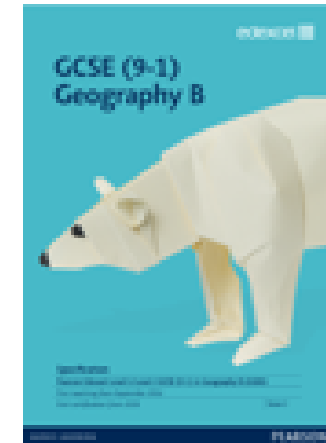


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Geography GCSE 9-1 Edexcel B Investigating Geographical Issues

In the summer of this year you will sit 3 papers for your GCSE Geography.



Paper 1: Global Geographical Issues (37.5% of GCSE)

1 hour 30 minutes – 94 marks

- Topic 1: Hazardous Earth
- Topic 2: Development Dynamics
- Topic 3: Challenges of an urbanising world
-

Paper 2: UK Geographical Issues (37.5%)

1 hour 30 minutes – 94 marks

- Topic 4: UK physical landscape (Coasts/rivers)
- Topic 5: UK human landscape
- Topic 6: Geographical investigation (human and physical fieldwork)
-

Paper 3: People and Environmental Issues (Decision making paper)

1 hour 30 minutes – 64 marks

- Topic 7: People and the biosphere
- Topic 8: Forests under threat
- Topic 9: Consuming energy resources

You will be assessed against 4 objectives. In brief these include:

AO1: Knowledge (20-30% of GCSE)

Recall, select and demonstrate knowledge of:

- Locations
- Scale

AO2: Understanding (20-30% of GCSE)

Show understanding of:

- Changes over time in places and processes
- Interrelationships between people and environment
- Interconnections between places and different contexts

AO3: Skills (20-30% of GCSE)

Know about, select, adapt and use a variety of skills, techniques and technologies:

- Observe, collect, organise, and present data
- Investigate, analyse, and interpret data
- Explain and communicate geographical evidence, ideas and questions

AO4: Application (30-40% of GCSE)

Apply geographical knowledge, understanding and skills in relation to:

- Questions and issues about familiar places (e.g. places studied within the GCSE course)
- Questions and issues about unfamiliar places (e.g. places not specified in the GCSE course)
- Questions and issues arising directly from real fieldwork contexts

Breakdown of Assessment Objectives and Exam Papers

This is a breakdown to help you understand your GCSE Geography better.

Here you will identify total marks, percentages and time for each exam paper.

Command word	Typical no. of marks	What the command word means	Example of a question
Identify/State/Name	1	Find (e.g. on a photo), or give a simple word or statement	Identify the landform in the photo
Define	1	Give a clear meaning	Define the term 'fertility rate'
Calculate	1 or 2	Work out	Calculate the mean depth of the river shown in Figure 2
Label	1 or 2	Print the name of, or write, on a map or diagram	Label two features of the cliff in Figure 4
Draw	1, 2 or 3	As in sketch or draw a line	Draw a line to complete the graph in Figure 3
Compare	2 or 4	Identify similarities or differences	<i>(referring to a graph)</i> Compare the rate of population growth in city X with city Y.
Describe	2 or 4	Say what something is like; identify trends (e.g. on a graph)	Describe the trend shown in Figure 1
Explain	2, 4, 6 or even 9	Give reasons why something happens	Using examples, explain the rapid growth of a mega-city you have studied
Suggest	2 or 4	In an unfamiliar situation (e.g. a photo or graph), explain how or why something might occur, with a reason	Suggest reasons for the increase shown in the graph
Examine	6 or 9	Give reasons for, but also begin to judge which of the reasons is more important	Examine the reasons for the growth of one mega-city you have studied
To what extent ...	6 or 9	Show how far you agree or disagree with a statement	To what extent do mega-cities offer a better lifestyle for migrants than the rural areas they have left?
Assess	6 or 9	Weigh up which is most/least important	Assess the need for coastal management along a stretch of coast you have studied
Evaluate	6 or 9	Make judgements about which is most or least effective	Evaluate the methods used in collecting data in your fieldwork
Discuss	6 or 9	Give an overview of a situation or a topic where there are different approaches or viewpoints	Discuss the ways in which climate change could be managed
Justify	6 or 9	Give reasons why you support a particular decision or opinion	Justify the reasons for your choice

Understanding 'command words'

Most people miss out on marks because they did not understand what the question was asking them to do.

Make sure you know what your command words mean. These are the words that tell you what to do.

What skills will I be assessed on?

Familiarise yourself with each skill. Identify your strengths and weaknesses and focus on improving those with exam practice.

Mathematics and Statistics Skills

These skills are taken from the document Geography GCSE subject content published by the Department for Education (DfE) April 2014. These skills may be assessed across any of the examined components. Some mathematics and statistics skills are specific to particular subject content; these are indicated in the 'integrated skills' sections within the topics throughout the specification.

Cartographic skills:

- use and understand gradient, contour and spot height on OS maps and other isoline maps
- interpret cross sections and transects
- use and understand coordinates, scale and distance
- describe and interpret geo-spatial data presented in a GIS framework

Graphical skills:

- select and construct appropriate graphs and charts to present data, using appropriate scales and including bar charts, pie charts, pictograms, line charts, histograms with equal class intervals
- interpret and extract information from different types of graphs and charts including any of the above and others relevant to the topic
- interpret population pyramids, choropleth maps and flow-line maps

Numerical skills:

- demonstrate an understanding of number, area and scale and the quantitative relationships between units
- design fieldwork data collection sheets and collect data with an understanding of accuracy, sample size and procedures, control groups and reliability
- understand and correctly use proportion and ratio, magnitude and frequency
- draw informed conclusions from numerical data

Statistical skills:

- use appropriate measures of central tendency, spread and cumulative frequency (median, mean, range, quartiles and inter-quartile range, mode and modal class)
- calculate percentage increase or decrease and understand the use of percentiles
- describe relationships in bivariate data: sketch trend lines through scatter plots; draw estimated lines of best fit; make predictions; interpolate and extrapolate trends
- be able to identify weaknesses in selective statistical presentation of data

What skills will I be assessed on?

Familiarise yourself with each skill. Identify your strengths and weaknesses and focus on improving those with exam practice.

Geographical skills

Students are required to develop a range of geographical skills throughout their course of study. These skills may be assessed across any of the examined components. The full list of geographical skills is given below. Some geographical skills are specific to particular subject content; these are indicated in the 'integrated skills' sections within the topics throughout the specification.

Atlas and map skills:

- recognise and describe distributions and patterns of both human and physical features at a range of scales using a variety of maps and atlases
- draw, label, annotate, understand and interpret sketch maps
- recognise and describe patterns of vegetation, land use and communications infrastructure, as well as other patterns of human and physical landscapes
- describe and identify the site, situation and shape of settlements

Graphical skills:

- label and annotate and interpret different diagrams, maps, graphs, sketches and photographs
- use and interpret aerial, oblique, ground and satellite photographs from a range of different landscapes
- use maps in association with photographs and sketches and understand links to directions

Data and information research skills:

- use online census sources to obtain population and local geo-demographic information

Investigative skills:

- identify questions or issues for investigation, develop a hypothesis and/or key questions
- consider appropriate sampling procedures (systematic vs random vs stratified) and sample size
- consider health and safety and undertake risk assessment
- select data collection methods and equipment to ensure accuracy and reliability, develop recording sheets for measurements and observation
- use of ICT to manage, collate, process and present information, use of hand-drawn graphical skills to present information in a suitable way
- write descriptively, analytically and critically about findings
- develop extended written arguments, drawing well evidenced and informed conclusions about geographical questions and issues.



How to revise Geography

1. Get organised

Make sure you know what topics you are being tested on in which paper. Use your 'topic checklists' to organise your thoughts and revision material



3. Revision cards

Condense your notes and information onto revision cards. Use different coloured cards to represent each topic or a different case study.



5. Use Seneca Classroom

Use our Seneca Classroom to retrieve revision notes for more information. Retrieve your class code from your tutor.

7. Memorise!

Now you've condensed your class notes you need to memorise them. Good memorisation, in my experience comes down to two things:

- Repetition
- Using the information in different formats.

I'd advise you to do a combination of the following:

- Read index cards out loud, cover and test yourself.
- Get other people to test you.
- Act it out.
- Make up songs or rhymes
- Whatever else works for you...

2. Make sure you understand

The first step in remembering anything is understanding it. These tips will help you with this:

- Make sure you've seen a map of the place. In this day and age this is easy with google maps, google earth and google streetview. All of these things can help you understand both the 2-D and 3-D landscape of the case study. Find newspaper articles and pictures to give you some background and also help you to visual the place. Watch videos if they exist. For some case studies there are amazing clips of films (Kibera, the Nairobi shanty town at the beginning of The Constant Gardner springs to mind). For others there will be great video clips on YouTube to help you. If you can, visit the place. Nothing is as powerful as this in fully understanding a place.

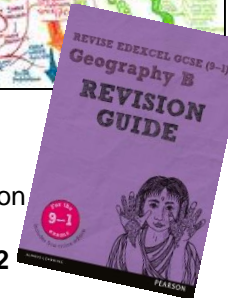
4. Mind maps

Organise your case studies or topic notes onto mind maps. Aim for one topic per A3 page



6. Revision books

Purchase a revision book, specifically the 'Revise Edexcel GCSE (9-1) Geography B Revision Guide' published by Pearson around £6. ISBN 9781292133782



8. Exam command words

Understand the command words used in exams. What is the difference between a 'describe' and 'explain' question?

9. Past papers

Make sure you're exam ready by practising to apply your knowledge to past questions

10. Analysing mark schemes

Analysing the mark schemes to understand what the examiners are expecting you to do.

Useful websites and links

Edexcel GCSE Geography B

Use this websites to help you with keywords, case studies and more!

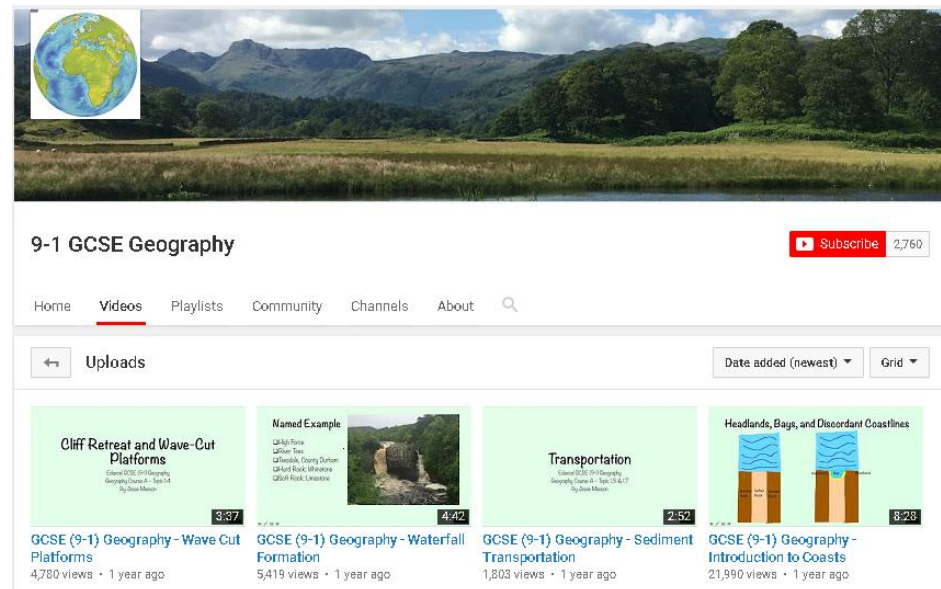
<http://www.coolgeography.co.uk/>

<https://www.bbc.com/bitesize/subjects>

<http://www.gcsegeography.co.uk/people-and-the-planet/population-dynamics>

www.pearsonschools.co.uk/revise

YouTube Channels: 9-1 GCSE Geography / Geographer Online

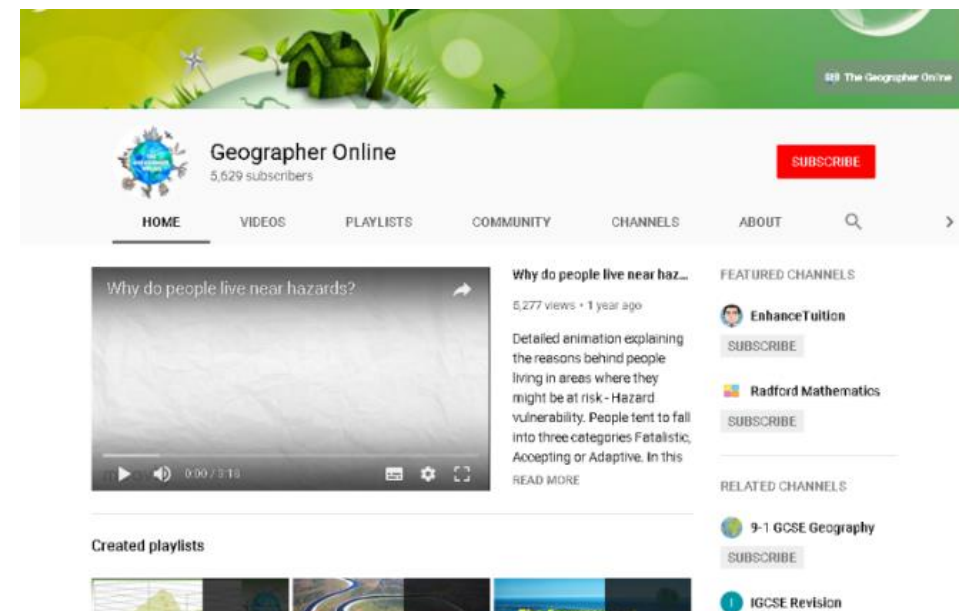


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Detailed animation explaining the reasons behind people living in areas where they might be at risk - Hazard vulnerability. People tend to fall into three categories Fatalistic, Accepting or Adaptive. In this
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1. Asthenosphere	the upper part of the Earth's mantle, where the rocks are more fluid
2. Collision plate boundary	a tectonic margin at which two continental plates come together
3. Conservative plate boundary	where two tectonic plates slide past each other
4. Constructive plate boundary	tectonic plate margin where rising magma adds new material to the diverging plates
5. Continental crust	the part of the crust dominated by less dense granitic rocks
6. Convection currents	circulating movements of magma in the mantle caused by heat from the core
7. Core	the central part of the Earth, consisting of a solid inner core and a more fluid outer core, and mostly composed of iron and nickel
8. Destructive plate boundary	tectonic plate margins where oceanic plate is subducted
9. Evacuation	the removal of people from an area, generally in attempt to avoid a threatened disaster (or escape from an actual one)
10. Long-term planning	planning that looks beyond immediate costs and benefits by exploring impacts in the future
11. Magnitude	the size of something
12. Oceanic Crust	the part of the crust dominated by denser basaltic rocks
13. Plate margin	the boundary between two tectonic plates
14. Prediction	forecasting future changes
15. Preparation	the process of of getting ready for an event
16. Response	the way in which people react to a situation
17. Short-term emergency relief	help and aid provided to an area to prevent immediate loss of life because of shortages of basics, such as water, food and shelter
18. Tectonic hazards	threats posed by earthquakes, volcanoes and other events triggered by crustal processes

For more Topical Keywords go to:

<https://www.gcsegeography.co.uk/keywords>

The Challenges of an Urban World Case Studies

Topic	Case Study 1	Case Study 2
LEDC City Challenges	<p>Mumbai, India</p> <p>Housing</p> <ul style="list-style-type: none"> • 54% of people live in slums • The largest slum, Dharavi, has 800,000 people living in it • On average, people in Mumbai only have 4.5m² of living space <p>Transport</p> <ul style="list-style-type: none"> • Only 2% of people own a car • 55% of people walk to work • Despite this, Mumbai is still one of the most congested cities on earth • 3,000 people die crossing railway tracks or falling off packed commuter trains each year <p>Water supply & pollution</p> <ul style="list-style-type: none"> • Mumbai suffers from severe water shortages • 650 million litres of water is lost every day due to old, leaking pipes • Some slum dwellers spend up to 20% of their money on water <p>Informal Economy</p> <ul style="list-style-type: none"> • Employs 68% of Mumbai's workforce • Large majority of people working in the informal sector come from slums across the city <p>Pollution</p> <ul style="list-style-type: none"> • Levels of PM10 (a particulate matter which can cause asthma, bronchitis and even cancer) are around 132 micrograms per m³ are dangerously high <ul style="list-style-type: none"> ○ The recommended safe limit for PM10 is 20 micrograms per m³ 	<p>Mexico City, Mexico</p> <p>Air Pollution</p> <ul style="list-style-type: none"> • In 1992, the UN described Mexico City as the most polluted city on the planet • In 1998, the UN then named Mexico City as 'the most dangerous city in the world for young children' • The air pollution caused over 1,000 deaths and 35,000 hospital admissions in 1998 • The main sources of air pollution were from vehicle exhausts, emissions from factories and power stations <p>Water Pollution</p> <ul style="list-style-type: none"> • Growing population has led to over-exploitation of the underground water supplies • Mexico city pumps water up from the 514 underground aquifers <ul style="list-style-type: none"> ○ The land surface of the city is now sinking at the rate of 9cm per year, causing water and gas pipes to fracture • Increasing use of water has put more pressure on sewage-treatment plants which cannot cope with the volume <p>Waste Disposal</p> <ul style="list-style-type: none"> • Mexico City produces 13,000 tonnes of rubbish each day • Only 9,000 tonnes can be removed by the current waste collection system • Excess rubbish being dumped on open ground, waterways, streets and drains causing more problems by clogging up the system • In 2012, the biggest waste dump in the city was closed leading to a massive rubbish mountain and neighbouring towns refused to take their waste

For more case study examples go to:

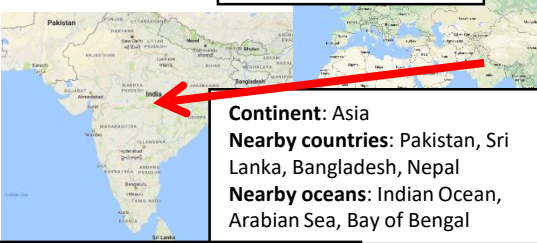
<https://www.gcsegeography.co.uk/case-studies>

On the next few pages you will find topic summaries. Use these pages to help support you complete your revision worksheets.

Development Dynamics

Case Study: India

Where is India located?



Continent: Asia
Nearby countries: Pakistan, Sri Lanka, Bangladesh, Nepal
Nearby oceans: Indian Ocean, Arabian Sea, Bay of Bengal

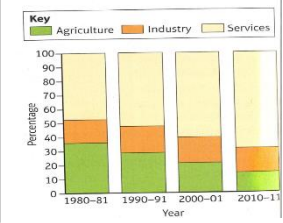
India is the 7th largest country in the world by land mass.

Think like a geographer: How does India's location promote economic development?

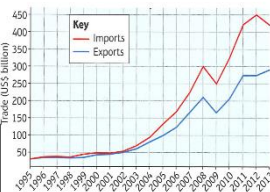
- What other major economies are nearby? China! Now a major economy and superpower. India and China have existing political tensions. India is a former British colony.
- Is India landlocked? Which countries are easily accessed? India is not landlocked, meaning it can easily transport goods internationally by boat. India aims to become a major transport hub within south east Asia.
- Is India a large or small country? What about its population? India is a large country, with good access to resources such as coal. India's population is rapidly growing, totals 1.324 billion (2016). This makes India the second most populous country in the world.

India's Economic Development

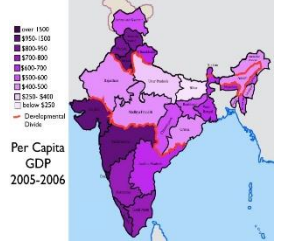
India has undergone rapid development in recent decades which has resulted in India now being identified as an **emerging** country, rather than a **developing** country.



The general trend in employment has been a loss of primary employment, with an expansion of the services sector.



India's imports and exports have grown, as India buys and sells more products internationally. India's total imports have grown by almost 1500% since 1980.




India's development has been unequal. and has led to contrasting development levels. Compare the dark regions (higher GDP) to the lighter colours (lower GDP).

Geopolitics

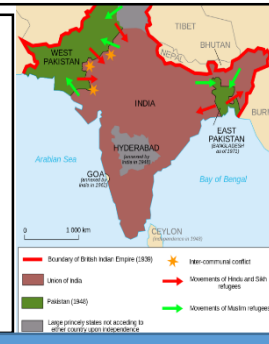
Definition: How are a countries world politics influenced by geographical factors.

What controls India's geopolitics?: It's history, geography, international context and domestic policies



Globally: India is a member of the G20. The G20 are the twenty most developed economies in the world. These countries meet every year, and discuss world trade issues.

In Asia: The partitioning of India and Pakistan in 1947 was accompanied with riots and mass casualties. The effects of this are still felt today: The relationship between India and Pakistan is still far from healthy Both countries are nuclear armed.



Impact of Development

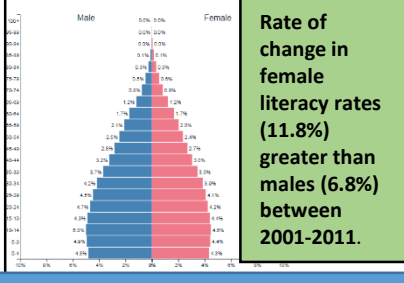
Economic Development on Different Age and Gender Groups

The Elderly (50+): Access to better healthcare, which may prolong their life. Do not possess necessary skills so may lag behind. Socially, changes to the Indian society may be difficult to adapt to.

Females: The BIGGEST winners: Emancipation of women = equal access to a high quality education and healthcare system, which enables them access to highly skilled jobs that are well paid.

Indicator	2001	2011
Literacy rate (%)	64.8	74.0
Male literacy rate (%)	75.3	82.1
Female literacy rate (%)	53.7	65.5

Young adults: Access to universities, receiving a world class education = compete for the highest skilled and paid jobs = more equal society.



SWOT Analysis

Strengths

Weaknesses

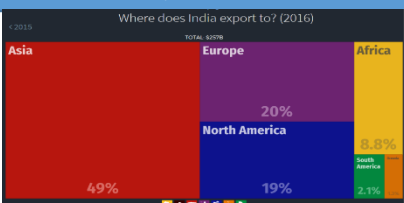
Opportunities

Threats

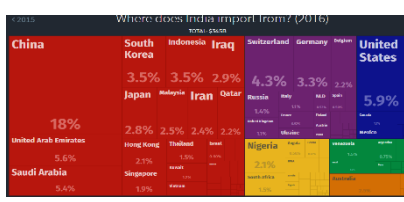
Development Indicator	Social, Economic or Environmental	Value
HDI (Human Development Index)	Social, Economic and Environmental	0.621 (131 st in the world)
Life Expectancy	Social	68 years
Adult Literacy	Social	74%
Infant Mortality	Social	34 per 1000 birth
GDP (Gross domestic Product per capita)	Economic	\$1,709

Who/What does India trade with?

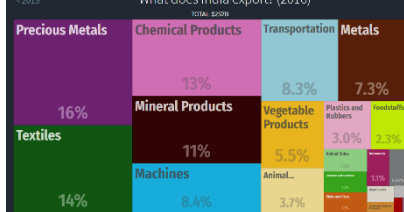
Export: Goods sold to other countries




Import: Goods bought from other countries



The types of products India makes and sells



The rise of the call centre



A large transnational corporation (TNC), with headquarters in the UK.

Aviva have call centres in Perth (Australia), Norwich (UK) and Sheffield (UK).

Aviva is the UK's largest insurance company

Bangalore, India.

Why India?

- Wages much lower (India = £1,200, UK = £12,000)
- The cost of operation is lower by up to 60%.
- Improvements in education levels.
- Fewer safety restrictions = longer hours

Impact on the environment

Environment: The atmosphere (pollution), the green space, wildlife, rivers and water systems etc.

India is ranked as the 155th country out of 177 in a global ranking on environmental quality. This costs India around \$80 billion per year (5.7% of its total economy)

The effects

Solid Waste Pollution:

- Indian cities generate 100 million tonnes of waste each year.
- 40% of urban waste in India is just simply not collected, and is allowed to rot on the streets.

Water Pollution:

- India has the capacity the deal with just 1/6 of its sanitation produced.
- Over 100 Indian cities directly dump untreated sewage into the Ganges.

Air Pollution:

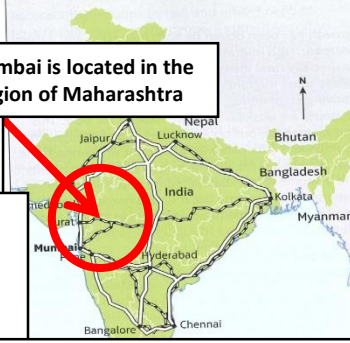
- Major issue in India, with wood burning and vehicle emissions behind the primary cause.
- Natural methods of fuel production (wood burning) constitutes 90% of rural energy, and 24% of urban energy. These biomass house burners are the leading cause of greenhouse gas emissions.

Challenges of an Urbanising World

Case Study: Mumbai

Mumbai has a total population of 18 million people! Compare this to Birmingham, which has population of just 1 million!

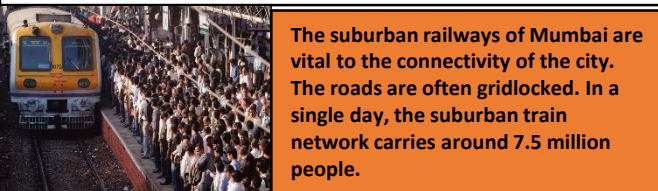
Mumbai is located in the region of Maharashtra



Notice how well connected Mumbai is to other areas in India. This allows for the easy flow of resources and people into, and out of Mumbai.

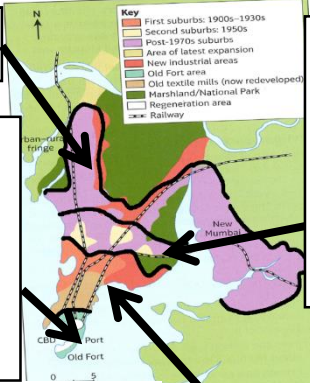
Think like a geographer: How does Mumbai's location and connectivity promote economic development?

- Access to the ocean: Natural deep harbour, easily accessible for modern container ships, promoting exports and imports.
- Mumbai's location in India: Western coastline of India. Quick access via boat or plane to the major emerging economies of the middle east.
- So how important is Mumbai's location? 25% of all international trade within India is handled by the dock in Mumbai.



The structure of Mumbai

Does it fit with the Burgess Model?



Outer Suburbs

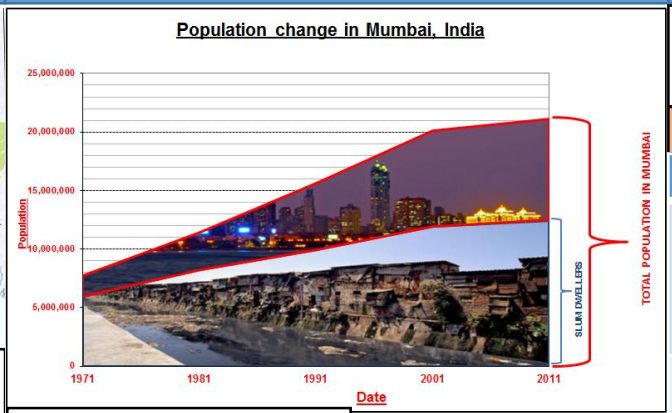
Inner Suburbs: First area developed to house workers. Large percentage in poverty and in slum housing. This does not match Burgess model.

Inner City: Major contrasts in development levels. Some very expensive, some old slum housing (25,000 people)

CBD: Tip of Mumbai, major historic centre. Bank of India and Walt Disney located here. Large port shipping internationally.

Key: Central business district (CBD), Inner city, Inner suburbs, Outer suburbs

Rapid Population Growth



Convinces a person to move away from their rural home

Attracts a person to Mumbai

Push factors	Pull factors
Difficult rural conditions making it harder to make a living from farming. Population increase has also meant lower farming wages	Mumbai's rapid economic growth has created a huge range of jobs, from the most highly skilled to small-scale service jobs and low-skilled manual labour.
There are few services in rural India - education and health care is often basic, there are few leisure or entertainment facilities	Education opportunities are much better in Mumbai; there is a much bigger range of health care options and lots to see and do
New farming techniques in India have meant fewer jobs in farming	Wages in Mumbai are much higher, even for low-skilled jobs, than they are in the countryside


The Challenges of Living in Mumbai

Traffic Congestion: Rapid rise to 1.8 million privately owned cars in Mumbai as people gain wealth and cars become affordable.

Slum settlements: Slums = inner city/suburbs, making travel to work cheap. Slums are not officially recognised. In Dharavi, water is only available from a standpipe for a 2 hour period each day.

Working Conditions: Most work in the 'informal' sector (unregulated), which means low pay, long working hours and dangerous working conditions. These conditions exist due to extreme poverty, and the need for any work to earn a wage.

Rapid Expansion: Major strain on infrastructure and services. Ensuring a reliable electric supply and adequate water supplies is difficult. No waste collection = 800 million tonnes of untreated sewage dumped Mithi River.



Contrasting Qualities of Life (QOL)

Mumbai is a globally important megacity, but falls short in terms of quality of life. Mumbai has a poor level of infrastructure when compared with megacities in other emerging Asian economies.

Why is QOL so low in Mumbai?

Factor	Effect
Inefficient Government (political, economic)	The government is ineffective. Housing projects take a long time to develop, with a lack of sanitation systems being a major hold up.
Rent Controlled (economic)	Limits put on how much rent can cost. This discourages the property owner from investing in the property as they cannot make as much profit.
Corruption (economic, social)	Housing that is redeveloped is often sold to developers that build expensive properties, far out of reach of most local Mumbai residents.

Top Down Development

The Mumbai Monorail

Definition = Large, expensive infrastructure projects often funded by governments or FDI.




Why a monorail?

- Monorails are a form of public transport, reducing the congestion of cars.
- Green transport - Reduction in total emissions due to fewer cars generating atmospheric pollutants.

In 2005, the Mumbai government agreed to invest £310 million pound in a 9km stretch of Monorail.

Tickets are cheap (10p per person), but the route DOES NOT travel through the main area of the city. As a result, only 15,000 journeys are made each day, most of these being tourists!!!

Conclusion: The monorail is arguably an attention grabbing prestige project, designed to impress other countries by showing how developed and futuristic Mumbai is. This is FAR from the truth!



Are they the solution to Mumbai's development crisis?

Bottom Up Development

SPARC Community Toilets

Definition: The opposite of top-down. No government involvement, these are strategies designed by local communities to improve the QOL. These organisations are often NGOs.



Why Toilets?

- Improved sanitation. Disease and poor health are often a result of poor sanitation and raw sewage.
- Access to clean water for washing purposes - again improving healthcare and lowering the risk of disease.

Access to clean toilets that are connected to the cities sewage network

SPARC toilet blocks offer:

- Electrical lighting making them safe for night time use.
- Separate toilets for children to use, ensure privacy and safety



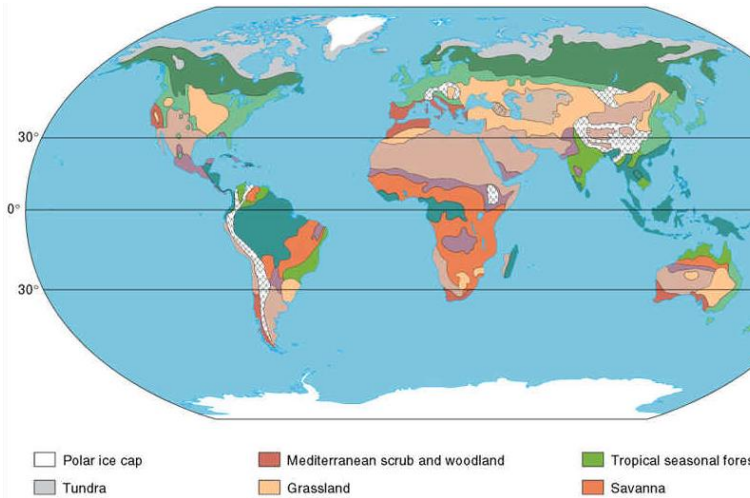
A bottom up development encourages the local community to become involved in the project. You could argue though that this is a job that the Mumbai government should be addressing, and NOT local

SWOT Analysis of Mumbai

Strengths	Opportunities

Weaknesses	Targets

Distribution of biomes



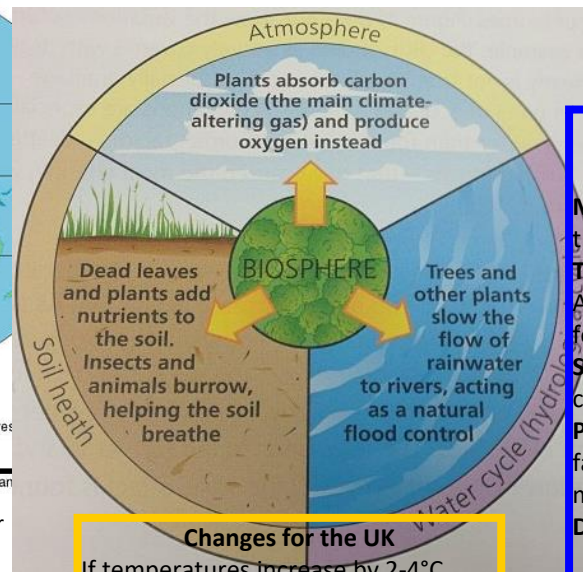
Factors affecting biomes

The biosphere is influenced by the atmosphere (air), hydrosphere (water and lithosphere (rocks and soils)). Other local factors that influence biomes include –

- Global factors:** precipitation, temperature, latitude, distance inland
- Local factors:** altitude, geology, soils, human interference

Battle of the Biosphere

The biosphere has a life support system



Changes for the UK

If temperatures increase by 2-4°C

1. Changed growing season
2. New marine life
3. Moving tree line

Keywords:

Degradation: the social and economic and environmental decline of an area.

Conservation: managing the environment in order to preserve it or restore it

How have humans affected the biosphere?

Case study: Amazon Rainforest

Mining: The Grande Carajas development bought iron mines, roads built to transport resources

Timber: Commercial clearance of tropical hardwood
 Agricultural land: landless farmers migrate to Amazonia and cut down forest for firewood and to grow crops

Soya craze: clear land to grow soya beans to sell or to feed cattle

People pressure: Brazil increasing population growth, more land is needed for farming and housing 20 million have migrated towards the Amazon

Deforestation: more CO₂ in the atmosphere

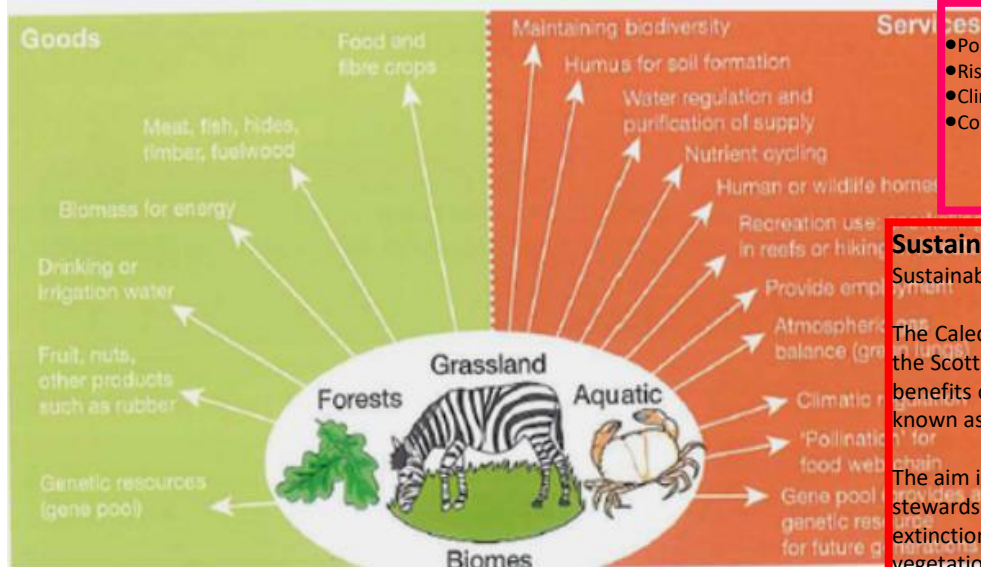
Biosphere conservation/management

Ramsar Convention on Wetlands: 2060 wetlands have special protection

CITES: penalties for poaching endangered animals

National Parks: protects 13% of the land, globally overseen by the UN

Goods & Services the Biosphere can provide for us



Challenges to sustainability

- Population increase
- Rising resource consumption
- Climate change: increase in evaporation and precipitation rates
- Conflicts with different stakeholders of biomes e.g. Local people, government, businesses

Sustainable management

Sustainable management as worked well in the Caledonian Forest, Scotland

The Caledonian Forest is an important biological resource. The forest is an important environmental inheritance for people living in the Scottish Highlands. The European Union has provided funding for the restoration of this internationally important habitat for the benefits of future generations. One of the objectives is to bring back lost animal habitats and populations within a part of the forest known as Glen Affric.

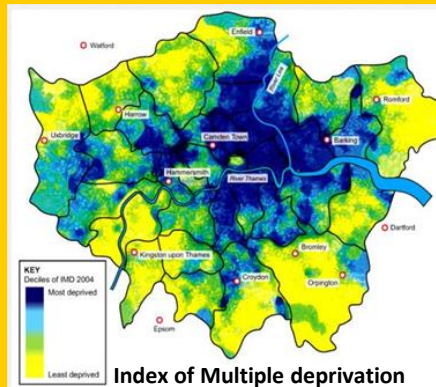
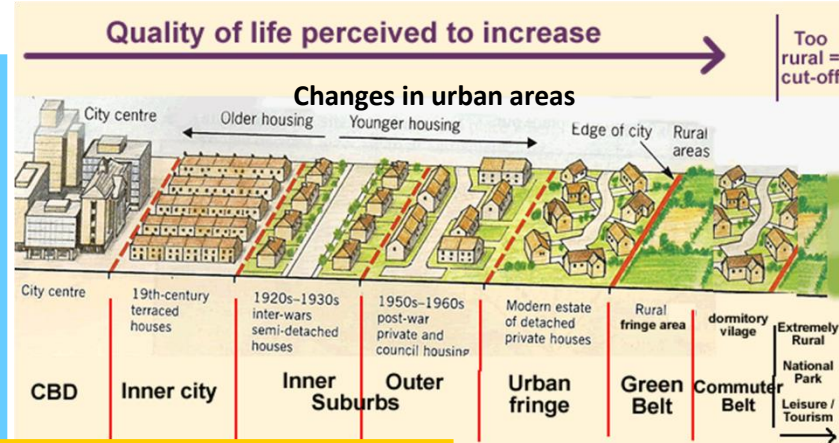
The aim is to restore biodiversity to its natural level by adopting a countryside management strategy known as environmental stewardship. One of the first decisions taken was to reintroduce wild boar to Glen Affric, a species that has been hunted to extinction over the years. Wild boars feed on all sorts of forest floor organisms (such as fungi and insects). They disturb forest floor vegetation in ways that can aid the growth of trees. Forest managers describe the boars as a very useful ground disturbance force.

There are similar ideas to reintroduce other lost animals in some Scottish forests, including wolves, lynx and brown bears. These are all regarded as dangerous animals by the public, which makes the idea highly controversial.

UK Urban change in the last 50 years

- 1. Economic**
Deindustrialisation: closure of large manufacturing industries e.g. London Docklands
 Growth of **tertiary** and **quaternary industries** :London Docklands 1980s
Wealth gap: widened leaving pockets of areas deprived many inner city and rural areas.
- 2. Political**
 National government policies
 1980s **Urban development Corporations** ,
Enterprise zones e.g London Docklands
- 3. Social**
 Growth of leisure and recreational facilities
 Higher incomes and better transport-move to build housing, work , leisure facilities on rural-urban fringe
Counter urbanisation : people moving to rural areas
- 4. Demographic (population)**
 Population growth has meant more housing, services and businesses needed
Internal migration– people moving from places with fewer jobs e.g. Remote highland areas to where there are more job opportunities

Changing Settlements in the UK



The Index of Multiple deprivation considers

- Housing
- Jobs
- Education
- Income
- Services e.g shops

Case studies

Canning Town Vs Richmond Upon Thames
Exam Question: Using named examples, **describe** how residential areas of a city vary (6)
Explain why some areas have experienced areas of multiple deprivation (6)

Impact of housing demand in an urban area
Case study: Leeds

- **Redevelopment** of the city centre , new space for offices and shops
- **Good communications** links: M62, M11 , rail and Bradford Leeds airport
- **An educated labour force**
- **Three universities** (student accommodation needed)
- Its status as a **core** area for northern England
- The city centre has a **financial, shopping and entertainment quarter**

The impacts of the housing demand

Economic	Social	Environmental
Rapid economic growth has led to investment	More young people: for careers and nightlife	Brownfield sites redeveloped on. Warehouses converted into living space close to the R.Aire
More businesses in new redevelopments in the city centre	Increase of students in areas such as (Headingley)	Rapid growth has put pressure on green spaces
'Barcelona of the North '	19 th Cent homes have been converted into student flats	Pressure to build around scenic areas such as Roundhay park
1988-1995: Leeds Development Corporation spent £72M building new shops/businesses 1995-2010: £6.7B on construction schemes		

Contrasting rural areas : QUALITY of LIFE

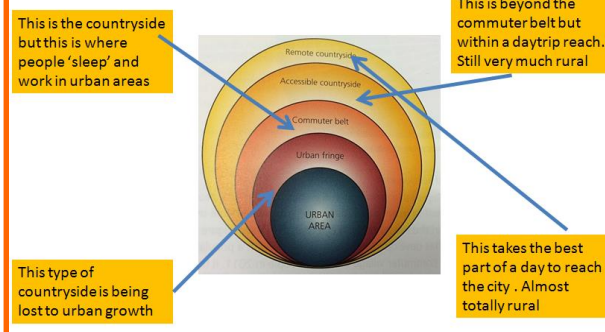
Scottish Highlands

Unemployment is low but available jobs are mainly in the primary sector
 The remoteness and relief of the land means that there are few industries and businesses
 Economy relies on agriculture and tourism
 Declining and aging population
 Access to beautiful countryside

East Anglia

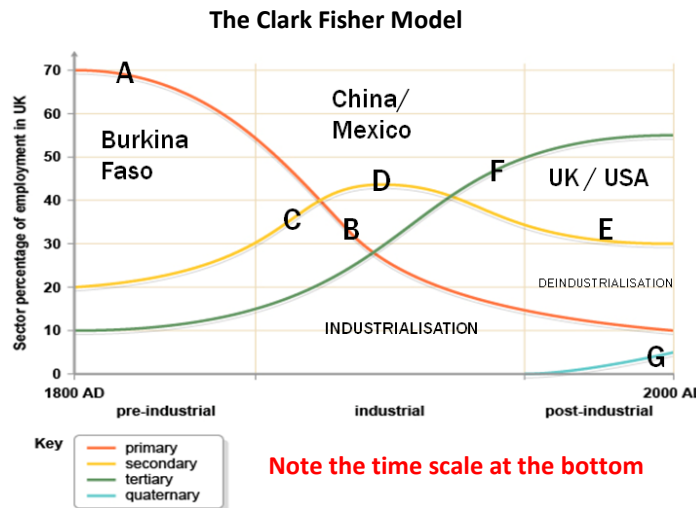
Many jobs are seasonal e.g. Fruit picking
 Life expectancy is higher than national average
 Pleasant climate
 Most residents can commute to London and Cambridge
 Many coastal areas are in decline (WOTN)
 Varied employment

Changes in the UK rural areas in the last 50 years



Commuter Villages

Where: Outside the URBAN FRINGE close to towns and cities
Population: people moved from URBAN areas , YOUNG families
Benefits: improved TRANSPORT links make it easier to travel jobs in the CITY/TOWN
Disadvantages : decline in services because people use services near work
Retirement communities
Where: mainly COASTAL areas
Population: large % of older people due to older people migrating in and younger people leaving
Why: longer life expectancy want to live in quiet attractive places
Benefits: cheaper housing , specialised services as towns have adapted to the aging population



- A:** Most people live off the land and work in the primary sector
- C:** Country increases wealth and factories are built, secondary jobs increase
- E:** Many factory workers lose their jobs
- G:** New jobs in hi tech are created due to countries wealth, increasing wealth further

- B:** Primary sector continues to decline as not enough money in this type of work
- D:** Country is manufacturing many of the world's goods as secondary jobs peak
- F:** Tertiary jobs increase as services

LICs/LEDCs: Mainly work in the **Primary sector**
As a country gets wealthier

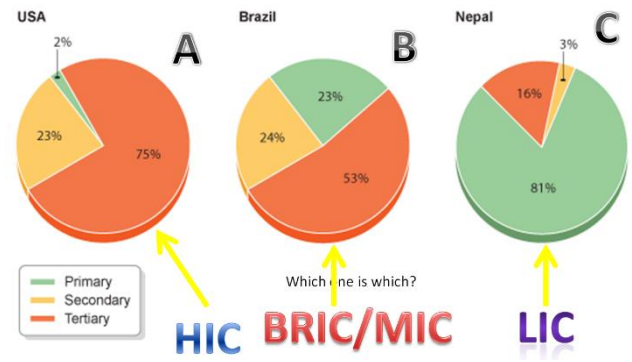
HICs/MEDCs: Mainly work in the **tertiary and quaternary** sector

Globalisation

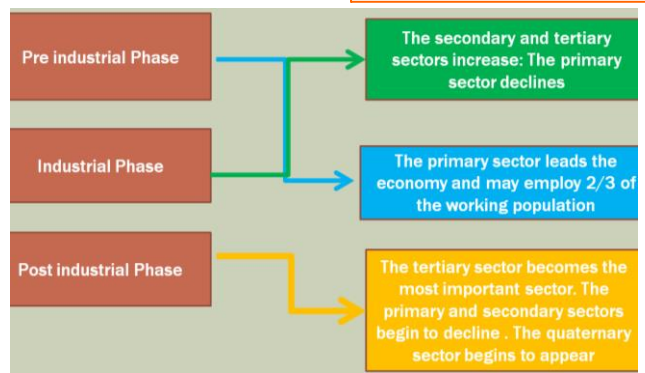
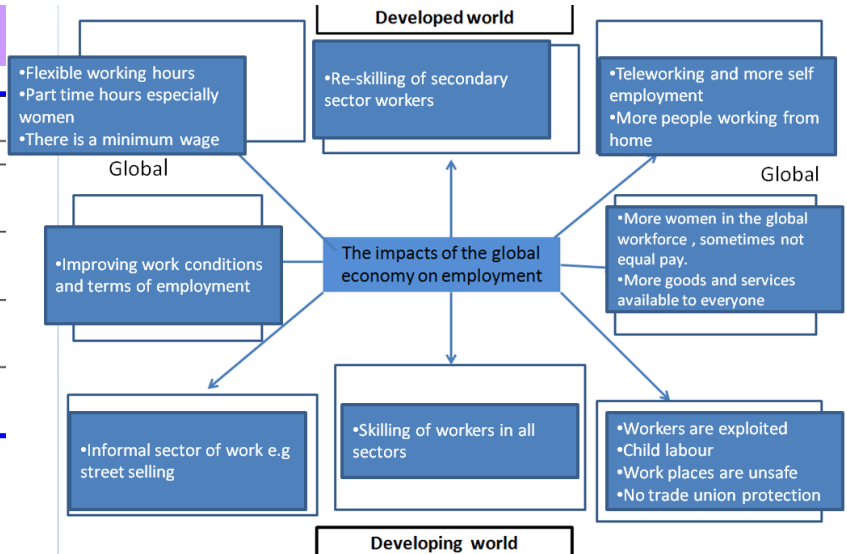
1. The Four Types Of Industry

Name	Definition	Examples
Primary	Extracting raw materials from the earth or sea	Mining, farming, fishing
Secondary	Manufacturing raw materials into a product	Car assembly, furniture making
Tertiary	Providing a service	Teacher, doctor, train driver
Quaternary	Employment that involves innovation and technology	Robotics, pharma, telecommunications

EMPLOYMENT STRUCTURES



IMF	Organisation of 188 countries who work to promote financial cooperation between countries to reduce poverty. This is normally in through the promotion of trade and high employment
UN	Known as the 'Guardian of international peace, security and human rights'. It promotes the development of poorer nations through work with the IMF and World Bank.
WTO	Deals in the rules of trade between countries ensuring trade flows freely.
World Bank	It is an important source of financial and technical assistance to developing countries, its main aim is to reduce poverty
TNC	A global company which operates in more than one country. Headquarters are often in MEDCs with factories in LEDCs where workers are cheaper



- ### Reasons for globalisation
- Transport:** container ships and air travel
 - Communication:** email, text, fax, phone
 - IMF** (International Monetary Fund) state led investment to help countries
 - TNCs:** increased trade between countries
 - Trade agreements:** agreements between countries e.g.EU have made trade easier

Why TNCs operate globally

TNCs : Transnational Corporations

- Cheap labour
- Cheap buildings and land
- To be close to markets
- countries offer incentives

Case study: Nike
Headquarters: Oregon USA
Offices in 45 countries 700 shops worldwide
Has been accused of exploiting people in sweatshops.

- ### What you need to Know !!!!!!!!!!!!!
- Employment structure
 - Reasons why there is a Changing employment structure over time (Clark-Fisher Model)
 - Working conditions of employment sectors
 - Evaluate the working conditions for men and women in the developing and developed world
 - Why globalisation has occurred e.g. communications and transport etc
 - The role of global institutions e.g.. IMF, UN etc
 - The role of TNCs in the secondary and tertiary sector

Key terms
Birth rate: number of lives births per 1000 per year
Death rate: number of deaths per 1000 per year
Infant Mortality rate: number of children who die before the age of 1 per 1000
Natural increase : Birth rate—death rate
Immigrants: incomers
Emigrants : outcomers
Life expectancy: the age you're expected to live to
Economically dependents: really young or old

Factors contributing to a fall in mortality

- Modern medicines
- Vaccinations
- Better healthcare
- Hygienic housing
- Clean water
- Better diet

Factors contributing to fall in birth rate

- Access to contraception
- Women educated
- Economic burden
- Marrying later

High birth rate
 Economic asset, religious reason, boys, lack of contraception

Future populations?

- More contraception
- Wars
- Natural disasters
- Diseases e.g. HIV/AIDS

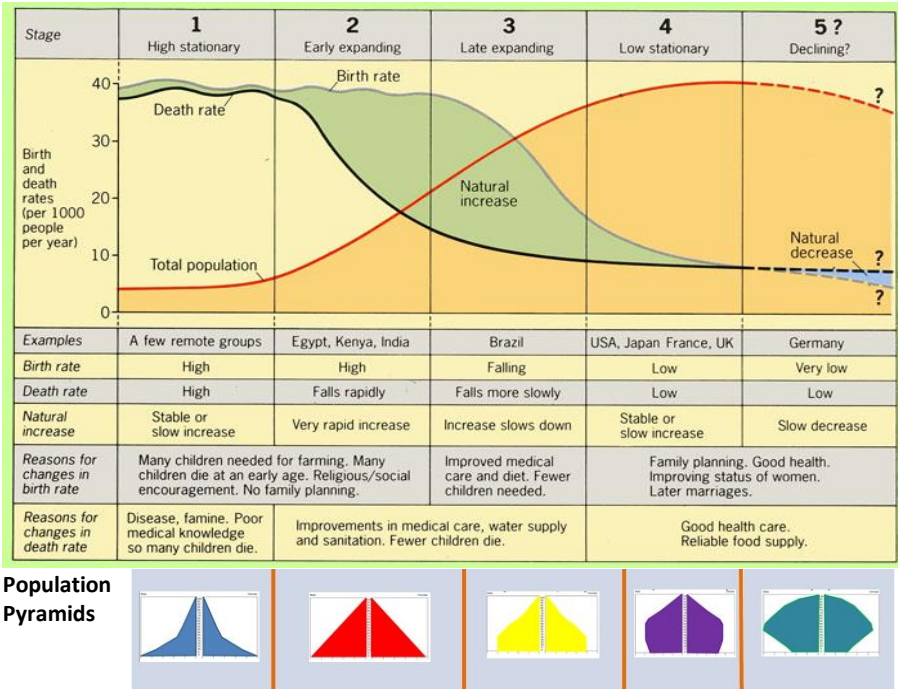
Youthful population

- Pressure on schools and housing
- Pressure on future employment

Ageing population

- Pressure on healthcare and nursing homes
- Pressure on taxes to pay pensions
- 'grey pound' strong spending power
- Look after grandchildren

Population dynamics



Population pyramids: LOOK AT THE SHAPE

Wide at bottom = high birth rate
Wide at the top = low death rate
Narrow at the bottom = low birth rate
Narrow at the top = high death rate
Bulging in the middle = economically active

Managing populations

Underpopulated optimum population overpopulated

Pro-natalist: encourages people to have children e.g. Singapore
 Tax rebates, cheap nurseries, spacious apartments, government sponsored dating website

Anti-natalist: discourages people to have less children e.g. China's One Child Policy 1979
Consequences: Female infanticide, marrying age limits, forced abortions 120:100 ratio, spoilt 'little emperors' bride kidnapping, ageing population, shortage of labour in the future.

Push factors: war, poor education, lack of services, political instability
Pull factors: better jobs, education, healthcare, better services

Migration

Benefits for the host country

- Workforce
- Willing to work longer hours
- New cultures: entertainment
- Skilled workers

Negatives for the host country

- Jobs given to migrants
- Send money back to their country
- Pressure on housing and schools

Benefits for the source country

- Less pressure on resources
- Money sent home

Negatives for the source country

- Loss of economic active
- Loss of 'brain drain'
- Family breakdowns

Migration policy

Open door policy

- Government inviting migrants e.g UK 1950 Commonwealth countries given free entry
- Might be under populated and need to build up their economy
- Meet shortage of skilled/unskilled quotas

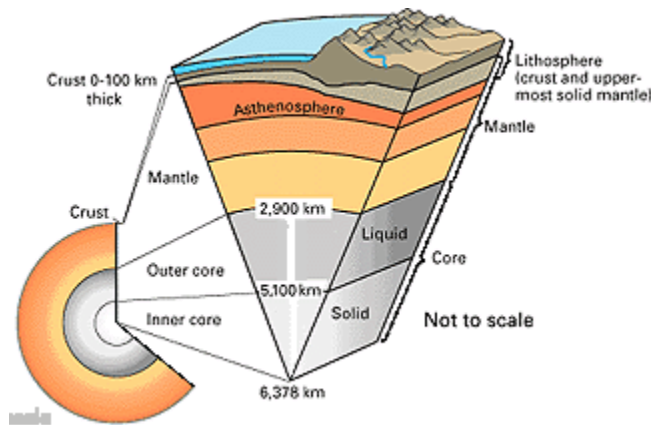
Skills test

- 5 tiers
- Have to meet the skills criteria to enter depending on what the country needs
- Full fills gap in the workforce

Impacts

- UK workers argue their jobs being taken
- Pressure on resources
- Contribute to the economy

Restless earth



Crust A relatively thin layer of solid rocks around the outside of the earth. **Continental crust** has an average depth of 5km and is mainly composed of **Granite**. **Oceanic crust** has an average depth of 70 km and is mainly composed of **Basalt**. The average temperature of both is 10°C

Mantle A layer of melted rock 2900 km beneath the crust. Very hot with a temperature of 375°C and solid, but has the consistency of treacle.

Outer core A layer of molten rock 2900 – 5000 km below the crust. Average temperatures of 3000°C and an iron / nickel composition.

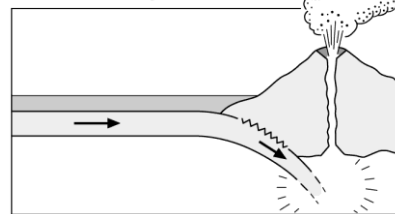
Inner core - The centre of the earth with a radius of 1400 km and temperature of about 5700°C and an iron / nickel composition.

Preparing for a hazard

- have evacuation routes
 - Earthquake drills e.g. Japan
 - Strengthening structures e.g. Shock absorbers, deep foundations, reinforce framework, base isolators, flexible gas and electricity pipes
- EXAM TIP:** You need to say how these help lessen the impact of an earthquake

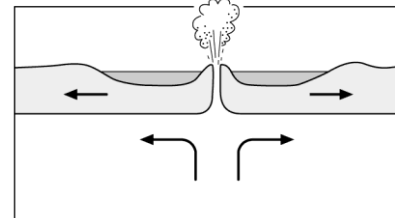
Unit 1 :Topic 1 Restless earth Sections	Content	Revised
1. Structure of the earth • Core, mantle, crust	<ul style="list-style-type: none"> • What material are they made up off? • What are the temperatures? • Convection currents 	
2. Plate boundaries • Constructive • Destructive • Conservative • Collision	<ul style="list-style-type: none"> • How do they move? • What do they cause? • Continental and oceanic crust • Subduction 	
3. Volcanoes 3a. Volcano case study LIC: Montserrat Primary, secondary, social and economic impacts	<ul style="list-style-type: none"> • Different types of volcanoes • The shape of volcanoes • What they release • How powerful they are 	
4. Earthquakes 4a: Volcano case study LIC: Haiti HIC: New Zealand Primary and Secondary impacts	<ul style="list-style-type: none"> • Focus and epicentre • Seismic waves • Aftershocks • Magnitude 	
5. Managing Hazards Case study: New Zealand Earthquake	<ul style="list-style-type: none"> • Planning • Preparation • Short and long term relief • Building design etc. 	

Destructive margin



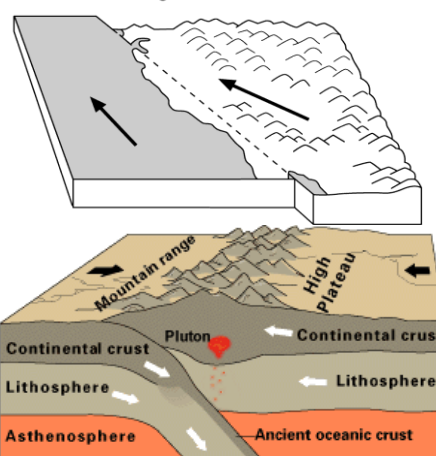
Destructive: This happens when oceanic and continental plates move together. The oceanic plate is denser (heavier) than the continental one and is forced down into the mantle. Here it melts and is released as magma (volcano). The continental plate is forced up (Fold Mountains) and earthquakes occur due to the movement of the plates. E.G. South East Japan

Constructive margin



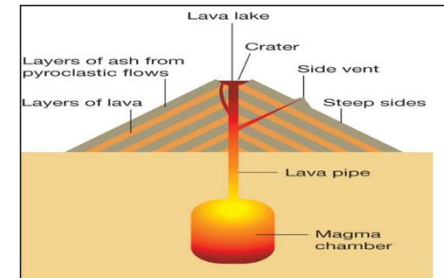
Constructive: New crust forms in undersea valleys in mid – ocean. Oceanic plates move apart causing magma to rise up as a volcanic eruption, and once cooled new land is formed. The new crust gradually pushes the older crust sideways, and away from the ridge. A mid- ocean ridge (undersea mountain chain develops). Minor earthquakes occur. E.G Mid Atlantic Ridge.

Conservative margin



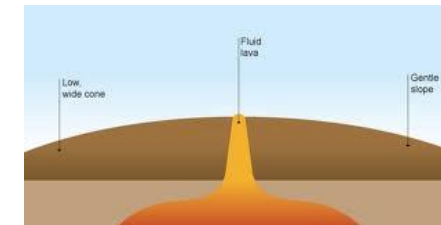
Conservative: Two plates move past one another. Pressure builds up as the plates move causing a massive earthquake. No crust is created or destroyed and no volcanic eruptions take place. E.G. San Andreas Fault, California.

Collision: Continental plates converge (move together). They are buckled and pushed up to form Fold Mountains. No eruption, but violent earthquakes occur. E.G. Himalayas.



Composite Volcano

- Alternating layers of ash and lava
- Pyroclastic flows
- Andesitic lava
- Violent



Shield Volcano

- Constructive boundaries
- Gentle slopes
- Basaltic lava
- Eruptions rarely violent

Responses to a hazard

- Sending aid/relief
- Evacuate people
- Set up shelters
- Send food and water

Volcanic example in an LEDC (Montserrat)

Location: Montserrat in the Caribbean.

Volcanic area: Soufriere Hills.

Date of eruption: July 1995

Eruption lasted: 5 years

Chances Peak Volcano had been dormant for over 200 years.

Emergency plans: Evacuating people to nearby islands or Britain. People had to get emergency aid from Britain in order to rebuild island.

Nos evacuated: 6,000 (over half the population)

Impacts: 5000 people evacuated to the North Island, 7 villages destroyed, population fell from 12,000-1500 > 50% unemployed, housing shortage 70% increase in rent

Numbers killed: 23 – people who stayed to watch over their crops.

Things destroyed: - farmland covered by lava.

2/3 of the homes destroyed covered in ash and mud.

Pyroclastic flow (rivers of hot gas, ash, mud and rock moving at very high speeds at temperatures of about 500°C) covered large areas of the island. Tourist industry destroyed

Response

- 5000 people evacuated to the north island
- Royal navy evacuated 4000 people to Antigua
- UK sent £40m relief aid
- Red cross: evacuation camps
- Monitoring stations to detect volcanic activity.

Earthquake example in an LEDC (Haiti)

Location: Haiti, Caribbean

Plates involved: Caribbean and North American Plate

Date: 12th January 2010

Time: 9.53 pm

Strength: 7.0

Depth: 8 miles

Areas affected: Port-au-Prince, Haiti – 16 miles from the epicentre

Nos dead: 230,000

Nos injured: 300,000

Nos homeless: 1 million

Damage caused: Over 250,000 buildings destroyed including the National Palace, electricity supplies cut, No phones, roads closed, 4,000 inmates escaped from the prison.

Huge rescue efforts followed.

Reasons for high death rate: Area is densely populated and housing is poorly constructed. Epicentre was very close to the capital city where over a million people lived. The earthquake was also very shallow.

Earthquake example in an MEDC (New Zealand)

Location: Christchurch, New Zealand

Plates involved:

Date: February 2011

Time: 1.00pm

Strength: 6.3

Depth:

Areas affected: Christchurch

Nos dead: 181

Nos injured: 2000

Nos homeless: 10,000 homes to be rebuilt

Damage caused: 80% of city without electricity

50% of city centre buildings collapsed

10,000 homes to be rebuilt,

businesses affected (income)

Christchurch couldn't hold the Rugby world cup games (lost of tourism, income)

Reasons for low death rate: good emergency services

Responses

Chemical toilets were provided for 30,000 people

International aide was provided in the form of \$6-8 million, roads and houses were cleared of silt

Preparation for Volcanic Eruptions

Some of the methods scientist use to predict are;

Lasers to detect the physical swelling of the volcano

Chemical sensors to measure the increases in sulphur levels

Seismometers to detect the large number of earthquakes that occur due to the magma rising up

Ultrasound, which can monitor low-frequency waves within the magma as the surge of gas and molten rock moves upwards

Satellite images to record the warming of the ground surface as the magma edges towards the 'breaking through point'.

Some of the methods scientists and local authorities use to plan are;

- Have an evacuation plan, e.g. supplies of food and water, medical facilities, face mask to prevent inhaling ash and temporary homes (tents).
- Government agencies such as the police organise the evacuations.
- These need to be practiced and publicized.

Factors causing damage in an earthquake

- Focus and epicentre
- Magnitude
- Population density
- Building design
- Time of day
- Wealth of a country

Preparation for earthquakes Some methods of prediction are –

•Laser beams across major fault lines to detect movement

•Monitoring an increase in the escape of radon gas, which may suggest the approach of an earthquake

•Checking water levels in well, which may fall before a earthquake as the water seeps into small tension cracks

Using seismographs to detect small fore shocks

Some of the methods scientists and local authorities use to plan are-

•Construct buildings and infrastructure (bridges, roads etc.) that can with stand the earth shaking.

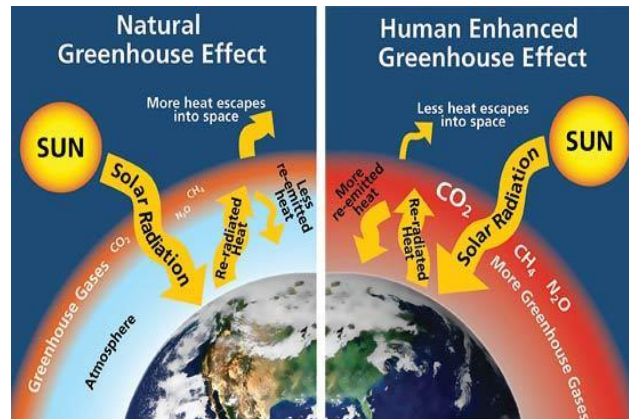
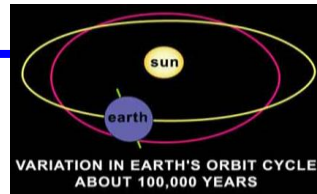
•Plan for rescue, restoring essential services and arranging for temporary evacuations.

•Evacuation routes must be practiced and individuals need to have emergency kits with things like food, water, torches etc.

Climate and change

Natural causes of climate change

- **Orbital changes** – Scientists believe that every 100,000 years or so the Earth's orbit changes from a circular to elliptical (egg-shaped) pattern. This changes how much sunlight we receive. The Earth's axis moves (every 41,000 years) and wobbles (every 21,000 years) affecting how much sunlight reaches us.
- **Solar output** – The Sun's output changes over time. Sunspots (tiny black spots) can cause less energy to leave the Sun and therefore reach us. Solar energy can at times increase and decrease and cycles have been identified by scientists.
- **Volcanic activity** – Major volcanic eruptions lead to brief periods of global cooling, due to ash and dust particles being ejected high into the atmosphere, blanketing the Earth.



Greenhouse gases: Nitrous Oxide, CO₂ and Methane

CO₂: Human activities have increased the production of CO₂ through burning fossil fuels, such as oil, gas and coal, making cement and steel manufacture

Methane: Cow and rice farming

Nitrous oxide: is emitted during agricultural and industrial activities, as well as during the combustion of solid waste and fossil fuels.

Impact of climate change on people and ecosystems =

- **Little Ice Age** – During the Little Ice Age, from 1600-1750, the global temperatures were on average 0.25°C. Evidence from the UK shows shorter crop growth records and frozen waters in the Thames. Between 1607 and 1814 Londoners enjoyed 'ice fairs' and skating competitions on the frozen river. This period of colder temperatures is believed to be caused by sunspot activity and a more active volcanic period. Evidence, through diaries and paintings
- **Extinction of megafauna** – During the Pleistocene ice age very large mammals lived in Europe and North America, such as the woolly mammoth, saber-toothed tiger, large wolf and giant beaver. As the ice age ended and the ice melted as many as 135 species became extinct. Scientists believe they were unable to adapt to the new conditions. Weather and plant life were changing, so food chains affected. Other people believe they became extinct because humans hunted them.



Future climate challenges = Climate change in the UK

Climate change may have some positive effects on the UK such as –

- Temperature increases could increase the growth of wine and other agricultural products in the UK, so increasing profits for these industries.
- Warmer, sunnier summers could increase coastal tourism within the UK.

Climate change may have some negative effects on the UK such as –

- A complete loss of winter sports, as snow disappears from highland areas
- More cases of tropical diseases like malaria
- More severe storms and longer summer droughts, making our climate more extreme
- The economic cost of helping climate change refugees who migrate from poor countries to the UK
- Major changes for fishing industries, especially if ocean currents are disrupted by melting ice in Greenland, making British waters turn colder
- Rising sea-levels could bring major erosion to sand dunes and coastal cliffs, this could lead to loss of properties, farms and industries.
- Temperature increases mean species shifts and migrations, such as the black grouse disappearing from the highlands.

The UK's predicted climate change

- Average temperature may rise
- Less predictable rainfall patterns with drier summers
- Possibly longer summers and extreme cold in the winter

Changes will happen because

- North Atlantic current is likely to move which will reduce sea temperatures and bring less rainfall
- More air masses from the north bringing more storms and snow

Climate change challenges in Bangladesh

Environmental impacts: river flooding would get worse due to heavier rains and sea levels, Tropical storms would be more frequent, dry seasons could get longer=droughts

Economic Impacts: rises in sea level could reduce agricultural output, homes and businesses destroyed leading to the disruption of the economy as money is spent on repairs.

The cost of repairing homes is more than the government can afford
Coastal flooding damages farm land increasing the salinity which makes it hard to grow crops

Increased flooding will increase the spread of water-borne diseases

Topic Revision Worksheets

On the next few pages you will have the opportunity to apply your knowledge of all three components.

At this stage you should be able to complete most of the worksheets.

Have a go!

EQ: Why does the physical landscape of the UK vary from place to place?

4.1 Geology and past processes have influenced the physical landscape of the UK

Read up on the three different types of rocks and add their features/characteristics to the table



Sedimentary rock characteristics

Igneous rock characteristics

Metamorphic rock characteristics

4.2 A number of physical and human processes work together to create distinct UK landscapes

Upland Areas

What processes have shaped The Lake District?



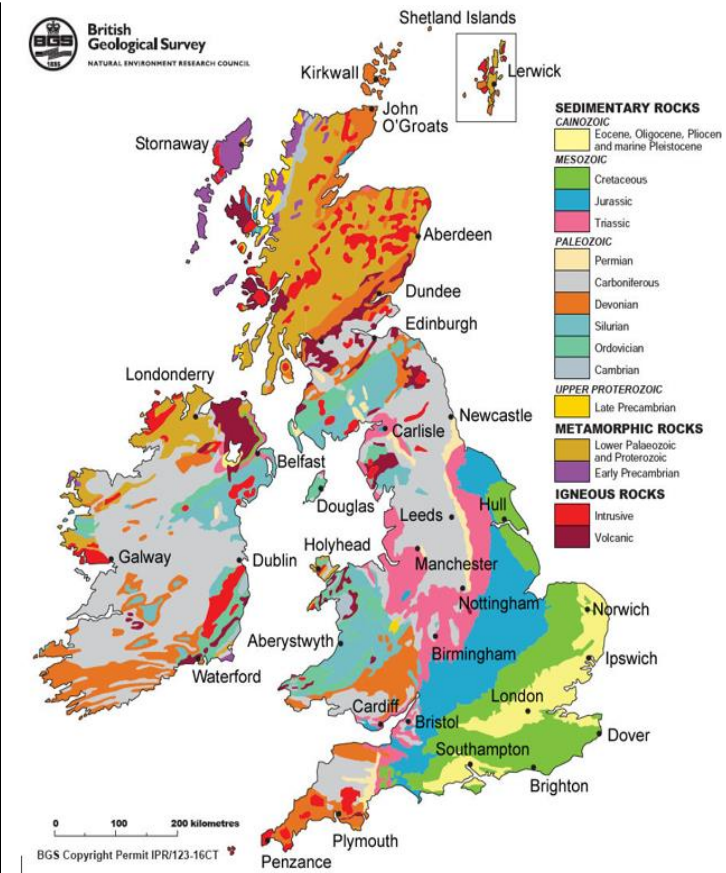
Add notes to the table to describe what landforms are found in the Lake District. Remember to make a note about which processes are involved!

Feature	How is it formed?	Picture
U-shaped valleys		
Corrie		
Arête		
Hanging valley		

What does this map show?

How does geology influence the formation of upland and lowland landscapes in the UK?

How has plate movement (tectonic activity) formed upland landscapes?



EQ: Why does the physical landscape of the UK vary from place to place?

4.2 A number of physical and human processes work together to create distinct UK landscapes

Human activity in the Landscape

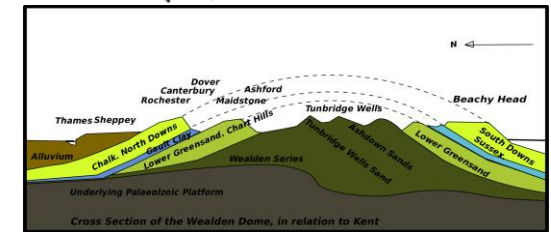
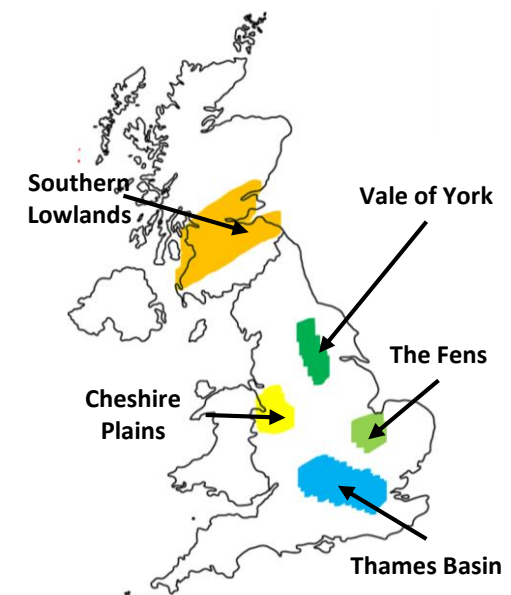
Read up the three many ways humans use the landscape, give an example of each one, what are the good and bad ways humans use these landscapes



Agriculture	Forestry	Settlements
Example:	Example:	Example:
Good:	Good:	Good:
Bad:	Bad:	Bad:

Lowland Areas

What processes have shaped The south Downs?



Add notes to the table to describe what landforms are found in The South Downs. Remember to make a note about which processes are involved!

Feature	How is it formed?	Picture
Scarp slope		
Dip slope		
Vale		

EQ: Why is there a variety of distinctive coastal landscapes in the UK and what are the processes that shape them?

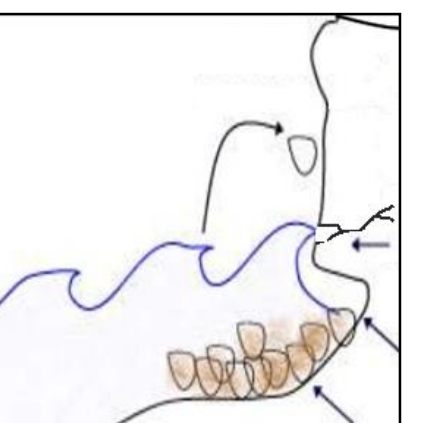
4.3 Distinctive coastal landscapes are influenced by geology interacting with physical processes

Add the features of each wave to the table – include a diagram

How are waves formed?

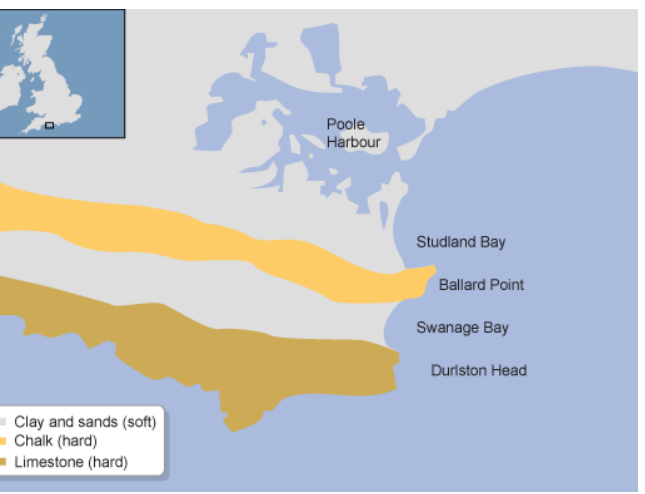
Constructive wave features	Destructive wave features

Annotate the 4 erosional processes around the diagram



Coastal geological structure

Label the diagram to show which coastline is: concordant and discordant. Give an example of where each coastline is found in the UK and it's features



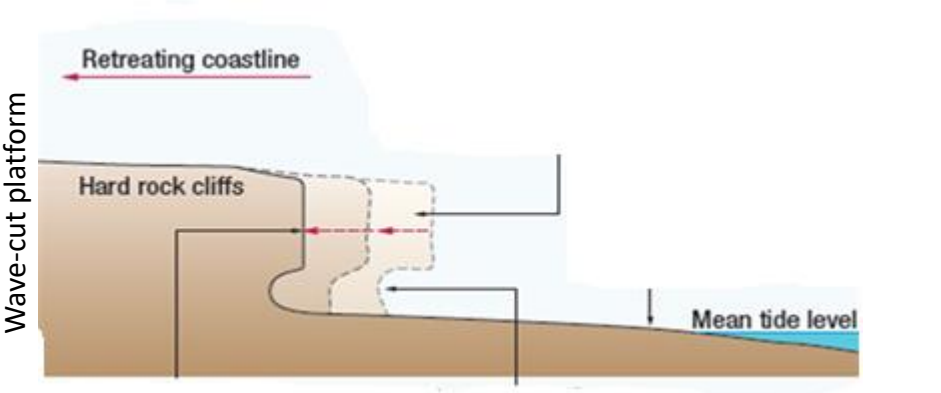
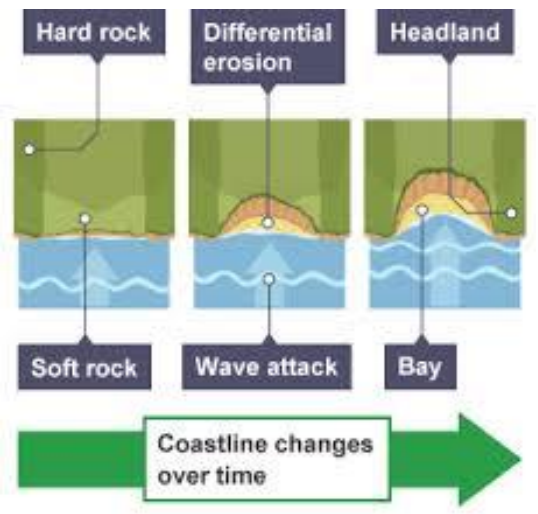
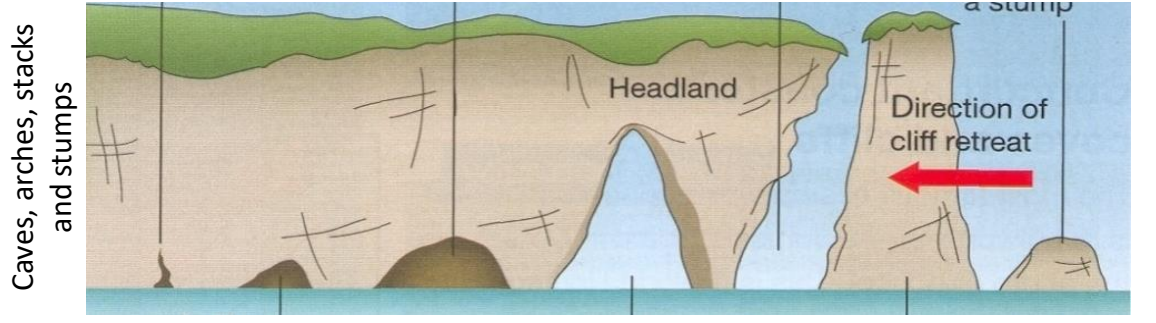
	How will this influence erosion?	Example of rock tytpe
Hard rock coasts		
Soft rock coasts		

EQ: Why is there a variety of distinctive coastal landscapes in the UK and what are the processes that shape them?

4.3 Distinctive coastal landscapes are influenced by geology interacting with physical processes

What is an erosional landform?

Annotate around the diagrams to explain how they are formed – remember to add key terms and include which erosion types are present and number each stage



EQ: Why is there a variety of distinctive coastal landscapes in the UK and what are the processes that shape them?

4.3 Distinctive coastal landscapes are influenced by geology interacting with physical processes

What is weathering?

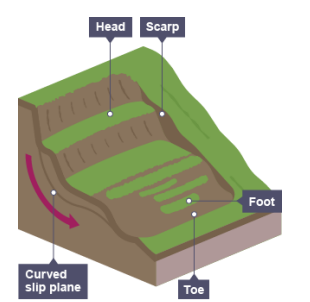
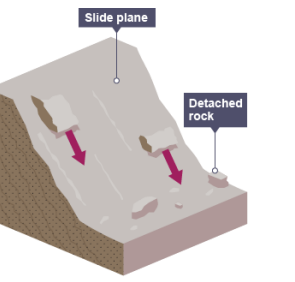
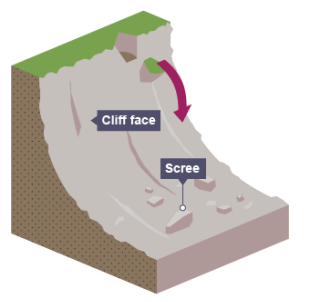
Describe each process in the table and draw a picture to illustrate what is happening

Mechanical (freeze-thaw) weathering	Biological weathering	Chemical (acid rain) weathering

What is mass movement?

How does climate influence mass movement?

Name and describe the 3 different mass movement types



Longshore drift

Draw an annotated diagram to show what **Longshore drift** is and how it transports material along the beach

Read up on the three different depositional landforms – describe how they are formed (remember key terms)




	How is this formed?	Example
beaches		
Spits		
Bars		

EQ: Why is there a variety of distinctive coastal landscapes in the UK and what are the processes that shape them?

4.4 Distinctive coastal landscapes are modified by human activity influencing with physical processes

Human activity on the coast

Read up the three many ways humans use coasts – describe and explain how these impact the coastal environment

Human Activity	Impact on coastal environment
<p>Development</p> 	
<p>Agriculture</p> 	
<p>Industry</p> 	

Case study: How physical and human processes interact

Where is this coastline located?	Why is it's location significant?
----------------------------------	-----------------------------------

What natural processes are operating at this coastline?

Add notes to the table to show how humans have altered the coastal landscape and the effects it's had on the physical processes

Human feature	How does it interfere with the natural processes along this coastline?

EQ: Why are the challenges for coastal landscapes and communities and why is there conflict about how to manage them?

4.5 The interaction of human and physical processes present challenges along coastlines and there are a variety of management options

How is climate change impacting coastal areas?

What are the risks to the coastline from climate change

Why is the risk of coastal erosion and flooding likely to increase in the future?

Coastal management

Add ideas to explain the different types of shoreline management plants (do nothing, hold the like, managed realignment – strategic realignment and advance the line)

How do we protect our coasts?

Highlight which are soft engineering and which are hard engineering

	Costs	Benefits
Groynes		
Beach replenishment		
Sea Walls		
Slope stabilisation		

Problem	Named group of people	Impact on this group
Erosion of the coastline		
Coastal flooding		

EQ: Why is there a variety of river landscapes in the UK and what are the processes that shape them?
4.6 Distinctive river landscapes have different characteristics formed by interacting physical processes

Annotate the diagram to show how rivers change from the upper, middle and lower courses – remember to include: channel shape (width, depth), valley profile, gradient, discharge (volume of water), velocity (speed), sediment size

Key terms I need to use:

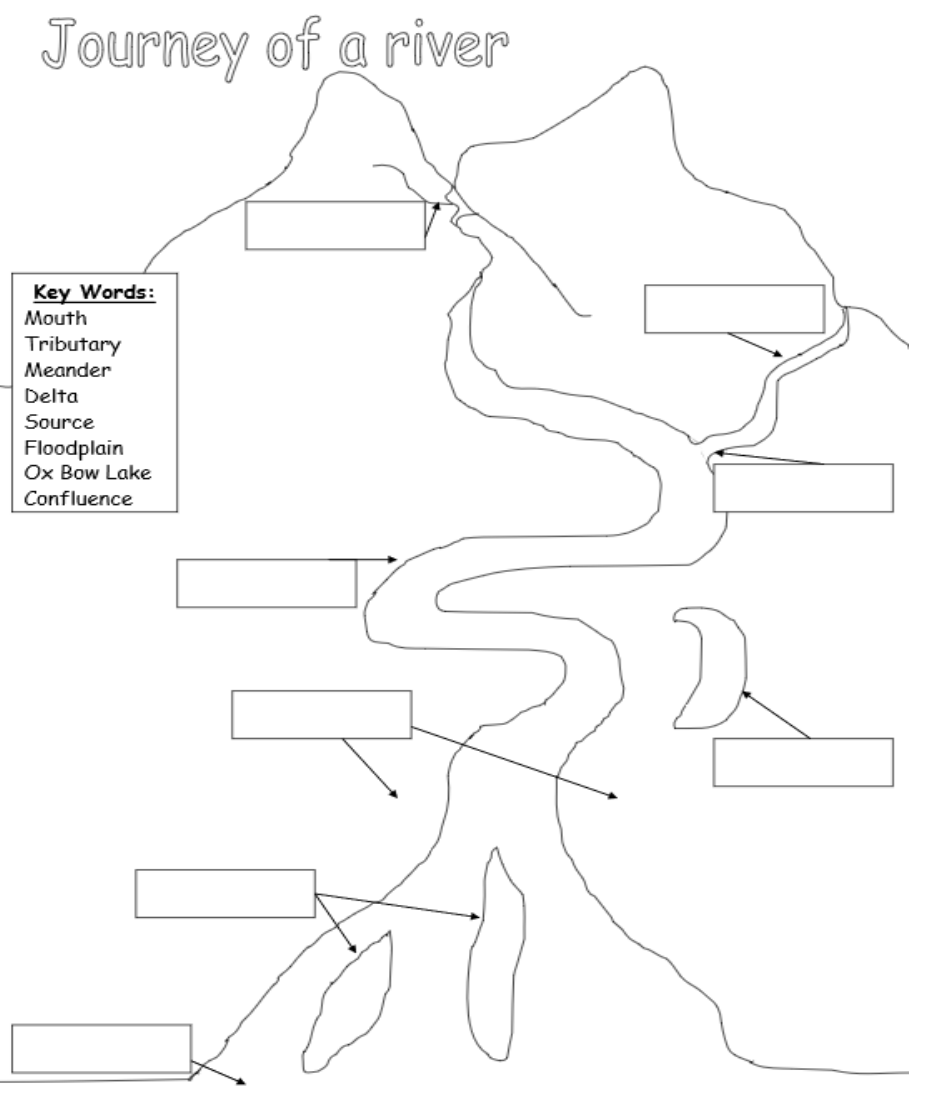


	Characteristics	River Severn:
Upper		
Middle		
Lower		

Drainage Basin

Label the features of the river on the diagram – ensure you write the definitions for each key word around your diagram.

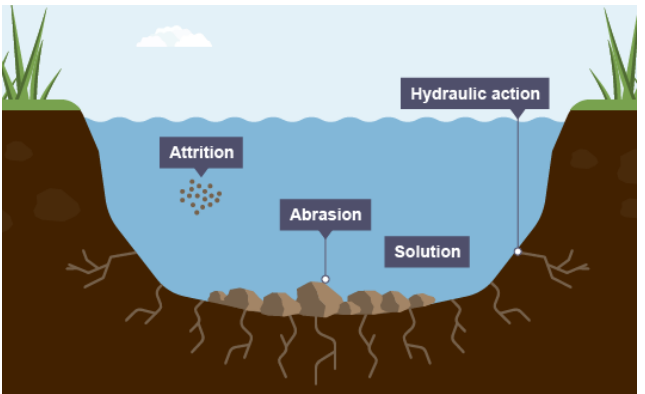
Challenge: can you add on the watershed and label where you would find waterfalls and v-shaped valleys



What is a drainage basin?

EQ: Why is there a variety of river landscapes in the UK and what are the processes that shape them?
4.6 Distinctive river landscapes have different characteristics formed by interacting physical processes

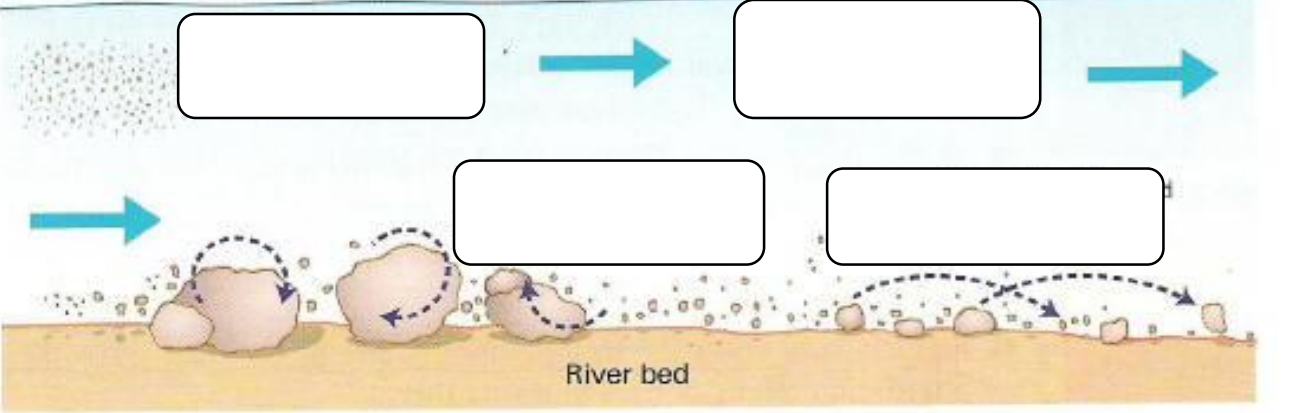
Annotate the 4 erosional processes onto the diagram



Which two mass movement types affect river valleys? – Draw a picture of them both



Label and annotate the diagram to show how a river transports material

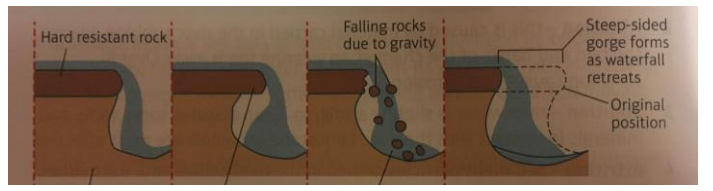


River landforms

Label the diagram to show which coastline is: concordant and discordant. Give an example of where each coastline is found in the UK and it's features

Interlocking spurs

Waterfalls

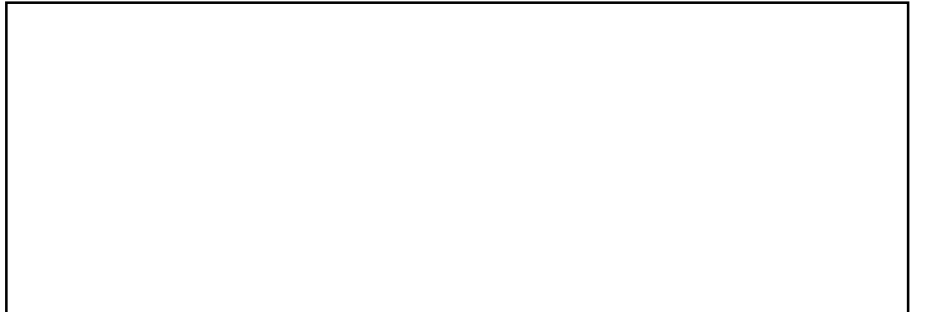


EQ: Why is there a variety of river landscapes in the UK and what are the processes that shape them?
4.6 Distinctive river landscapes have different characteristics formed by interacting physical processes

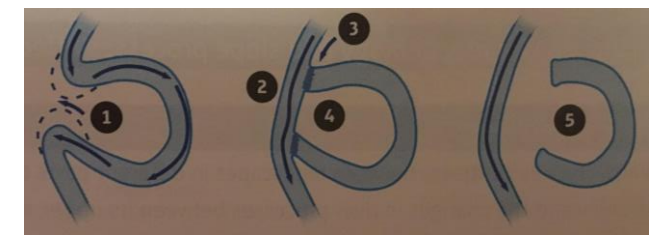
Annotate around the diagrams to explain how they are formed – remember to add key terms and include which erosion types are present and number each stage

River landforms continued

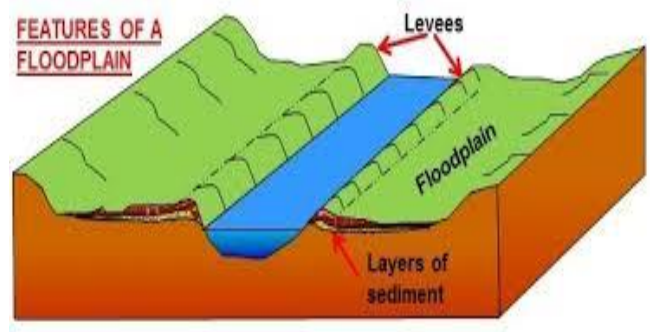
Meanders



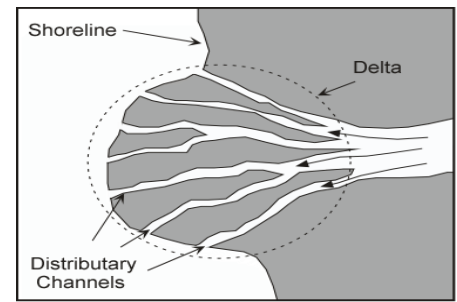
Oxbow lakes



Floodplains and Levees



Deltas

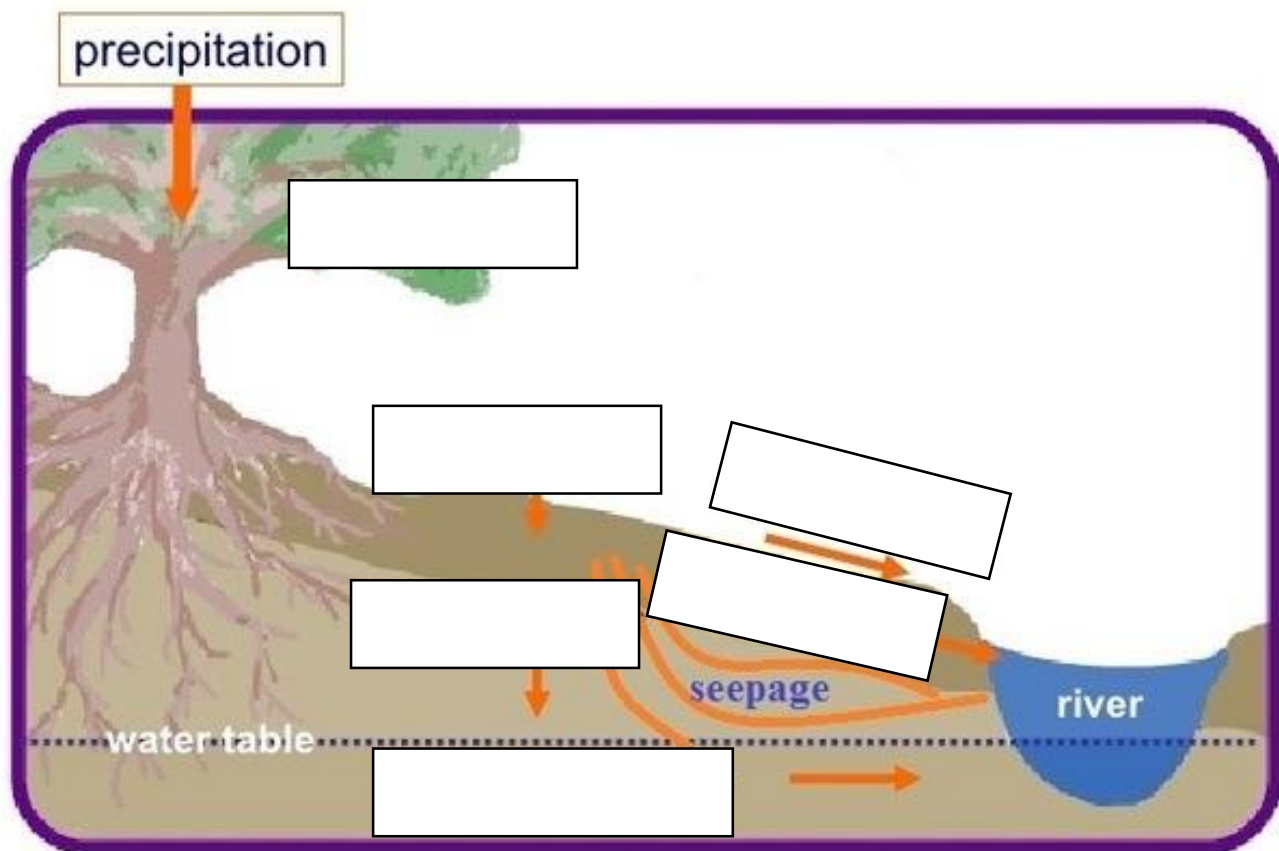


EQ: Why is there a variety of distinctive coastal landscapes in the UK and what are the processes that shape them?

4.6 C and 4.7 A – Physical and human factors which alter storm hydrographs

Key terms I need to use:

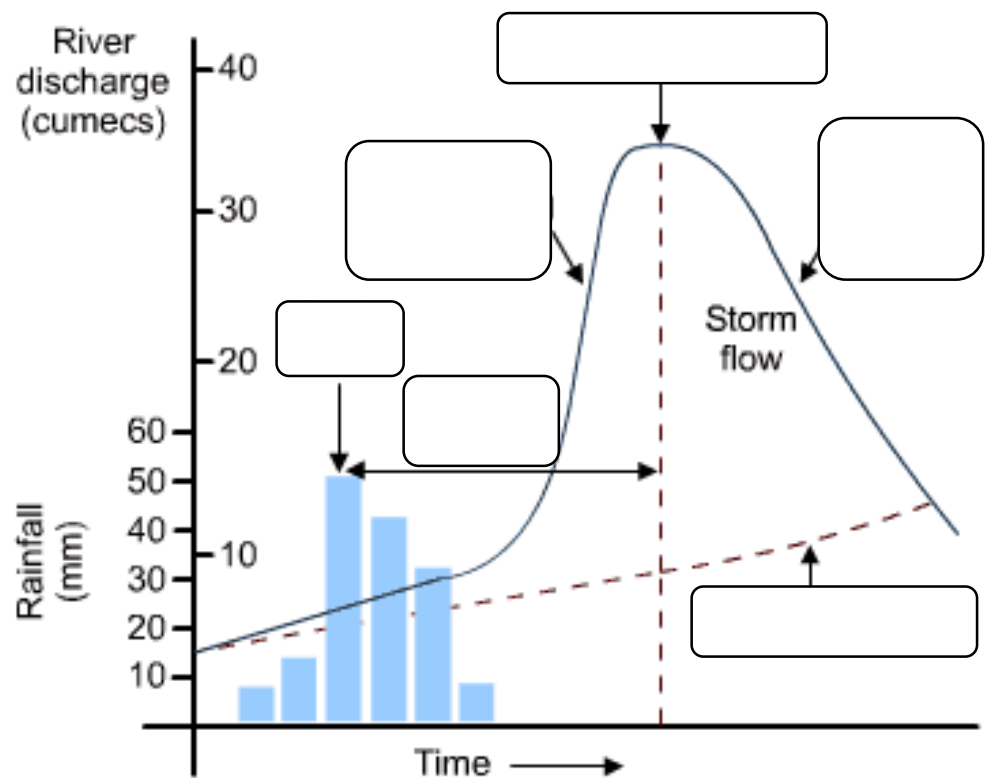
Label the diagram and include definitions of each term



Label the correct parts of the hydrograph

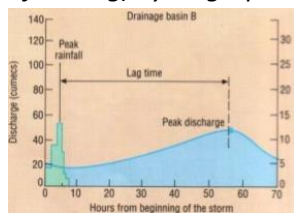
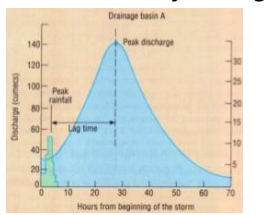
What is a hydrograph?

What do hydrographs tell us about river discharge?



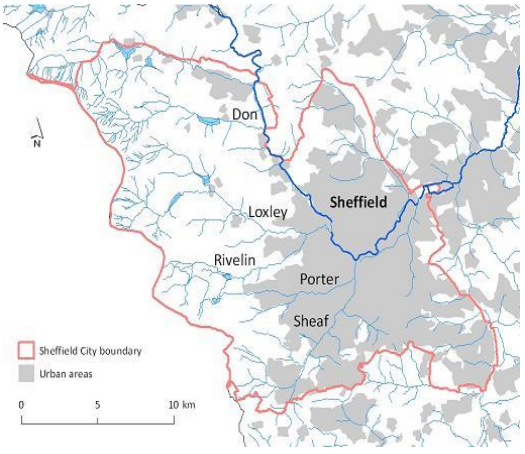
Human and physical influences on hydrographs

Describe how these features cause flashing (flooding) or a subdued (no flooding) hydrographs



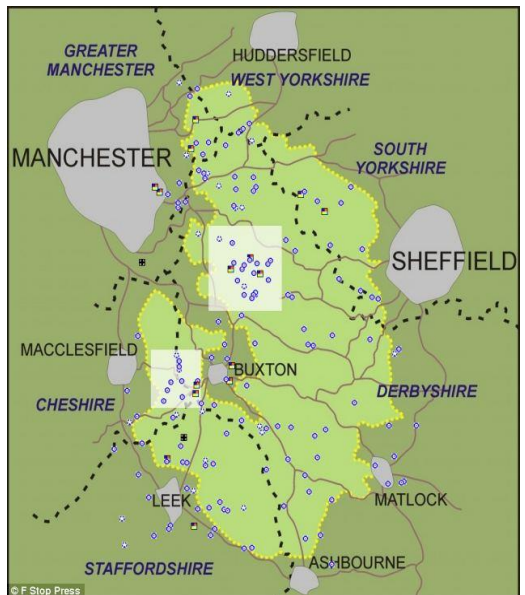
	Factors that result in a flashy hydrograph (increased chances or flooding)	Factors that result in a subdued hydrograph (decreased chance of flooding)
Precipitation		
Geology		
Drainage basin size and shape		
Soil		
Slopes and soil depth		
Vegetation		
Towns and cities		
Antecedent conditions		
Summary		

Flooding in Sheffield



Location:

Significance of Location:



Map of the Peak District

Impacts	Long-term responses
<ul style="list-style-type: none"> <input type="checkbox"/> Social <input type="checkbox"/> Economic <input type="checkbox"/> Environmental 	

Physical causes of flooding in Sheffield	Human causes of flooding in Sheffield

How do OS maps help geographers investigate river landscapes?

Learning objectives

- To recognise river landforms on OS maps at different scales
- To understand that contour patterns show heights and slopes in the landscape
- To be able to draw contour cross sections from OS maps

Activity

Study Figures 10 and 11.

Choose one grid square from **each** map that includes the river. Draw squares with sides 50 mm in your notes, then sketch the course of the river channel across each.

- Decide whether the maps are of the upper, middle or lower course. Write a title for each sketch map including this information and its location.
- Annotate details about the river channel, for example its width and shape as it flows through the river valley.
- Look back to pages 160–161, then use map evidence to identify landforms in each part of the Severn Valley. List these with grid references, or label them on your sketch maps.

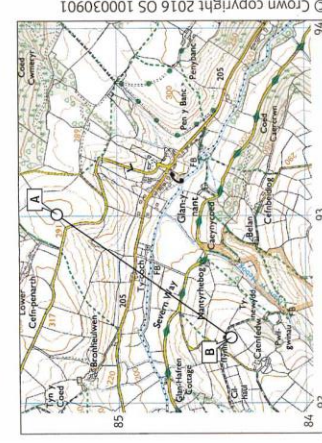


Figure 10 Extract from 1:25,000 OS map of the River Severn west of Llamdloes, Powys

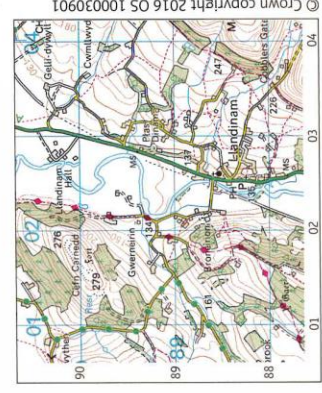


Figure 11 Extract from 1:50,000 OS map of the River Severn near Newtown, Powys

Exam tip

If you check the maps carefully, this type of question is usually straightforward, but watch out for choices which are nearly correct, but not quite right.

Exam-style question

Study Figures 10 and 11. Which of the following is the best description of the River Severn on **each** map?

- A A mountain stream near its source
- B A river meandering across its flood plain
- C A river flowing through a steep-sided valley
- D A lowland river close to its mouth

(2 marks)

How to draw a contour cross section

Contours are lines on a map joining places of equal height above sea level. They also tell us how much the land slopes:

- contours that are close together on the map show where the land slopes steeply
- contours further apart on the map show gentle slopes
- areas with few contours, or none at all, are flat: there is little or no gradient.

Drawing a cross section through the contour lines shows what the landscape looks like.

- Choose where you are going to make your cross section. Place a strip of paper across the contour lines on the map.
- Mark on the strip of paper each place where a contour line crosses it. Label the heights of the contours on your paper.
- Make the horizontal axis the same length as your strip of paper.
- The vertical axis is the height of the land from the lowest point to the highest point on the cross section.
- Use the information on your strip of paper to plot the heights on the graph paper.
- Join the dots and label some of the landscape features.

Activity

- Read the information about contours and then look again at Figures 10 and 11.
 - Find areas of flat land, gentle slopes and steep slopes on the two maps.
 - Find areas of steep slopes, gentle slopes and flatter land on the two maps.
- Read how to draw a cross section.
 - Draw a contour cross section between points A and B on Figure 10. Annotate details of the valley height and slopes, and the river channel.
 - Choose and draw a cross section of a contrasting part of the river valley from Figure 11, and add similar details.
 - Write a paragraph **comparing** the two contour cross sections, and what they show about different parts of the Severn Valley.

Command word

When asked to **compare** two things you need to identify what is similar and different about both of them in two statements.

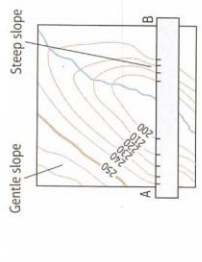


Figure 12 How to draw a contour cross section

Checkpoint

Now it is time to review your understanding of landscapes and processes in different places along the long profile of the river.

Strengthen

- Describe the shape of a typical long profile of a river.
- Describe the differences in contour patterns you would expect to see on an OS map of the upper and middle course of a river.

Challenge

- Match these river landforms with the section(s) of a river's course where they are most likely to appear: delta, levee, flood plain, interlocking spurs, meander, oxbow lake.
 - Think about the geology of the Severn catchment, river and valley processes, and the idea of sediment load. Explain why the river is usually clear near the source but muddy near the mouth.

EQ: What are the challenges for river landscapes, people and property and how can they be managed?

4.8 Some rivers are more prone to flood than others and there is a variety of river management options

Why flood risks increasing?

Why is the risk of flooding likely to increase in the future?

What are the social, economic and environmental impacts of these three floods?

	What are the impacts from these floods?
Boscastle Flood 2004	
Tewkesbury 2007	
Somerset 2014	

River management

How does the environment Agency reduce flood risk?

Highlight which are soft engineering and which are hard engineering

	Costs	Benefits
Flood walls		
Flood barriers		
Embankments		
Flood plain retention		
River restoration		

EQ: Why are places and people changing in the UK?

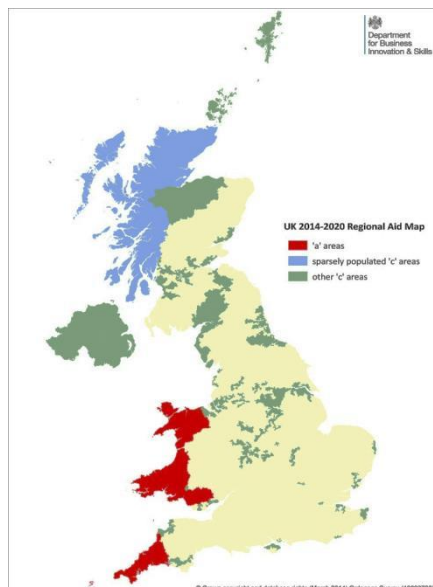
5.1 Population, economic activities and settlements are key elements of the human landscape

Urban and rural area differences

Fill in your table to describe what rural and urban areas are like (features). Remember to think about: population density, age structure, economic activity, settlements etc)

Features of Urban areas	Features of Rural areas

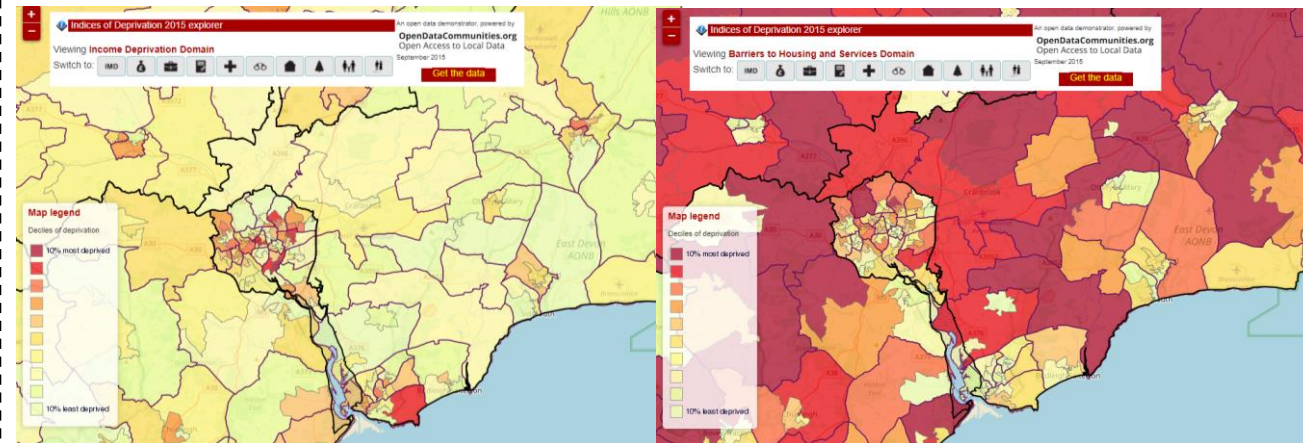
Annotate ways the government has tried to reduce the differences between urban and rural areas. (Think about what help they get and why)



5.8 The changing rural area creates challenges and opportunities

Challenges in rural areas

What challenges face rural areas?



What do the IMD maps show of deprivation in these areas?

How does this impact young and elderly people?

How does diversifying help?

Opportunities in rural areas

How do farms diversify?

Advantages of diversifying	Disadvantages of diversifying

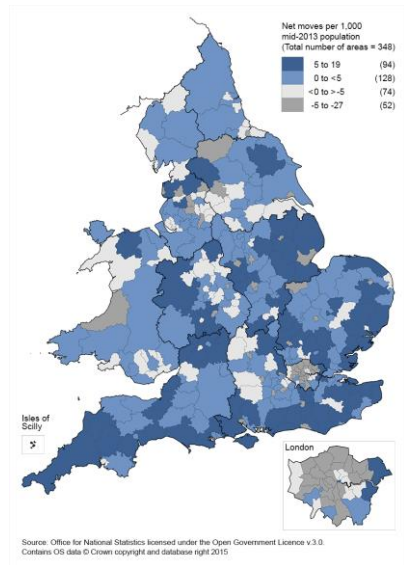
Challenges in rural areas

Describe what this diagram shows

How has the UK's population changed over time?

Can you think of any reasons for these changes?

Annotate the map the show how national migration has impacted the UK – which areas have people moved from and to? Think about age of people who move and reasons for this movement.



Read up on how The Eden Project help the surrounding areas in Cornwall.



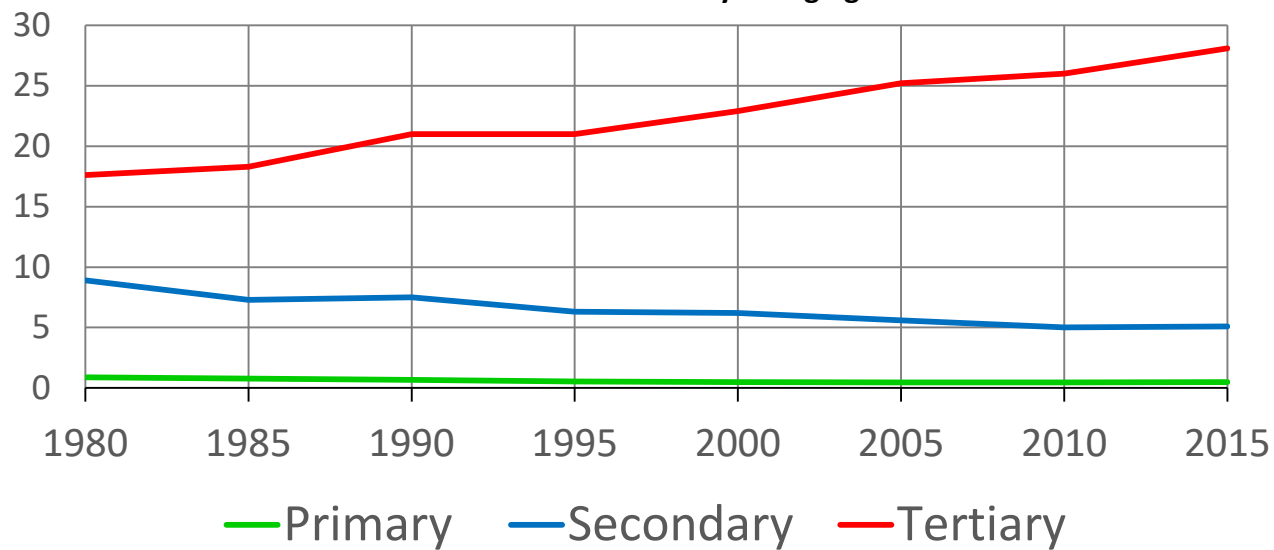
What?

Where?

Advantages	Disadvantages

How does international migration benefit the UK?

How is the UK economy changing?

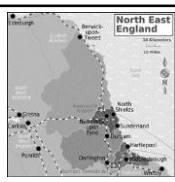


Describe what this graph shows

Can you give any reasons for the changes?

The North East

What was the main industries in the NE?



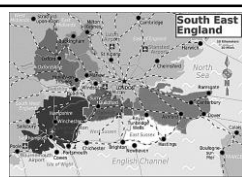
Why did these industries decline?

What happened to the people in these areas after industries declined?

What types of industries are there today? Why has the tertiary sector increased?

The South East

Why does this area attract business?

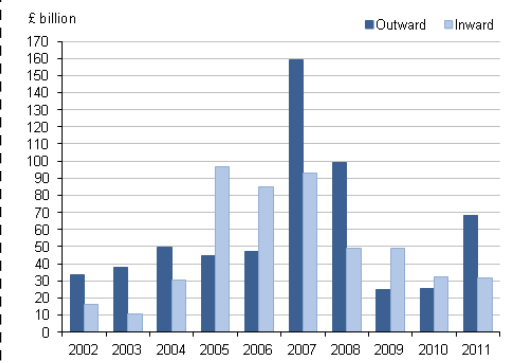


What types of primary jobs are found in this region?

Why is manufacturing in this area growing?

Why is this an important area for tertiary and quaternary industries?

The UK's growing economy



What does this graph show?

Why do companies like google want to invest in the UK?

How will this benefit the UK?

Read through the statements. Put them into the correct column on the table – colour-code advantages/disadvantages

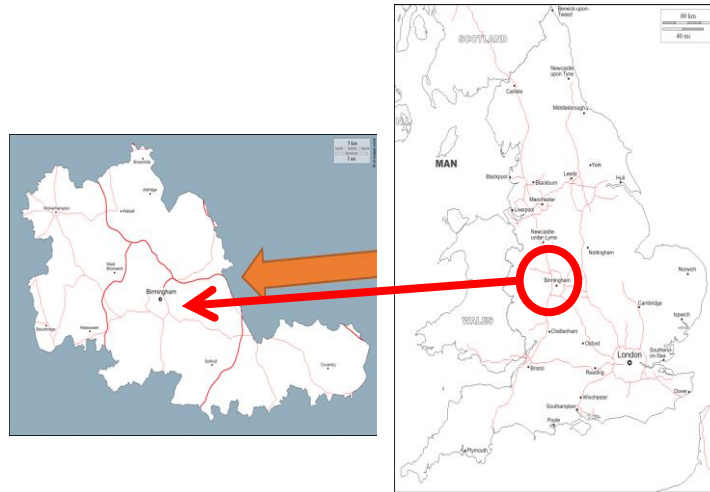
Definition: When companies which were previously owned or run by the Government (state) are now owned by private owners.	Examples of these companies include: British Gas, British Telecom, British Rail, British Steel, British Airways.
Definition: The increasing interconnectedness and interdependence of the world.	This process has meant that more foreign companies now own UK firms, so increasing Foreign Direct investment.
This process has meant that there are more links between foreign TNCs and the UK, increasing FDI.	The idea is that if a private company own a firm, they will be more efficient and run a better service.
Definition: Trade without extra taxes (tariffs or imports) which increase prices.	This increases FDI as goods from other countries don't look as expensive because there are fewer taxes on them.
This process has led to some job losses in the UK however.	The EU has encouraged free trade within the EU to make goods and services cheaper.

How has globalisation increased FDI into the UK?	How has free trade policies increased FDI into the UK?	How has privatisation increased FDI into the UK?

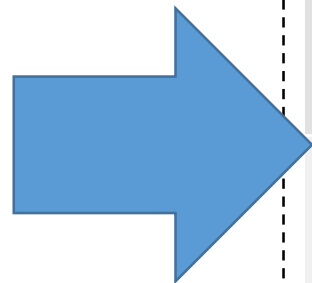
EQ: How is Birmingham changing?

5.3 The context of the city influences its functions and structure

Birmingham's location: (Annotate to explain how Birmingham's location influences it's national, regional and global connections – think about site, situation and global links)



Birmingham's structure: (Annotate around the diagram to explain what the features of a city include – read through features of what Birmingham is like and fill in the table)



	CBD	Inner City	Suburbs
Age of buildings			
Density of buildings			
Function/ Land use			
Environment quality			

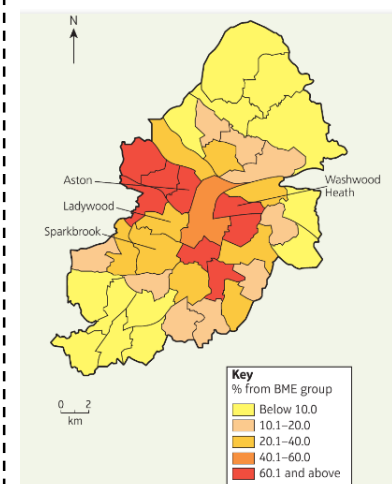
EQ: How is Birmingham changing?

5.4 The city changes through employment, services and the movement of people

Migration in Birmingham

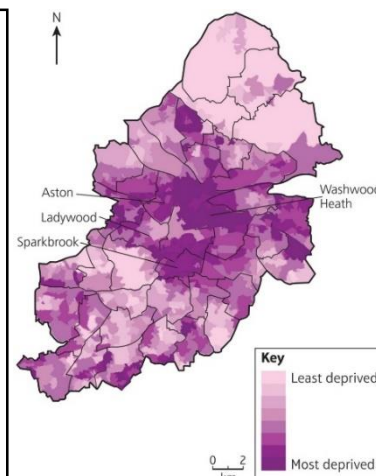
Add reasons to the table to explain why people are migrating to Birmingham – remember national (moved from somewhere in the UK), international (moved from another country) – which are push or pull factors?

National migration	International migration



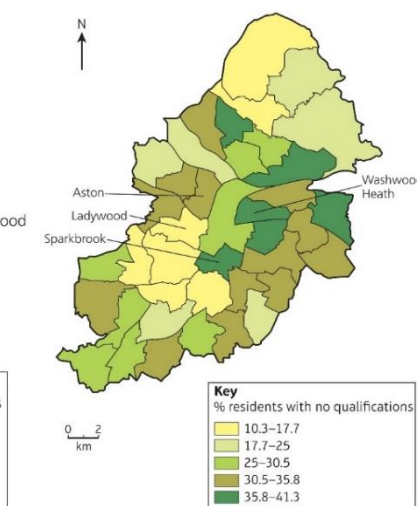
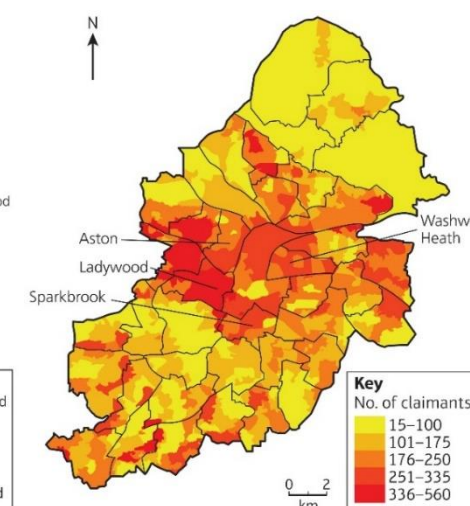
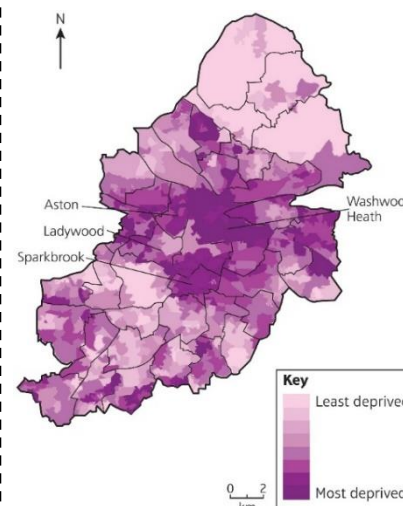
What do these maps show?

What can these maps tell us about where migrants move to in Birmingham?



Impacts of migration in Birmingham

Inequality in Birmingham



What do these maps show?

What can these maps tell us about inequality in Birmingham?

Why is there inequality in Birmingham?

EQ: How is Birmingham changing?

5.5 The changing city creates challenges and opportunities

Decline in Birmingham

Read through the causes of inner city decline and add reasons on the arrows to explain how each factor caused people to move out of Birmingham's inner city areas

Slum clearance and development schemes

Transport

Job losses

Why did Birmingham experience decline?

Economic and population growth in Birmingham

Why have TNCs invested in Birmingham?

Annotate around the two photographs: what has happened to this area? What have been the impacts? (Remember to include key terms!)

Selly Oak



Moseley



Why was **decentralisation** bad for inner city areas of Birmingham?


What did Birmingham do in response to **decentralisation**?

EQ: How is Birmingham changing?

5.6 Ways of life in the city can be improved by different strategies

Regenerating Longbridge

Where in Birmingham?



What was the site like before the regeneration happened?

What was built there?

Why did they regenerate Longbridge? What are the long-term benefits?


Benefits of the regeneration:

Costs of the regeneration

- Social Economic Environmental

Rebranding Eastside

Where in Birmingham?



What was the site like before the rebranding happened?

What was built there?

What were the aims of the rebranding? How does it help Birmingham economically?

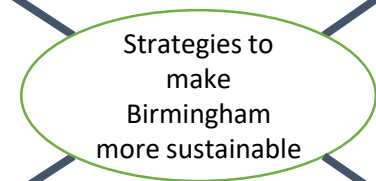
Benefits of the rebranding:

Costs of the rebranding:

- Social Economic Environmental

Recycling:

Green transport:



Green Space:

Eco-housing

5.7 The city is interdependent with rural areas, leading to changes in rural areas
 What are the costs and benefits of Birmingham city being interdependent on it's rural surroundings?

Costs	Benefits

Exam Practice!

- ✓ The more you familiarise yourself with the exam paper, the more confident you will be when writing your final exams.
- ✓ Get use to writing up answers from the actual exam paper.
- ✓ Visit the Edexcel website for a look at past papers.
- ✓ On the following pages are a mixture of exam questions. Have a go at answering them!

Resources from TES amongst others for use by Quwwat Ul Islam Girls School