




Geography Department



# GCSE Geography

## Challenges in the Human Environment

### Core Knowledge

Name:

Class:

Teacher:

**3.2.1 Urban issues and challenges**

Urbanisation (p.3-4)

Mumbai (p.5-6)

London (p.7-9)

Sustainable living (p.10)

**3.2.2 The changing economic world**

Development (p.12-15)

Nigeria (p.16-17)

UK (p.18-19)

**3.2.3 The challenge of resource management**

General resources (p.21)

Energy resources (p.22-23)

Water resources (p.24-25)

Food resources (p.25-28)

**Wider reading suggestions** (p.29)

# **Urban issues and challenges**



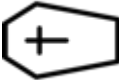


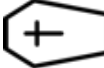








## **Urbanisation**








### **Mumbai**

### **London**

## **Sustainable living**

## Urbanisation glossary:
















Keyword	Definition	Icon
<b>Birth rate</b>	Number of babies born per 1000 of the population per year.	
<b>Choropleth map</b>	A map using shades of colour to show information. <i>The higher categories (e.g. largest populations) are shown in a darker colour and they get lighter as the figures are reduced (e.g. smallest populations).</i>	
<b>Death rate</b>	Number of people dying per 1000 of the population per year.	
<b>Economic opportunities</b>	Chances for people to improve their wealth through employment.	
<b>Inequalities</b>	Differences between poverty and wealth. <i>Can occur in housing quality, access to services (jobs, education, healthcare), access to open land and safety.</i>	
<b>Infant mortality</b>	The number of babies that die under a year of age, per 1000 live births per year.	
<b>International importance</b>	Value globally.	
<b>Life expectancy</b>	The number of years a person is expected to live from birth.	
<b>Megacity</b>	An urban area with a total population of ten million or more people.	
<b>Migration</b>	When people move from one area to another to stay. <i>In many LICs people move from rural to urban areas (rural-urban migration).</i>	
<b>Natural decrease</b>	The death rate is higher than the birth rate.	
<b>Natural increase</b>	The birth rate is higher than the death rate.	
<b>National importance</b>	Value within a country.	
<b>Pollution</b>	Harmful effects on the environment from chemicals, waste and emissions. <i>Pollution comes in several forms; light, noise, air, soil, water</i>	

<b>Pull factors</b>	Positive aspects attracting people to an area.	
<b>Push factors</b>	Negative aspects of where people currently live making them want to leave.	
<b>Regional importance</b>	Value within a small area of a country (e.g. Norfolk).	
<b>Rural</b>	Countryside.	
<b>Social opportunities</b>	Chances for people to improve their quality of life. <i>For example, better education and health care</i>	
<b>Urban</b>	Town / city.	
<b>Urbanisation</b>	Increasing percentage of people living in a town or city. <i>For example, due to migration and natural increase</i>	

### Urbanisation quiz questions:

<b>Define birth rate.</b>	Number of babies born per 1000 of the population per year.
<b>Define death rate.</b>	Number of people dying per 1000 of the population per year.
<b>Give two push factors</b>	Extreme climate, lack of resources, lack of safety, lack of services, limited job opportunities, crop failure, political and/or religious persecution, risk of natural hazards.
<b>Give two pull factors</b>	Better job opportunities, good availability of education and health care, safe area
<b>What is the difference between a rural and urban area?</b>	Rural is countryside whereas urban is a built up area (town/city)
<b>What happens to population if the birth rate is higher than the death rate?</b>	Natural increase (population goes up)
<b>What happens to population if the death rate is higher than the birth rate?</b>	Natural decrease (population goes down)
<b>What are the 3 root causes of urbanisation?</b>	Migration High birth rate and decreasing death rate















## Mumbai glossary:







Keyword	Definition	Icon
<b>Economic opportunities</b>	Chances for people to improve their wealth through employment.	
<b>Formal economy</b>	Working to receive a regular wage and working rights (e.g. paid holidays, sick leave).	
<b>Inequalities</b>	Differences between poverty and wealth. <i>Can occur in housing quality, access to services (jobs, education, healthcare), access to open land and safety.</i>	
<b>Informal economy</b>	Working without a regular wage or access to working rights (e.g. paid holidays, sick leave).	
<b>Megacity</b>	An urban area with a total population of ten million or more people.	
<b>Migration</b>	When people move from one area to another to stay. <i>In LICs people move from rural to urban areas (rural-urban migration).</i>	
<b>Natural increase</b>	The birth rate is higher than the death rate.	
<b>Pull factors</b>	Positive aspects attracting people to an area.	
<b>Push factors</b>	Negative aspects of where people currently live making them want to leave.	
<b>Sanitation</b>	Measures designed to protect health. <i>For example, providing clean water and disposing of waste.</i>	
<b>Slum</b>	An area of poor-quality, high density housing lacking in basics such as fresh water supply and sewers.	
<b>Social deprivation</b>	When an area does not have certain services essential for a healthy life. <i>For example, decent housing and disposal of sewage / waste</i>	
<b>Social opportunities</b>	Chances for people to improve their quality of life. <i>For example, better education and health care</i>	
<b>Urban</b>	Town / city.	
<b>Urbanisation</b>	Increasing percentage of people living in a town or city. <i>For example, due to migration and natural increase</i>	

**Mumbai quiz questions:**

<b>What percentage of migrants to Mumbai come from Maharashtra state?</b>	38%
<b>What percentage of slum-dwellers in Dharavi Slum work there?</b>	85%
<b>State three social opportunities of Dharavi Slum</b>	Community spirit, education for most children, flexible use of space and virtually no crime.
<b>What are the challenges of disease in Dharavi Slum?</b>	Doctors deal with 4000 cases of sickness per day Rats Lack of sanitation
<b>State two of the issues of the informal economy in Dharavi Slum</b>	Unregistered companies make small profits, it's illegal, working conditions are poor, cheap labour, no legal age for workers so children are also employed.

## London glossary:

Keyword	Definition	Icon
<b>Brownfield site</b>	Land that has been previously built on but is now disused.	
<b>Decentralisation</b>	The movement of businesses away from city centres into retail parks in the suburbs. <i>For example, out of town shopping areas (Longwater, Norwich)</i>	
<b>Deindustrialisation</b>	The decline in manufacturing industry.	
<b>Dereliction</b>	Abandoned buildings and wasteland.	
<b>Greenfield site</b>	Land that has not been built on before.	
<b>Inequalities</b>	Differences between poverty and wealth. <i>Can occur in housing quality, access to services (jobs, education, healthcare), access to open land and safety.</i>	
<b>Integrated transport</b>	Multiple transport systems are connected, making travel easier. <i>One aim is to enable people to switch from private car transport to a more sustainable option.</i>	
<b>Migration</b>	When people move from one area to another to stay. <i>In many LICs people move from rural to urban areas (rural-urban migration).</i>	
<b>Pollution</b>	Harmful effects on the environment from chemicals, waste and emissions. <i>Pollution comes in several forms; light, noise, air, soil, water</i>	
<b>Pull factors</b>	Positive aspects attracting people to an area.	
<b>Push factors</b>	Negative aspects of where people currently live making them want to leave.	
<b>Rural</b>	Countryside.	
<b>Rural-urban fringe</b>	Transition between a city and the countryside. <i>It has a range of land uses including out-of-town shopping centres, golf courses, farmland and motorways.</i>	
<b>Social opportunities</b>	Chances for people to improve their quality of life. <i>For example, better education and health care</i>	

<b>Traffic congestion</b>	Too many vehicles on the roads which causes traffic jams.	
<b>Urban</b>	Town / city	
<b>Urbanisation</b>	Increasing percentage of people living in a town or city. <i>For example, due to migration and natural increase</i>	
<b>Urban greening</b>	Increase of green spaces within a town / city. <i>For example, addition of green roofs, green walls and parks / gardens.</i>	
<b>Urban regeneration</b>	Revival of older parts of an urban area. <i>For example, modernising old buildings (renovation) or demolishing buildings (redevelopment).</i>	
<b>Urban sprawl</b>	The expansion of urban areas into the surrounding countryside.	









### London quiz questions:

<b>Define conurbation.</b> <b>Give an example.</b>	Major high-density areas (e.g. London and Greater Manchester).
<b>As of 2021, what was the population of London?</b>	8.8 million
<b>How many jobs are there in London?</b>	5.8 million
<b>What percentage of London's population is non-white?</b>	46%
<b>List three opportunities in London.</b>	Cultural mix, recreation and entertainment, employment, integrated transport systems and urban greening.
<b>What is urban greening?</b>	Increase of the amount of green spaces within a city.
<b>List three challenges in London.</b>	Urban decline, deprivation and dereliction. Inequality. Waste disposal. Pollution. Urban sprawl. Using brownfield and greenfield sites.
<b>State two effects of urban sprawl.</b>	Extra cost to the tax payer, increased traffic, health issues due to having to commute regularly to work, environmental issues as animals are displaced from their habitat, isolation as people live further from their neighbours.



<b>What is the benefit of the athletes' village in the Olympic park?</b>	The athletes' village has been relaunched as a housing estate where 40% will be affordable homes.
<b>How many acres of brownfield land was the Olympic park built on?</b>	560 acres
<b>What was an environmental disadvantage of the Olympic park and games?</b>	Materials came from overseas The games produced 3.3 million tons of CO <sub>2</sub> Wildlife had to be relocated

## Sustainable living glossary:

Keyword	Definition	Icon
<b>Conservation</b>	Prevent wasteful use of a resource.	
<b>Energy efficiency</b>	The use of less energy to perform the same task / produce the same end result.	
<b>Pollution</b>	Harmful effects on the environment from chemicals, waste and emissions. <i>Pollution comes in several forms; light, noise, air, soil, water</i>	
<b>Traffic congestion</b>	Too many vehicles on the roads which causes traffic jams.	
<b>Ultra-Low Emission Zone (ULEZ)</b>	Charge to high emission vehicles travelling anywhere in London.	
<b>Urban greening</b>	Increase of green spaces within a town / city. <i>For example, addition of green roofs, green walls and parks / gardens.</i>	
<b>Urban sustainability</b>	Meet the needs of today, without having a negative impact on future generations. <i>For example, environmental protection, social development and economic growth</i>	
<b>Waste recycling</b>	Reprocessing waste materials into new products.	

## Sustainability quiz questions:

<b>What is park and ride?</b>	Parking your car on the outskirts of a city and take a bus to the city centre.
<b>Why is the London congestion charge sustainable?</b>	Encourages people to use public transport instead of private which reduces the amount of emissions from vehicles
<b>What does ULEZ stand for?</b>	Ultra-low emission zone
<b>What is the purpose of the ULEZ?</b>	To charge to high emission vehicles travelling anywhere in London
<b>What are Santander Cycles?</b>	Public bike hire scheme in London

**The Changing**

**Economic**



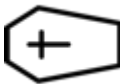


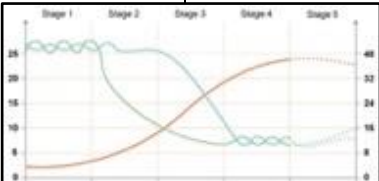





**World**

















**Development**






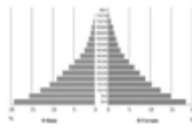







**Nigeria**

**UK**

## Development glossary:

Key Word	Definition	Icon
<b>Birth rate</b>	Number of babies born per 1000 of the population per year.	
<b>Child mortality</b>	The number of children dying before the age of 5 per 1000 populaion per year.	
<b>Choropleth map</b>	A map using one colour to show information e.g. population density. <i>The higher categories (e.g. largest populations) are shown in a darker colour and they get lighter as the figures are reduced (e.g. smallest populations).</i>	
<b>Death rate</b>	Number of deaths per 1000 of the population per year.	
<b>Debt relief</b>	When HICs write-off some LIC debt, so the LIC has less to pay back. <i>This means LICs can concentrate on their own development.</i>	
<b>Dependency ratio</b>	The balance between working population and non-working population (children and elderly people).	
<b>Demographic Transition Model</b>	Graph showing population change over time and space. <i>Change over space (a number of countries can be in different stages).</i> <i>Change over time (a country will progress through the stages).</i>	
<b>Development</b>	The improvement of a country in terms of economic growth and social welfare.	
<b>Development gap</b>	The difference in standards of living between the world's richest and poorest countries (HIC versus LIC).	
<b>Development indicators</b>	A measure of quality of life in country.	
<b>Economic migrant</b>	Someone seeking to improve their standard of living by moving willingly from one place to another for work.	
<b>Emigrate</b>	Leaving a country to move to another.	









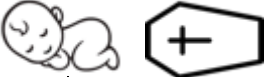





<b>Exponential growth</b>	Population growth rate is constantly increasing.	
<b>Fairtrade</b>	When producers in LICs are given a guaranteed price for what they produce.	
<b>Free trade</b>	When trade between countries is unrestricted. <i>Removal of taxes, tariffs and quotas which would otherwise restrict trade</i>	
<b>Gross Domestic Product (GDP)</b>	The total value of goods and services produced within the borders of a country.	
<b>Gross National Income (GNI)</b>	The wealth of a country, regardless of where it is earned. <i>For example, a British factory in China would create wealth towards UK GNI</i>	
<b>HIC</b>	High income country (e.g. UK).	
<b>Human Development Index (HDI)</b>	A composite measure using GDP, life expectancy and literacy rates.	
<b>Immigrate</b>	Moving into a country	
<b>Infant mortality</b>	The number of babies that die under a year of age, per 1000 live births per year.	
<b>Intermediate technology (appropriate tech)</b>	The simple, cheap and sustainable technology used to promote development in LICs.	
<b>International aid</b>	Money, goods and services given by one country or an institution (e.g. <b>World Bank</b> ) to help improve quality of life and economy of another country.	
<b>International importance</b>	Global value.	
<b>LIC</b>	Low-income country (e.g. Kenya).	
<b>Life expectancy</b>	The number of years a person is expected to live from birth.	
<b>Literacy rate</b>	The percentage of adults in a country who can read and write.	
<b>Microfinance loans</b>	Very small loans which are given to people in LICs to start a business.	

<b>Migration</b>	Movement from one place to another to stay. <i>This may be within a county (regional), country (national) or between countries (international).</i>	
<b>Multiplier effect</b>	Initial investment and jobs (or lack of) that lead to a positive or negative cycle. <i>This creates more jobs and money which are then reinvested.</i>	
<b>Natural change</b>	The difference between birth rate and death rate to determine population increase or decrease.	
<b>National importance</b>	Value within a country.	
<b>NEE</b>	Newly emerging economy (e.g. Nigeria).	
<b>Population pyramid</b>	Graph showing the distribution of age and gender in a country.	
<b>Poverty trap</b>	Poverty leads to poverty.	
<b>Refugee</b>	Someone forced to leave their country (due to war, famine, natural disaster).	
<b>Regional importance</b>	Value within a small area of a country (e.g. Norfolk).	
<b>Tertiary industry</b>	Providing a service (e.g. teacher, doctor, supermarket worker).	
<b>Tourism</b>	Travel for pleasure.	
<b>Trade</b>	The buying and selling of goods and services between countries.	
<b>Transnational Corporation (TNC)</b>	A large business operating in more than one country. <i>Headquarters in one country with many other branches (offices and factories) spread across the world.</i>	

### Development quiz questions:

<b>List three things that can be used to measure development.</b>	GNI/GDP per capita, Human Development Index, birth rates, death rates, infant mortality, people per doctor, literacy rate, access to safe water, life expectancy.
<b>What is the poverty trap?</b>	Poverty leads to poverty. <i>Low investment in infrastructure (e.g. roads, rail), education and healthcare can exacerbate (make worse) poverty and keep countries at a low level of development.</i>
<b>List two consequences of uneven development.</b>	More international migration, lack of social opportunity, a lower growth of wealth, political instability and billions of people live in poverty.
<b>What does a population pyramid show?</b>	A population pyramid shows the age and gender structure for an area or country.
<b>How does the DTM show population change?</b>	Change over space (a number of countries can be in different stages). Change over time (a country will progress through the stages).
<b>What happens in the second stage of the DTM?</b>	Birth rate remains high and death rate decreases rapidly. Total population increases.
<b>State three ways of reducing global inequalities.</b>	Investment and industrial development, aid, intermediate technology, free trade, fair trade, debt relief and microfinance loans.
<b>What are microfinance loans?</b>	Very small loans given to people in LICs to help start up a business.
<b>How much of Kenya's GDP comes directly from tourism?</b>	8.8%

## Nigeria glossary:











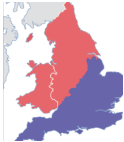


Key Word	Definition	Icon
<b>Development</b>	The improvement of a country in terms of economic growth and social welfare.	
<b>Economic migrant</b>	Someone seeking to improve their standard of living by moving willingly from one place to another for work.	
<b>Gross Domestic Product (GDP)</b>	The total value of goods and services produced within the borders of a country.	
<b>Gross National Income (GNI)</b>	The wealth of a country, regardless of where it is earned. <i>For example, a British factory in China would create wealth towards UK GNI</i>	
<b>Industrial structure</b>	The proportion of the workforce employed in different sectors of the economy (primary, secondary, tertiary and quaternary).	
<b>International aid</b>	Money, goods and services given by one country or an institution (e.g. <b>World Bank</b> ) to help improve quality of life and economy of another country.	
<b>Migration</b>	Movement from one place to another to stay. <i>This may be within a county (regional), country (national) or between countries (international).</i>	
<b>Multiplier effect</b>	Initial investment and jobs (or lack of) that lead to a positive or negative cycle. <i>This creates more jobs and money which are then reinvested.</i>	
<b>Natural change</b>	The difference between birth rate and death rate to determine population increase or decrease.	
<b>Primary industry</b>	Extraction of natural resources (e.g.farming, fishing, mining).	
<b>Quaternary industry</b>	Economic activity related to technology, research and development.	
<b>Secondary industry</b>	Making goods (e.g. food processing).	
<b>Tertiary industry</b>	Providing a service (e.g. teacher, doctor, supermarket worker).	
<b>Transnational Corporation (TNC)</b>	A large business operating in more than one country <i>Headquarters in one country with many other branches (offices and factories) spread across the world.</i>	








### Nigeria quiz questions:

<b>Where is Nigeria located?</b>	West Africa.
<b>How many people in Nigeria live below the poverty line?</b>	Approximately 60 million.
<b>What are two limits to growth in Nigeria?</b>	Poor infrastructure, barriers to exports, lack of financial services for independent small/medium businesses and an unstable government.
<b>Why do TNCs have factories in poorer countries?</b>	Cheaper labour, lower environmental standards and lower raw material costs.
<b>What is the negative effect of Shell extracting oil on the Ogoni people?</b>	Many of them live without electricity or running water, and see none of the oil profits, instead having to live with the poisoning of land and water from pipelines, oil spills and gas fires.
<b>What percentage of Nigeria's economy is oil revenue?</b>	75%
<b>State three areas in which UK aid money was spent in Nigeria</b>	Governance, wealth creation, health, education, water and sanitation and poverty and vulnerability.

## UK glossary:

Key Word	Definition	Icon
<b>Commonwealth</b>	The voluntary group of 56 independent and equal states. <i>Home to 2.2 billion, member states share history, language, culture and democracy.</i>	
<b>Deindustrialisation</b>	The decline in manufacturing industry.	
<b>European Union (EU)</b>	A group of 27 countries across Europe that work together. <i>They trade as if they were one country, without any trade barriers.</i>	
<b>Globalisation</b>	Links between different countries around the world.	
<b>Gross Domestic Product (GDP)</b>	The total value of goods and services produced within the borders of a country.	
<b>Gross National Income (GNI)</b>	The wealth of a country, regardless of where it is earned. <i>For example, a British factory in China would create wealth towards UK GNI</i>	
<b>Industrial structure</b>	The proportion of the workforce employed in different sectors of the economy (primary, secondary, tertiary and quaternary).	
<b>Information technologies</b>	Computer, internet, mobile phone and satellite technologies.	
<b>Infrastructure</b>	Basic structure and facilities to support industry.	
<b>Intermediate technology (appropriate technology)</b>	The simple, cheap and sustainable technology used to promote development in LICs.	
<b>North-South divide (UK)</b>	Economic and social differences between Southern England and Northern England that relate to issues such as health and quality of life.	
<b>Post-industrial economy</b>	The economy of countries where most employment is in the tertiary sector.	
<b>Primary industry</b>	Extraction of natural resources (e.g.farming, fishing, mining).	











<b>Quaternary industry</b>	Economic activity related to technology, research and development.	
<b>Science and business parks</b>	Purpose built office areas at the edge of a city where high tech, large scale complexes can be built.	
<b>Secondary industry</b>	Making goods ( <i>e.g. food processing</i> ).	
<b>Tertiary industry</b>	Providing a service ( <i>e.g. teacher, doctor, supermarket worker</i> ).	
<b>Trade</b>	The buying and selling of goods and services between countries.	

### UK quiz questions:










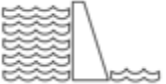





<b>What is the North-South Divide?</b>	An economic division between the wealthy developed countries (the North) and the poorer developing countries (the South).
<b>Why has the UK's economic structure changed?</b>	Globalisation, deindustrialisation, government policies and decline in resources.
<b>What is a science park?</b>	Scientific research and development are carried out close to university.
<b>What is the aim of the HS2?</b>	Reduce journey times between the cities in Northern England and to London. <i>The idea is that businesses will function better with less loss of time spent travelling.</i>
<b>What is the Northern Powerhouse?</b>	Linking of northern cities to match, rival and compete with the economic muscle of London.
<b>What is the Commonwealth?</b>	An intergovernmental organisation of 56 countries linked together by history, culture, language and democracy
<b>What is the European Union?</b>	The European Union is a group of 27 countries that have common goals and close ties to one another. The UK withdrew on the 31 <sup>st</sup> January 2020.

**The Challenge of**  
**Resource**  
**Management**  
  
**Energy**  
  
**Food**  
  
**Water**

**General resources glossary:**

Key Word	Definition	Icon
<b>Carbon footprint</b>	The amount of carbon emissions generated by human activity.	
<b>Demand</b>	Consumer desire to purchase a good or service.	
<b>Economic wellbeing</b>	Measure of how much money people have to sustain their standard of living.	
<b>Inequalities</b>	Differences between poverty and wealth. <i>Can occur in housing quality, access to services (jobs, education, healthcare), access to open land and safety.</i>	
<b>Poverty</b>	Being extremely poor.	
<b>Quality of life</b>	The wellbeing of individuals or groups of people.	
<b>Resource management</b>	The control and monitoring of resources so that they do not become depleted or exhausted.	
<b>Standard of living</b>	The level of wealth, comfort and necessities available to an individual or group of people.	
<b>Supply</b>	The availability of a good or service.	
<b>Sustainable development</b>	Development that meets the needs of the present without limiting the ability of future generations to meet their own needs.	


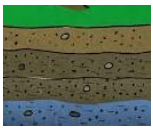









## Energy resources glossary:

Key Word	Definition	Icon
<b>Biomass</b>	Organic materials (e.g. wood, crops or food waste) used as a source of fuel.	
<b>Domestic supply</b>	Supplies required by people.	
<b>Energy conservation</b>	Saving energy. <i>(by reducing consumption)</i>	
<b>Energy exploitation</b>	Developing the use of energy for profit.	
<b>Energy mix</b>	The variety of energy sources used by a Country.	
<b>Energy security</b>	Uninterrupted availability of energy sources at an affordable price.	
<b>Fossil fuels</b>	A natural fuel (e.g. coal, oil or gas) formed from the remains of living organisms.	
<b>Fracking</b>	Injecting liquid at high pressure into rocks to force open existing cracks to extract oil or gas.	
<b>Geothermal energy</b>	Earth's underground natural heat energy.	
<b>Hydroelectric power</b>	Energy from moving water.	
<b>Non-renewable energy</b>	A resource that will run out. <i>Finite meaning it will not be replenished fast enough to meet demand</i>	
<b>Nuclear power</b>	Energy released by nuclear reactions. <i>Using mined uranium to create heat energy thus making steam and generating electricity.</i>	
<b>Renewable energy</b>	A resource which is not diminished when it is used.	
<b>Solar energy</b>	The sun's energy absorbed by solar panels to heat water or air or generate electricity.	
<b>Wind energy</b>	Energy obtained by the movement of air passing over turbines.	

**Energy resources quiz questions:**

<b>What are the concerns over fracking?</b>	Water contamination, increased water use and small earthquakes being triggered.
<b>State one main issue with fossil fuel use</b>	<ul style="list-style-type: none"><li>• Damage to the natural environment during extraction</li><li>• Production of pollutants during burning such as CO<sub>2</sub></li><li>• Dust which is hazardous to human health</li><li>• Sulphur dioxide which contributes to acid rain</li></ul>
<b>Why is it important to have a varied energy mix?</b>	Renewable infrastructure not as established as non-renewable Renewable energy does not always provide a consistent amount of energy Conflict may restrict use of imported non-renewable energy

## Water resources:







Key Word	Definition	Icon
<b>Eutrophication</b>	Excess nutrients in a lake / river causing denser plant growth.	
<b>Groundwater</b>	Water held underground.	
<b>Quality</b>	The standard of something (e.g. water).	
<b>Reservoir</b>	A large natural or artificial lake used to supply water.	
<b>Sewage</b>	Waste water. <i>Contains faeces and dirty water</i>	
<b>Surface runoff</b>	The flow of water over the Earth's surface.	
<b>Water deficit</b>	Water demand exceeds the amount of water available (supply).	
<b>Water pollution</b>	Harmful substances contaminate waterways.	
<b>Water surplus</b>	Available water (supply) exceeds demand.	
<b>Water table</b>	The level below which the ground is saturated.	
<b>Water transfer</b>	Transporting water to maintain supply.	


















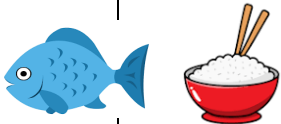


## Water resources quiz questions:

<b>How can poor water quality affect economic well-being?</b>	Poor water quality can lead to disease, which weakens people and therefore has a direct impact on their productivity and hence economic development.
<b>What are water transfer schemes?</b>	Transporting water to maintain supply <i>Moved from an area of surplus to an area of deficit.</i>
<b>Give an example of a UK water transfer scheme</b>	Kielder Water <i>Water is trapped behind a dam in north-west Northumberland then used to supply the major settlements along the north-east coast.</i>
<b>State two ways that the UK government attempts to combat water pollution</b>	Educating people, putting in laws and legislation, treating our water and improving our water courses.
<b>Which part of the UK tends to have a water surplus?</b>	North west
<b>Which part of the UK tends to have a water deficit?</b>	South east

## Food resources:

Key Word	Definition	Icon
<b>Aeroponics</b>	A nutrient rich mist applied to plant roots hanging in the air.	
<b>Agribusiness</b>	Application of business skills to farming.	
<b>Appropriate technology</b>	Technology best suited to the needs, skills, knowledge and wealth. <i>Important in LICs</i>	
<b>Biotechnology</b>	Use of biological technology to create better versions.	
<b>Famine</b>	Extreme and widespread scarcity of food.	
<b>Fertilisers</b>	Chemical added to soil to improve fertility	

<b>Food insecurity</b>	Being without reliable access to a sufficient quantity of affordable, nutritious food.	
<b>Food miles</b>	The distance food items travel from where they are produced to where they are eaten.	
<b>Food security</b>	When people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.	
<b>Hydroponics</b>	Growing plants in a nutrient rich solution rather than soil.	
<b>Irrigation</b>	The supply of water to land. <i>Can be spray, drip or flood irrigation</i>	
<b>Local food sourcing</b>	Food produced and distributed locally.	
<b>Malnourishment</b>	Lack of proper nutrition. <i>Can be caused by not having enough to eat or not eating a balanced diet</i>	
<b>New green revolution</b>	The use of modern technology (e.g. biotechnology) and traditional knowledge to improve crop yields.	
<b>Organic farming</b>	Food is produced using environmentally friendly farming with no chemicals.	
<b>Permaculture</b>	Creating sustainable and self-sufficient food supply.	
<b>Pesticides</b>	Substance used to destroy pests.	
<b>Pests</b>	An unwanted organism causing damage to crops.	
<b>Social unrest</b>	People expressing anger.	
<b>Sustainable fish</b>	Not depleting fish stocks or causing environmental damage through fishing.	

<b>Sustainable meat</b>	Animals raised with humane welfare standards.	
<b>Symbiotic</b>	Mutually beneficial relationship between two organisms. <i>Rice and fish have a symbiotic relationship</i>	
<b>Urban farming</b>	Growing space within town and cities. <i>Examples include allotments and roof top farms</i>	
<b>Undernourishment</b>	Having insufficient food or other substances for good health and condition.	

### Food resources quiz questions:

<b>What is agribusiness?</b>	The application of business skills to agriculture or food production. <i>Farms are run as big businesses to increase food production by using lots of inputs such as fertilisers or labour-saving machines.</i>
<b>Which continent produces the most food?</b>	Asia
<b>State three things that can affect food supply</b>	Climate, technology, pests and diseases, water stress, conflict.
<b>State three causes of soil erosion</b>	Deforestation, overgrazing of animals and over-cultivation.
<b>State three strategies to increase food supply</b>	Irrigation, aeroponics, hydroponics, use of biotechnology, appropriate technology.
<b>How does the use of greenhouses help crop growth in Almeria?</b>	Protects crops from the harsh climate (heat, desert region, wind)
<b>Why do migrants from North Africa and Eastern Europe go to Almeria?</b>	Large amounts of cheap labour available in the greenhouse farms.
<b>State one way that organic farming is sustainable</b>	<ul style="list-style-type: none"> <li>• Reduces food production intensification allowing the land to “rest”</li> <li>• Encourages a local approach</li> <li>• Artificial fertilisers are largely banned</li> <li>• Farmers develop fertile soil by rotating crops and using compost, manure and clover</li> </ul>

	<ul style="list-style-type: none"> <li>• Strict regulations define what organic farmers can and can't do</li> <li>• Uses biological pest control rather than pesticides</li> </ul>
<b>How does rice-fish agriculture work?</b>	Rice is grown in flooded paddies with deeper water either side for fish.
<b>Why is a net stretched over a rice-fish farm?</b>	To keep out predator birds.
<b>Why do rice-fish farms have bunds?</b>	To keep water in place.
<b>State two ways rice-fish farming has helped families in Jamalpur, Bangladesh</b>	<ol style="list-style-type: none"> <li>1. Selling rice and fish enable families to afford better food at markets.</li> <li>2. Selling rice and fish enable families to send their children to school.</li> </ol>

# Wider reading list

These are some suggestions of useful books to read to further your understanding of the topics you are studying this year.

Please let your geography teacher know if you read any these or if you come across any other great geography books we can add to the list.

## Urban environments:

<u>Author</u>	<u>Title</u>	<u>Type</u>
Mike Davis	Planet of Slums	Non-fiction
Robert Neuwirth	Shadow Cities: A Billion Squatters	Non-fiction
Danny Dorling	Population 10 Billion	Non-fiction
Sarah Harper	How Population Change will Transform our World	Non-fiction
Philip Steele	Population: Are there too many of us?	Non-fiction
Lonely Books	The Cities Book	Non-fiction
Andy Mulligan	Trash	Fiction
Gillian Cross	In the Sea there are Crocodiles	Fiction
Jon Walter	Close to the Wind	Fiction
Sarah Crossan	The Weight of Water	Fiction
Floella Benjamin	Coming to England	Fiction

## Changing economic world:

<u>Author</u>	<u>Title</u>	<u>Type</u>
UN Publications	The Sustainable Development Goals	Non-fiction
Guy Fox	How the World Really Works: The Economy	Non-fiction
Elena Fernandez Prados	Economics through Everyday Stories from Around the World	Non-fiction
Gillian Cross	In the Sea there are Crocodiles	Fiction
Jon Walter	Close to the Wind	Fiction
Sarah Crossan	The Weight of Water	Fiction
Floella Benjamin	Coming to England	Fiction
Scott Westerfeld	Uglies	Fiction
Susin Nielsen	No Fixed Address	Fiction
Polly Ho-Yen	Boy in the Tower	Fiction
Gemma Malley	The Declaration	Fiction

## Challenge of resource management:

<u>Author</u>	<u>Title</u>	<u>Type</u>
Carolyn Steel	Hungry City: How food shapes our lives	Non-fiction
Mark Winne	Closing the Food Gap: Resetting the table in the land of plenty	Non-fiction
Mike Burners-Lee	The Burning Question: We can't burn half the world's oil, coal and gas. So how do we quit?	Non-fiction
Philip Steele	Water: Is there enough for everyone?	Non-fiction
Cameron Stracher	The Water Wars	Fiction