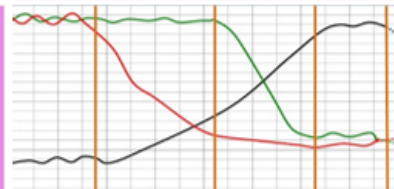


What is development?	
<b>Development is an improvement in living standards through better use of resources.</b>	
<b>Economic</b>	This is progress in economic growth through levels of industrialisation and use of technology.
<b>Social</b>	This is an improvement in people's standard of living. For example, clean water and electricity.
<b>Environmental</b>	This involves advances in the management and protection of the environment.

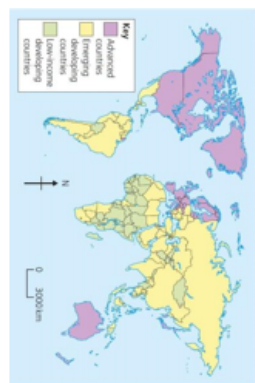
Measuring development	
These are used to compare and understand a country's level of development.	

Economic indicators examples	
<b>Employment type</b>	The proportion of the population working in primary, secondary, tertiary and quaternary industries.
<b>Gross Domestic Product per capita</b>	This is the total value of goods and services produced in a country per person, per year.
<b>Gross National Income per capita</b>	An average of gross national income per person, per year in US dollars.

Social indicators examples	
<b>Infant mortality</b>	The number of children who die before reaching 1 per 1000 babies born.
<b>Literacy rate</b>	The percentage of population over the age of 15 who can read and write.
<b>Life expectancy</b>	The average lifespan of someone born in that country.
Mixed indicators	
<b>Human Development Index (HDI)</b>	A number that uses life expectancy, education level and income per person.

The Demographic Transition Model					
The demographic transition model (DTM) shows population change over time. It studies how birth rate and death rate affect the total population of a country.					
	<b>STAGE 1</b>	<b>STAGE 2</b>	<b>STAGE 3</b>	<b>STAGE 4</b>	<b>STAGE 5</b>
	High DR High BR Steady	BR Low Declining DR Very High	Rapidly falling DR Low BR High	Low DR Low BR Zero	Slowly Falling DR Low BR Negative
	e.g. Tribes	e.g. Kenya	e.g. India	e.g. UK	e.g. Japan

Variations in the level of development	
<b>LICs</b>	Poorest countries in the world. GNI per capita is low and most citizens have a low standard of living.
<b>NEEs</b>	These countries are getting richer as their economy is progressing from the primary industry to the secondary industry. Greater exports leads to better wages.
<b>HICs</b>	These countries are wealthy with a high GNI per capita and standards of living. These countries can spend money on services.



Causes of uneven development	
Development is globally uneven with most HICs located in Europe, North America and Oceania. Most NEEs are in Asia and South America, whilst most LICs are in Africa. Remember, development can also vary within countries too.	

## Unit 2b The Changing Economic World

Physical factors affecting uneven development	
<b>Natural Resources</b>	<b>Natural Hazards</b>
<ul style="list-style-type: none"> <li>Fuel sources such as oil.</li> <li>Minerals and metals for fuel.</li> <li>Availability for timber.</li> <li>Access to safe water.</li> </ul>	<ul style="list-style-type: none"> <li>Risk of tectonic hazards.</li> <li>Benefits from volcanic material and floodwater.</li> <li>Frequent hazards undermines redevelopment.</li> </ul>
<b>Climate</b>	<b>Location/Terrain</b>
<ul style="list-style-type: none"> <li>Reliability of rainfall to benefit farming.</li> <li>Extreme climates limit industry and affects health.</li> <li>Climate can attract tourists.</li> </ul>	<ul style="list-style-type: none"> <li>Landlocked countries may find trade difficulties.</li> <li>Mountainous terrain makes farming difficult.</li> <li>Scenery attracts tourists.</li> </ul>

Human factors affecting uneven development	
<b>Aid</b>	<b>Trade</b>
<ul style="list-style-type: none"> <li>Aid can help some countries develop key projects for infrastructure faster.</li> <li>Aid can improve services such as schools, hospitals and roads.</li> <li>Too much reliance on aid might stop other trade links becoming established.</li> </ul>	<ul style="list-style-type: none"> <li>Countries that export more than they import have a trade surplus. This can improve the national economy.</li> <li>Having good trade relationships.</li> <li>Trading goods and services is more profitable than raw materials.</li> </ul>
<b>Education</b>	<b>Health</b>
<ul style="list-style-type: none"> <li>Education creates a skilled workforce meaning more goods and services are produced.</li> <li>Educated people earn more money, meaning they also pay more taxes. This money can help develop the country in the future.</li> </ul>	<ul style="list-style-type: none"> <li>Lack of clean water and poor healthcare means a large number of people suffer from diseases.</li> <li>People who are ill cannot work so there is little contribution to the economy.</li> <li>More money on healthcare means less spent on development.</li> </ul>
<b>Politics</b>	<b>History</b>
<ul style="list-style-type: none"> <li>Corruption in local and national governments.</li> <li>The stability of the government can affect the country's ability to trade.</li> <li>Ability of the country to invest into services and infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>Colonialism has helped Europe develop, but slowed down development in many other countries.</li> <li>Countries that went through industrialisation a while ago, have now develop further.</li> </ul>

Consequences of Uneven Development	
Levels of development are different in different countries. This uneven development has consequences for countries, especially in wealth, health and migration.	
<b>Wealth</b>	People in more developed countries have higher incomes than less developed countries.
<b>Health</b>	Better healthcare means that people in more developed countries live longer than those in less developed countries.
<b>Migration</b>	If nearby countries have higher levels of development or are secure, people will move to seek better opportunities and standard of living.

## Reducing the Global Development Gap

### Microfinance Loans

This involves people in LICs receiving smalls loans from traditional banks.

- + Loans enable people to begin their own businesses
- Its not clear they can reduce poverty at a large scale.

### Foreign-direct investment

This is when one country buys property or infrastructure in another country.

- + Leads to better access to finance, technology & expertise.
- Investment can come with strings attached that country's will need to comply with.

### Aid

This is given by one country to another as money or resources.

- + Improve literacy rates, building dams, improving agriculture.
- Can be wasted by corrupt governments or they can become too reliant on aid.

### Fair trade

This is a movement where farmers get a fair price for the goods produced.

- + Paid fairly so they can improve schools & health centres.
- Only a tiny proportion of the extra money reaches producers.

## CS: Reducing the Development Gap In Jamaica

### Location and Background

Jamaica is a LIC island nation part of the Caribbean. Location makes Jamaica an attractive place for visitors to explore the tropical blue seas, skies and palm filled sandy beaches

### Tourist economy

- In 2015, 2.12 million visited.
- Tourism contributes 27% of GDP and will increase to 38% by 2025.
- 130,000 jobs rely on tourism.
- Global recession 2008 caused a decline in tourism. Now tourism is beginning to recover.

### Multiplier effect

- Jobs from tourism have meant more money has been spent in shops and other businesses.
- Government has invested in infrastructure to support tourism.
- New sewage treatment plants have reduced pollution.

### Development Problems

- Tourists do not always spend much money outside their resorts.
- Infrastructure improvements have not spread to the whole island.
- Many people in Jamaica still live in poor quality housing and lack basic services such as healthcare.

## Case Study: Economic Development in Nigeria

### Location & Importance

Nigeria is a NEE in West Africa. Nigeria is just north of the Equator and experiences a range of environments.

Nigeria is the most populous and economically powerful country in Africa. Economic growth has been based on oil exports.

### Influences upon Nigeria's development

#### Political

Suffered instability with a civil war between 1967-1970. From 1999, the country became stable with free and fair elections. Stability has encouraged global investment from China and USA.

#### Cultural

Nigeria's diversity has created rich and varied artistic culture. The country has a rich music, literacy and film industry (i.e. Nollywood). A successful national football side.

#### The role of TNCs

- TNCs such as Shell have played an important role in its economy.
- + Investment has increased employment and income.
- Profits move to HICs.
- Many oil spills have damaged fragile environments.

#### Environmental Impacts

The 2008/09 oil spills devastated swamps and its ecosystems. Industry has caused toxic chemicals to be discharged in open sewers - risking human health. 80% of forest have been cut down. This also increases CO<sub>2</sub> emissions.

### Effects of Economic Development

Life expectancy has increased from 46 to 53 years. 64% have access to safe water. Typical schooling years has increased from 7 to 9.

#### Social

Nigeria is a multi-cultural, multi-faith society. Although mostly a strength, diversity has caused regional conflicts from groups such as the Boko Haram terrorists.

#### Industrial Structures

Once mainly based on agriculture, 50% of its economy is now manufacturing and services. A thriving manufacturing industry is increasing foreign investment and employment opportunities.

#### Changing Relationships

Nigeria plays a leading role with the African Union and UN. Growing links with China with huge investment in infrastructure. Main import includes petrol from the EU, cars from Brazil and phones from China.

#### Aid & Debt relief

- + Receives \$5billion per year in aid.
- + Aid groups (ActionAid) have improved health centres, provided anti-mosquito nets and helped to protect people against AIDS/HIV.
- Some aid fails to reach the people who need it due to corruption.

## Case Study: Economic Change in the UK

### UK in the Wider World

The UK has one of the largest economies in the world. The UK has huge political, economic and cultural influences. The UK is highly regarded for its fairness and tolerance. The UK has global transport links i.e. Heathrow and the Eurostar.

### Causes of Economic Change

De-industrialisation and the decline of the UK's industrial base. Globalisation has meant many industries have moved overseas, where labour costs are lower. Government investing in supporting vital businesses.

### Developments of Science Parks

- Science Parks are groups of scientific and technical knowledge based businesses on a single site.
- Access to transport routes.
- Highly educated workers.
- Staff benefit from attractive working conditions.
- Attracts clusters of related high-tech businesses.

### Change to a Rural Landscape

#### Social

Rising house prices have caused tensions in villages. Villages are unpopulated during the day causing loss of identity. Resentment towards poor migrant communities.

#### Improvements to Transport

A £15 billion 'Road Improvement Strategy'. This will involve 10 new roads and 1,600 extra lanes. £50 billion HS2 railway to improve connections between key UK cities. £18 billion on Heathrow's controversial third runway. UK has many large ports for importing and exporting goods.

### Towards Post-Industrial

The quaternary industry has increased, whilst secondary has decreased. Numbers in primary and tertiary industry has stayed the steady. Big increase in professional and technical jobs.

### CS: UK Car Industry

- Every year the UK makes 1.5 million cars. These factories are owned by large TNCs. i.e. Nissan.
- 7% of energy used there factories is from wind energy.
- New cars are more energy efficient and lighter.
- Nissan produces electric and hybrid cars.

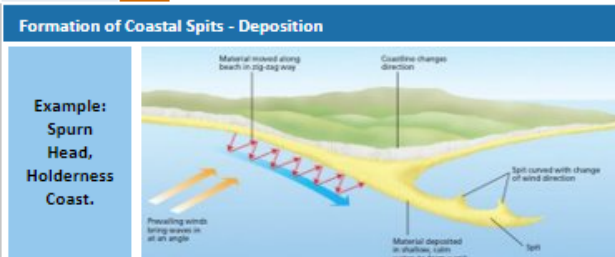
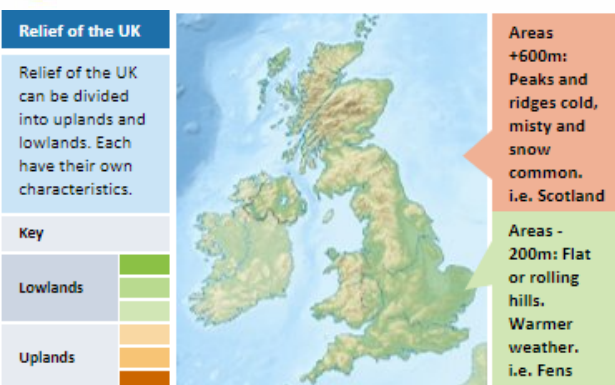
#### Economic

Lack of affordable housing for local first time buyers. Sales of farmland has increased rural unemployment. Influx of poor migrants puts pressures on local services.

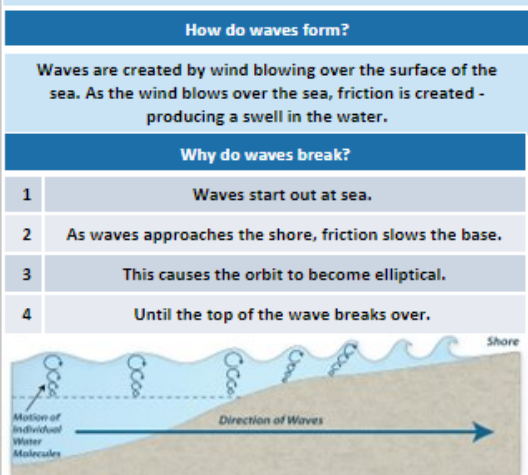
### UK North/South Divide

- Wages are lower in the North.
- Health is better in the South.
- Education is worse in the North.
- + The government is aiming to support a Northern Powerhouse project to resolve regional differences.
- + More devolving of powers to disadvantaged regions.





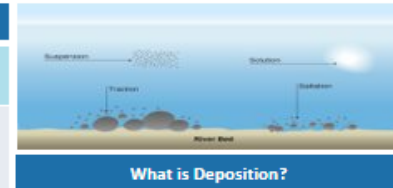
- Swash moves up the beach at the angle of the prevailing wind.
- Backwash moves down the beach at 90° to coastline, due to gravity.
- Zigzag movement (Longshore Drift) transports material along beach.
- Deposition causes beach to extend, until reaching a river estuary.
- Change in prevailing wind direction forms a hook.
- Sheltered area behind spit encourages deposition, salt marsh forms.



Types of Erosion	
The break down and transport of rocks – smooth, round and sorted.	
Attrition	Rocks that bash together to become smooth/smaller.
Solution	A chemical reaction that dissolves rocks.
Abrasion	Rocks hurled at the base of a cliff to break pieces apart.
Hydraulic Action	Water enters cracks in the cliff, air compresses, causing the crack to expand.

Types of Weathering	
Weathering is the breakdown of rocks where they are.	
Carbonation	Breakdown of rock by changing its chemical composition.
Mechanical	Breakdown of rock without changing its chemical composition.

Types of Transportation	
A natural process by which eroded material is carried/transported.	
Solution	Minerals dissolve in water and are carried along.
Suspension	Sediment is carried along in the flow of the water.
Saltation	Pebbles that bounce along the sea/river bed.
Traction	Boulders that roll along a river/sea bed by the force of the flowing water.



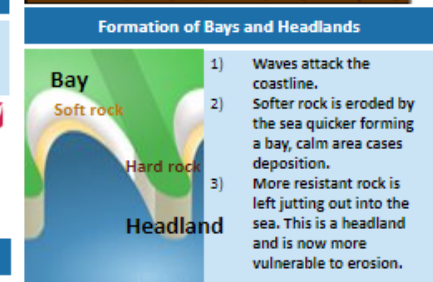
**What is Deposition?**

When the sea or river loses energy, it drops the sand, rock particles and pebbles it has been carrying. This is called deposition.

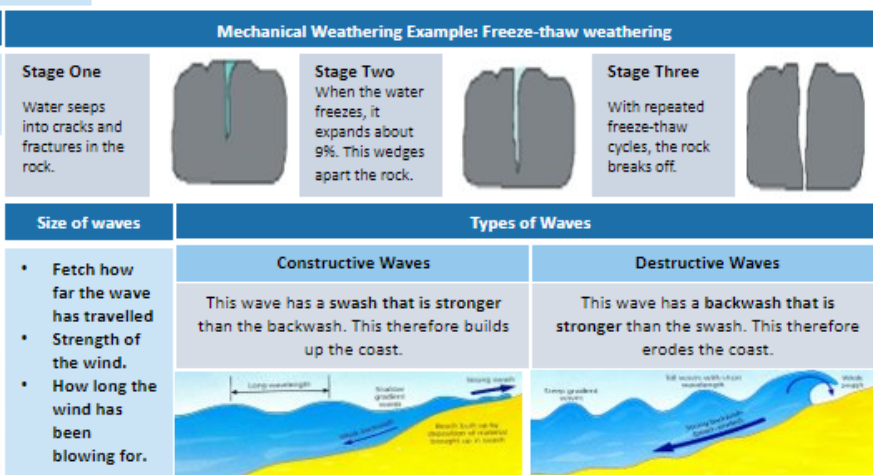
## Unit 1c Physical Landscapes in the UK



Mass Movement	
A large movement of soil and rock debris that moves down slopes in response to the pull of gravity in a vertical direction.	
1	Rain saturates the permeable rock above the impermeable rock making it heavy.
2	Waves or a river will erode the base of the slope making it unstable.
3	Eventually the weight of the permeable rock above the impermeable rock weakens and collapses.
4	The debris at the base of the cliff is then removed and transported by waves or river.



- Hydraulic action widens cracks in the cliff face over time.
- Abrasion forms a wave cut notch between HT and LT.
- Further abrasion widens the wave cut notch to form a cave.
- Caves from both sides of the headland break through to form an arch.
- Weather above/erosion below – arch collapses leaving stack.
- Further weathering and erosion leaves a stump.



## Coastal Defences

### Hard Engineering Defences

<b>Groynes</b>	Wood barriers prevent longshore drift, so the beach can build up.	✓ Beach still accessible. ✗ No deposition further down coast = erodes faster.
<b>Sea Walls</b>	Concrete walls break up the energy of the wave. Has a lip to stop waves going over.	✓ Long life span ✓ Protects from flooding ✗ Curved shape encourages erosion of beach deposits.
<b>Gabions or Rip Rap</b>	Cages of rocks/boulders absorb the waves energy, protecting the cliff behind.	✓ Cheap ✓ Local material can be used to look less strange. ✗ Will need replacing.

### Soft Engineering Defences

<b>Beach Nourishment</b>	Beaches built up with sand, so waves have to travel further before eroding cliffs.	✓ Cheap ✓ Beach for tourists. ✗ Storms = need replacing. ✗ Offshore dredging damages seabed.
<b>Managed Retreat</b>	Low value areas of the coast are left to flood & erode.	✓ Reduce flood risk ✓ Creates wildlife habitats. ✗ Compensation for land.

### Case Study: Hunstanton Coast

**Location and Background**  
Located on the North-West coast of Norfolk. The town is a popular sea resort for tourists to visit all year round. In 2013, the town suffered damage from a storm surge. The Sea Life Centre was flooded and closed for a number of months.

### Geomorphic Processes

- Old Hunstanton is dominated by dunes that are formed when sand is trapped and built up behind objects.
- Hunstanton Cliffs are made from three different bands of rock (sandstone, red chalk and white chalk).
- Hunstanton Cliff are exposed to cliff retreat. This is when a wave-cut notch develops enough for the cliff face to become unstable and eventually collapses.
- Longshore drift travels from Sheringham in the north to the Wash in the south.

### Management

- Hunstanton is protected by a number of groynes. These trap sand to build up the beach for better protection.
- The town is also protected by large sea walls to prevent flooding and deflect the waves energy.
- \$15 million has been spent on beach nourishment to add sediment to beach for increased protection against flooding.

## Water Cycle Key Terms

<b>Precipitation</b>	Moisture falling from clouds as rain, snow or hail.
<b>Interception</b>	Vegetation prevent water reaching the ground.
<b>Surface Runoff</b>	Water flowing over surface of the land into rivers
<b>Infiltration</b>	Water absorbed into the soil from the ground.
<b>Transpiration</b>	Water lost through leaves of plants.

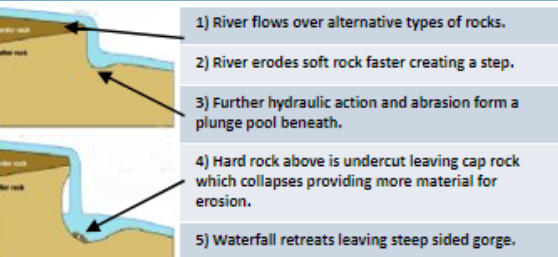
### Physical and Human Causes of Flooding.

<b>Physical: Prolong &amp; heavy rainfall</b> Long periods of rain causes soil to become saturated leading runoff.	<b>Physical: Geology</b> Impermeable rocks causes surface runoff to increase river discharge.
<b>Physical: Relief</b> Steep-sided valleys channels water to flow quickly into rivers causing greater discharge.	<b>Human: Land Use</b> Tarmac and concrete are impermeable. This prevents infiltration & causes surface runoff.

### Upper Course of a River

Near the source, the river flows over steep gradient from the hill/mountains. This gives the river a lot of energy, so it will erode the riverbed vertically to form narrow valleys.

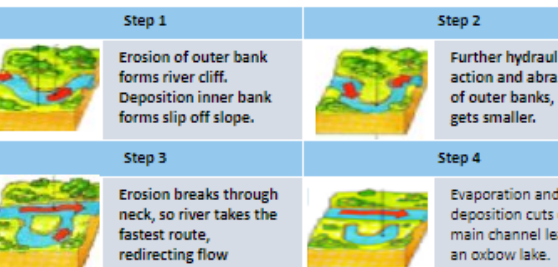
### Formation of a Waterfall



### Middle Course of a River

Here the gradient get gentler, so the water has less energy and moves more slowly. The river will begin to erode laterally making the river wider.

### Formation of Ox-bow Lakes



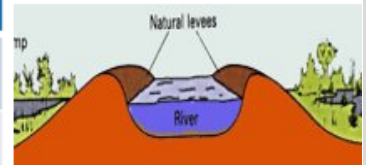
## Lower Course of a River

Near the river's mouth, the river widens further and becomes flatter. Material transported is deposited.

### Formation of Floodplains and levees

When a river floods, fine silt/alluvium is deposited on the valley floor. Closer to the river's banks, the heavier materials build up to form natural levees.

✓ Nutrient rich soil makes it ideal for farming.  
✓ Flat land for building houses.

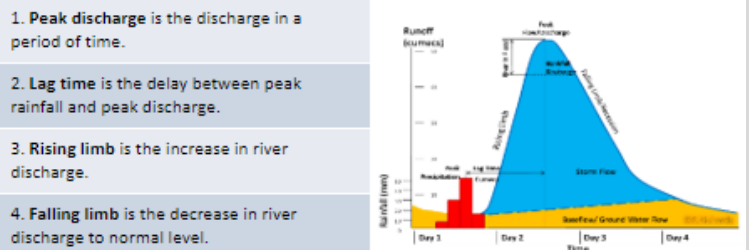


### River Management Schemes

<b>Soft Engineering</b>	<b>Hard Engineering</b>
Afforestation – plant trees to soak up rainwater, reduces flood risk. Demountable Flood Barriers put in place when warning raised. Managed Flooding – naturally let areas flood, protect settlements.	Straightening Channel – increases velocity to remove flood water. Artificial Levees – heightens river so flood water is contained. Deepening or widening river to increase capacity for a flood.

### Hydrographs and River Discharge

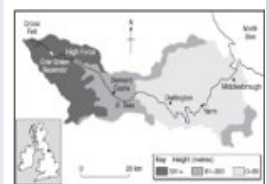
River discharge is the volume of water that flows in a river. Hydrographs who discharge at a certain point in a river changes over time in relation to rainfall



### Case Study: The River Tees

**Location and Background**  
Located in the North of England and flows 137km from the Pennines to the North Sea at Red Car.

**Geomorphic Processes**  
Upper – Features include V-Shaped valley, rapids and waterfalls. Highforce Waterfall drops 21m and is made from harder Whinstone and softer limestone rocks. Gradually a gorge has been formed.  
Middle – Features include meanders and ox-bow lakes. The meander near Yarm encloses the town.  
Lower – Greater lateral erosion creates features such as floodplains & levees. Mudflats at the river's estuary.



**Management**  
- Towns such as Yarm and Middleborough are economically and socially important due to houses and jobs that are located there.  
- Dams and reservoirs in the upper course, controls river's flow during high & low rainfall.  
- Better flood warning systems, more flood zoning and river dredging reduces flooding.