Year 8: Unit 1
Climate Change & Sustainability

Key Words

Climate Change	The changes in weather happening in different places around the world. This can be different depending on where you are.
Global Warming	The process in which the temperature of the earth rises.
Green house effect	The process by which heat is trapped in the atmosphere that is causing global warming and climate change
Natural Resources	Anything that is useful that is produced by natural processes from the planet (not produced by humans).
Hazard	Something that has the potential to cause harm.
Fossil fuels	Energy sources such as oil, coal and natural gas that are finite. One they are gone, they are gone!

FOSSIL FUELS

Fossil fuels are natural resources that we get from the earth. They have formed over thousands of years.

Fossil fuels are finite – this means they are non-renewable – once they are gone, they are gone – we can't use them again. The 3 fossil fuels are:

Oil	This is the black liquid we dig out of the ground that we use for petrol, plastic along with many other things.
Coal	This is the black rocks we get out of the ground that we can burn to generate energy and electricity.
Natural Gas	This is gas we get out of the ground that we use for cooking and generating electricity.

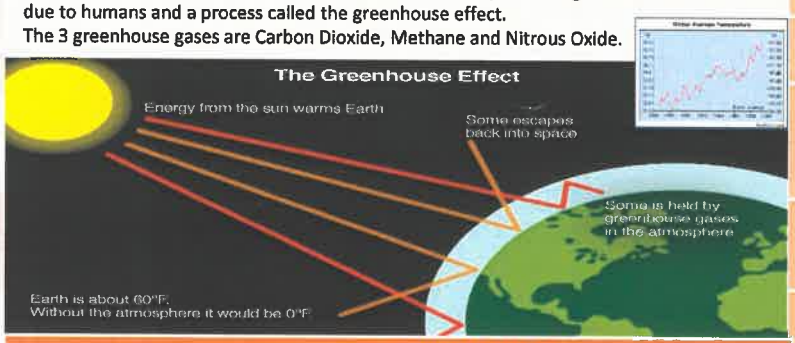
Impacts of fossil fuels

As well as us running out of these fossil fuels, they also have serious impacts of the environment such as:

- When we burn these to generate energy they release high amounts of CO^2 into the atmosphere.
- Damage to the landscape when we dig up coal and natural gas.
- Products like plastic last for a long time.

OUR WARMING PLANET

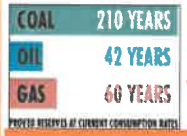
Over time the temperature of our planet has increased by a few degrees. This has been due to humans and a process called the greenhouse effect.
The 3 greenhouse gases are Carbon Dioxide, Methane and Nitrous Oxide.



TIPPING POINTS OF CLIMATE CHANGE

Due to climate change, we are going to reach several **'tipping points'.** These are things that, once they happen, the impacts of them cannot be undone.

- Greenland ice sheets melt.
- Malaria spreads across areas that don't currently experience this like Europe.
- Amazon Rainforest dies.
- Third of Africa's coastline floods.
- Eurasian and North American Forests die.
- London floods.



IMPACTS OF CLIMATE CHANGE

SOCIAL AND ECONOMIC IMPACTS

LOCAL
-Miami are paying $400 milion to raise pavements to stop flooding.
-India received a months worth of rain in 2 days which killed crops.
-Coral reefs are getting bleached which will affect tourism.
-Some countries will need to be evacuated.

GLOBAL
-Ice sheets will melt which will cause flooding and loss of land all over the world.
-150 million African and Asian refugees who will have to move due to flooding.
-Millions will have to be spent on flood defences around the world to reduce the risk of flooding.
-

ENVIRONMENTAL IMPACTS

LOCAL
-Some places such as India will experience more droughts. The USA is experiencing more wildfires.
-The monsoon in Asia is changing meaning more rain is falling at certain times of the year.

GLOBAL
-By 2040, the north pole will be completed melted.
-Animals such as polar bears and penguins could go extinct.
-More extreme weather occurring around the planet – increase in droughts and storms.
-Destruction of the rainforest could lead to losses of species and a major carbon store.

THE GREENHOUSE EFFECT

1	The sun's rays enter the earth's atmosphere and warm up the planet.
2	This heat is then reflected off the surface of the earth and back out into space.
3	At the top of the atmosphere we have a layer of greenhouse gases (eg. Carbon dioxide). This traps some of the heat and keeps in in the atmosphere. This is very important process as without it the planet would be -18°C.
4	However, due to human activity, we are releasing more of these gases into the atmosphere (through driving for example making this layer thicker and thicker.
5	This means that more and more of the suns energy is getting trapped into the atmosphere increasing the temperature of the planet.

CLIMATE CHANGE & BANGLADESH

Location
Bangladesh is located in Asia and is the 49th poorest country in the world. Main jobs in Bangladesh are in rice farming as it has the monsoon every year (a period of heavy rain)

Why is Bangladesh at risk?
-Bangladesh is a very low lying country (between 0-6m above sea level). This means it will be flooded easily if the sea level rises.
-Bangladesh is very poor and contributes little to climate change so there is little they can do about

Effects
-Most of Bangladesh will be under water if the sea level rises.
-People will be homeless.
-As the monsoon is later each year, crops are being destroyed meaning people don't have an income.
-Spread of diseases will increase.
-People will have to leave their home country

CLIMATE CHANGE & THE MALDIVES

Location
Bangladesh is located in Asia and is not a very rich country.
It is a series of islands located off the south coast of India.
It is very popular for tourism as it has a lot of coral reefs.

Why is The Maldives at risk?
-The Maldives is a very low lying country (the highest point is only 2.4 m above sea level). This means it will be flooded easily if the sea level rises.
-The Maldives is very poor and contributes little to climate change so there is little they can do about it.

Effects
-In 50 years all of the Maldives will be underwater.
-The government held a meeting underwater to try and emphasise this problem.
-People are having to move to Sri Lanka .
-Hotels and businesses are forced to close meaning people lose jobs.
-Other countries will be crowded as people will have to move there.

Year 8: Unit 1

Climate Change & Sustainability

Key Words

Sustainability	Ensuring we can meet our needs while making sure people living on earth in the future can meet their needs.
Renewable resources	Resources that will never run out and can be used over and over again. EG. Solar, Wind etc.
Non-renewable resources	Resources that once they are used, they are gone. These are also known as **finite resources.**
Social and economic sustainability	These elements of sustainability are to do with making sure people have jobs, money and access to healthcare and education so they can have a good life.
Environmental sustainability	This element of sustainability is to do with protecting the environment and out natural resources. This is where we need to use as little CO^2 as possible.

Sustainable Living

We are going to run out of fossil fuels therefore we can not go on living the way we are.
There are 2 key parts to living sustainably:

- **Use as few new natural resources as possible so they are there in the future for people to use.**
- **Cause as little harm to the environment as possible.**

The ways we can do this are through:



Using less of the resources we have. EG. Having a refillable plastic bottle.



Using something multiple times before throwing it away. EG. Plastic bags.



Materials being turned into something else instead of going into landfill.

Challenges of living sustainably

However, doing this can be hard because:

- People like driving cars and are reluctant to change.
- Renewable energy resources can be unreliable whereas oil and coal are reliable.
- Some environmental friendly alternatives can be more expensive.



THE PLASTIC PROBLEM

"The great thing about plastic is that it is durable. However, the worst thing about plastic is it is durable"

Oil is used to make plastic and we use it for a variety of things such as bottles, bags, stationary, chairs and so much more!
Plastic is great because it lasts a long time so we can use things like bottles over and over again, however, when we throw it away, it stays on the planet for a LONG time.

ISSUES ASSOCIATED WITH PLASTIC:

- Takes 1000 years to decompose.
- Animals can get caught and become deformed.
- Animals can eat it which leads them to starve to death.
- Plastic washes up and polluted beaches.
- Tourist economy would be affected in places where plastic washes up.
- Water is becoming polluted and undrinkable.



TRYING TO USE LESS PLASTIC:

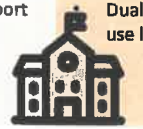
- Using a refillable water bottle instead of buying new ones every time you need a drink.
- Supermarkets now charge for carrier bags to encourage people to use less plastic bags.
- Restaurants like McDonalds have stopped using plastic straws and have began using cardboard straws instead.
- You can bring your own travel mug to coffee shops like Costa and Starbucks and get money off your coffee.



WHAT CAN BE DONE AT DIFFERENT SCALES

Some things can only be done by the government, however there are things that can be done by schools and by us to live in a more sustainable way.

Things that can be done by GOVERNMENT	Things that can be done by SCHOOL	Things that can be done by US
• Recycling bin collections from households. • Restrictions on vehicles that can be driven / CO^2 emitted. • Introduction of cycle and bus lanes. • Build more wind turbines. Make public transport cheaper to use.	• Recycling bins in the playground for bottles and paper. • Large windows so lights aren't needed. • Encourage teachers to use less paper. • Put energy saving lightbulbs in classrooms. • Dual flush toilets to use less water.	• Having showers instead of baths. • Not over-charging mobile phones. • Not overfilling the kettle. • Not leaving TVs / games consoles on standby. • Walking / using the bus instead of getting a lift. Recycle plastics and cardboard.





SUSTAINABLE LIVING: BEDZED



Location
BEDZED is a sustainable housing development located in London.
It lives by the concept of 'One Planet Living' – the idea of only using enough resources so we only need one planets worth of resources to live on.

ENVIRONMENTAL	• 300mm thick walls so radiators aren't needed. • Green rooves so it absorbs more CO^2. • Large windows so lights aren't needed. • Smaller baths so less water is used. • Grey water is used from showers to flush toilets. • Recycling facilities built into kitchens. • Solar panels on roofs to generate electricity. • Cars in car sharing scheme are electric so do not use petrol.
SOCIAL	• People can work on site so don't need to commute to work. • People within walking distance of public transport.
ECONOMIC	• Car sharing scheme means people save money on cars and petrol. • Bills reduced by 25% due to energy efficient appliances.

SUSTAINABLE LIVING: BIRMINGHAM



There is pressure on cities in the UK to be sustainable.
It would be impossible to build houses like BedZED everywhere so cities are having to come up with other strategies.
This is what Birmingham is doing:

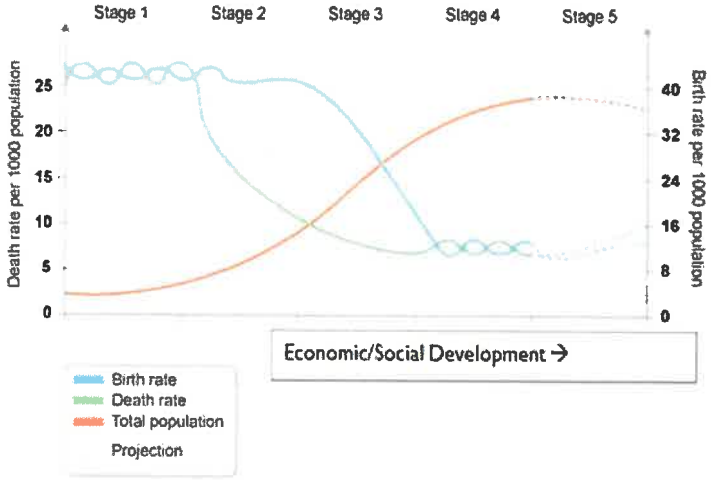
2020 Clean Air Zone	Birmingham is introducing a Clean Air Zone in the city centre. Any car or vehicle that emits too much CO^2 (above a certain limit) will have to pay to drive through town.
National Express Buses and West Midlands Rail	The buses and trains have become more attractive to encourage people to use them. The buses have more leg room, plug sockets and free Wi-Fi. The trains have a video service similar to Netflix that people can use on their commute.
Bristol Road Cycle Lane	A road designated for cyclists has been put in and out of the city centre in South Birmingham. This makes it safer and easier for people to cycle instead of drive.
Recycling Services	Recycling bins are provided to all households and are collected every 2 weeks.
M6 Toll Road	To go on a certain part of the M6 you have to pay to discourage people to drive.

Year 8: Unit 2

China & Population Change

Key Words

Population	The number of people in a country or area.
Population rise	When the population of an area become larger.
Population density	How crowed an area is. Given as people/km2
Population distribution	How people are spread out throughout an area
Migration	When people move from one place to another.
Population control	Measures that are taken to slow down the growth-rate of a population.



Demographic Transition Model

- This is a graph that shows how the population of a country changes over time, as the country develops.
- It has three line graphs on it.
  - A line graph showing birth rates over time.
  - A line graph showing death rates over time.
  - A line graph showing the population size over time.
- The model is split into five stages.

Stage 1 – High Fluctuating.
- In this stage both birth and death rates are high, and they fluctuate around each other.
- Although lots of babies are born each year, lots of people also die each year. As a result the population size remains low.

Stage 2 – Early expanding.
- In this stage death rate begins to fall. This is because medical care, food and hygiene improve as the country begins to develop.
- Birth rates stay high however, because people are used to having lots of babies.
- Because more babies are being born each year and less people are dying, the overall population begins to rise.

Stage 3 – Late expanding.
- In this stage birth rate begins to fall. This is because people are now receiving better education and are more career-oriented.
- However birth rate remains above death rate.
- Death rate is now low as medical care, food and hygiene are good for almost everyone in the country.
- Because more babies are still being born each year and less people are dying, the overall population continues to rise.

Stage 4 – Low Fluctuating.
- The country is now quite developed.
- In this stage both birth and death rates are low, and they fluctuate around each other.
- Few babies are born each year, and few people die each year. As a result the population stops rising but remains high.

Stage 5 – ?.
- Only the most developed countries are in this stage.
- In these countries, people are so well educated and career oriented that they are deciding to have less and less children.
- As a result birth rates fall below death rates.
- This means that, each year, there are less babies born than people die.
- As a result, the population begins to slowly decrease.

China

Location	China is located in South East Asia next to the Pacific Ocean.

China's Closed Society

For many years China was a closed society. This meant no one left and no one came to China. This wasn't forced. This just naturally happened due to China's physical geography

Himalayas Mountains	The Himalayas Mountains sit to the south of China and would have been very high and hard to cross.
Gobi Desert	The Gobi Desert is very hot and very dry meaning no one lived there. This would have been hard for an arm to cross.
Tibetan Plateau	The Tibetan Plateau is a high flat area of land. While it is flat when you are on top of it, it would be very hard to climb and get over to get in or out of China.
Pacific Ocean	Before boats and planes were invented oceans were impossible to cross. As China border the Pacific no one would be able to enter or leave via that direction.



Population Density

- Population density is a measure of how many people are crowded into an area.
- It is measured as people/km2.
- Urban areas (cities) have high population densities (up to 50,000 people/km²).
- Rural areas (countryside) have low population densities (less than 1 person/km²).

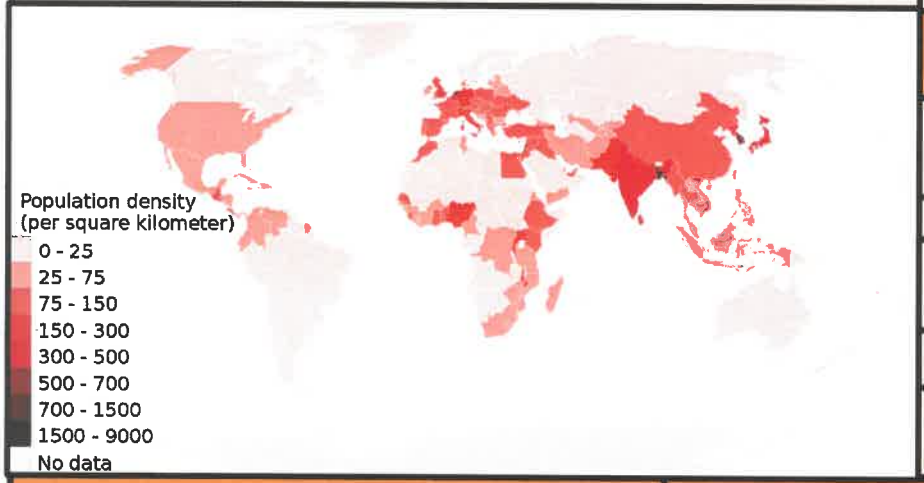
Population Distribution

- Distribution means how something is spread out. For example; *the beans were distributed evenly across the toast.*
- Population distribution means how people are spread out throughout an area or country, for example; *most people live in the west of the country.*

Human migration - Chongqing

- Human migration is when a person moves from one place to another.
- This can be for many reasons and there are different types of migrants.
- In China lots of people are moving to the city of Chongqing as economic migrants in search of work.

Push factors (reasons why people leave a place)	Pull factors (reasons why people move to a place)
• War • Famine • Natural disasters • Bad weather • Disease • Unemployment	• Safety • Jobs • Good schools • Good weather • Food • Good medical care



Emigrant	People choose to move for better jobs and higher wages. They are called economic migrants.
Immigrant	People have to move or they'll face extreme hardship, persecution, or even death. These people are called refugees. (Environmental refugees are those fleeing environmental disasters e.g. earthquakes).
Voluntary migration	Someone moving out of a country.
Temporary (seasonal) migration	For example, those who come to the UK to pick fruit and vegetables in the summer and then go home when the picking season ends.
Forced migration	Someone moving into a country.
Permanent migration	People move and do not return home, e.g. many from the Caribbean who migrated to the UK in the 1950's and 1960's.

Impacts of a rising population

Some places have populations that are becoming larger. This can lead to social, economic and environmental problems.

Social – to do with peoples' lives	Economic – to do with money	Environmental – to do with the environment
• Not enough schools. • Not enough houses. • Not enough hospitals and doctors. • Not enough good quality food for everyone.	• Not enough jobs. • Less money per person for the government to spend. • More people end up working in the 'informal' job sector.	• More land will have to be built on. • More transport will mean more pollution. • Slums may develop which pollute rivers and the air.

Population control measures.

Birth control policy – China – One Child Policy	Non-birth control policy – Kerala (India)
• In 1979 China brought in the one-child policy. • Couples were only allowed to have one child. • Couples were rewarded for only having one child. • Couples were punished if they tried to have more than one child.	• Education for all (especially girls). • This means people are more career focused. • Asa result they begin to have children later in life and have less. • Couples with maximum two children given land. • Free contraception given to all girls.

- Problems associated with China's one child policy:
- Boys preferred over girls so many girl babies killed or abandoned to die in orphanages.
- Boy babies spoiled leading to obesity epidemic.
- As children grow up there will not be enough wives for all the boys.
- This will lead to less children being born in the future.
- In the future there will not be enough people to take over the jobs, as older people retire.



Year 8: Unit 3
Amazing Africa

Key Words

Climate Change	The changes in weather happening in different places around the world. This can be different depending on where you are.
Erosion	The wearing away of the coast line
Drought	A long term lack of water
Poverty	A low quality of life and lack of access to basic facilities.
Wealth	How much money a country has.

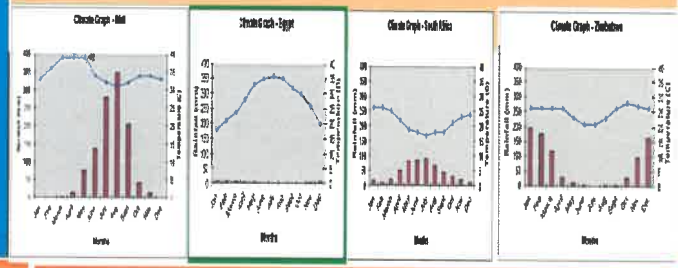
A Diverse Continent

Africa is the world's second largest and second most-populous continent, being behind Asia in both categories. The continent is surrounded by the Mediterranean Sea to the north, the Isthmus of Suez and the Red Sea to the northeast, the Indian Ocean to the southeast and the Atlantic Ocean to the west. The continent includes Madagascar and various archipelagos. It contains 54 fully recognised sovereign states (countries),



The Climate

A climate graph shows us the rainfall and temperature for 12 months. The temperature is always shows as a line graph. The rainfall is always shown as a bar chart.



Cyclone Idai

On the 14 to 15 March 2019, Cyclone Idai made landfall in central **Mozambique**, near Beira City, leaving almost 90 percent of the city submerged in flood water.

The cyclone also hit **Zimbabwe** and **Malawi**, destroying homes, roads, bridges, and vital crops, in its wake. **Hundreds of people died**, and thousands of people are left in need of vital humanitarian aid to survive the coming days and weeks ahead.

Immediate Responses to Tropical Storms	**Immediate responses** occur during the time before the storm is forecast to make landfall and immediately after the event. • rescue people • temporary shelters • provide water and food for people • recover dead bodies
Long-term Responses to Tropical Storms	• repair and rebuild properties • rehouse people • repair the transport infrastructure • improve forecasting and early warning systems

Eritrea

Eritrea won independence from Ethiopia in 1993 after a 30-year war, but has been plagued by a strict government and tense relations with its neighbours. Bordered by Sudan, Ethiopia and Djibouti, it occupies an important area in the Horn of Africa.

Coastal Erosion

Causes in West Africa

- Destruction of **vegetation** like mangrove swamps exacerbate the erosion problems.
- The Volta dam stops **sediment** reaching the coastline.
- Sand mining.

Problems

- Homes destroyed
- Reduction in tourism
- Coconut trees destroyed
- Marine turtle habitats destroyed
- Rural to urban migration
- Lack of food
- Increase in criminal gangs



Ethiopia

Ethiopia is Africa's oldest independent country and is second largest in terms of population. Apart from a five-year occupation by Mussolini's Italy, it has never been colonised.



Children of Zimbabwe

Once the "Jewel of Africa", since 2000 Zimbabwe has struggled to feed its own people due to **severe droughts** and the effects of a land reform programme that saw white-owned farms redistributed to landless Zimbabweans, with sharp falls in production

The Horn of Africa

The Horn of Africa is a **peninsula** in Northeast Africa. It extends hundreds of kilometers into the Arabian Sea and lies along the southern side of the Gulf of Aden. The area is the easternmost projection of the African continent.

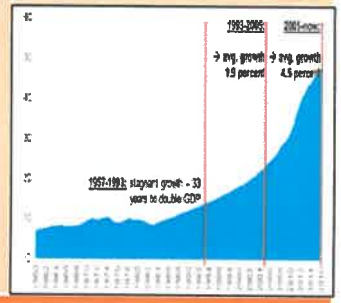
What is Ghana Like?

The Republic of Ghana is a country in **West Africa**. It borders Côte d'Ivoire (Ivory Coast) to the west, Burkina Faso to the north, Togo to the east, and the Gulf of Guinea to the south.



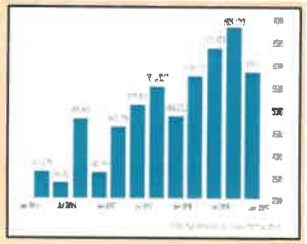
The Economy in Ghana improved very quickly and is one of the most economically stable countries in Africa.

The graph shows that Ghana is becoming richer. The wealth (GDP) of the country started to sharply increase around 1994. The fastest growth took place between 2005 and 2016.



Working in Ghana

Ghana is considered one of the more stable countries in West Africa since its transition to multi-party democracy in 1992.



Formerly known as the Gold Coast, Ghana gained independence from Britain in 1957, becoming the first sub-Saharan nation to break free from colonial rule.
Gold, cocoa and more recently oil form the cornerstone of Ghana's economy and have helped fuel an economic boom.

Year 8: Unit 4
The Geography of Crime

Key Words

Crime	Something that is punishable by law in the country or place that you are in.
Designing out crime	When a place in built or structured in a certain way to discourage crime.
Global	Looking at the whole world.
CBD	Central Business District – this is the centre of a city where most of the shops and businesses are.
Poverty	When someone is unable to meet their basic needs. EG. Having clean water.
Stereotyping	When we make certain assumptions of someone or something.
Urban / Rural	An urban area is a built up area like a city whereas a rural area is an area of countryside.

Crime in different parts of Birmingham

Crime rates tend to be highest closer to the city centre. See the statistics below:

Remember the city is divided into zones:
-CBD (city centre)
-Inner City
-Suburbs
-Rural-urban fringe

It is the CBD and the inner city that experiences the most crime.

PLACE	DISTANCE FROM CITY CENTRE	CRIMES REPORTED
City Centre	0 miles	1140
Aston	2.7 miles	388
Stockland Green	5.3 miles	274
Erdington	5 miles	247
Wylde Green	7.2 miles	131
Sutton Coldfield	9 miles	161
South Lichfield	18 miles	54

Why is most crime in the CBD / Inner City?

- There are more shops and services in the city centre with more expensive goods in which could encourage more crime.
- The inner city is the poorer part of the city, therefore more people might turn to crime to generate an income.
- With more bars and nightclubs in the city centre, it is more likely for fights and anti-social behaviour to occur.
- Populations of ethnic minorities are higher nearer the city centre which could lead to conflict or tensions between different ethnic groups.

Global Crime

The amount of crime that occurs will vary from country to country. Some countries experience higher crime rates than others.



Stereotyping Crime

We may stereotype people unintentionally. When we think about a typical criminal, we may give them certain characteristics. Stereotypes can be caused by:

- What we see in the media or on the news about crimes
- Famous crimes that have occurred in the past that have involved certain groups
- How people chose to dress and present themselves
- A small minority of people give whole groups a bad reputation

Designing Out Crime

When Jack the Ripper was about in 19th Century London, the polluted and overcrowded environment helped him get away with his crimes. Today we are much more efficient at designing out crime.
For example, making sure there are no corners or alleyways in an area with discourage people from committing a crime as they would be easily viewable by residents or people passing by.

STRATEGY	ADVANTAGE	DISADVANTAGE
CCTV cameras	People may not commit a crime as it would be filmed.	It would be expensive to install cameras everywhere.
Having open areas everywhere	Everywhere is easily visible to the public.	Hard to do in areas that are already built.
Effective locking and double glazing on homes	Homes will be secure and much harder to break into.	Expensive and the poorest people may not be able to afford it.
Speed bumps	Slow down traffic and reduce the risk of accidents.	Some cars are wide enough to go over them.

Reason crime rate and types of crime can vary

1	The religion of that country. Dubai is a place where laws are strongly affected by religion. Historically, the UK also was.
2	The history of that country. If a country has experience world wars or civil wars, this may have influenced the laws in place.
3	When the law was made – it might just be a very old law!!
4	Culture of that country. The traditions or morals of a country may influence how people should behave.
5	Population – people may petition for certain laws to be passed.
6	How wealthy a country is.

Causes of crime

There are several factors that could lead someone to turn to crime. Some key ones are:

- Peer pressure
- Violence seen in TV or video games
- Addictions
- Poverty
- Mental Illness
- Family circumstances
- Religion
- Overpopulation

Humanitarian Crimes – The Middle East

Humanitarian crimes are crimes that are committed against humans that would violate someone's human rights.

Saudi Arabia has committed crimes such as arresting women who have been protesting for equal rights and killing civilians. However, these crimes have often been ignored due to the world's reliance on Saudi Arabia for oil.

Egypt has committed crimes such as imprisoning journalists illegally and ignoring reports by women of sexual violence. However, these crimes have often being ignored as Egypt controls the Suez Canal (a major trade route that lots of countries use!)

Conflict in Israel and Palestine

- Britain took over the land of Palestine after World War 1.
- Both Jews and Arabs inhabited the land. During WW2 more Jewish people moved here due to the Holocaust happening in Europe.
- In 1947 the UN voted for the land to be split into separate Jewish and Arab states. The plan was never implemented as it was rejected by the Arab side.
- In 1948 the British left and declared the state of Israel without solving the problem.
- This then led to years of conflict between Israel and Palestine with them arguing over who the land belongs to. As a result of this, a lot of crime and violence has occurred.



Year 8: Unit 4
The Geography of Crime

Key Words

Crime	Something that is punishable by law in the country or place that you are in.
Heroin	A drug that is created from opium harvested from poppies.
Piracy	When a person or a group of people attack or rob a ship
Politically unstable	When the government of a country is not strong enough to deal with issues and manage a country properly.
Poverty	When someone is unable to meet their basic needs. EG. Having clean water.
Illegal trade	Trade that is not sanctioned by the Government of a country.
Victims of poverty	When a person or group of people have no choice but to turn to crime to meet their basic needs.

The Heroin Trail



1	Opium is farmed from poppies. Afghan drug bosses sell for £65 a kilo.
2	Heroin is smuggled out of Afghanistan via the Bulkan Route.
3	Heroin is smuggled into Turkey in lorries with rugs and carpets.
4	From Turkey it is smuggled into Greece with fruit and vegetables.
5	Heroin is smuggled into Bulgaria on the backs of animals.
6	Prostitute mules smuggle the heroin into Germany.
7	After Germany, the Heroin is taken through Holland by a mule who has swallowed 20 full syringes.
8	Heroin is vomited out of the mule's stomach and is taken to Britain by boat or plane.
9	The 3000 mile trail ends when the dealers pick up heroin to sell.

Crime in poorer parts of the world.

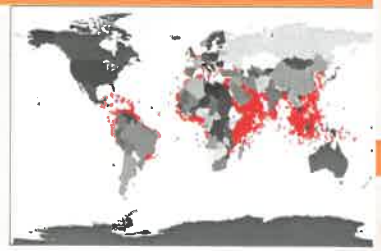
As you can see on the map below, some poorer countries such as Brazil, Afghanistan and parts of Africa have much higher crime rates.





Modern Day Piracy

There are a few main areas across the world where piracy occurs.



The link between poverty and higher crime rates

1	Being in poverty often leads to **high levels of stress.** People need to meet their basic needs and if over time they can meet these, then some individuals will commit robberies, burglaries to try and improve their lives.
2	Poverty also creates **fewer opportunities**, some of which co-exist with mental illness and a lack of being able to meet basic needs. If an individual is struggling with an untreated mental illness, then it is difficult for them to hold down a job.
3	A lack of resources also creates **inferior educational opportunities** and people may not do as well in school which means they can't get a good paying job so turn to crime for easy money.
4	This leads to the creation of **gangs and gang affiliation.** People may join gangs as they can't find a better job.

Causes of piracy

- They are economically poor countries – Somalia for example has a small GDP of $6.2 billion.
- They are all besides key shipping routes where goods are traded and transported to wealthier countries.
- They have a lack of effective governance in some areas meaning the governments struggle to tackle the problem as well as there not being enough resources to go round meaning people turn to crime.

Nigeria and Somalia

In NIGERIA people argued that the reason they turned to piracy was, despite their being oil companies there, jobs weren't offered to local people.

In SOMALIA, people turned to piracy as countries like Japan started dumping toxic waste in Somali waters so the people decided to fight back.

Effects of piracy

- ✓ Rise in shipping insurance – goods become more expensive for the consumer – piracy is estimated to **cost £5.5 billion**.
- ✓ Disruption to **humanitarian relief responses** for the countries of Somalia, Ethiopia, North Sudan, and South Sudan, which are all susceptible to famine.
- ✓ Re-routing south around Africa, rather than cutting through the Suez Canal, **costs the ship extra time and fuel.**
- ✓ Money that could be being spent on education and health has to be spent on patrolling the waters.

Managing piracy

- ❖ **Do nothing** – the cost of ransom (usually $30-$40 million) is next to nothing for those countries pay it.
- ❖ **Arm cargo ships** – giving sailors guns will allow them to defend themselves and the cargo and deter pirates.
- ❖ **Naval patrols and conveys** – This is the current policy, nations join forces and patrol the waters, this will deter piracy.
- ❖ **Back the Somalia government** – support them in the creation and upholding of on-shore law enforcement.

Causes of illegal trade in Afghanistan

Afghanistan is prone to illegal trade for a variety of reasons:

1. Afghanistan has a **GDP of $19.47 billion** USD (2016) (Poor Country)
2. Many people are employed as farmers. A farmer can earn up to **ten times more growing opium** poppies for the drugs trade than growing wheat for food supplies. Farmers **may not be aware of the severity of the problem** and are only trying to support their families with a better quality of life, as farming opium pays better than other jobs.
3. **Topography** (shape of land) of the area is difficult to police.
4. Afghanistan is **politically unstable** and the **Taliban and ISIS** operate in this area. This makes law enforcement difficult. Most opium farms are grown in Taliban controlled areas.

Year 8: Unit 5
Antarctica

Key Words

Ecosystem	A natural system made up of plants and animals that rely on each other to survive.
Biome	A large scale ecosystem. EG. Rainforest or the desert.
Desert	An ecosystem that is characterised by low rainfall. Can be hot or cold.
Arid	An area that is very dry that receives very little rainfall.
Climate Change	Changes happened around the planet as a result of global warming and the temperature of the planet rising.
Tourism	When people go to somewhere that they don't live for a period of time on holiday.

WORKING IN ANTARCTICA

Antarctica has **no human population**. However, each year around 4000 people from over 30 countries live and work on research stations on the continent.

Halley VI Research Station

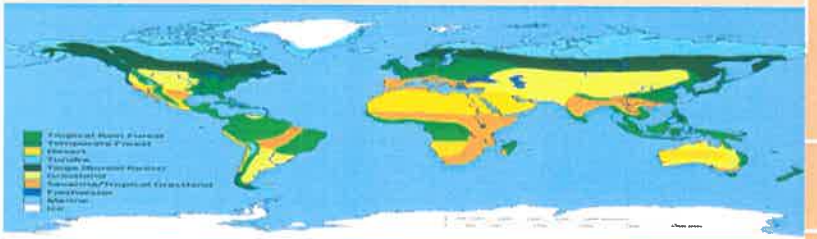
- Halley research station measures the atmosphere and weather in Antarctica.
- Antarctica is very sensitive to changed happening as a result of climate change so this is really important.
- It also measures the change in the ice sheets and how much ice is being lost each year due to climate change.
- Its equipped with laboratories, weather balloons and lots of other equipment.
- It also has kitchens and living space for the scientists that are working on the station.

WHAT IT LOOKS LIKE



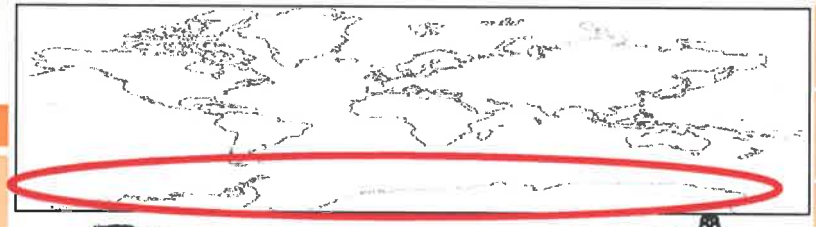
THE WORLD'S BIOMES

The world is broken up into several main biomes (these are large scale ecosystems.) These include the rainforest, desert, mountains, polar, forests and tundra.



WHERE IS ANTARCTICA?

Antarctica is the southern most continent on the planet. It is surrounded by the Antarctic Circle. Antarctica is technically a desert as it received very little rainfall. Temperatures can be as low as -90°C and is darkness for half of the year.







CLIMATE CHANGE AND ANTARCTICA

Antarctica has experienced a **3°C** increase in temperature, which might not sound like a lot, but is 5 times the average rate of global warming.
This will also have significant impacts on such a fragile ecosystem.



SOCIAL & ECONOMIC IMPACTS

-There is a significant amount of ice stored in Antarctica – if this melts, this will cause large areas of the world to flood.
-Ice from retreating ice shelves break off to form ice bergs – this can be dangerous for ships in the ocean.



ENVIRONMENTAL IMPACTS

- Some species of penguin are declining in number due to the rise in temperature.
- Due to the loss of ice number of krill are declining which will impact the whole food chain.
- Melting ice bergs have contributed to 0.16mm rise in sea level.
- Animals like the blue whale will lose their food supply as there are less krill.
- Loss of ice causes animals to lose their habitats which can lead to species extinction.

WHAT'S HAPPENING TO THE KRILL?

Krill are small crustaceans found in the Southern Ocean.
They are a really important part of the Antarctic ecosystem as they are at the **bottom of the food chain** – this means lots of animals rely on krill to survive. Therefore, without krill, lots of animals would be without food.
They are also **fished commercially** – most is used for bait but humans eat krill in the Philippines, Russia and Japan.
However, lots of krill is going missing and this is why:

Albatross	Albatross birds fly thousands of miles to find food. Albatross feed on fish, squid and krill – albatross are in danger of getting caught on fishing hooks.
Seal	Seals feed on nothing else but krill. Since the fall of the whale population in Antarctica (who also hunt krill), the amount of seals have exploded which means even more krill is being eaten.
Fishermen	Fisherman harvest about 150000-20000 tonnes of krill a year. However due to humans causing climate change there hasn't been enough ice for the krill to feed on to survive.
Squid	Squids feed on krill but they are also at the bottom of the food chain and are eaten by whales and seals. The squid population is in danger also.
Penguin	Penguins eat fish and squid, however, they prefer krill. Due to the loss of krill the penguin population has decreased due to them not breeding.
Whale	Whales are the biggest animals on earth and eat nothing but krill. They eat 3600 kilos a day each!





TOURISM AND ANTARCITICA



Due to the increase in cruise ships, over 30 000 tourists visit the continent every year. It is a once in a lifetime experience.
However, there are pros and cons of this.

ARGUMENTS FOR TOURISM

-Ships have to dispose of waste according to international rules.
-Visitors cannot visit special sites of scientific interest and have limited time actually on the ice.
-Tourists can learn why it is important to protect Antarctica.
-Visits are confined to the summer months and to one part of Antarctica.
-The 1994 Antarctic Act makes environmental damage punishable by law.
-Boats are limited to 500 passengers.

ARGUMENTS AGAINST TOURISM

-It can take hundreds of years for litter to decompose.
-Animals get disturbed from their usual routines and this can disrupt their breeding patterns.
-Many ships have had oil spills which can kill animals.
-Ships emit a lot of carbon dioxide which can increase the impacts of climate change.
-Humans can bring foreign seeds that could disrupt the ecosystem.

