Bottisham Village College

KNOWLEDGE ORGANISER

GCSE GEOGRAPHY

YEAR 10 ALL YEAR

KNOWLEDGE ORGANISERS

At Bottisham Village College, we are striving to create a five-year curriculum plan that builds effective revision strategies into homework and lessons, to ensure that students are able to place powerful knowledge into their long-term memories. Additionally, we hope that this will help build effective learning strategies from early in their time here at the college.

Based on evidence, we know that regular recall activities are the best way of achieving this goal and committing powerful knowledge into the students' memories.

At the start of each term, we shall publish all the knowledge organisers that students will require for their studies in each curriculum area. These will cover a range of aspects: facts, dates, characters, quotes, precise definitions and important vocabulary. We are clear: if this fundamental knowledge is secured, students can then develop their higher-level skills of analysis and critical understanding with greater depth.

They will be given an electronic A4 Knowledge Organiser (KO) booklet for each term containing all of the knowledge required. In lessons, Bottisham staff will be regularly testing this fundamental knowledge, using short-quizzes or even more formal "Faculty Knowledge Tests".

The best way to use these organisers at home, is to follow a simple mantra:

1. Look at a certain aspects of a particular knowledge organiser

2. Cover up part of their knowledge organiser

3. Write it out from memory

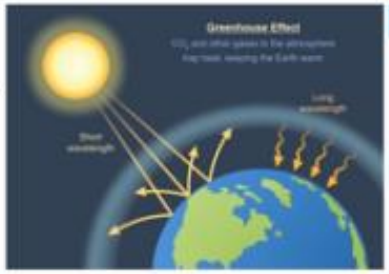
4. Check and correct any spelling mistakes, missing bits or mistakes

So simple but so effective.

GEOGRAPHY YEAR 10 TERM 1: UNIT 1:A

CLIMATE CHANGE

Key term	Definition	Key term	Definition
Natural hazard	A natural event that threatens people or has the potential to cause damage, destruction and death	GAC	The worldwide system of winds that moves heat from the tropics to the poles
Plate boundary	The place where two tectonic plates meet. There are different types depending on which direction the plates are moving	Coriolis effect	The deflection, or bending, of the wind due to the spin of the earth
Primary effect	The initial impact, caused directly by a natural event	Greenhouse effect	The natural phenomenon where earth's atmosphere traps radiation, heating up the earth
Secondary effect	The after-effects that occur as indirect impacts, sometimes on a longer timescale	Prediction	Attempts to forecast when and where a natural hazard will strike, based on current knowledge
Immediate response	The reactions of people as a disaster happens and in the aftermath directly after the event	Monitoring	Recording physical changes to help predict when and where a natural hazard might strike
Long-term response	Later reactions that occur in the weeks, months and years after an event	Preparation	Getting ready before a hazard strikes so that people know what to do when it happens
Mitigation	Reducing the severity of something (e.g. climate change)	Protection	Actions taken before a hazard strikes to make people safe



Effects of Climate Change

Climate change could have a range of impacts on both people (social/economic) and the environment. For some people, these could be positive (e.g. easier to grow certain crops; lower heating bills), but for many will be negative (illness; death; flooding; crop failure). It is LICs who will feel more of the effect due to being less prepared and not having the resources to respond as effectively as HICs.

Evidence for Climate Change

The Met Office has reliable climate evidence since 1914 – but we can tell what happened before that using several methods, including: ice and sediment cores (long term), pollen analysis, tree rings and temperature records (short term)

Causes: (both long term and recent)

Natural	Human
Orbital changes Solar Output Volcanic activity	Fossil fuels Agriculture Deforestation

Extra reading: Climate emergency

Managing Climate Change

Mitigation	Adaption
Alternative energy production Planting Trees Carbon Capture International Agreements	Changes in agricultural systems Managing water supplies Reducing risk from rising sea level

WEATHER HAZARDS

Global weather systems are driven by the Global Atmospheric Circulation, including the Hadley Cell.

Extreme weather in the UK

UK weather is getting more extreme due to climate change. Temperatures are more extreme and rain is more frequent and intense leading to more flooding events. Since 1980 average temperature has increased 1 degree and winter rainfall has increased.

4th-5th December 2015 – Storm Desmond

The 4th named storm of the winter of 2015-16. Particularly effected Cumbria. 341.4 mm of rainfall recorded in 24 hrs

Social Effects

3 deaths; 19,000 homes flooded across Northern England; 100,000 homes affected by power cuts.

Economic Effects

Caused £500 million damage in Cumbria.
Main roads and bridges damaged

Management strategies

Weather and flood warnings; Soldiers took supplies to remote areas in the Lake District; The government gave £50 million to repair damage in Cumbria and Lancashire.

Tropical Storms: Key features

Occur in low latitudes between 5° and 30° north and south of the equator (in the tropics). Ocean temperature needs to be above 27° C. Happen between summer and autumn.
Climate change will affect tropical storms too. Warmer oceans will lead to more intense storms – but not necessarily more frequent ones.

Remembering the 'Beast from the East '

Typhoon Haiyan, Philippines, November 2013

Primary Effects	Secondary Effects
At least 6340 killed; 90% buildings in Tacloban destroyed; Habitats & Crops destroyed	$14 Billion of damage; Water supply polluted; 4.2 million homeless; Airports unusable for supplies
Immediate Responses	**Long-term Responses**
1,069 emergency shelters; 3,316,500 people helped outside these centres by providing aid.	UN appeal raised $300 million. Typhoon warning systems have been improved.

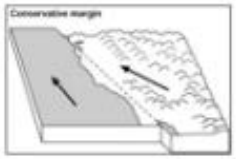
Wealth levels affect impacts of/responses to Earthquakes – Nepal (LIC) and Japan (HIC)

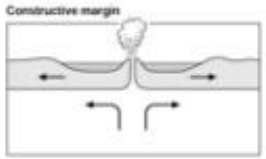
	Nepal (LIC). April 2015. Magnitude 7.8.	Japan (HIC). March 2011. Magnitude 9.0.
Primary Effects	8841 deaths; 1 million homeless; 26 hospitals and 50% of schools destroyed	15,900 dead (from tsunami); 350,000 homeless (from tsunami) ; 127,000 buildings completely destroyed (by tsunami)
Secondary Effects	Avalanche on Mount Everest killing 19 people. Loss of tourism income (was 8.9% of Nepal's GDP). Rice stores ruined causing food shortages.	Evacuation of Fukishima area following nuclear plant meltdown; $255bn cost
Immediate Responses	Requested international help ($126m from UK) Red Cross- tents for 225,000 people.	State of emergency declared; All 55 nuclear power plants taken off line; Free mobile phone network
Long term responses	Rebuilding; Longer climbing season.	Rebuilding of affected areas; Clearing of debris

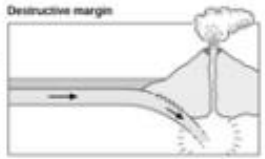
TECTONIC HAZARDS

People live in hazard risk zones because of the economic opportunities (farming, tourism, mineral extraction), social reasons (family) or because of lack of choice (poverty).
To help manage the risk, people can monitor, predict (volcanoes), protect and plan

Plate boundaries are where tectonic events originate. The type of boundary affects what events happen where.







GEOGRAPHY YEAR 10 TERM 2: UNIT 1:A

Physical characteristics of the TRF

Emergents, Canopy, Shrub and Forest floor layers.
Nutrient cycling: the balance between different components, and the impact of changing one part.
Biomass - Litter - Soil

Animal and plant Adaptations

Sloths - hook to grip branches

Parrots - sharp beak for nuts and fruit

Tall and straight to reach the sun
Buttress roots to support the tall trees
Liana vines use trees to climb and reach the sun
Drip tips so leaves don't rot in heavy rain
Thick waxy leaves
Epiphytes grow in canopy to get nutrients from air and water

Amazon TRF – impacts of Deforestation

Economic development	Brings in jobs and income. 2008 $6.9 billion from cattle. Encourages social development e.g. schools
Soil Erosion	Land left unprotected from heavy rain leads to landslides and flooding. Nutrients are leached away decreasing nutrients in the soil.
Climate Change	Trees cut down change the water cycle and make it drier and warmer Deforestation means more carbon dioxide in the air and less oxygen. Burning also releases carbon to the air (Greenhouse effect)

Extra reading: Dams in the Amazon

Causes of deforestation Case study – Amazon Rainforest

Commercial farming
Cattle and crops. Causes 80% of deforestation as it ruins soil and nutrients.

Deforestation

Logging
The business of cutting down trees and transporting the logs to sawmills.
Selective logging and clear felling.

Mineral extraction
The removal of mineral resources from the earth. Gold, Bauxite, Oil and gas.
Pollutes rivers and air.

Subsistence farming

Other uses	**Road building** - 4000km long Trans Amazonia Highway built 1970s. Opened up rainforest. **Settlement** - Government resettled poor and gave them land **Energy development** - HEP (dams)floods and rots vegetation and turbines corrode

Sustainable Rainforest Management strategies

Selective logging and replanting	Only fell fully grown trees on 30 - 40 year cycle Replanting - collect seeds from primary forest; grow in nurseries and replant **Forest Stewardship Council** - mark sustainably sourced timber
Conservation and education	Education of locals key WWF (NGO) - education; train conservation workers; provide practical help; buy threatened areas and set up nature reserves
Ecotourism	Minimises damage to environment and benefits locals Small visitor numbers Waste and litter disposed of properly Locals employed so incentive to preserve environment
International agreements	International Tropical Trade Agreement 2006 and 2011 - restricts trade in hardwood from rainforests Needs to be felled from sustainably managed areas and stamped with registration numbers
Debt reduction	Debt for nature swops - in 2010 USA converted debt of $13.5 million from Brazil and used the funds to protect the rainforest. HICs wipe off debts of debts of LICs

Key term	Definition	Key term	Definition
Food Chain	The connections between organisms that rely on one another as their source of food	Subsistence farming	A type of agriculture producing food and materials for the benefit only of the farmer and his family.
Food web	A complex hierarchy of plants and animals relying on each other for food.	Commercial farming	Farming to sell produce for a profit to retailers or food processing companies.
Interdependence	How two or more factors depend upon each other.	Over cultivation	Exhausting the soil by over-cropping the land.
Deforestation	The chopping down and removal of trees to clear an area of forest.	Over grazing	Grazing too many livestock for too long on the land, so it is unable to recover its vegetation.
Desertification	The process by which land becomes drier and degraded, as a result of climate change or human activities, or both.	Soil erosion	Removal of topsoil faster than it can be replaced, due to natural (water and wind action), animal, and human activity.

Case Study: The Western Desert USA: Development opportunities

1) Mineral Extraction – copper, uranium, lead and coal.
e.g. Copper mining in the Sonoran desert near Ajo, Arizona
2) Energy – the strong insolation provides solar power e.g. the Sonoran Solar project in Arizona powers 100,000 homes, and HEP from Lake Mead behind the Hoover Dam
3) Tourism – this is the most important source of income e.g. nearly 40million visitors per year to Las Vegas
4) Farming – high temperatures and sunlight are good for agriculture, provided there is water for irrigation. e.g. Aquifers in the Coachella valley enable crops of vegetables, fruit and wine.

Desert plant and animal adaptations

Desertification causes

Climate change, population growth (overpopulation), removal of fuel wood (deforestation), overgrazing, overcultivation and soil erosion .

Case Study: The Western Desert USA: Development Challenges

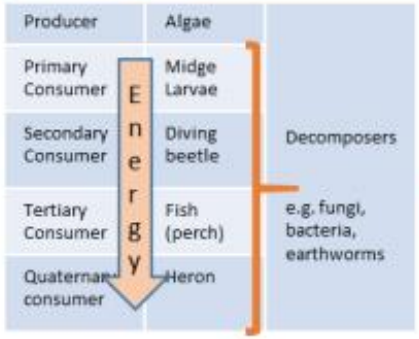
1) Climate - Temperatures reach up to 50°C
2) Accessibility - Lack of roads meant limited access until late 1800s. Now less of a problem
3)Water availability - Water is limited and has to be transported from the Colorado River, or taken from Dams and aquifers. •Over-extraction leads to conflict.

Desertification solutions

Irrigation - Water from aquifers used to grow crops / vegetation.
National Parks - Conserve areas at risk, protect wildlife.
Afforestation - Green wall being planted across the Sahel.
Crop rotation - Keeps nutrients in the soil by avoiding monoculture.
Appropriate Technology – Stone bunds (walls) and Toyola stoves in the Sahel

To be defined as a Hot Desert, there must be:
-Less than 250mm of rain a year.
- Diurnal temperatures ranging from 50°C during the day to 0°C at night.

Interrelationships within a natural system – UK Pond



Ecosystems balance

Changing just one component of an ecosystem can have a large impact on the whole e.g. **Wolves in Yellowstone**

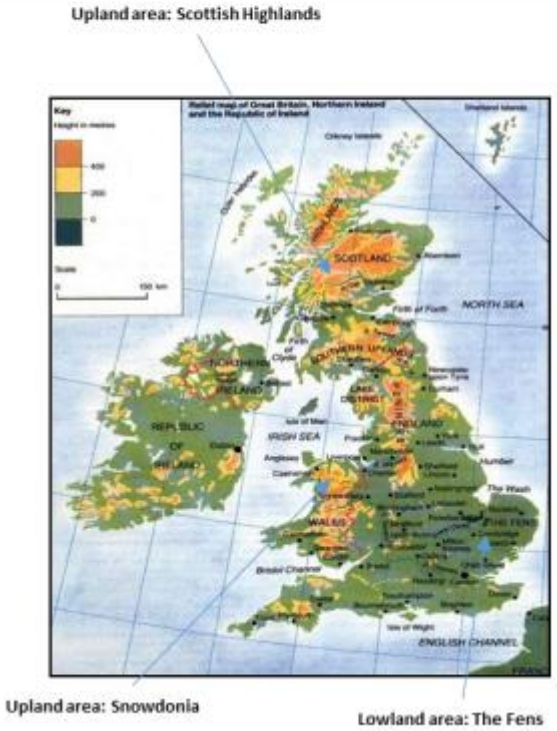
Small scale UK Ecosystem – Wicken Fen

One of Europe's most important wetlands located in NE Cambridgeshire.
Supports more than 9000 species of plants, birds and insects, and important fungi acting as decomposers.
Explain **interrelationships** between producers, decomposers, food chain, food web and nutrient cycling.

GEOGRAPHY YEAR 10 TERM 3: UNIT 1:C

Key term	Definition
Erosion	The wearing away and breaking down of material
Weathering	The decomposition and physical disintegration of exposed rock
Transportation	The movement of eroded material
Deposition	When transported material is dropped as the transporter (water/ice) runs out of energy
Geology	The type of rock
Sediment	Another word for eroded material that is being transported and deposited
Conflict	When different stakeholders groups disagree on which decision to make

The UK has a range of diverse landscapes, ranging from upland areas (e.g. Scottish Highlands) to lowland areas (e.g. East Anglia), including a number of different river systems (e.g. Thames basin)



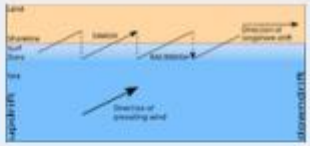
COASTAL LANDSCAPES

Processes: Physical actions that change the shape of the coastline. Many of these processes are driven by waves, which in turn are a result of wind. The strength of the wind and distance it has blown over (the fetch) affect whether waves are **constructive** or **destructive**.

Weathering
Mechanical: freeze thaw, or biological
Chemical: when minerals are dissolved by slightly acidic sea water

Mass movement is when large amounts of material fall into the sea in one go. It is often associated with the collapse of cliffs. It happens through:
•Sliding •Slumping •Rock falls

Erosion is caused by destructive waves hitting the coast with high energy levels and breaking down the material they hit. Types of erosion include:
Hydraulic power/action: power of the water
Abrasion: rocks thrown against the cliff (sandpaper effect)
Attrition: rocks colliding and removing sharp edges



Transportation is carried out by waves
Longshore drift (see diagram)

Deposition happens when waves run out of energy so can no longer carry material and drop it. Wave energy can fall due to a range of different reasons.

Landforms: Natural features that are created by the breaking down, movement and deposition of sediment. The type of feature created is influenced by the **type of wave** and **geology**, particularly if the coastline is **discordant** or **concordant.**

Erosional
The following features are all created when destructive waves erode the coastline through hydraulic action and abrasion:
•Headlands and bays •Cliffs •Wave cut platforms •Caves, arches, stacks

Depositional
The following features are all created when sediment is transported from one place to another and then deposited, where it builds up to create a new landform:
•Beaches •Sand dunes •Spits •Bars

Management: Because the coastline is a constantly changing shape and because people live and work on the coast, there are a range of views as to how the coastline should be managed, which leads to conflict. This includes over what type of defences should be used, or whether defences should be used at all.

Hard engineering: large, long-lasting structures designed to stop erosion
•Sea walls •Rock armour •Gabions •Groynes

Soft engineering: often smaller, shorter-lasting schemes designed to manage erosion
•Beach nourishment and reprofiling •Dune regeneration
Managed retreat involves allowing the sea to reclaim parts of the coast and moving activity away from the sea

Example: The **North Norfolk coastline** demonstrates some of the conflicts associated with management as some areas (Sheringham/Cromer) are protected, whilst others (West Runton/ Happsiburgh) are not.

GEOGRAPHY YEAR 10 TERM 3: UNIT 1:C

GLACIAL LANDSCAPES

Processes: Physical actions through which ice can shape the land. These processes happen over an incredibly long time so are difficult to see happening, but do leave behind a range of landforms, including all across the northern half of the UK, which was previously covered in ice.

Freeze-thaw weathering occurs on exposed rock and leads to its disintegration

Erosion is caused by the sheer weight of the ice in a glacier moving over the ground and wearing the underlying rock away through:
•Plucking
•Abrasion

Movement and transportation happens when the glacier flows downhill due to gravity, transporting sediment on, in and under the glacier, or pushing it in front of it (bulldozing)

Deposition happens when outwash brings sediment out from the glacier to be dropped ahead of the glacier, or when the glacier melts and sediment it was carrying is left on the ground

Landforms: Natural features that are created by the breaking down, movement and deposition of sediment. These are often used as evidence to show what glaciers did in the past.

Erosional
The following features were created when a glacier eroded the landscape through plucking and abrasion:
•Corries
•Arêtes
•Pyramidal peaks
•Truncated spurs
•Glacial troughs
•Ribbon lakes
•Hanging valleys

Depositional
The following features are all created when sediment was transported from one place to another by a glacier and then deposited, where it builds up to create a new landform:
•Erratics
•Drumlins
•Moraine (ground, lateral, medial, terminal)

Management: Glaciated environments in the UK no longer have glaciers in them, but have become areas where many people see economic opportunities, which leads to land-use conflict between the different groups wanting to make the most of the landscape. These conflicts therefore require management to try and resolve the issues.

The following activities are all seen as ways to make money in the UK's glaciated environments:
•Tourism (hiking, camping, water sports) •Farming (of animals) •Forestry •Quarrying (of stone)
These different activities put different pressures on the environment as people want to develop the landscape, but there are others who are more concerned with the **conservation** of these, often more natural, landscapes.

Example: The Lake District
Over 50 million people visit a year, generating over £1 billion in revenue, attracted by the landscape and activities. However, they have a number of impacts (social and environmental), which have to be managed, such as traffic congestion and footpath erosion.

Bottisham Village College

KNOWLEDGE ORGANISER

GCSE GEOGRAPHY

YEAR 11 ALL YEAR

GEOGRAPHY YEAR 11 TERM 1: UNIT 2:A

Extra reading

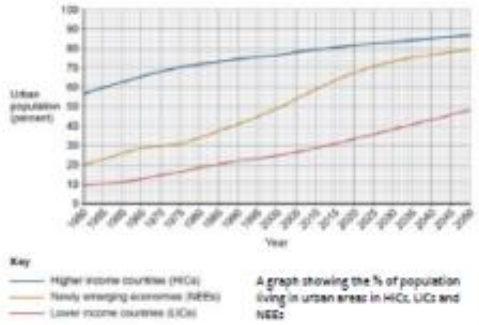
Extra reading

Key term	Definition
Economic opportunity	Chances for people to improve their standard of living through employment
Inequalities	Differences in poverty and wealth, as well as in people's wellbeing and access to things like jobs, housing, health and education
Megacity	An urban area with a total population of more than 10 million
Migration	When people move from one area to another
Natural change	The birth rate minus the death rate of a population (can be positive – natural increase; or negative – natural decrease)
Social opportunities	Changes for people to improve their quality of life. E.g. access to education and health care
Sustainable urban living	When people in cities try to have minimal impact on the environment, as well as having a strong community and fair access to jobs ad services
Urbanisation	When an increasing % of a country's population lives in towns and cities
Urban regeneration	The revival of old urban areas that are run-down
Urban sprawl	The unplanned growth of urban areas into the surrounding countryside

A growing % of the world's population lives in urban areas

Global urban trends

Around the world, more and more people are living in cities. However, rates of urbanisation vary from place to place (see graph below), particularly between HICs and LICs. This is due to factors such as migration and natural increase, which are affected by a number of variables. High rates of urbanisation have also led to the rise of megacities, particularly in LICs and NEEs (see map below)



A graph showing the % of population living in urban areas in HICs, LICs and NEEs

Factors affecting urbanisation

Migration	Natural increase
Push factors: war, drought, persecution	Birth rates are higher than death rates, although both falling due to better health care, women in education and work and expense of children
Pull factors: education, health care, jobs	

Urban growth creates opportunities and challenges in Lagos (an NEE city)

Lagos is located on the south coast of Nigeria. It is the largest city in West Africa and Africa's biggest economic centre. This high level of importance generates urban growth.

Migration: People move from rural areas of Nigeria to Lagos with the hope of finding a better life
Natural increase: Migrants are often young and so start families when in Lagos. Social conditions also contribute to the high birth rate

The growth of Lagos creates many **opportunities**

Social
People have better access to services such as health and education and more resources such as water and energy, which are more readily available

Economic
Jobs are available in industrial areas that are not an option in rural areas and generate related jobs in other employment sectors. For even the least qualified, there are jobs in the informal sector

With the increasing population, many of whom are low skilled an in poverty, urban growth can also create many **challenges**

- Much urban growth happens in slums, which generate many issues
- It is difficult to supply clean water, sanitation and energy to the urban poor, especially in slums
- The growing slums also often lack health and education services
- Unemployment and crime are often related to poor areas
- A lack of waste disposal creates environmental issues, especially regarding water quality. Poor quality transport systems that cannot cope with the increased population often leads to air pollution

Urban planning can improve the quality of life of the urban poor, helping to deal with some of the challenges people face

Schemes such as the floating school in Makoko (a slum), aim to deal with some of the challenges or urban living

Urban change in London leads to opportunities and challenges

London is a hugely important global city, being the capital of the UK and one of the world's financial centres, as well as being known for its educational opportunities and job market.

This importance has led to it attracting many young migrants from around the UK, creating a youthful population as well as attracting migrants from around the world, creating a very multi-cultural city.

As London has changed (spatially and in its character), numerous **opportunities** have been created

Social and economic
Huge range of leisure opportunities
Range of employment options: retail; services; the arts; finance; IT
Chance to create new transport systems (such as CrossRail), generating jobs and income

Environmental
Opportunities for 'urban greening' as derelict spaces are regenerated

However, as London has changed, **challenges** have also arisen

Social and economic
Poorer people often end up living in the same areas, leading to inequalities and areas of urban deprivation
Environmental
As industry moves out of the city, areas become derelict and polluted
Waste disposal in a disposable society is problematic
Urban sprawl
As London spreads out into the surrounding countryside, it affects the rural-urban fringe and commuter settlements

Urban regeneration can help to tackle some of the challenges created by urban change

Stratford in East London was an area of dereliction, deprivation and inequality. The regeneration of the area for the 2012 Olympics radically transformed the area

Urban sustainability requires management of resources and transport

Features of sustainable urban living

In the Olympic Park and East Village (Stratford, East London), a number of strategies have been used to manage resources and improve urban sustainability

Water and energy is conserved in East Village accommodation through green roofs, water recycling and having an on site bio-reactor.
Waste is recycled.
The new Queen Elizabeth Olympic Park (site of 2012 London Olympics) has introduced new green space to the area.

Urban transport strategies

Traffic congestion can be reduced through urban transport strategies. This can vary from congestion charging and cycle hire schemes in London to integrated transport systems, such as the bus system in Curitiba, Brazil

GEOGRAPHY YEAR 11 TERM 1: UNIT 2:B

Key term	Definition
De-industrialisation	The decline of a country's traditional manufacturing industry
Development	The progress of a country in terms of economic growth, the use of technology and human welfare
Development gap	The difference in standards of living and wellbeing between the world's richest and poorest countries
Globalisation	The process of the world becoming more connected
Industrial structure	The relative proportion of the workforce employed in different sectors of the economy (primary, secondary, tertiary, quaternary)
Intermediate technology	The simple, easily learned and maintained technology used to serve local needs in LICs
Post-industrial economy	Where most employment in a country is now in service industries (often the case in HICs
Transnational Corporation (TNC)	A company that operates in more than one country (e.g. factories, offices). Often large, well-known brands

There are global variations in economic development and quality of life

Ways of classifying the world

Based on income: LICs/MICs/HICs
Based on employment structure: Pre-industrial/Industrial/Post-industrial
Based on how places are run: Full democracy/Authoritarian state

Ways of measuring development

There are a wide range of methods used to measure development, including both social (e.g. life expectancy) and economic (e.g. GNI) indicators. However, they all have limitations, making the measurement of development difficult

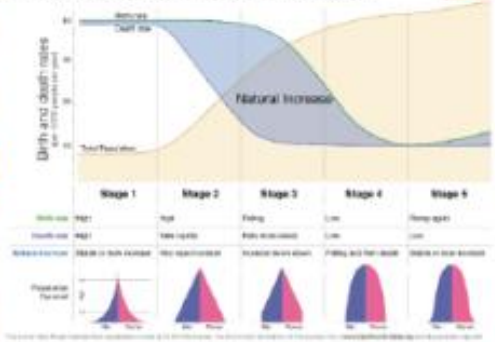
Causes of uneven development (the development gap)

Physical	Disease, natural disasters, resource distribution
Economic	Trading relationships
Historical	Colonialism, industrial revolution

Consequences of uneven development

Wealth disparities	Income differences between HICs/LICs
Health disparities	People are healthier in some places and are more prepared to deal with outbreaks
International migration	People move in search of a better life, leading to numerous consequences

The demographic transition in 5 stages



A range of strategies can be used to close the development gap. Each has their advantages and disadvantages

Investment
Industrial development and tourism
Aid
Intermediate technology
Fairtrade
Debt relief
Microfinance

Explore development issues in more detail

The role of tourism in Tunisia

Tunisia has pursued the promotion of tourism as a way of trying to boost their economy and close the development gap, hoping it will generate a positive multiplier effect. Despite some success, there are questions over the long term sustainability of this approach.

Rapid economic development in Nigeria (an NEE) is leading to significant change

Nigeria is located in West Africa, north of the Equator with an Atlantic coastline. Economically, it is one of the most important countries in Africa, having the largest population of any African country and also containing Lagos, the economic hub of Africa. Politically, it helps lead and contributes to a number of international bodies, including providing soldiers to help police other Africa conflicts. It is culturally diverse with a general north-south split between Christians and Muslims.

Because of its economic and political context, Nigeria has seen a lot of change to its industrial structure in recent years, with the growth of the secondary sector dominant. This growth in manufacturing has also stimulated wider economic growth in the country through the positive multiplier effect.

Because of its economic development, TNCs, such as Shell (petroleum products) and Unilever (consumables) have invested heavily in Nigeria, resulting in a range of impacts

Advantages for Nigeria
Provides new jobs in secondary sector
Generates economic growth in related industries
Can result in more government income for re-investment in services

Disadvantages for Nigeria
Profits can leave and go to HQ country
Top jobs are reserved for/filled by foreigners
Environmental laws often ignored

Nigeria's trading relationships with the wider world have changed. Once part of the British Empire, Nigeria is now significantly linked to China with oil flowing towards China and investment flowing into Nigeria

As an NEE, Nigeria still receives significant aid each year in a range of forms. This aid, when employed effectively, can lead to significant social change in areas like health and education. The aid comes from a range of donors including countries and charities

Economic change in the form of industrial growth and increased oil extraction and processing has also led to significant environmental change, often in a negative manner with deforestation, air pollution and oil spills all causing issues

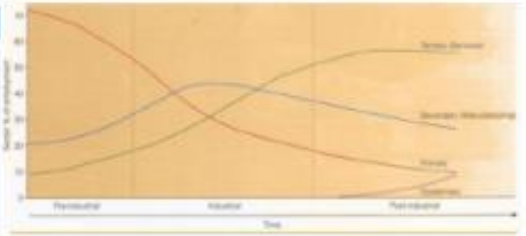
Economic development has led to positive social changes as people's quality of life has improved. HDI has gone from 0.465 to 0.505 in 8 years and other indicators such as life expectancy, infant mortality and access to safe water have also all increased as more money is invested in services.

Major changes to the UK economy impact on employment patterns and regional growth

A changing UK economy

The UK has moved towards a post-industrial economy, dominated by tertiary jobs as de-industrialisation, globalisation and government policies have affected jobs.

These changes have had an impact on the environment (e.g. de-industrialisation) with modern industries attempting to be more environmentally sustainable.



A divided UK economy

There is a North-South divide in the UK, demonstrated by inequalities across the country Strategies such as transport improvements (e.g. HS2) and regional powerhouses are attempting to close this gap.

There are also differences in the rural economies of the UK with areas of population growth experiencing different social and economic realities than areas of population decline.

A global UK economy

The UK's economy is affected by its connections to the rest of the world through:

- Trade
- Transport
- Culture
- Electronic communication
- Political links (e.g. The EU and Commonwealth)

GEOGRAPHY YEAR 11 TERM 2: UNIT 2:C

Extra reading: UK changing energy mix

Extra reading: global water security

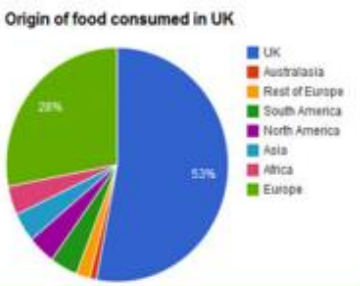
Key term	Definition
Agribusiness	Application of business skills to farming (often means large scale, mechanised farming)
Carbon footprint	A measurement of all the greenhouse gases we individually produce
Energy mix	The range of energy sources a region or country uses (both renewable and non-renewable)
Food miles	The distance covered supplying food to consumers
Fossil fuel	A natural fuel such as coal or gas that is non-renewable and produces carbon dioxide when burned
Over-abstraction	When water is being used quicker that it is being replaced
Sustainable development	Development that meets the needs of the present without limiting the ability of future generations to meet their own needs
Water insecurity	When water availability is not enough to ensure the population of an area enjoys good health, livelihood and earnings
Water stress	When the demand for water exceeds the available amount during a certain time period
Water transfer	The movement of water over large distances to help deal with water shortages

Changing resources in the UK creates opportunities and challenges

Resources in the UK are having increasing pressures put on them and so we are having to think through how to manage these resources more effectively

Food

A large proportion of the UK's food comes from abroad (see pie chart) due to the demand for cheap food and out-of-season produce. This has environmental impacts, increasing our carbon footprint due to the higher number of food miles travelled. In opposition to this, there are moves to increase our own food security by encouraging people to source food more locally and trying to increase the amount of food we produce ourselves through agribusiness.

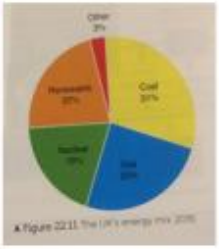


Water

Water demand in the UK is increasing as the population grows and as more water is required in agriculture, domestic situations and for industry. This puts more pressure on the quality of water, which is affected by increase levels of pollution, particularly in cities. There is also an imbalance in the UK between areas of supply and demand, requiring solutions that can move water from areas of surplus to areas of deficit.

Energy

The UK has traditionally relied upon fossil fuels to produce its electricity, but as fossil fuels become scarcer, more of our energy will need to come from renewables. The movement towards more sustainable sources of energy (and the continued effort to extract fossil fuels) brings with it a range of economic and environmental issues, which can be controversial.



Food, water and energy are fundamental to human development

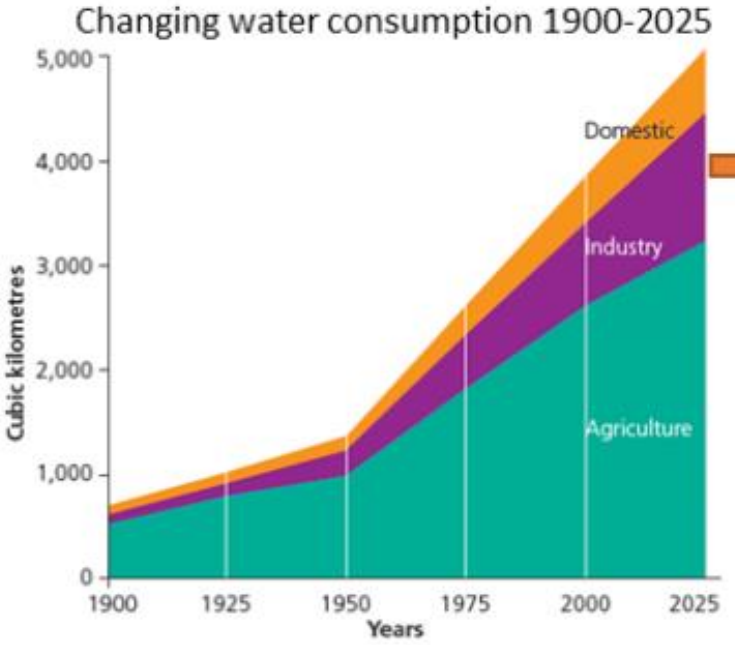
Resources are very important for human well-being

Food, water and energy are all linked with the economic and social well-being of people as they have an impact on important aspects like health.

Global inequalities

There are huge differences around the world regarding the supply and consumption of different resources. Although the supply can vary based upon many factors, consumption patterns are often linked to wealth.

Water demand is rising, but supply is insecure, leading to conflict



Reasons for water insecurity

Rising population requires greater supply
Rising wealth leads to greater supply
Aspects such as water pollution, local climate, over-abstraction, a lack of infrastructure, geology and poverty all mean that the supply of water can be limited, meaning there is not enough to meet local demands.

Impacts of water insecurity

When there is not enough water, it can lead to issues such as disease, lower food production and industrial output and the potential for conflict.

Different strategies can be used to increase water supplies

Water supply can be increased through large scale projects

Strategies to increase water supply	Dams and reservoirs Water transfer Desalination

Water transfer in China: a large scale project to move water from the Yangtze River in the south towards the more populated north

Advantages	Disadvantages
Reliable water supply for the north Water for irrigation Water for industrial growth	Cost ($62 billion) People displaced Ecosystem destruction Water decrease in south

Water supply can be managed more sustainably , particularly at the local scale

Strategies to improve water sustainability	Water conservation Groundwater management Recycling 'Grey' water

Sustainably increasing water in Hitosa, Ethiopia

Intermediate technology has been used in villages in the water stressed area of Hitosa in Ethiopia to improve access to safe water supplies. Although not perfect, the scheme has hugely improved people's quality of life in the area and the scheme has been sustainable.