

Year 7

AUTUMN TERM 1

The UK and map skills

AUTUMN TERM 2

Tectonic hazards-Haiti earthquake

SPRING TERM 1

Weather and climate

SPRING TERM 2

Economic and social development

SUMMER TERM 1

Rivers

SUMMER TERM 2

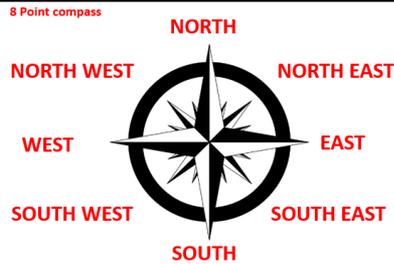
Development-Malawi/Singapore

The United Kingdom

The world is made up of 7 continents (South America, North America, Europe, Africa, Asia, Oceania/Australasia, Antarctica and Antarctica). The United is located in Europe and is made up of four countries (England, Wales, Scotland and Northern Ireland). London is the capital city of the United Kingdom.

8 point compass

Is used to describe direction.



Scale

A scale is used to help us work out real distances between two places on a map. You can use a scale line or ratio (e.g. 1 : 25,000).

- If a scale is 1 : 25,000 then it means 1cm on the map is the same distance as 25,000 on the ground. Therefore if a church and school are 2cm away from each other on a map, they are actually 50,000cm away from each other on the ground. 50,000cm = 500m.

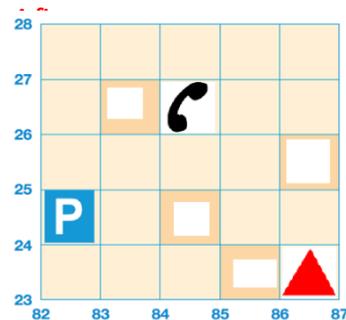
An OS map is a very detailed map. OS maps are split up into squares. These are known as grid squares. A grid reference is used to help describe the location of a place or feature on a map. It directs you to a certain grid square

How to read a 4 figure grid reference: remember the rule **along the corridor, up the stairs**.

Step by step process to write the 4 figure grid reference of the telephone:

- Draw a X in the bottom corner of the grid square.
- Along the corridor** – go along the horizontal axis until you reach the line that the X is on = 84. These make up the first two numbers.
- Up the stairs** – go along the vertical axis until you reach the line that the X is on = 26. These make up the second two numbers
- Therefore the 4 figure grid reference is **84, 26**

ALWAYS read the **BOTTOM LEFT** corner of the box or symbol



Human Geography of the UK

Human features have been created by humans (*towns cities roads and railwa*)

- London (city)
- Birmingham (city)
- M1
- M25



Physical Geography of the UK

Physical features are natural features of the land that have not been created by humans (*rivers, lakes, mountains and oceans*). Physical features are shown on a relief map. Relief is the geographical word that tells us the lay of the land (slope steepness, altitude (height above sea level)).

- Ben Nevis, Scarfell Pike, Showdown
- River Thames, River Trent

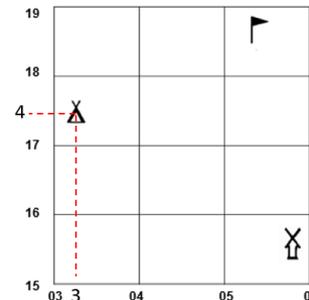


How to describe locations using physical and human features.

- Use compass points to state what the location is next to
- State the physical features in the area
- State the human features in the area.

6 figure grid references.

These are used to state where exactly in a grid square a feature is. To create a 6 figure grid reference you need to also say how many tenths *across* the square and *up* the square the symbol is. The extra two numbers make up the 3rd and 6th number in the grid reference.

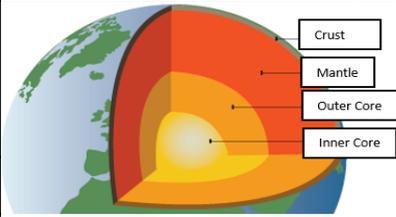


Step by step process to write the 6 figure grid reference of the campsite:

- What is the grid square? 03, 17
- To work out the 3rd number you state how many tenths across the campsite is in 03, 17 = 03**3**, 17 _
- To work out the 6th number you state how many tenths up the grid square the campsite is = 033, **174**
- Therefore the six figure grid reference is **033, 174**

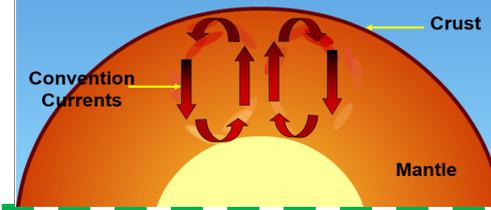
The Geography Knowledge – Tectonic Hazards

Tectonic Plates	The crust is split into several pieces (like a cracked egg shell). These pieces of rock are called tectonic plates. They float on the mantle.
Oceanic Crust	Crust found under the oceans (thin, young, more dense)
Continental Crust	Crust found under land (thick, old, less dense)
Continental Drift	Theory that said the earth's continents are very slowly moving in different directions.
Subducted	Goes underneath
Magma	Molten(melted) rock
Focus	The point where the pressure is released
Fault line	The line between the two plates



CONVECTION CURRENTS

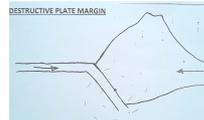
- The mantle is made up of semi molten rock.
- Convection currents are circular currents in the mantle. The magma is heated up, it rises. Then cools as it hits the surface. It moves in a circular motion and drags the tectonic plate along.



DESTRUCTIVE PLATE BOUNDARY

Two plates move towards each other. One plate is **subducted** beneath the other.

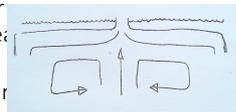
- As they move past each other, pressure builds up and up and up. This pressure is suddenly released = earthquake.
- As they move past each other friction and pressure cause the surrounding plate to melt = magma. This rises through the crust = volcano.



CONSTRUCTIVE PLATE BOUNDARY

Two plates move away from each other due to convection currents in the mantle.

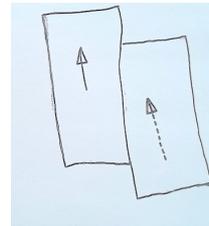
- This leaves a gap. Magma rises to fill this gap = volcanoes. This usually occurs under oceans. The magma creates new land = sea floor spreading
- As a magma rises, small earthquakes occur



CONSERVATIVE PLATE BOUNDARY

Two plates move past each other, either in the same direction at different speeds or in opposite directions.

- As the two plates slide past each other, pressure builds up and up and up. This is suddenly released = earthquakes



HAITI EARTHQUAKE (LIC)

Where: Haiti, Caribbean Islands.

Plate Margin: conservative plate boundary of the Caribbean and North American plates

When: 12th January, 2010

Magnitude: 7.0 on the Richter Scale.

Epicentre: 25km west of Port-au-Prince, at a depth of 13km

EFFECTS

Primary effects happen straight away or are a direct cause of the earthquake.

Secondary effects happened after the earthquake and are often as a result of a primary effect. See below:

PRIMARY EFFECTS

- 220,000 dead
- 300,000 injured
- 200,000 homes damaged and 100,000 destroyed
- 8 hospitals destroyed in Port-au-Prince
- 5000 schools destroyed or damaged
- Transportation routes (roads, rail, ports, airports) destroyed by fallen buildings
- Service lines (water, gas, electricity) destroyed

SECONDARY EFFECTS

- Trauma and diseases from dead bodies.
- 1.3 million Haitians in temporary camps
- Increase in unemployment and companies stop making money as cannot export goods
- High crime rates
- Aid supplies could not reach victims.
- 2 million Haitians with no food, electricity, water
- Cost :\$11.5 billion

Earthquake
A sudden movement of tectonic plates due to a release of energy of pressure. It is followed by a series of aftershocks.
As tectonic plates suddenly move, they send out **SHOCK WAVES**
The point of movement is called the **FOCUS**. The point directly above the focus is called the **EPICENTRE**
The closer you are to the focus and epicentre, the stronger the earthquake will be.

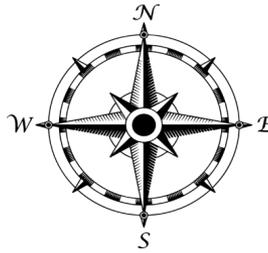
	HIC	LIC
Quality of infrastructure	The buildings, roads and bridges in HICs are much stronger. They also have earthquake proof buildings that do not fall down.	The buildings are built out of poor quality materials = fall down during earthquake.
Use of monitoring and predicting equipment	HICs use equipment to monitor the ground to predict when the earthquake will occur. They also have plans to help them prepare for when the earthquake occurs	Not all LICs can afford monitoring equipment to predict when the earthquake will occur or have sufficient plans to help them prepare for when it does.
Communication systems	HICs have good communication systems to help communicate with the population what to do following the earthquake.	LICs do not have good communication systems to communicate with the population what to do following the earthquake = do not know what to do.
GDP: wealth of country	Countries have more money to spend planning, predicting and protecting themselves from the earthquake, they can also rebuild the country quicker.	LICs, do not have the money to rebuild after a natural disaster. They also can't spend as much money on search and rescue or clean up operations.

The Geography Knowledge – Weather

The UK is located in the northern hemisphere, in the continent of Europe. It is an island made up of four countries:

- England, Scotland, Wales and Northern Ireland.

To describe the weather in each of the UK we use weather symbols and compass directions.



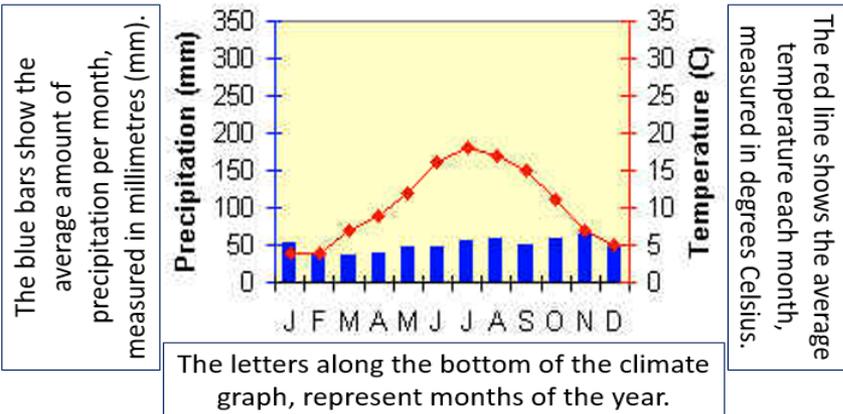
Why is the weather different around the world?

Altitude	The higher you are above sea level, the colder it is. The temperature falls by about 1°C every 100 meters.
Prevailing Wind	The most common wind direction of a location. <ul style="list-style-type: none"> • If the prevailing wind direction is over water, it brings rain. • If the prevailing wind direction is over land, it brings dry air. In the UK, the prevailing wind is from the SW, over the Atlantic Ocean = moist (wet) air which is why we have lots of rain.
Ocean Currents	The temperature of water surrounding a country affects its temperature. <ul style="list-style-type: none"> • If there are warm ocean currents, the temperature will be warm. • If there are cold ocean currents, the temperature will be cold. In Britain we have warm ocean currents, which have travelled across the Atlantic Ocean from the Gulf of Mexico where it is hot. This ocean current is called the North Atlantic Drift and it warms the coast of the UK.
Latitude	Latitude means how far a place is from the equator. <ul style="list-style-type: none"> • Far from the equator (e.g. poles) it is very cold as the sun has to travel further and lots of the sun's rays bounce off the curved earth's surface. • At the equator it is very hot as the sun has to travel less far and less of the sun's rays bounce off the flat surface. They are absorbed = hot.

Geographers collect climate data to use this to calculate average weather conditions each month (e.g. temperature and precipitation).

This data is plotted on a climate graph.

A climate graph shows how precipitation and temperature change throughout the year.



Millennium Drought

2002-2009 in South-East Australia. Worst drought in 125 years, caused by high air pressure. Overall, 40% of the land in South-East Australia became desertified, i.e. turned into desert.

Tewkesbury Floods

Following a dry April, the summer of 2007 was one of the wettest on record. On 20th July 2007, two months' worth of rain fell in 24 hours.

SOCIAL EFFECTS	ECONOMIC EFFECTS
<ul style="list-style-type: none"> • Two people were killed during the floods • 5,000 homes and businesses were flooded • 48,000 homes left without electricity for 2 days • 135,000 homes without drinking water for 2 weeks 	<ul style="list-style-type: none"> • Overall damage reached over £50 million • Transport routes destroyed, costing £25million • 7,500 business without mains water for 17 days

Social Effects	Economic Effects	Environmental Effects
<ul style="list-style-type: none"> • Crop yields dropped by 66% • Government imposed hosepipe bans • Buildings became damaged due to extreme heat • Deaths recorded due to heat stroke • Increased suicide rate due to financial struggles. 	<ul style="list-style-type: none"> • Families had to sell their farms due to death of livestock and crops • Crop yields dropped by 66% • Food had to be imported from abroad • Food and water bills increased by 20% due to increasing demand • Economy suffered as food exports declined 	<ul style="list-style-type: none"> • Crop yields dropped by 66% • Livestock (animals) died due to lack of food and water • Bushfires became more common due to dry, hot conditions, destroying habitats • Dry soils left exposed to soil erosion

Air Pressure is how heavy or dense the air is.



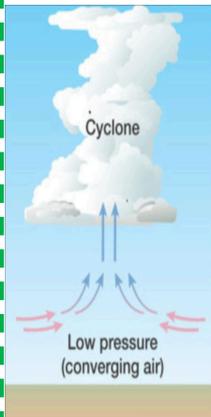
High Air Pressure	Low Air Pressure
In summer, days are hot and sunny, whereas nights are cool and clear. In winter, days are bright with clear skies and can get very cold.	As warm air rises, clouds condense. Precipitation is common. The cloud cover traps heat, leading to muggy nights and warmer temperatures.

Describing Climates of the World

Polar Climate	Average temperatures under 10°C. Cool summers and very cold winters. Permanent Permafrost
Equatorial Climate	Hot average temperatures year-round. Common in countries such as Brazil. Average annual precipitation no less than 2000mm. Found within 10 to 15 degrees latitude of the equator.
Maritime Climate	Climate with low temperature range, influenced by its proximity to the sea. Winters will be warmer, and summers cooler, to the Continental Climate of similar latitudes. Examples include the United Kingdom.
Continental Climate	Climate with a high temperature range, with warm to hot summers and cold to very cold winters. Continental Climates are often found inland, far from the oceans. Examples include parts of Canada, the U.S.A, and inland Europe.
Mediterranean Climate	Not too hot and not too cold. Found around the Mediterranean Sea. Summers tend to be warm/hot and dry, and winters cool and rainy.
Desert Climate	Extremely dry and the hottest of the world's climates. Temperatures frequently rise above 40°C. Average rainfall below 250mm per year. Nights can be cold due to lack of humidity and cloud cover.

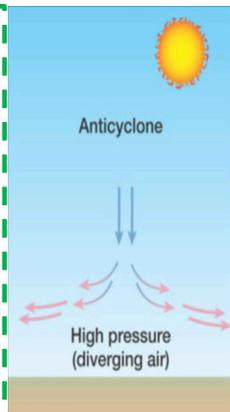
LOW AIR PRESSURE

When air is rising, there are fewer molecules in the atmosphere = low air pressure. This occurs where the ground is heated by direct sunlight. As the warm air rises it cools and condenses to form clouds. The clouds become saturated, causing precipitation.



HIGH AIR PRESSURE

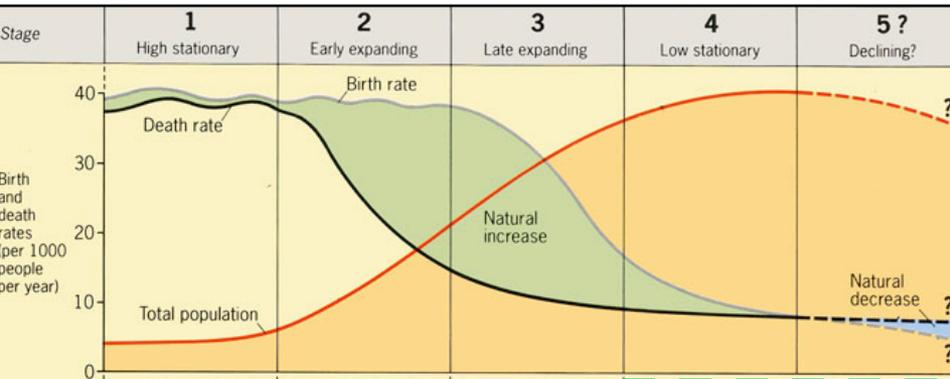
When warm air rises, cooler air sinks somewhere else. When air sinks, there are more air molecules in the lower atmosphere = high air pressure. As air sinks, no water vapour is condensing in the upper atmosphere and therefore there are no clouds or precipitation.



Weather Symbols

	Temperature. Measured in degrees Celsius using a thermometer.
	Cloud Cover. Measured in Octas, or in eights.
	Rainfall. Measured in millimetres per day/month/year using a rain gauge.
	Wind speed and wind direction. Measured using an anemometer and wind vane.
	Snowfall. A form of precipitation.

The demographic transition model suggests that countries pass through five stages of development.



Stages of the DTM

Stage 1: High birth rate, high death rate. Low population and low population growth due to dirty water, lack of healthcare, famine, and disease.

Stage 2: Birth rate stays high, however death rate drops due to more money being spent on healthcare and clean water. Population increases.

Stage 3: Birth rate starts to drop as people start having less children. Birth control education improves and most children survive to adulthood meaning that as most children survive to adulthood. Birth rate drops – population increase slows down.

Stage 4: The country is now wealthy. Family planning is widespread. Low birth rate and death rate. Small population growth.

Stage 5: People have very few children. The death rate is higher than the birth rate. The population starts to decline.

Development The process of change for the better.

- HIC - High Income Country (UK, USA, NORWAY)
- NEE – Newly Emerging Economy (BRAZIL, INDIA, CHINA)
- LIC- Low Income Country (GHANA, KENYA, HAITI)

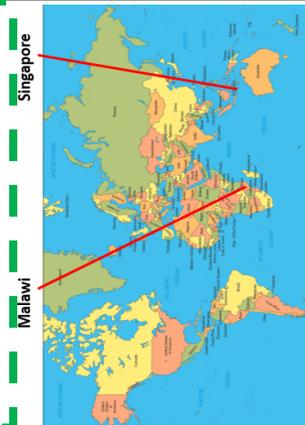
Development indicators.

- **Birth Rate:** the number of births per 1000 people per year.
- **Death Rate:** the number of deaths per 1000 people per year.
- **Natural Increase:** when the birth rate is higher than the death rate, the population gets bigger.
- **Life expectancy:** the average number of years a person lives. It is affected by access to clean water, food & healthcare
- **Access to food/calories per person:** the average amount of food a person has access to. It will impact on the percentage of people who are severely underweight or obese.
- **Literacy rates:** the percentage of people who can read or write. It is affected by the quality of education.

MALAWI – LIC

Location: East Africa
Population: 17 million people

- Malawi is one of the world's poorest countries.
- 90% of its people earn a living by farming
- It exports tobacco, sugar, tea and cotton.
- The literacy rate is 61%



SINGAPORE- HIC

Location: south East Asia/southern tip of Malaysia.

Population: 4 million people

- Singapore is one of the world's richest countries
- The country earns money by exporting expensive products
- Most children have access to a great education.
- There is good access to food and clean water.

Causes of the gap

GEOGRAPHY

LICs are hot and dry and have few natural resources, central African countries are landlocked. HICs have rich nutritious soils

HEALTH and SANITATION

A healthy well educated workforce can help a country to develop. Unwell and malnourished people can not work.

CONFLICT and CORUPTION

A country has a better chance of developing if it has a stable government. If countries are fighting with one another they will spend their money on guns rather than development.

Reducing the gap

TOURISM Helps to raise the standard of living

Gives jobs to local people

Tourists spend their holiday money in local businesses

AID is when a country receives help from another country or non-governmental organisation to help develop and improve people's lives.

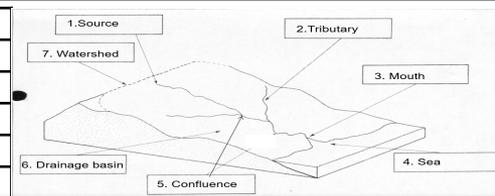
INVESTMENT Many countries and large companies choose to give money to poorer countries to build roads, hospitals and universities.

The Geography Knowledge - Rivers



1. Evaporation	When the sun heats up water from the sea and it goes into the air.
2. Transpiration	When the sun heats up water from the leaves of trees.
3. Condensation	When water vapour cools and turns into clouds
4. Precipitation	Rain, hail, sleet and snow that falls from the clouds
5. Surface run-off	When the water runs off the surface of the ground.
6. Groundwater flow	When water goes into the ground (infiltration) and flows through the rocks/soil underground.

Drainage Basin	The area of land in which water drains into a specific river.
Watershed	The boundary of a drainage basin. It separates one drainage basin from another. It is usually high land.
Source	The point where the river begins.
Tributary	A stream or small river that joins a larger stream or big river.
Confluence	A point where two streams or rivers meet.
Mouth	The point where the river meets the sea or ocean.



Embankment (levees)	High banks built on or near riverbanks. Raising the riverbank allows the river to hold more water. Sometimes they can be ineffective after very heavy rainfall.
Flood Relief Channel	A man-made river channel connected to the main river channel to divert water after heavy rain. Controls the amount of water in the main river = control flooding. Unnatural and expensive.
Channelisation	Deepening and/or straightening the river. The water moves through the channel more quickly = the water never has time to build up and flood. More water is taken downstream = flooding downstream. Unnatural and expensive.
Afforestation	Trees are planted in the drainage basin. Trees intercept and store water = reduces the amount of water in the river channel. They are environmentally friendly. Land cannot be used for other activities (e.g. farming)
Land Use Zoning	Land is allocated for different uses according to the risk of flooding. Land closest to the river, at high risk, is used as parkland/playing fields. Land further from the river is used for housing and industry. Reduces cost of flood as less expensive land is destroyed. Flood still occurs. Land value next to rivers is less.
Flood Warning System	Rivers are carefully watched and if the water level rises, an alarm is sounded. People can prepare for the flood or evacuate. Flood still occurs. People don't always have enough response time.

TEWKESBURY (SOMERSET) FLOODS

Where: Tewkesbury, Gloucestershire, West England
When and why: On July 21st 2007, 83mm of rain fell in just a few hours, leading to the River Severn bursting its banks.

SOCIAL EFFECTS	ECONOMIC EFFECTS	ENVIRONMENTAL EFFECTS
<ul style="list-style-type: none"> 50,000 homes were flooded and 850 families moved into temporary housing 13 people died. 140,000 home lost water services for up to 2 months. Homes and hospitals lost electricity for 48 hours. 	<ul style="list-style-type: none"> 9000 businesses were flooded. The flood cost local councils £140 million. Floodwater (containing sewage) flooded agricultural fields (farm land) and destroyed crops 	<ul style="list-style-type: none"> Habitats were flooded, affecting wildlife. Floodwater (containing sewage) flooded agricultural fields (farm land) and destroyed crops

Erosion	The wearing away and removal of material due to fast flowing water.
Transportation	The river carries the eroded material downstream.
Deposition	The river drops the material it is carrying when it loses energy (slower)

Meander – a bend in the river

- It starts with a slight bend. Water moves faster on the outside of the bend and slower on the inside.
- The fast water erodes the outside of the bend. The slower water deposits material on the inside of the bend.
- Continued erosion and deposition makes the bend bigger.

Oxbow Lake – a U shaped lake near a river

- Over time erosion makes the meander bend larger and the neck narrows.
- Eventually the neck breaks through and the water takes the most direct route, avoiding the meander.
- As less water is flowing through the meander, the energy is reduced = deposition. The meander is blocked off and an oxbow lake is created.

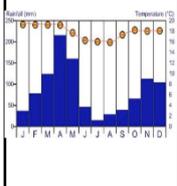
The Geography Knowledge



Continent:	Africa
Neighbouring countries:	Somalia, Ethiopia, South Sudan, Uganda and Tanzania
Neighbouring ocean:	Indian Ocean
Capital city:	Nairobi
Second largest city:	Mombasa
Highest mountain:	Mount Kenya (5199 metres high)



WHY TRAVEL TO KENYA FOR HOLIDAY?

<p>SAFARI</p> 	<p>See exotic wildlife up close in their natural habitats.</p> <ul style="list-style-type: none"> E.g. <i>The Mara Serena Safari Lodge, in the Masai Mara National Reserve. You can see Lions, Elephants, Rhinos, Giraffes, Zebras and much more.</i>
<p>CULTURE & TRADITIONS</p> 	<p>Kenya's tribes/cultures are very different to the UK's such as the Masai Mara.</p> <ul style="list-style-type: none"> E.g. <i>The Masai Mara are a tribe of tall and fierce warriors. They wear bright red clothes and hunt animals using spears. They are nomadic which means they move around from place to place</i>
<p>ACTIVITIES</p> 	<p>Kenya has many activities to take part in. E.g. scuba diving, windsurfing, sailing and mountain climbing.</p> <ul style="list-style-type: none"> E.g. <i>You can climb Mount Kenya, Kenya's tallest mountain at 5199 metres above sea level and takes five days to climb. You can also snorkel or scuba dive around the coral reefs in the Indian Ocean</i>
<p>CLIMATE</p> 	<p>Warm climate all year, with plenty of sunshine. Visitors are able to enjoy most activities on the beaches and national parks all year. It provides perfect weather for those who live in colder countries to escape to.</p> <ul style="list-style-type: none"> Hottest months – January, February & March (20°C) Coollest months – July & August (16°C).

POSITIVE AND NEGATIVE IMPACTS OF TOURISM IN KENYA

POSITIVE IMPACT	NEGATIVE IMPACT
<p>JOBS – Creates employment opportunities (restaurants, hotels, transportation, tourist attractions)</p>	<p>JOBS – Low paid (as little as 63p/hr) and unskilled employment options.</p>
<p>DEVELOPMENT – Income from tourism used for development (e.g. new roads, clean water, Jomo Kenyatta airport)</p>	<p>POLLUTION:</p> <ul style="list-style-type: none"> Air travel – airports/extra planes Development – machines release pollution.
<p>NATIONAL PARKS – Protects the natural environment as so many people want to go on a safari and will pay a lot of money.</p>	<p>WATER OVERUSE AND SHORTAGES – tourists use too much water (e.g. swimming pools, golf course)</p>

SUSTAINABLE TOURISM IN KENYA (meeting the needs of today, without harming the environment in the future)

<p>Renewable energies</p>	<p>Solar panels, wind turbines, hydro-electric energy</p>
<p>Reduce use of energy:</p>	<p>Low energy light bulbs, turn off switches when not in use.</p>
<p>Buy and employ locally</p>	<p>Buy food and materials from local farms = jobs to the local community. Employ people locally.</p>
<p>Recycle water (grey water)</p>	<p>Recycle grey water from showers and bathtubs to water plants. This prevents wastage.</p>
<p>Water tank</p>	<p>Collect rainwater in a tank to water plants, irrigate crops and fill swimming pools. This prevents wastage.</p>

Year 8

AUTUMN TERM 1

Climate change

AUTUMN TERM 2

Ecosystems

SPRING TERM 1

Ecosystems-Tropical Rainforest

SPRING TERM 2

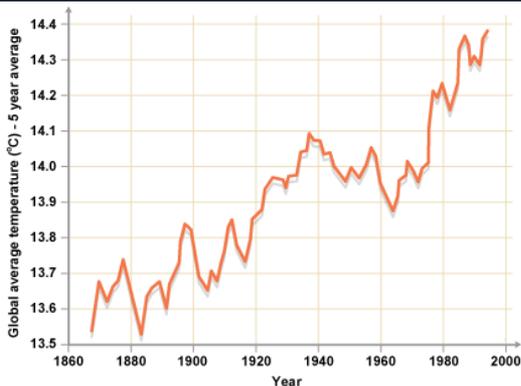
Population and urbanisation

SUMMER TERM 1

Coasts

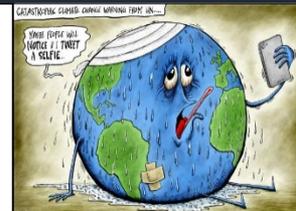
SUMMER TERM 2

Managing the earths resources



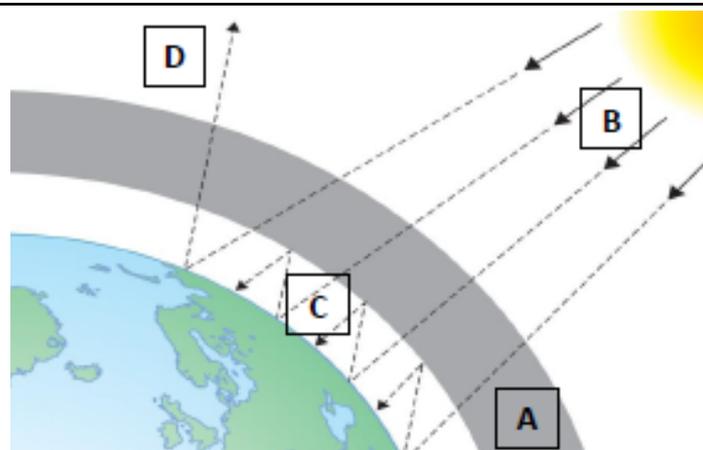
4 Steps to reading graphs

1. What does the graph show? (look at the x and y axis) read the axis titles.
2. What is the general pattern? Is it positive is it negative, what does it show?
3. First piece of evidence – Read a fact from the graph, the highest point?
4. Second piece of evidence- Read a fact from the graph, the lowest point?



Effects of climate change

1. Heatwaves lead to loss of tourism revenue (income) as areas become too hot to visit.
2. Animals face extinction as their habitats are destroyed due to flooding and extreme weather.
3. Crops (food plants) die meaning that farms and countries make less money.
4. Extreme weather is more common. Tropical storms place people at severe risk.
5. Hot weather = pests and diseases are more common.
6. Extreme water is more common. Severe droughts, mean millions suffer from lack of food and water.
7. Pest and diseases are more common. New countries have malaria, as temperatures rise.
8. Melting of ice caps = sea level rise = flooding.



Causes of climate change

The **greenhouse effect** acts like a blanket and keeps the heat trapped inside the atmosphere, warming the earth up.

A-Humans burn fossil fuels to make energy. This produces a layer of greenhouse gases (carbon dioxide, nitrous oxide) in the atmosphere.

B-Sunlight passes through the earth's atmosphere as short wave radiation and warms up the earth.

C-Heat from the sun is reflected by the land and the sea. The rays are reflected as infrared radiation. The greenhouse gases trap the reflected heat. Eventually more heat is trapped by the greenhouse gases. The temperature rises.

D-Some heat does manage to pass through the greenhouse gases and escape into space.

Sustainability – meeting the needs of today without harming the environment for the future.

To reduce the effects of climate change we must...

Use **less electricity**, this will burn **less fossil fuels**, therefore **fewer greenhouse gases** are released into the atmosphere.

In the home we can...

- Use low energy light bulbs or lights with timers.
- Turning down your heating will reduce the amount of electricity used.
- Have double glazed windows to trap heat inside.
- Turn off electrical equipment when they are not in use.
- Have a shower instead of a bath, this mean less water needs to be heated for your shower.
- Insulate walls and roof to trap heat inside the house so you don't need to use as much heating.
- Solar panels produce electricity without using fossil fuels, which helps reduce greenhouse gases in the atmosphere.

Natural causes of climate change

Sunspots: A sunspot is dark patch on the sun. *Lots of sunspots = warmer* *Very few sunspots = cooler*
Every 11 years the number of sunspots changes from very few to lots to very few again.

Volcanic Activity: Violent volcanic eruptions blast lots of ash, gases (e.g. sulphur dioxide) and liquids into the atmosphere. The ash, gases and liquids can block out the sun's rays, reducing the global temperature.

Orbital Change: changes in how the earth moves around the sun. Orbital change affects how close the earth is to the sun. When the earth is very close to the sun, it is warmer. When the earth is further away from the sun, it is cooler.

Case study: Bangladesh:

Bangladesh is prone to flooding as it is low lying and extreme weather as a result of climate change and increased rainfall.

Primary happens first secondary effects are as a result of the primary effect.

400,000 factories closed down **as a result** jobs were lost.

1000 people drowned **as a result** dead bodies spread diseases.

2/3rds of the countryside flooded **as a result** 700,000 hectares of crops were destroyed **furthermore** people didn't have any food to eat.

An ecosystem is an area, within which living organisms (plants and animals) interact with their non-living surroundings (rock, soil, climate).

Tropical Rainforest	<ul style="list-style-type: none"> • Location: along the equator • Climate: always hot and wet (humid). No seasons. • Vegetation: dense and lots of species (e.g. rubber tree) • Animals: lots of species (e.g. jaguar, alligator, monkeys, apes)
Savannah	<ul style="list-style-type: none"> • Location: between the equator and tropic lines. • Climate: warm all year (20-35°C). Two seasons – heavy rain in wet season & very little rain in dry season. • Vegetation: mainly grass, with some trees. • Animals: lots, most are fast (zebra, lions, cheetahs, giraffe)
Desert	<ul style="list-style-type: none"> • Location: near the Tropic of Cancer and Tropic of Capricorn • Climate: hot with very little rain (arid) • Vegetation: sparse (e.g. cactus, Joshua tree) • Animals: very few, mainly burrowing (e.g. scorpion)
Tundra	<ul style="list-style-type: none"> • Location: north (arctic circle) and south poles • Climate: very cold, very dry, soil is permanently frozen • Vegetation: sparse – usually small bushes and flowers • Animals: few (e.g. penguin, polar bear)

Animals adapt to survive in the ecosystem they live in.

- **Adaptation = changing to suit the surrounding environment.**

Camel (desert)	<ul style="list-style-type: none"> • Long eyelashes which keep sand out of their eyes. • Can last a week or more without food and months with no food. • Camouflage - their colour helps them blend in. • They store fat in their hump which can be used for energy.
Polar Bear (tundra)	<ul style="list-style-type: none"> • Thick white fur to help camouflage them and keep warm. • Layer of fat under their skin helping them stay warm. • They can swim for several hours so they can catch food. • Large feet help to spread their weight over a larger surface area. This prevents the ice from breaking due to their weight.
Giraffe (savannah)	<ul style="list-style-type: none"> • Long necks help them to reach tall trees for food. • They can go for very long periods of time without water. • Long legs help them run very fast. • Camouflage: their colour helps them blend in.

Human activity in the savannah has resulted in desertification. This is *the process that turns an area into a desert.*



DEFORESTATION: cutting down trees

- It makes the soil less fertile and stops it being able to hold moisture = dry landscape.



OVER-CULTIVATION: Too many crops are grown.

- Farming too much makes the soil lose its ability to hold moisture = desert landscape.



OVER-GRAZING: Animals eating too much.

- Animals remove vegetation cover. The soil then loses its ability to hold moisture making the soil really dry (like a desert).



MONOCULTURE: planting one type of crop.

- By planting just one type of crop, it means that the nutrients that crop needs are very quickly taken out of the soil. This makes the soil less fertile and dry.

To reduce their impact on the savannah, humans needed to be sustainable.

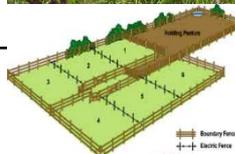
- **Sustainability – meeting the needs of today, without harming the environment in the future.**



Afforestation (planting trees): Trees replenish (give back) nutrients. The roots also help to hold the soil together and prevent erosion. This prevents deforestation.



Break from farming: Farmers allow a field to rest between farming. This allows the soil time to repair, get nutrients back and hold moisture. This prevents over-cultivation.



Grazing rotation: Move the animals from place to place to reduce the amount of vegetation they eat in one place. This prevents over-grazing.



Coppicing: Instead of cutting down the whole tree, only cut it down halfway. They you get the wood you need without causing desertification.

Raise awareness: Educate people about how they cause desertification and provide them with ideas of how to live more sustainably. Some people are just unaware how to help

Ecosystems

An ecosystem is an area, within which living organisms (plants and animals) interact with their non-living surroundings (rock, soil, climate).

To describe the distribution of the earth's ecosystems use:

1. Lines of latitude- equator, Tropic of Cancer, Tropic of Capricorn.
2. Continents- Antarctica, Asia, Africa, Europe, North America, South America, Oceania.
3. Countries- United Kingdom, USA, India, Indonesia, China, Ghana, Brazil, Chile, Australia.

Location	Equator, South America (Brazil), Asia (Indonesia), Africa (Congo).
Climate	Hot and wet (humid). No seasons. Temperature range: 25-35°C Precipitation range: 160 – 330mm/month

Characteristics of a tropical rainforest

Tropical rainforests grow in the equatorial climate. (Along the equator)
There are over 100 different types of hardwood- greenheart and mahogany.

Vegetation Adaptations - Very dense and varied

- Trees grow very high over 40 meters to get sunlight
- Leaves have drip tips to shed heavy rainfall
- Lianas are vine like plants, they use large trees as support to climb to the canopy.
- Large buttress roots stand above ground to give extra support to trees.

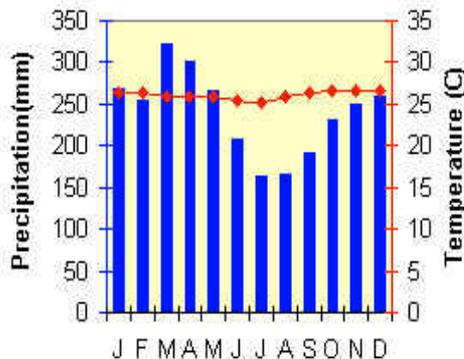
Animal Adaptations

Very dense and varied (e.g. apes, parrots, jaguars, insects)

- Toucan- specially designed bill, feathers help blend to the forest.
- Poison dart frog- very small to reduce the risk of being eaten, skin that releases poison when touched.
- Sloths have long limbs and a slow metabolism, this means they don't need to go down to the ground to feed very often.

Climate

- The average daily temperature is about 28 degrees C, it never goes below 20 and rarely above 35.
- At least 200mm rain falls a year.
- There are no real seasons- each day is the same starting hot and dry with thunderstorms and heavy rain in the evening.
- Soils are red and rich in iron



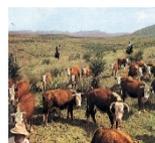
Sustainability – meeting the needs of today without harming the environment for the future.

Uses of the rainforest

Deforestation is cutting down trees



Mining- for precious stones and minerals, these are sold to rich countries for lots of money.



Cattle ranching- Farming for cows, provides jobs for locals and meat can be sold to help the country develop



Hydro Electric Power- The large amount of rainforest can be used to create cheap energy. This energy can provide power for locals and industries.



Logging- Hardwood trees can be sold for lots of money. Also means that transport routes are improved to transport the logs.

Sustainable Management Strategies-

Can be used solve the problems in the rainforest..

Afforestation –Plant trees to replace those that have been felled.

Improve Productivity of companies- make more money using less land.

Selective Logging- Trees are only cut down when they reach a certain height.

Coppicing- Cut down trees halfway to allow them to regrow quickly.

Forest reserves- areas protected from development.

Raise Awareness of sustainable methods- educate people on how they are harming the rainforest and how it can be protected.

The Geography Knowledge Urbanisation

China:

- East Asia.
- Next to the East China Sea
- Neighbouring countries – Mongolia, India and Vietnam
- Capital city – Beijing
- Population – 1.3 billion



China is split into provinces.

- Eastern provinces - dense populations due to its flat, fertile land, good transport routes and cities which offer jobs and services.
- Western provinces - sparse population densities due to its steep slopes, mountains, lack of transport routes and lack of cities.

PUSH FACTOR	PULL FACTOR
Steep slopes	Flat land
Lack of services	Good access to services
Very hot or cold	Mild climate
Few natural resources (coal, oil, wood)	Lots of natural resources (coal, oil, wood)
Unfertile soil	Fertile soil
Lack of employment	Lots of employment
Dense forest	Grassland
War and conflict	Peace

Population Distribution	Where people are located.
Dense population	Lots of people live in an area.
Sparse population	Very few people live in an area.
Urban	A built up area (e.g. town or city)
Rural	A sparsely populated area
Urbanisation	The movement of people from rural to urban areas.
Pull factor	Factors that attract people to an area.

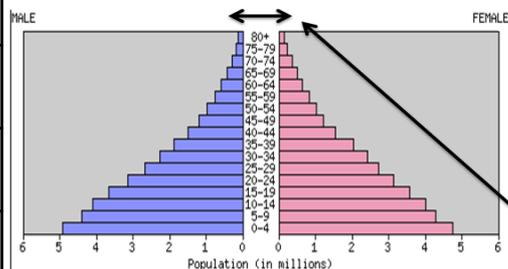
Problems caused by rapid urban growth in LICs

- **Air pollution:** more people = more cars and more energy needed. The extra cars produce greenhouse gases. To make the extra energy, fossil fuels are burnt which produces more greenhouse gases. *e.g. Shanghai's factories produce 70% of China's carbon dioxide emissions.*
- **Water pollution:** companies and people throw waste into rivers. *e.g. The Mithi River in Mumbai (India) is polluted with: industrial waste from factories, oil from airports, 800litres of sewage.*
- **Electronic waste:** Poor people make a living by burning, boiling or crushing old computers to extract metals to sell. This produces toxic chemicals (e.g. lead).
- **Squatter settlements/shanty towns:** urbanisation = too many people. The government does not have the time or money to provide houses, drainage, clean water, schools = shanty towns form. These are overcrowded settlements with very small, poorly built houses, no sanitation and disease.

Population Pyramids

The population is divided up into 5 year gaps. It tells you the number of men/women alive in each 5 year gap. It shows a snapshot of the population at the time it was created.

If the bars are very short at the top there is a low life expectancy and few elderly people.



If the bars get shorter quickly there is a high death rate and fewer elderly people.

If the base is wide there is a high birth rate and lots of young people.

China's one child policy

- **Why:** too many people in China (1.3 billion)
- **How:** free housing, education and healthcare for families with only one child and forced abortions.

Positive impacts	Negative impacts
<p>It prevented 400million extra births. Therefore it successfully reduced the population rise in China.</p> <p>Families have a better lifestyle as they have fewer children to spend their money on.</p> <p>If couples have only one child, they benefit from better healthcare and education.</p>	<p>Families wanted sons.</p> <ul style="list-style-type: none"> • Too many men in China. • Couples abort baby if they find out it is a girl. • Increase in baby girls left in orphanages. <p>Many sons are spoilt</p> <p>Many people believe the policy is a violation of people's human rights (<i>against their human rights</i>).</p>

Population pyramid	A graph that shows the population structure of an area
Birth Rate	Number of births per 1000 babies born
Death Rate	Number of deaths per 1000 people
Life Expectancy	The number of years a person is expected to live for,
Life Expectancy	The number of years a person is expected to live for,

The Geography Knowledge -Urbanisation

- **Population Distribution** - where people are located.
- **Dense** – lots of people live in an area.
- **Sparse** – very few people live in an area.
- **Urban** – a built up area (e.g. town or city)
- **Rural** - a sparsely populated area
- **Urbanisation** - the movement of people from rural to urban areas.
- **Pull factor** - factors that attract people to an area.
- **Push factor** – factors that push people out of an area.
- **Settlement** – a place where people live.
- **Site** – the land a settlement is built on.
- Redevelopment – attempts to improve an area.
- **Burgess Model** – a model to show how the land is usually used in a typical city.

The UK is located on the continent of Europe. It is an island made up of England, Scotland, Wales and Northern Ireland.

- It is sparsely populated in Scotland and Wales.
- It is densely populated in the south east of England.

Factors to consider when choosing a site to build a settlement on:

- *Is the land flat/Can you grow food?*
- *Is it sheltered?*
- *Does it have a good viewpoint or is it easy to defend?*
- *Is it near water?*
- *Is it near a forest for wood/shelter?*

The London Docklands (east London) were redeveloped in 1979.

Why?

- The area went into decline when the London Docklands shipping port shut down, which was the main source of employment. This occurred because the river was not wider enough for the new bigger ships and machinery replaced workers.

What did they do?

- Built 22,000 new luxury homes and improved 10,000 council houses
- Created new shopping centres, colleges and universities.
- Planted 200,000 trees
- Spent £100 million on improving education, healthcare and job retraining
- Attracted lots of businesses by offering cheaper office rent = new jobs
- Improved transport connections – city airport, dockland light railway built

What was the impact?

Successes	Criticisms
<ul style="list-style-type: none"> • More business for local shopkeepers • Unemployment rates decreased • Improved schools, universities, leisure facilities, restaurants, shopping centres. • Better transport routes – people could get around more easily. • Better housing 	<ul style="list-style-type: none"> • The old dock workers could not afford the expensive new houses • The jobs required skills, which the old dock workers did not have. This led to unemployment. • They lost a sense of community spirit with most of the new residents being city workers who did not want to interact with old dock workers.

PUSH FACTOR	PULL FACTOR
Steep slopes	Flat land
Lack of services/schools/hospitals	Good access to services/schools/hospitals
Extreme temperatures	Mild climate
Few natural resources (coal, oil, wood)	Lots of natural resources (coal, oil, wood)
Unfertile soil	Fertile soil
Lack of employment	Lots of employment
Dense forest	Grassland
War and conflict	Peace

All settlements vary in size.

- **CITY** – a very large settlement, with a population of over 10,000 people (e.g. London). *Services: large railway stations, many large schools, large shopping centres, football teams, museums, universities and cathedrals.*
- **TOWN** – a large settlement, with a population of over 10,000 people (e.g. Ashford). *Services: many churches, at least one senior school, doctors, banks, small hospital.*
- **VILLAGE** – a small settlement, with a population of over 200 people (e.g. Bibury). *Services: church, post office, small shop and junior school.*
- **HAMLET** – a tiny settlement, with a population of less than 200 people (e.g. Bakewell). *Services: a small shop or bed and breakfast. Sometimes there is only a telephone box.*

Geographers study urban areas, such as cities and towns. They created the Burgess Model to show how the land is usually used in different parts of a 'typical' city.

Central Business District (CBD)

- Shops, offices, banks, restaurants
- Few houses as is too expensive

Inner City

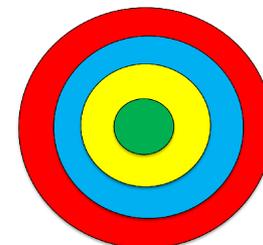
- Small terraced houses and high-rise flats. Small gardens. Close to shops.
- Railway stations

Inner Suburbs

- Semi-detached houses. Further from shops but there is some open space.
- Shopping centres

Outer Suburbs

- Large semi-detached houses and detached houses, with big gardens.
- Parks & open space
- Large shopping centres & supermarkets



The Geography Knowledge – Urbanisation

Population Distribution	Where people are located.
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Pull factor	Factors that attract people to an area.
Push factor	Factors that push people out of an area.
Megacity	A city with a population of more than 10 million.
Waterborne disease	Diseases obtained through drinking dirty water.



- Mumbai is a city on the west coast of **India**.
- Mumbai has a population of **18.4 million**
- Mumbai generates 6.16% of India's GDP (income).
- Mumbai has the highest number of millionaires and billionaires in India.



Growth in Mumbai

- On average 1 person moves to Mumbai every minute. By the end of this lesson 60 people will have migrated to Mumbai!!
- 70% of all migrants were from the state of Maharashtra, a rural area just outside Mumbai.
- The average age of migrants was 20-21 years and 64% were male
- Mumbai has the highest percentage of internet access for any Indian city. 12 million people in 2013.

Mumbai has....

- The largest number of transnational corporations headquarters in the city.
- Headquarters of Citigroup, GlaxoSmithKline, Volkswagen
- The main Indian stock market.
- A national transport hub with links to all the major industrial cities in India as well as connections with other globally important cities.

Opportunities in Mumbai

A social opportunity helps support the community and the people in the local area.

An economic opportunity helps support the local economy and offers jobs

SOCIAL	ECONOMIC
1) There are more employment opportunities. 2) In the industrial areas of Mumbai there are opportunities to work making electronic items, jewellery and textiles (clothing). 3) Access to education and healthcare is easier in Mumbai than in rural areas.	1) In poorer residential areas there is often community spirit and support. 2) The urban poor provide a big work force who carry out essential jobs and keep the city running 3) Incomes in the city are higher than in rural areas.

Challenges in Mumbai

SQUATTER SETTLEMENTS

There are not enough houses for everyone- people live in temporary houses.
Around 40% of the population live in poor quality housing.

ACCESS to SERVICES

As the population is growing, there is more pressure on services.
 There are not enough hospital
 There are not enough places in schools.
 One local hospital has increased beds from the hospital's growth from a **50-beds to 1,400 but this is still not enough.**

CLEAN WATER and SANITATION

There is no good access to clean water, 95% of the of households do not have access to a suitable clean water supply. **85 % of the community toilets have irregular water supply**

ENVIRONMENTAL ISSUES

Unregulated industries mean companies are polluting the air and water ways as much as they like. This is killing animals (fish) and reducing the amount of water people can use to drink and wash.
83% diseases in Mumbai are water borne.
89.6% of deaths in slums are due to respiratory diseases.

Sustainable schemes in Mumbai

The Mumbai slum sanitation project

In some areas 1 in 20 people are forced to use the street as a toilet. Over 300 community toilet blocks have been built. The project aims to improve sanitation facilities for up to one million slum dwellers.

Housing strategies

Houses are improved by making gradual improvements
 Families are given the right to the land on which their home is built and a grant which can be used for improvements. They work with an architect to design their home.

Mumbai Slum electrification project

Many slum dwellers do not have access to electricity and rely on bottled gas for cooking and heating. The Global Partnership on Output Based Aid have recently completed a project which is providing 10,000 slum dwellers with new or upgraded electricity connections.



PULL FACTOR
Better healthcare
Good access to services
Mild climate
Better education
Employment with higher wages

PUSH FACTOR
Lack of schools, doctors and hospitals
Lack of transport
Not enough jobs
Not enough food = famine
War and conflict

The Geography Knowledge – Coasts

Erosion is the wearing away or removal of rocks

Hydraulic Action: The force of the waves hitting the cliffs removes material. Air bubbles in the water are pushed into cracks in the cliff and remove material due to an increase in pressure.

Abrasion: Material in the sea hits against the cliffs and removes rocks and soil. *It acts like sandpaper.*

Corrosion: Chemicals in the water dissolve the cliff.

Attrition: Material in the sea crash into each other and break into smaller pieces.

Weathering is the breakdown of rocks caused by the day-to-day changes in the atmosphere.

Freeze-thaw: Water collects in cracks. At night this water freezes and expands. The cracks get larger. In the day the temperature rises and the ice melts (thaws). The repeated freezing and thawing weakens the rock = breaks apart.

Roots & Burrowing Animals: Plant roots grow in cracks in the rocks and break them apart. Animals burrow into weak rocks and break it apart.

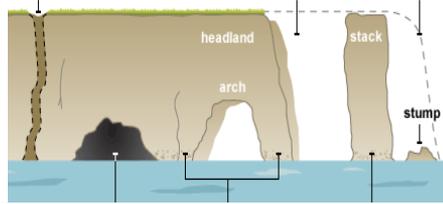
Carbonation: Carbon dioxide and sulphur dioxide mix with rainwater to produce acid rain. This reacts with rocks.

e.g. rainwater + CO₂ = carbonic acid.

Carbonic acid + calcium carbonate (in rocks) = calcium bicarbonate which is soluble.

- **Infiltration** – when water enters the ground.
- **Saturated** – rock that is full of liquid.
- **Impermeable rock** – rocks that do not allow liquid to pass through.
- **Non porous rock** – rocks that do not absorb water. No water can pass through.
- **Permeable rock** – rocks that allow liquid to pass through.
- **Porous rock** – rocks that absorb water. Water can pass through.
- **Slip plane** – a line of weakness along which movement occurs.

SOCIAL	ECONOMIC	ENVIRONMENTAL
<p>Plymouth – sightseeing, beaches, yacht clubs, marinas, fishing, sailing</p> <p>Brighton – beaches, theme park on Brighton Pier, windsurfing, sailing,</p> <p>Portsmouth – Spinnaker Tower viewing platform for tourists.</p>	<p>Plymouth – shipping port (import, export), ferry and Royal Navy shipbuilding yard = jobs.</p> <p>Portsmouth – Royal Navy port, tourism industry, transport (ferry) industry</p> <p>Brighton – tourism industry, fishing industry.</p> <p>Padstow – transport (trade route to Canada)</p>	<p>Plymouth – nature reserves.</p> <p>Portsmouth – 7 wildlife conservation areas where they look after habitats</p>



Erosion and weathering of hard rocks = landforms (e.g. cave, arch, stack).

- Hydraulic action causes a crack to form in the headland, along a line of weakness. Continued erosion makes the crack wider = cave.
- Eventually the back wall of the cave is eroded through = arch. Weathering weakens the roof of the arch. Eventually it collapses = stack.
- Further erosion and weathering attack break down the stack = stump.

Erosion and weathering of soft rocks = mass movement

Rotational Slump – where saturated material moves down a slope, along a curved line of weakness.

- A layer of permeable rock overlies a layer of impermeable rock.
- Rain infiltrates the permeable rock = saturated and heavier.
- Water collects between the permeable rock and impermeable rock. The rocks become unstable and a line of weakness (slip plane) forms.
- Further rain = increase in pressure on the line of weakness = slumping.

Rock Fall – where rocks fall vertically down a cliff face due to gravity.

- Freeze-thaw weakens the rocks at the top of the cliff. These weakened rocks fall due to gravity to the base of the cliff. The material that collects at the bottom of the cliff is called a scree slope.

Sea Wall	A strong concrete wall built in front of the cliff or seaside settlement. They absorb the power of the wave = less erosion. Tourists also like to walk along it. It can, however, be expensive and ugly.
Rip Rap	Large rocks placed in front of the cliff or seaside settlement. They absorb the power of the wave = less erosion. They look quite natural. It can, however, be expensive and make access to the beach difficult.
Gabions	A cage filled with smaller rocks. These are placed in front of the cliff or seaside settlement. They absorb the power of the wave = less erosion. They are cheaper than rock armour. The sea can corrode the metal cages = broken gabions which can be dangerous to tourists.
Off-shore Breakwater	Stone walls built up in the ocean parallel to the coastline. They absorb the power of the wave in the ocean, before it reaches the beach = less erosion. It also helps make the beach larger which attracts tourists. They are very expensive and can interfere with boats.
Revetments	A wooden fence structure built along the beach. They absorb the power of the wave = less erosion. They can affect tourism as they take up large sections of the beach and are ugly.
Managed Retreat	Allowing erosion to take place naturally and move settlements when necessary. It is very environmentally friendly. Nature is allowed to take its course. It forces people from their homes and lots of compensation must be paid to help them buy a new home in a safer place.

The Geography Knowledge

Population Distribution	Where people are located.
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Problems caused by urbanisation in LICs

- Child labour:** many children as young as 5 have to work. Many children lose their parents due to HIV or waterborne diseases and so must earn money to look after themselves. Jobs are poorly paid, unsafe and unhygienic (e.g. sort through rubbish).
- Poor quality housing:** houses are small and unsafe. They are made from plastic, cardboard, corrugated iron...etc. They have no toilets and so open sewage runs through the streets. Up to 10 people live in each tiny shack.
- Diseases:** HIV/AIDs, typhoid, cholera and dysentery are common. This is because drinking water contains sewage (=typhoid and cholera), lack of healthcare and there is a lack of money (average wage 35p/day).
- Crime:** gang culture makes shanty towns unsafe. Often people suffer from rape, mugging, alcoholism and drug use. Children are recruited from 9.

Sustainable solutions to problems in shanty towns

Good aid:

- Helps those who need it the most.
- Fixes the most important problem
- Involves the locals
- Helps to develop the skills and knowledge of local people.
- Uses simple technology and easy to find materials.
- Long term

e.g. Site and service scheme – groups of people are encouraged to build their own homes. Each group does the basic work, such as digging ditches. The local authority will then provide materials for the building. The group will then build the homes. The money this saves the government, will be used to provide electricity, clean water, roads and community centres.

PUSH FACTOR
Steep slopes
Lack of services
Very hot or cold
Few natural resources (coal, oil, wood)
Unfertile soil
Lack of employment
Dense forest
War and conflict
PULL FACTOR
Flat land
Good access to services
Mild climate
Lots of natural resources (coal, oil, wood)
Fertile soil
Lots of employment
Grassland
Peace

Problems caused by urbanisation in HICs

- **Unemployment, pollution, traffic congestion, not enough services.**

Traffic congestion impacts:

Social:

- Property damage
- Noise and visual pollution
- Health problems (e.g. asthma)
- Danger of accidents

Economic:

- Time wasted in traffic, means less people are at work
- Cost of building and maintaining roads
- Property damage and accidents cost money to fix

Environmental:

- Air pollution
- Loss of land for car parks and roads = habitat loss.

Sustainable solutions to traffic congestion

Cycle Routes

- Cycle routes along main roads. More people cycle instead of driving = less cars = less traffic congestion.

Congestion Charge

- You must pay £11.50 if you want to drive in central London. People do not want to pay, therefore get public transport = less cars = less traffic congestion. The number of cars reduced by 21% in just 3 years.

Park and Ride Scheme

- People park in free car parks on the outskirts of city and then take a bus into the city centre = less cars in the city centre = less traffic congestion.

Trams

- Electrically operated trains that run along the middle of the road in city centres, such as **Edinburgh, Manchester and Sheffield**. They carry up to 206 passengers. Less cars = less traffic congestion.

Globalisation is the increase in links between countries and people across the world. It has been made easier with improved communications (internet, smart phones) and improved transportation.

You are a global citizen (without even realising it)

- You facebook, twitter, facetime, whatsapp to communicate with people around the world?
- Your clothes were probably made in another country.
- Your electronics are made in different countries, often China.
- The food you eat is grown or made in one country and processed in another.

A Transnational Corporation (TNC) – a company that has branches in many different countries.



Positive impacts of Globalisation- Globalisation has benefits for companies and benefits for the people who live in the country.

BENEFITS FOR LICs

Increased employment

People can get a stable income
People have a place to live

Money to help the country develop

Money is invested in the country-
water and sanitation
People have more disposable
income for shopping and days out.

BENEFITS FOR HIC companies

Products can be exported

Products can be sold to more people in
more countries.

The company can then make more
money.

Companies spend less money than in HICs

In lower income countries labour,
materials and rent is cheaper therefore
companies save money.

Negative Impacts Of Globalisation:



Environmental Damage

- Factories are burning fossil fuels, this releases greenhouse gasses into the atmosphere.
- Oil spills have killed 25,900 birds and fish that live in the Gulf of Mexico.
- Chemicals are released into rivers and lakes.
- Plastic from packaging floats in the ocean, fish and birds mistake it for food and die.

Profits from companies are sent abroad

- The money does not stay in the country to help the country develop,
- Profits from the sale of goods often go back to the 'home' country.
- This means the workers do not get a fair wage.



Sustainability – meeting the needs of today without harming the environment for the future.

How can companies globalize sustainably?

- **Socially**- companies can provide workers with better rights and benefits to help support workers families and local communities.
- **Economically**- companies can make sure they are being efficient with their resources to reduce costs.
- **Environmentally**- companies can use recycled or second hand materials to reduce the amount of raw materials used.

Examples of sustainable companies

1. Adidas parlay trainers – removing waste from the oceans and use it to make some of their products. This reduced the need for new resources to be used.
2. Innocent smoothies- source fruit from farmers who are paid a fair wage and recycle 80% of the dry waste in their manufacturing.
3. Interface carpets- provide a flooring service to individually replace carpet tiles rather than the entire floor, preventing wasted materials.



Bad working conditions

TNCs have factories in LICs these are called sweatshops. They workers are often,

- Poorly paid – as little as 50p/day.
- Verbally, physically and emotionally abused
- Long hours
- Bad working conditions

This means companies do not have to pay very much to their workers or to ensure their factories are safe. As they are paying less it makes clothes cheaper.

Natural resources include:

- **Renewables:** a resource that we can keep using that won't run out.
- **Non-Renewables:** takes millions of years to form and will one day run out.

Resources	Type
Coal	A Fossil Fuel and non-renewable. Found underground and extracted by mining. Pollutes the atmosphere when burned.
Oil	A fossil fuel and non-renewable resource. It is found deep underground. Crude oil is taken from the ground and processed into refined oil. Releases greenhouse gasses when burned.
Natural Gas	A fossil fuel and non-renewable resource. Found trapped in deep underground rock formations. Largest deposits found in Russia. Burned to provide heat for cooking, however burning gas releases greenhouse gasses.
Geothermal Heat	Heat from magma underground but close to the surface. Found only in places which have volcanic activity, such as Iceland. A renewable resource.
Soil	A thin layer made of minerals, water, and organic matter. Precious as without it we cannot grow crops. Non-renewable, as there is only so much of it on Earth.
Water	On average, people use 150 litres of water daily. Used for hydro-electricity, as well as wave energy. Although it is renewable, freshwater is limited and is often polluted by humans.

Water Scarcity and Solutions	
<ul style="list-style-type: none"> • Fresh water is not shared equally due to low rainfall and high population densities. • Some countries lack sanitation, so human waste often pollutes freshwater • Conflict: Water is often shared between countries as rivers flow across borders. This means some countries can influence the water supply of others. • Agriculture uses 70% of global water supplies. 	<ul style="list-style-type: none"> • Recycling Water: grey water collected from old bath and shower water is used in toilets or to water plants. • Water Transfer Schemes: in China, there is a scheme which aims to bring water from the wet South to the dry North through a system of pipelines. • Desalination: removal of salt from saltwater. Uses a lot of electricity. • Dams: concrete walls trap water creating reservoirs.

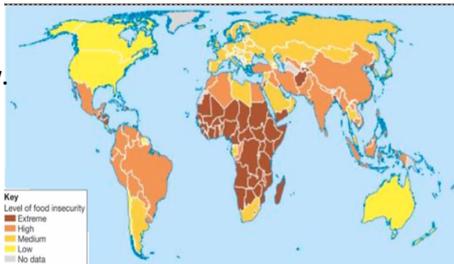
Oil and Renewables	
<ul style="list-style-type: none"> • All countries use oil, but not every country produces it. Oil is not shared equally. • When oil burns, it releases carbon dioxide into the atmosphere. This causes climate change. • Oil is valuable. Conflict may arise between those who have oil and those who want it. Niger Delta is one example. • Oil spills cause environmental disasters. In April 2010, 200 million gallons of crude oil spilled into the Gulf of Mexico. 8,000 animals died. 	<p>Renewable energies can be used instead of oil.</p> <ul style="list-style-type: none"> • Solar Power: sun's energy is converted into electricity through a solar cell. No harmful gases produced, but it is expensive and uses lots of space. • Wind Turbines turn to generate electricity without releasing greenhouse gasses. Can be expensive to build. • Biomass Energy: burn organic matter to heat steam to turn a turbine. Releases less carbon dioxide than burning oil.

Food Insecurity

Recommended daily calorie intake is over 2000 per day. However in much of Africa, many people receive less as their countries struggle to produce enough food.

1. Extreme weather caused by climate change makes growing food difficult. Warmer climates also encourage pests to breed, allowing them to eat more crops.
2. Conflict and war can lead to the destruction of crops as food is weaponised. Transport links can also be destroyed, making food imports impossible.
3. Poor people often cannot afford new technologies and fertilisers to grow crops so yields remain low.

Unskilled use of technology, such as irrigation, can also damage the land.



Fertilisers increase soil fertility, giving crops vital nutrients and tripling yields. **Pesticides** help control pests, such as weeds. This stops pests from destroying crops and spreading disease.



This grinding machine is an example of cheap **equipment** which can help people, without putting them out of work. This helps poorer farmers, increasing their community food supply.



Irrigation is the artificial watering of land with water extracted from rivers or underground. This is useful during drought. Large irrigation schemes can increase global food supply, especially for commercial farming.



Crops can be **Genetically Modified** to grow bigger and to increase yields. Half the world's soya beans are GM. Some say we shouldn't use GM foods due to possible effects on the environment and health.