual.

Urbanisation - An increase in the proportion of a population living within urban areas.



Changing Places

Super Curriculum



	Geography Education Online Lecture - Making LGBTQ communities, changing LGBTQ spaces hosted by Dr Nick McGlynn
	Routes Journal Article - Techno music, Detroit and social change: a critical geographical exploration through the lens of race and class
	Routes Journal Article - Exploring the interactions between children's sense of self and their sense of place through sport
	Routes Journal Article - Exploring the enhanced spatial marginalisation of women and LGBTQ+ people as a result of the Covid-19 pandemic in the UK
	Routes Journal Article - Imagined online communities: the digital disruption of traditional geographies of citizenship
	Routes Journal Article - Violence at the border: borders and their deleterious socio-political effects on international migrants
	Routes Journal Article - Period poverty in prison: an intersectional commentary on the lived experiences of incarcerated women in US prison facilities
	How is place-attachment and belonging managed in refugee re-settlement? Sara Kindon and Amber Kale
	RGS Podcast - How is internal migration changing cities? Professor Michael Collyer
	RGS Podcast - Changing urban places through poetry with Dr Phil Jones
	RGS Podcast - Urban transformation and belonging with Dr Melissa Butcher and Shekeila Scarlett
	What is home and why does it mean different things to different people?
	'Environmental and Architectural Psychology: The Basics' by Ian Donald (2022)
	'Spirit of Place: Artists, Writers and the British Landscape Paperback' by Susan Owens (2021) by Susan Owens



These are possible essay titles, not 20 markers, but opportunities to read and research concepts we may have touched on but not delved into fully, and then bring it together in 500-1000 word essay.



Changing Places

Subject component KO



3.2.2.1 – NATURE AND THE IMPORTANCE OF PLACES	R	A	G
The concept of place			
Insider and outsider perspectives on place			
Categories of place (near/far, experienced/media)			
Factors contributing to the character of places (endogenous/exogenous)			
3.2.2.2(1) – RELATIONSHIPS AND CONNECTIONS	R	A	G
How the demographic, socio-economic and cultural characteristics of places are shaped by shifting flows			
The characteristics and impacts of external forces operating at different scales, either government or decisions of TNCS or international or global institutions			
How past and present connections, within and beyond localities, shape places and embed them in regional, national, global scales			
3.2.2.2(2)– MEANING AND REPRESENTATION	R	A	G
How humans perceive and form attachments to places and represent the world to others, including the way in which place meanings are bound up with different identities (etc.)			
How external agencies and community or local groups make attempts to create specific place -meanings and shape actions and behaviours			
How places may be represented in different forms in diverse media that give contrasting images to that presented formally or statistically			
How past and present processes of development influence social and economic characteristics of places and are implicit in present meanings			
3.2.2.3 – QUANTITATIVE AND QUALITATIVE SKILLS	R	A	G
Know a range of quantitative and qualitative approaches across the theme as a whole			
Use of geospatial data, must be used to investigate and present place characteristics			
Qualitative approaches involved in representing place			
Analysing critically the impacts of different media on place meanings and perceptions			
Development of critical perspectives on the data categories and approaches.			
3.2.2.4 – PLACE STUDIES	R	A	G
Local place study - people's lived experience of the place in the past and at present			
Local place study - either changing demographic and cultural characteristics or economic change and social inequalities.			
Distant place study - people's lived experience of the place in the past and at present			
Distant place case study - either changing demographic and cultural characteristics or economic change and social inequalities.			



Population and the Environment Specification



Introduction

The environmental context for human population characteristics and change. Key elements in the physical environment: climate, soils, resource distributions including water supply. Key population parameters: distribution, density, numbers, change. Key role of development processes. Global patterns of population numbers, densities and change rates.

Environment and population

Global and regional patterns of food production and consumption. Agricultural systems and agricultural productivity. Relationship with key physical environmental variables – climate and soils.

Characteristics and distribution of two major climatic types to exemplify relationships between climate and human activities and numbers. Climate change as it affects agriculture.

Characteristics and distribution of two key zonal soils to exemplify relationship between soils and human activities especially agriculture. Soil problems and their management as they relate to agriculture: soil erosion, waterlogging, salinisation, structural deterioration.

Strategies to ensure food security.

Environment, health and well-being

Global patterns of health, mortality and morbidity. Economic and social development and the epidemiological transition.

The relationship between environment variables eg climate, topography (drainage) and incidence of disease. Air quality and health. Water quality and health.

The global prevalence, distribution, seasonal incidence of one specified biologically transmitted disease, eg malaria; its links to physical and socio-economic environments including impacts of environmental variables on transmission vectors. Impact on health and well-being. Management and mitigation strategies.

The global prevalence and distribution of one specified non-communicable disease, eg a specific type of cancer, coronary heart disease, asthma; its links to physical and socio-economic environment including impacts of lifestyles. Impact on health and well-being. Management and mitigation strategies.

Role of international agencies and NGOs in promoting health and combating disease at the global scale.

Population change

Factors in natural population change: the demographic transition model, key vital rates, age-sex composition; cultural controls. Models of natural population change, and their application in contrasting physical and human settings. Concept of the Demographic Dividend.

International migration: refugees, asylum seekers and economic migrants: environmental and socio-economic causes, processes. Demographic, environmental, social, economic, health and political implications of migration.

Principles of population ecology and their application to human populations

Population growth dynamics. Concepts of overpopulation, underpopulation and optimum population. Implications of population size and structure for the balance between population and resources; the concepts of 'carrying capacity' and 'ecological footprint' and their implications.

Population, resources and pollution model: positive and negative feedback. Contrasting perspectives on population growth and its implications; Malthusian, neo-Malthusian and alternatives such as associated with Boserup and Simon.

Global population futures

Health impacts of global environmental change: ozone depletion – skin cancer, cataracts; climate change – thermal stress, emergent and changing distribution of vector borne diseases, agricultural productivity and nutritional standards.

Prospects for the global population. Projected distributions. Critical appraisal of future population-environment relationships.

Case studies

Case study of a country/society experiencing specific patterns of overall population change – increase or decline – to illustrate and analyse the character, scale, and patterns of change, relevant environmental and socio-economic factors and implications for the country/society.

Case study of a specified local area to illustrate and analyse the relationship between place and health related to its physical environment, socio-economic character and the experience and attitudes of its populations.



Population and the Environment

Topic Dictionary



Agricultural Productivity - The ratio of useful output (yield) to input, showing the efficiency of a farm.

Arable Farming - Growing crops and plant-based foods.

Asylum Seekers - People fleeing their country of residence for international protection by another government.

Biologically Transmitted Disease - A disease that is passed on by a pathogen (e.g. a bacterium or virus), causing illness, e.g. malaria

Boserup's Theory - No matter how large the population grows, we will discover new ways to sustain food supplies.

Commercial Farming - Agriculture with the intention of providing yields that can be sold commercially, making a profit.

Cover Crop - A crop with a large surface area, used to cover a bare field to reduce soil erosion and maintain the structure of the topsoil.

Crop Yield - The amount of grains, vegetables or fruits produced from a unit area of land (units = kilograms per hectare).

Demographic Transition Model - A model describing overall population change, mortality and fertility rates over time.

Density - The number of people per unit area (often per km²).

Desertification - Fertile land becomes dry and desert-like, reducing in productivity and vulnerable to erosion.

Development Process - The process of a society advancing over time through technological improvements, changes in knowledge and attitudes or improving the efficiency of industrial processes.

Ecological Footprint - The amount of resources used in relation to the available resources on Earth. A footprint larger than 1 means consumption is greater than the available resources on Earth, making it unsustainable living.

Economic Migrants - The movement of an individual to improve their financial wealth and quality of living.

Epidemiological Transition Model - A model describing how morbidity varies - as a society develops over time, infectious diseases will decrease but non-communicable diseases will increase.

Extensive Farming - Low inputs in relation to the amount of land farmed, i.e. low amounts of labour, capital investment or stock needed to produce a sufficient yield, but without too much investment.

Food and Agricultural Organisation (FAO) - An IGO which aims to improve global health by reducing hunger.

Food Insecurity - An individual does not consume healthy food or the necessary energy input in calories each day.

The Green Revolution - During the 1950s and 60s, more technology and efficient farming practices were adopted to improve crop yield.

Gullies - Rills that grow in size over time into much larger ravines.

The Industrial Revolution - During the mid-1700s, manufacturing became increasingly mechanised, reducing labour costs and accelerating economic growth, urbanisation of some villages and towns and improving the speed of transportation with steam engines.

Infectious Disease - A disease caused by pathogens (bacteria or virus) entering and multiplying within the body, e.g. flu, norovirus, Athlete's foot.

Intensive Farming - High inputs in relation to the amount of land farmed, i.e. large amounts of labour, capital investment or stock needed to maximise yield.



Population and the Environment

Topic Dictionary



Irrigation - The process of regularly watering crops, rather than relying on precipitation for water.

Malthusian Perspective - Population will increase exponentially, but resources available can only increase linearly. Hence, the population will eventually run out of resources (food, water, etc.)

Mortality Rate - The number of deaths per 1000 over time.

Morbidity - The occurrence of diseases within a population over time.

Neolithic Revolution - A shift in mobile hunter-gatherer populations to agricultural communities approximately 12,000 years ago.

Non-Communicable Diseases - Disease that can't be spread by bacteria or virus, often due to lifestyle and working environment e.g. cancer, cardiovascular disease.

Pastoral Farming - Tending to livestock and cattle-rearing to produce meat, poultry or dairy food products.

Population Parameter - Different measurable factors to describe population: density, distribution, rate of change, etc.

Population, Resources and Pollution Model (PRP) - A model that describes the positive and negative feedback loops between population, resources and pollution.

Refugees - An individual fleeing natural disaster, conflict or persecution.

Rills - Small streams that develop over time as water erodes a small path on a slope.

Riverbank Erosion - The degradation of riverbanks, causing large sections of the bank to erode and become waterlogged.

Salinisation - An increase in the salt content of the soil, due to saline water rising within soils, poor drainage of irrigation water or groundwater levels rise.

Sheet Erosion - The widespread removal of topsoil, washed away uniformly due to heavy rainfall and flooding.

Simon's Theory - Humans are the ultimate resource, and we will invent new ways to sustain life and resources.

Structural Deterioration - The loss of the structure of the soil, especially pores within the soil that contain air.

Subsistence Farming - Self-sufficient farming, where crops are grown only to support those growing the crops family or community, with little or no profit.

Topsoil - The upper layer of soil, responsible for providing the majority of nutrients and structure for agricultural activities.

Vector-borne Diseases (VBD) - Diseases that can be passed between individuals by parasites or through hosts, e.g. Chagas Disease, Malaria, Lyme Disease.

Water Erosion - The degradation and wearing away of soil due to water.

Waterlogging - Soil becomes oversaturated with water or a lack of oxygen within the soil, meaning plants cannot respire aerobically and are vulnerable to rot.

Wind Erosion - High winds and dry climates transport soil particles and rocks across land, through creeping, saltation and suspension.

World Food Programme - An IGO aiming to eradicate world hunger across the globe by providing aid in emergencies or improve nutrition within developing communities.

World Health Organisation (WHO) - A branch of the United Nations, aiming to improve global health and eradicate disease.



Population and the Environment

Super Curriculum



	Routes Journal Article – A view from a bench
	Routes Journal Article – Can food be produced more sustainably to support the growing world population?
	Routes Journal Article – To what extent should the issue of human population growth be considered as threatening as the issue of climate change?
	Routes Journal Article – An analysis of the representation of immigration in British broadsheet and tabloid news
	Routes Journal Article – The role of a refugee camp in a global pandemic
	Routes Journal Article – ‘In the near future look out for hipsters drinking smoothies from underground farms in Shoreditch’: The framing of urban vertical farming in the UK media
	Geography Education Online Lecture – Demographic change and population projections hosted by Dr Nik Lomax
	Geography Education Online Lecture – China: Past and present hosted by Dr Camila Bassi
	Geography Education Online Lecture – Exploring the importance of glaciers for water, food, and energy security hosted by Dr Caroline Clason
	Geography Education Online Lecture – Impacts of climate change on infectious diseases hosted by Andy Morse
	RGS Podcast – Geography, identity and football with journalist and author David Goldblatt



Population and the Environment

Subject component KO



3.2.4.1 - INTRODUCTION	R	A	G
The environmental context for human population characteristics and change			
Key elements in the physical environment: climate, soils, resource distribution including water supply			
Key population parameters: distribution, density, numbers, change			
Key role of development processes			
Global patterns of population numbers, densities and change rates			
3.2.4.2 – ENVIRONMENT AND POPULATION	R	A	G
Global and regional patterns of food production and consumption			
Agricultural systems and productivity. Relationship with key physical environmental variables – climate and soils			
Characteristics and distribution of two major climatic types to exemplify relationships between climate and human activities and numbers			
Climate change as it affects agriculture			
Characteristics and distribution of two key zonal soils to exemplify relationships between soils and human activities, especially agriculture			
Soil problems and their management as they relate to agriculture: soil erosion, waterlogging, salinisation, structural deterioration			
Strategies to ensure food security			
3.2.4.3 – ENVIRONMENT, HEALTH AND WELL-BEING	R	A	G
Global patterns of health, mortality and morbidity			
Economic and social development and the epidemiological transition			
The relationship between environmental variables e.g. climate, topography (drainage) and incidence of disease			
Air quality and health and water quality and health			
The global prevalence, distribution, seasonal incidence of one specified biologically transmitted disease e.g. malaria including impacts of environmental variables on transmission vectors. Impacts on health and well-being. Management and mitigation strategies.			
The global prevalence and distribution of one specified non-communicable disease, e.g. a specific type of cancer, coronary heart disease, asthma; its links to physical and socio-economic environment including impact of lifestyles. Impact on health and well-being. Management and mitigation strategies.			
Role of international agencies and NGOs in promoting health and combating disease at the global scale			
3.2.4.4 – POPULATION CHANGE	R	A	G
Factors natural population change: the demographic transition model, key vital rates, age-sex composition; cultural controls			
Models of natural population change, and their application in contrasting physical and human settings			
Concept of the demographic dividend			
International migration: refugees, asylum seekers and economic migrants; environmental and socioeconomic causes, processes. Demographic, environmental, social, economic, health and political implications of migration			
3.2.4.5 – PRINCIPLES OF POPULATION ECOLOGY AND THEIR APPLICATION TO HUMAN POPULATIONS	R	A	G
Population growth dynamics: Overpopulation, underpopulation and optimum population			
The balance between population and resources; carrying capacity and ecological footprint			
Population, resources and pollution model: positive and negative feedback			
Perspectives on population growth and implications: Malthusian, neo-Malthusian and alternatives such as associated with Boserup and Simon			
3.2.4.6 – GLOBAL POPULATION FUTURES	R	A	G
Health impacts of global environmental change: ozone depletion – skin cancer, cataracts; climate change – thermal stress, emergent and changing distribution of vector borne diseases, agricultural productivity and nutritional standards			
Prospects for the global population. Projected distributions. Critical appraisal of future population– environment relationships			
3.2.4.7 – CASE STUDIES	R	A	G
Case study of a country/society experiencing specific patterns of overall population change			
Case study knowledge and understanding of patterns of health and morbidity related to physical and socio-economic characteristics at a local scale			