

# KNOWLEDGE ORGANISER

## EBBAC

### Year 11 Geography UK Challenges

Name:

Class Teacher:



# ENQUIRY QUESTIONS













1. Big Q 1: How has the UK's population changed over the past 50 years and what are the resource implications?
2. Big Q2: How will the UK's growing population increase put pressure on ecosystems?
3. Big Q3: What national sustainable transport options exist?
4. Big Q4: How does the government attempt to balance economic growth between London and the rest of the UK?
5. Big Q5: What are the costs and benefits of building on greenfield and brownfield sites?
6. Big Q6: What impact has migration had on the UK and how do views differ?
7. Big Q7: How are National Parks being conserved and made sustainable?
8. Big Q8: How do we manage river flood risk across the UK?
9. Big Q9: What challenges do British coastal areas face and how can we address them?
10. Big Q10: What effect will global climate change have on the climate of the UK?
11. Big Q11: How can we respond to global climate change at a national and local level?

# HOMework









Big Question	Task	Due Date
3	Complete the knowledge recall quiz on page 9	
5	Complete the knowledge recall quiz on page 9	
9	Complete the knowledge recall quiz on page 9	

**Key terms found in the glossary on pages 4 and 5 will be tested throughout the unit**

# GLOSSARY

Key term	Icon	Definition
Brownfield site		Land within a city which that is no longer used; it may contain old factories or housing or it may have been cleared for re-development
Challenges		An issue which may create potential problems which need to be addressed
Climate change		A long-term movement in weather patterns and average temperatures experience by Earth
Community		A group of people living in the same place or having characteristics in common
Conservation		Keeping something as it is; not changing it in any way to preserve it for future generations
Currency		The monetary unit used in a country
Disposable income		The money a person has left over after paying their essential bills
Emigration		The process of moving out of a country
Ethnicity		Relates to a group of people who have a common national or cultural tradition
Gender		What sexual identity a person relates to
Greenfield development		When houses and other buildings are built on land on the edge of a city that has never been built on before
Immigration		The process of moving into a country

# GLOSSARY

Key term	Icon	Definition
Language		How a person communicates
Life expectancy		The average age a person is expected to live until
National park		An area of country side which is protected because of its natural beauty and managed for visitor recreation
Population		The amount of people living in an area. The people living in an area
Religion		A particular system of faith and worship
Resources		Things that are useful to people
Stakeholder		Someone with an interest in what occurs
Two –speed economy		The south-east has a faster economic growth rate than the rest of the UK

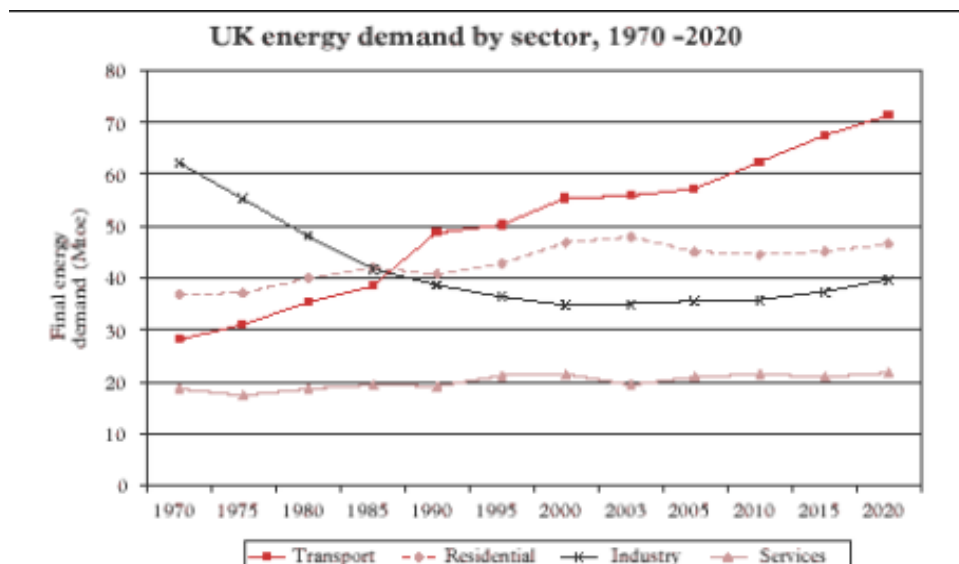
# LESSON 1 BIG QUESTION: HOW HAS THE UK'S POPULATION CHANGED OVER THE PAST 50 YEARS AND WHAT ARE THE RESOURCE IMPLICATIONS?

## Changes to the UK population

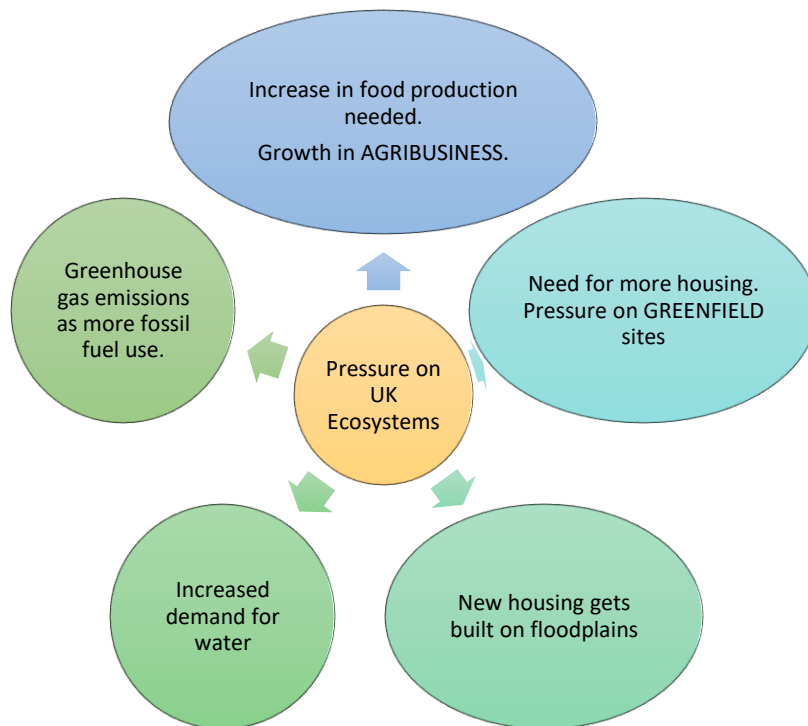
- Through a combination of natural increase and migration, the UK's population continues to rise.
- The issue of immigration, and the pressures that this will place on the resources of the UK, is a political issue which divides opinion across the country.
- 14% of Britain's population was born abroad but 27.5% of British births in 2016 were from this group.
- If the population of the UK continues to grow (prediction of 77 million in 2050), there will be an extra 8.4 million people in the UK by 2035 and a further 3.8 million by 2050!

## Changes in energy demand

In order for the UK to meet the needs of a growing population, there will be an expected need for a growth in energy production across the UK (Figure 1), as well as a need for more construction, such as new housing, schools and hospitals. The environmental impact of these changes could have severe consequences for climate change and habitat loss.



## LESSON 2 BIG QUESTION: HOW WILL THE UK'S GROWING POPULATION INCREASE PUT PRESSURE ON ECOSYSTEMS?



### **Option to reduce impact**

Using sustainable energy sources to meet energy needs such as wind / solar power. Educate people in how to conserve power.

Using BROWNFIELD sites rather than greenfield. This means they have already been used before. This will maintain the habitats.

Switching to alternative energy sources to reduce greenhouse emissions.

Managing river catchments to reduce the risk and impact of flooding. For example, land use zoning or creation of wetland areas.

Educating people and businesses on how to conserve resources, for example recycling and reducing energy demands.

Finding new water sources and reducing water wastage and leaks in homes to boost domestic water sources.

## LESSON 3: BIG QUESTION: WHAT NATIONAL SUSTAINABLE TRANSPORT OPTIONS EXIST?

### London Case Study: Congestion Charge

An example of a specific scheme used within the UK to make transport more sustainable is the congestion zone in the capital, London.

London is a heavily congested and polluted city. Research suggests nearly 9500 people die each year due to the effects of air pollution.

The congestion charge was introduced in 2003. It charges drivers of privately owned transport to enter the centre of London. There have been adjustments and adaptations to the scheme over time but the key aims have stayed the same.

### Background Information:

Revealed: every Londoner breathing dangerous levels of toxic air particle.

**Every area of the capital breaches global standards for PM2.5 pollution particles, with most areas exceeding levels by at least 50% (Guardian 4<sup>th</sup> Oct 2017)**

The research, based on the latest updated London Atmospheric Emissions Inventory, shows that every area in the capital exceeds World Health Organisation (WHO) limits for a damaging type of particle known as PM2.5. It also found that 7.9 million Londoners – nearly 95% of the capital's population – live in areas that exceed the limit by 50% or more. In central London the average annual levels are almost double the WHO limit of 10 µg/m<sup>3</sup>.

### **Solution 1: Better public transport and encouraging cycling**

- Improving public transport systems will encourage people to leave their cars at home. Buses, trams and trains use less fuel per head than private cars in most circumstances. Commuter trains are a good example of this as they are especially efficient in high density cities.
- The creation of cycle routes and highways encourages people to cycle rather than drive. Making public access to bicycles easier encourages people not to use cars for short journeys, particularly in cities. This has been used in London to try to reduce congestion and pollution.





## **LESSON 3: BIG QUESTION: WHAT NATIONAL SUSTAINABLE TRANSPORT OPTIONS EXIST?**

1	Define the term urbanisation (1)	
2	Which century was the industrial revolution? (1)	
3	Name one impact of urbanisation on a developing country (1)	
4	State two characteristics of sedimentary rocks (2)	
5	Explain what caused the lowlands to form in the UK (2)	
6	Outline how forestry has changed the lowland landscape of the UK (2)	
7	How and why does velocity change as a river moves downstream? (2)	
8	Outline two ways that we can measure the development level of a country (2)	
9	Name the three components of the Human Development Index (3)	
10	Name two historical factors that explain the global pattern of development (2)	
11	Outline two strategies for improving India (2)	
12	Define the term meteorological drought (1)	
13	Define the term hydrological drought (1)	
14	How does the ITCZ impact climate? (1)	
		Total out of 23

1	Define the term urbanisation (1)	<input type="checkbox"/> The increased <b>proportion</b> of people living in urban areas compared to rural areas
2	Which century was the industrial revolution? (1)	<input type="checkbox"/> 19 <sup>th</sup> century
3	Name one impact of urbanisation on a developing country (1)	<input type="checkbox"/> Unemployment, lack of schooling, increased shanty towns.
4	State two characteristics of sedimentary rocks (2)	<input type="checkbox"/> Rounded grains in layers/ contain fossils
5	Explain what caused the lowlands to form in the UK (2)	<input type="checkbox"/> 75 million years ago Britain covered by tropical sea. <input type="checkbox"/> Marine deposits created the North and South Downs.
6	Outline how forestry has changed the lowland landscape of the UK (2)	<input type="checkbox"/> Removal of deciduous woodland created moorland, settlements and farmland. <input type="checkbox"/> Replaced with coniferous woodlands – threatening ancient trees
7	How and why does velocity change as a river moves downstream? (2)	<input type="checkbox"/> Velocity increases as more tributaries join the main river. <input type="checkbox"/> Less water in contact with the bed and banks as deeper and wider = less friction
8	Outline two ways that we can measure the development level of a country (2)	<input type="checkbox"/> GDP/ Gini coefficient/ corruption perception index/ life expectancy/ % access to clean water
9	Name the three components of the Human Development Index (3)	<input type="checkbox"/> Life expectancy/ Gross National Income per capita/ Expected and mean years of schooling
10	Name two historical factors that explain the global pattern of development (2)	<input type="checkbox"/> Aftermath of colonisation/ level of governance or political stability
11	Outline two strategies for improving India (2)	<input type="checkbox"/> Smart Cities Mission – improves sanitation/health and education/ water supply in 100 cities <input type="checkbox"/> Intended Nationally Determined Contribution (INDC) – clean energy such as solar power 40% by 2030 <input type="checkbox"/> Improving global status – wants permanent seat in the UN security council
12	Define the term meteorological drought (1)	<input type="checkbox"/> Reduced amount of precipitation an area received compared to its average. (most significant cause of drought)
13	Define the term hydrological drought (1)	<input type="checkbox"/> Decrease in precipitation can impact on overland flow, reservoirs, lakes and groundwater.
14	How does the ITCZ impact climate? (1)	<input type="checkbox"/> Shifts northwards in June, bringing a wet season to the tropical grasslands in the Northern Hemisphere
		Total out of 23

## LESSON 4: BIG QUESTION: HOW DOES THE GOVERNMENT ATTEMPT TO BALANCE ECONOMIC GROWTH BETWEEN LONDON AND THE REST OF THE UK?

**The “Two-speed Economy:** The idea that there is inequality between the north and south of the UK. Faster and higher growth in London and SE. Investment is higher in SE and London e.g. new transport systems. This has meant more people are moving from north and commuting from north to London. This means less workforce in the north and less investment, so is a negative cycle.

### **Jobs, commuting and rising house prices**

One effect of economic growth in London and the South East is that more and more people are moving or commuting long distances south from areas such as Yorkshire to work in the capital and the South East. This reduces the locally available workforce and does not encourage businesses to invest in the area. The lack of business investment is one factor that affects people's opportunities. House prices in London and the South East are also rising considerably faster than the rest of the country, as demonstrated by the map in Figure 3. Many people feel that current economic policies are helping to improve and strengthen the economic power of the South East, but not doing anything to regenerate the more northern and western parts of the UK.

Possible solutions to this growing divide between the North and South are focused around transportation to improve mobility of people, goods and skills and include:

- the High Speed Rail 2 (HS2) railway between London and northern cities. The majority of the construction will take place outside the capital and therefore generate most jobs away from London
- investing in better transport to improve the movement of workers and freight across the North, making it easier for new businesses to set up and move their goods
- improvements in connections to northern airports, such as Manchester, to encourage travel and investment from abroad
- using 'smart tickets' to make access to transport links easier and more attractive for people to use.



**Figure 3** House price map of England and Wales, January 2014

## LESSON 5: BIG QUESTION: WHAT ARE THE COSTS AND BENEFITS OF BUILDING ON GREENFIELD AND BROWNFIELD SITES?

**Greenfield** sites are areas of land, usually agricultural or amenity land, which are being considered for urban development. This is a highly contentious issue, particularly in the UK, where the development of land is split between Greenfield and brownfield sites.

	Advantages	Disadvantages
Greenfield sites	<ol style="list-style-type: none"><li>1 Relatively cheap and rates of house building faster</li><li>2 The layout is not hampered by previous development so can easily be made efficient and pleasant</li><li>3 Healthier environment</li></ol>	<ol style="list-style-type: none"><li>1 Valuable farm or recreational land lost</li><li>2 Wildlife and their habitats lost or disturbed, partly due to more noise and light pollution</li><li>3 Often far from work and services, generating more traffic</li><li>4 Encourages <b>suburban sprawl</b></li></ol>

**Brownfield land** is an Anglo-American term used in urban planning to describe, in Western Europe, any previously developed **land** that is not currently in use, whether contaminated or not or, in North America, more specifically to describe **land** previously used for industrial or commercial purposes with known or suspected . Pollution including soil contamination due to hazardous waste.

Brownfield sites	<ol style="list-style-type: none"><li>1 Reduces the loss of countryside and land that might be put to agricultural or recreational use</li><li>2 Helps revive old and disused urban areas</li><li>3 Services such as water, electricity, gas and sewerage already in place</li><li>4 Located nearer to main areas of employment, so commuting reduced</li></ol>	<ol style="list-style-type: none"><li>1 Often more expensive because old buildings have to be cleared and land cleaned of pollutants</li><li>2 Sometimes surrounded by rundown areas so does not always appeal to more wealthy people as a residential location</li><li>3 Higher levels of pollution; less healthy</li></ol>
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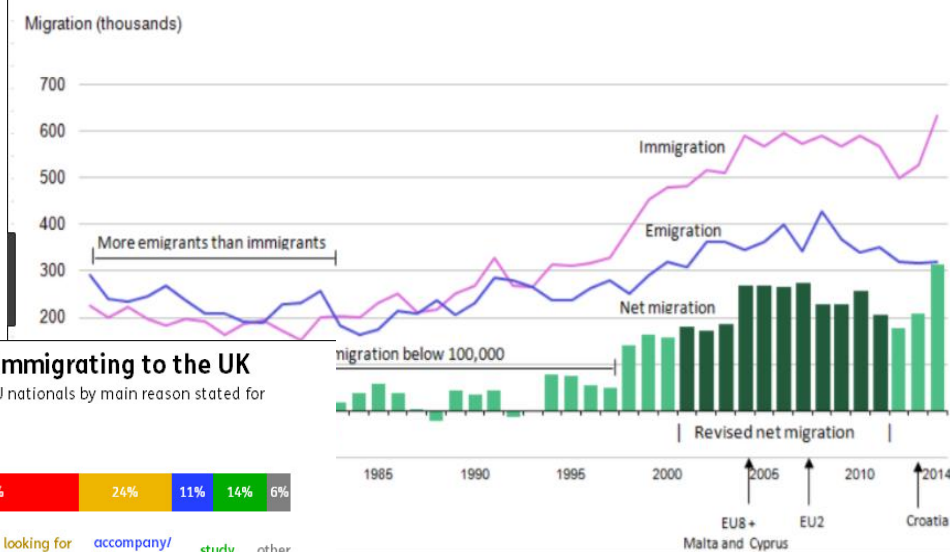
## LESSON 5: BIG QUESTION: WHAT ARE THE COSTS AND BENEFITS OF BUILDING ON GREENFIELD AND BROWNFIELD SITES?

1	What is a shanty town? (1)	
2	Name one impact of urbanisation on a developed country (1)	
3	Name a physical factor that affects urbanisation ( 1)	
4	Outline two geopolitical issues facing India (2)	
5	Define the term ' <b>Renewable energy</b> (1)	
6	Outline two characteristics of arid environments (2)	
7	Define the term <b>Milankovitch cycles</b> (1)	
8	Define the term ' <b>ITCZ</b> ' (1)	
9	How can volcanism lead to changes in the global climate? (2)	
10	Outline two environmental impacts of rapid development in India (2)	
11	Define the term 'discharge (1)	
12	What does a hydrograph show? (2)	
13	What are the 3 stores in the nutrient cycle? (3)	
14	Pumice is an example of which type of rock? (1)	
		Total - 21

1	What is a shanty town? (1)	<input type="checkbox"/> Makeshift housing
2	Name one impact of urbanisation on a developed country (1)	<input type="checkbox"/> Lack of transport facilities, increased congestion, lack of affordable housing
3	Name a physical factor that affects urbanisation (1)	<input type="checkbox"/> Relief of the land <input type="checkbox"/> Fertility of the soil
4	Outline two geopolitical issues facing India (2)	<input type="checkbox"/> Territorial disputes with India and Pakistan/ India and China <input type="checkbox"/> Signed military pact with Russia <input type="checkbox"/> Policy of non-alignment i.e. doesn't favour Russia or USA
5	Define the term ' <b>Renewable energy</b> ' (1)	<input type="checkbox"/> Energy that comes from sources that can be reused or replenished and therefore will not run out.
6	Outline two characteristics of arid environments (2)	<input type="checkbox"/> Average rainfall between 100-300 mm <input type="checkbox"/> Natural vegetation is grasses, shrubs and trees <input type="checkbox"/> Pastoral farming by nomadic herdsman
7	Define the term ' <b>Milankovitch cycles</b> ' (1)	<input type="checkbox"/> These cycles are caused by changes in the earth's orbit around the sun, like its shape or eccentricity, its precession or wobble, and the tilt of its axis or obliquity.
8	Define the term ' <b>ITCZ</b> ' (1)	<input type="checkbox"/> The Inter Tropical Convergence Zone, or ITCZ, is a belt of low pressure
9	How can volcanism lead to changes in the global climate? (2)	<input type="checkbox"/> Release particulate matter/ash into the atmosphere which can block incoming solar radiation through reflection/backscattering. This could lead to cooling <input type="checkbox"/> Sulphur dioxide is converted to sulphuric acid (causing more reflection and cooling)
10	Outline two environmental impacts of rapid development in India (2)	<input type="checkbox"/> Logging and land clearance – deforestation <input type="checkbox"/> India is the 3 <sup>rd</sup> largest emitter of CO <sub>2</sub> <input type="checkbox"/> Less than 1/3 <sup>rd</sup> of sewage is treated <input type="checkbox"/> Around 68% of India is prone to drought,
11	Define the term 'discharge' (1)	<input type="checkbox"/> The amount of water passing a specific point at a given time, measured in cubic metre per second
12	What does a hydrograph show? (2)	<input type="checkbox"/> A graph showing rainfall and river discharge over a specific period of time.
13	What are the 3 stores in the nutrient cycle? (3)	<input type="checkbox"/> Biomass, litter and soil
14	Pumice is an example of which type of rock? (1)	<input type="checkbox"/> Igneous
		Total - 21

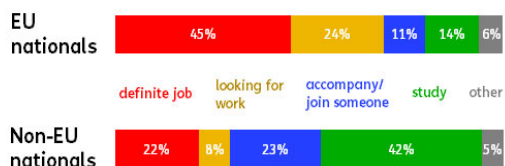
## LESSON 6: BIG QUESTION: WHAT IMPACT HAS MIGRATION HAD ON THE UK AND HOW DO VIEWS DIFFER?

Figure 2: Long-Term International Migration, UK, 1970 to 2014 (annual totals)



### Reasons given for immigrating to the UK

Immigration of EU and non-EU nationals by main reason stated for migrating, 2016



\* The figures in this chart exclude British nationals. The figures only include the 'main' reason given so the actual proportion coming for any particular reason may be higher

Below are people's views on migration. Use two different colours to show if they are positive or negative:

- Business need the seasonal workers for example to pick the crops on farms.
- Migrant workers pay taxes which the government like
- Migrants can bring in useful skills to the UK such as ICT
- Local governments might feel there is extra pressure on local services such as schools
- If there is a shortage of doctors and nurses these can be recruited from abroad
- Some people think migrants are taking jobs which could be done by British people
- Some people think migration makes the UK more multi-cultural which is a good thing
- Some people think migrants may abuse the benefits system
- Governments believe refugees should be given a safe haven



## **LESSON 7: BIG QUESTION: HOW ARE NATIONAL PARKS BEING CONSERVED AND MADE SUSTAINABLE?**

National Park five year plans to increase the parks sustainability: training; transport; energy; avoiding new buildings; environmental audits



Each National Park Authority also produces a five-year National Park Management Plan. This plan is made in collaboration with local landowners, communities and organisations to help develop the parks sustainably. Examples of strategies in the plans include:

- creation of 'conservation apprentices' to encourage young people to continue living in the parks' rural areas, maintaining traditional countryside management methods and addressing youth unemployment as well
- encouraging people to change their transport habits to try and reduce carbon dioxide emissions from tourists travelling to, in and from the National Parks
- encouraging local business practices, such as cattle markets and home construction, to use sustainable energy sources such as wind power and solar power
- converting old farm buildings, such as barns, into new business premises, for example art galleries and offices, to provide more employment in the National Parks
- providing funds to small businesses in the National Parks, as well as training and environmental audits, to help create job stability and encourage further investment.

### **Named example: New Forest**

The New Forest is a National Park, which requires sustainable management for a number of reasons.

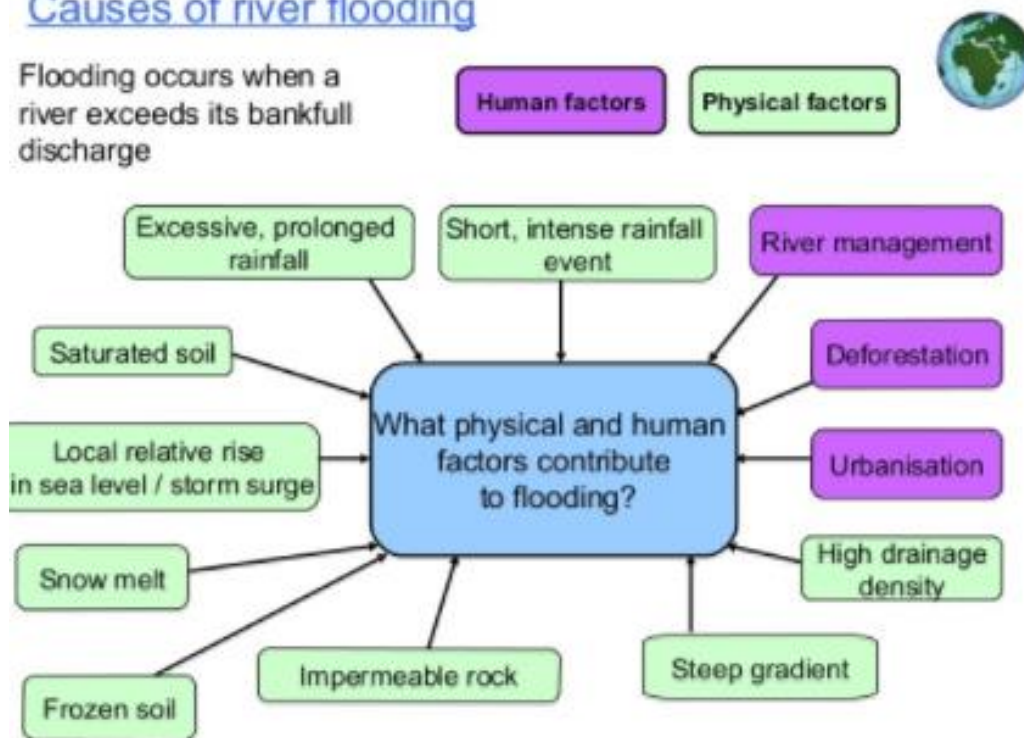
- 1.The National Park is a popular tourist attraction, with over 15 million visitors each year contributing towards the local economy.
- 2.The movement of visitors through the forest is increasing litter, causing erosion of paths and increasing air pollution from traffic.
- 3.Softwood and hardwood timber is being extracted for commercial use.
- 4.40% of the woodland is privately owned, and is often left unmanaged.



## LESSON 8: BIG QUESTION: HOW DO WE MANAGE RIVER FLOOD RISK ACROSS THE UK?

### Causes of river flooding

Flooding occurs when a river exceeds its bankfull discharge



An example of an area effected by coastal and river flooding:

### **Somerset Levels, 2013/2014**

The Somerset Levels, in south-west England, is very low-lying and crossed by several rivers, making it prone to river and coastal flooding. To try to reduce the flood risk, the River Tone was diverted to a new embanked channel in the Middle Ages. More recently **embankments** have been built on the River Parrett and dredged to remove silt.

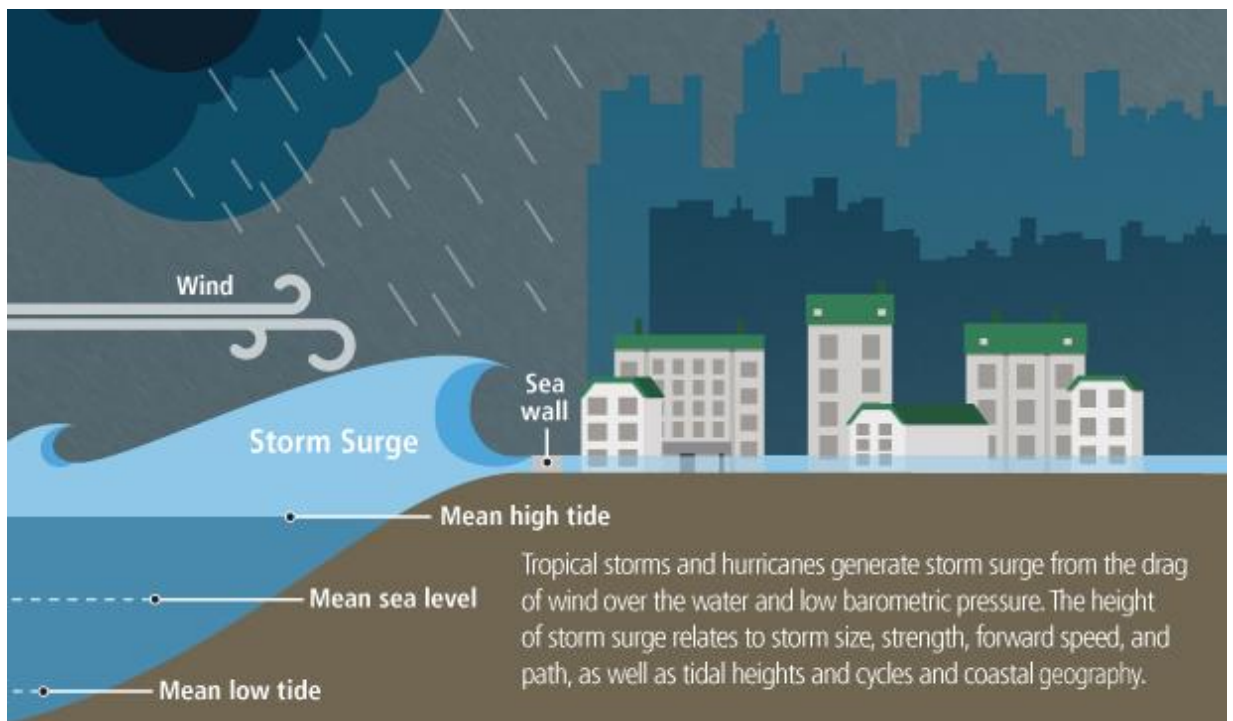
Very heavy rainfall throughout the winter of 2013/2014 led to the widespread flooding of 7000 hectares of land and over 600 houses, mainly in small rural settlements (see page 60). Local people complained that flood defences were not good enough and only protected nearby towns. They claimed that silt had built up in the Parrett and Tone, making them shallower and unable to contain the massive volumes of water. They criticised the Environment Agency for not dredging these rivers, while the Agency blamed a lack of funds. Some blamed farmers for poor land management, allowing rain to run off their land, eroding soil and clogging up drainage channels.



## LESSON 9: BIG QUESTION: WHAT CHALLENGES DO BRITISH COASTAL AREAS FACE AND HOW CAN WE ADDRESS THEM?

### Storm Surges

- A storm surge is a rise in sea level that occurs during tropical cyclones, intense storms also known as typhoons or hurricanes.
- The storms produce strong winds that push the water into shore, which can lead to flooding. This makes storm surges very dangerous for coastal regions.



**Britain battered by worst tidal surge in 60 years: Sea walls breached as 20ft waves smash string of east coast towns**  
**Source: Daily Mail, 4<sup>th</sup> December 2013**

- More than 295 Environment Agency flood alerts in place in England and Wales, with most in East Anglia
- Gusts of 140mph in parts of Aberdeenshire and Inverness-shire as ALL trains in Scotland are cancelled
- Scarborough has been hit by surging seas and what one witness called it 'a scene from Titanic'
- Evacuations planned in Essex and Suffolk as people are seen being rescued in North Wales and Merseyside

## LESSON 9: BIG QUESTION: WHAT CHALLENGES DO BRITISH COASTAL AREAS FACE AND HOW CAN WE ADDRESS THEM?

1	Name a human factor that affects urbanisation (1)	
2	Describe Bristol's site (2)	
3	Describe Bristol's situation (2)	
4	Explain one human cause of flooding (1)	
5	Name three physical causes of flooding (3)	
6	What type of pressure system is a tropical cyclone? (1)	
7	Name two international organisations that India is a member of (2)	
8	When did Hurricane Sandy strike Cuba and the USA (1)	
9	Describe the distribution of the UK's fossil fuels and minerals (2)	
10	Define the term 'fossil fuels' (1)	
11	State two advantages of HEP (2)	
12	State two advantages of solar power (2)	
13	State two disadvantages of solar power (2)	
		Total - 22

1	Name a human factor that affects urbanisation (1)	<input type="checkbox"/> Enclosures act <input type="checkbox"/> Industrial revolution
2	Describe Bristol's site (2)	<input type="checkbox"/> Confluence River Avon & River Frome <input type="checkbox"/> Sits between 7 hills <input type="checkbox"/> Safe tidal harbour
3	Describe Bristol's situation (2)	<input type="checkbox"/> Southwest of the Cotswold Hills <input type="checkbox"/> M4 to the north and M5 to the west <input type="checkbox"/> London is 150km east
4	Explain one human cause of flooding (1)	<input type="checkbox"/> Urbanisation – rainwater can't infiltrate impermeable Surfaces/drains allow water to enter the river more quickly. <input type="checkbox"/> Deforestation – interception is reduced so runoff increases
5	Name three physical causes of flooding (3)	<input type="checkbox"/> Intense rainfall/ duration of rainfall/ snowmelt/ geology/ relief
6	What type of pressure system is a tropical cyclone? (1)	<input type="checkbox"/> <b>Non-frontal</b> intense low pressure
7	Name two international organisations that India is a member of (2)	<input type="checkbox"/> United Nations and World Trade Organisat
8	When did Hurricane Sandy strike Cuba and the USA (1)	<input type="checkbox"/> October 2012
9	Describe the distribution of the UK's fossil fuels and minerals (2)	<input type="checkbox"/> Some of these resources, including iron and coal, helped fuel the industrial revolution, <input type="checkbox"/> Oil and gas from the North Sea are important but declining sources of energy.
10	Define the term 'fossil fuels' (1)	<input type="checkbox"/> Fossil fuels are hydrocarbons, primarily coal, fuel oil or natural gas, formed from the remains of dead plants and animals
11	State two advantages of HEP (2)	<input type="checkbox"/> Reservoirs can be used for water sports and fishing <input type="checkbox"/> Provide a water supply for areas that are located nearby <input type="checkbox"/> Less damaging to the environment as no greenhouse gases are produced
12	State two advantages of solar power (2)	<input type="checkbox"/> Have no running costs so are a cheap source of energy <input type="checkbox"/> Can be fitted on houses so home owners have their own energy supply. <input type="checkbox"/> Can be fitted on roofs so do not take up extra land space <input type="checkbox"/> Do not emit greenhouse gases once in use.
13	State two disadvantages of solar power (2)	<input type="checkbox"/> A high amount of land is needed to produce a low amount of energy.
		<p style="text-align: right;">Total - 22</p>

## LESSON 10: BIG QUESTION: WHAT EFFECT WILL GLOBAL CLIMATE CHANGE HAVE ON THE CLIMATE OF THE UK?

### **Predicted impacts of global warming**

#### **1. Heavier rain**

Overall, the government finds "no clear trend" in annual rainfall levels for **England** and **Wales**, but notes that summer rainfall has fallen since pre-industrial times, while winter rainfall has increased. It expects these trends to continue - meaning drier summers and wetter winters. There is potentially a role for climate change in flooding affecting large parts of **England, Scotland and Wales**.

#### **2. Hotter weather**

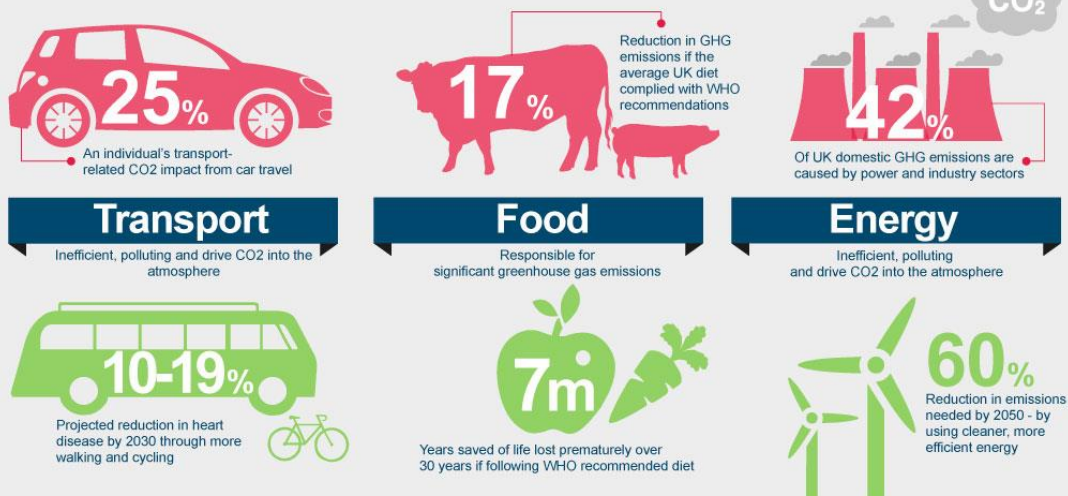
Human activity since the industrial revolution has led to this situation, the UK government says. In 2009 the state-funded UK Climate Projections report predicted that mean annual temperatures would rise by 2C to 5C by 2080. The effects would be largest in the **UK's southern areas** and smallest in northern areas, it added. Hot summers and heat waves would be more common and cold winters rarer.

### **Challenges to the NHS**

- 70% by the 2020s, compared with the 2000s
- More than 52,000 Europeans died from heat during the summer of 2003
- Cold kills more people than heat in the UK. With winters becoming milder, the level of cold-related mortality is estimated to fall by 2% by the 2050s and 12% by the 2080s
- "Another concern is the possible spread of diseases, such as malaria. There could be "sustained transmission" - lasting for one month or more a year - in **southern England** by 2080, research suggests. But anti-malarial drugs and the UK health system should be able to minimise this, it's added.
- The government says climate change is likely to raise food prices. "As healthy food is often more expensive this may reduce the nutritional quality of dietary intakes and hence the nutritional status of some population groups," it adds.

# LESSON 11: BIG QUESTION: HOW CAN WE RESPOND TO GLOBAL CLIMATE CHANGE AT A NATIONAL AND LOCAL LEVEL?

## What can we do about climate change in the UK?



Source: WHO & ESRC  
Credit: Rebecca Robinson/LSHTM

Action to live sustainably	Benefits	Costs and problems
Use local farmers markets – this means you will use local food rather than importing it.	There will be less fossil fuel burnt as less transport costs. It also supports the local farmers.	Some fruit such as tomatoes need to be grown in greenhouses in Yorkshire and this will use up more energy than transporting tomatoes from Spain, which are grown outside. It is best to only use local produce that can be grown outside.
Reduce the unnecessary luxuries you have – how many pairs of shoes!! Do you really need a new phone!!!	This means fewer resources are used up and wasted. As less products are manufactured (made). Less transport is needed and not as much packaging. The packaging is often plastic so is bad for the environment.	This may mean more poverty for people in LICs who make many of these products. If we cut back they will lose money and maybe there jobs. Is it important to support them?
Get on your bike or walk rather than drive your car.	Cars are big polluters. The average journey we take is 8.7 miles and there are 33 million cars on the road. Fewer cars means less carbon dioxide is produced.	Not everyone can do this. Elderly people and people with mobility issues need their cars to get around. Also we use road transport to get products into the shops – there is no other way to do this.