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Chapter 1: Hazardous Earth.

Key Term	Definition
Aftershocks	a less-powerful earthquake which follows a more-powerful earthquake – a result of the fault 'settling' into its new position
Aid	short-term help – such as food, given in emergency, or long- term help – such as training in health care
Atmosphere	the layer of gases above the Earth's surface
Aurora borealis	magnetic force field where radiation from space hits Earth's magnetosphere and lights up the sky – also known as the 'northern lights'
Basalt	a dark-coloured volcanic rock. Molten basalt spreads rapidly and is widespread. About 70% of the Earth's surface is covered in basalt lava flows
Climatologist	a scientist who is an expert in climate and climate change
Collision zones	where two tectonic plates collide – forming mountains fold mountains like the Himalayas
Conservative plate boundary	where two tectonic plates are sliding alongside each other, in the same or different directions
Continental crust	the part of the Earth's crust that makes up land, on average 30-50 km thick
Convection currents	currents which transfer heat from one part of a liquid or gas to another.
Convergent plate boundary	where two tectonic plates collide
Core	the centre of Earth, believed to be solid inside with a hot liquid outer core
Coriolis force	a strong force created by the Earth's rotation. It can cause storms, including hurricanes

Cumulonimbus clouds	tall clouds created by the condensation of water vapour
Divergent plate boundary	where two tectonic plates are moving away from each other
Economic impacts	impacts on the wealth of an area
Enhanced greenhouse effect	the increased effectiveness of the greenhouse effect, believed to be the cause of recent global warming
Epicentre	the point on the ground directly above the focus (centre) of an earthquake
Evacuate	when people move from a place of danger to a safer place
Eye of the storm	the centre of a storm, consisting of calm, descending dense air
Ferrel cell	part of the global circulation model, where Earth's atmosphere consists of descending cool, dry air
Focus	the point of origin of an earthquake
Friction	the force which resists the movement of one surface over another
Geothermal	heat from inside the Earth
Glacial	a cold period of time during which the Earth's glaciers expanded widely
Global circulation model	a theory that explains how the atmosphere operates in a series of three cells each side of the Equator
Greenhouse effect	the way that gases in the atmosphere trap heat from the sun. Like the glass in a greenhouse – they let heat in, but prevent most of it from escaping
Greenhouse gas	gases like carbon dioxide and methane that trap heat around the Earth, leading to global warming

Gulf stream	a warm ocean current that begins in the Gulf of Mexico and is blown northeast across the North Atlantic
Hadley cell	the largest section of the global circulation model, found above the tropics and caused by the heating and cooling of Earth's atmosphere
Hot spots	columns of heat in Earth's mantle found in the middle of a tectonic plate
Hurricane	the term given to a tropical cyclones in the USA and Caribbean
Ice cores	columns of ice that are extracted from ice sheets and used to reconstruct temperature patterns
Interglacial	a long period of warmer conditions between glacials
Inter-tropical Convergence Zone (ITCZ)	a narrow zone of low pressure near the Equator where northern and southern air masses converge
Lava	melted rock that erupts from a volcano
Lava flows	lava flows at different speeds, depending on what it is made of. Lava flows are normally very slow and not hazardous but, when mixed with water, lava can flow very fast and be dangerous
Levée	embankments found on either side of a river, formed naturally by regular flooding or built up by people to protect the area against flooding
Lithosphere	the cool and brittle uppermost layer of the Earth. It includes the very top of the mantle and, above this, the crust
Magma	melted rock below the Earth's surface. When it reaches the surface it is called lava
Magnetosphere	a huge invisible magnetic field that surrounds Earth, protecting it from harmful radiation from space and the sun
Magnitude	of an earthquake (how much the ground shakes), an expression of the total energy released
Mantle	the middle layer of the Earth. It lies between the crust and the core and is about 2900 km thick. Its outer layer is the asthenosphere. Below the asthenosphere it consists mainly of
Lithosphere Magma Magnetosphere Magnitude	 embankments found on either side of a river, formed naturally by regular flooding or built up by people to protect the area against flooding the cool and brittle uppermost layer of the Earth. It includes the very top of the mantle and, above this, the crust melted rock below the Earth's surface. When it reaches the surface it is called lava a huge invisible magnetic field that surrounds Earth, protecting it from harmful radiation from space and the sun of an earthquake (how much the ground shakes), an expression of the total energy released the middle layer of the Earth. It lies between the crust and the core and is about 2900 km thick. Its outer layer is the

	solid rock
Meteorites	fragments of rock and metal that fall to Earth from space
Milankovitch cycles	the three long-term cycles in the Earth's orbit around the sun. Milankovitch's theory is that glacials happen when the three cycles match up in a certain way
North Atlantic drift	a warm ocean current that branches off from the Gulf Stream into the North Atlantic Ocean
Ocean currents	permanent or semi-permanent large-scale horizontal movements of the ocean waters
Oceanic crust	the part of the Earth's crust which is under the oceans, usually 6-8 km thick
Pangea	a supercontinent consisting of the whole land area of the globe before it was split up by continental drift
Plate boundaries	where tectonic plates meet. There are three kinds of boundary a) divergent – when two plates move apart b) convergent – when two plates collide c) conservative – when two plates slide past one another
Plumes	upwelling of molten rock through the asthenosphere to the lithosphere
Polar cell	sections of the Earth's atmosphere found above the North and South Poles, consisting of descending cold, dry air
Polar desert	areas in Antarctica and the Arctic ice sheet that have dry and cold climate conditions
Predict	saying that something will happen in the future. A scientific prediction is based on statistical evidence
Primary effects	the direct impacts of event, usually occurring instantly
Probability	the chance of an event happening
Pyroclasts	fragments of volcanic material that is thrown out during explosive eruptions

Quaternary	the last 2.6 million years, during which there have been many glacials
Radioactive decay	atoms of unstable elements release particles from their nuclei and give off heat
Refugees	people who are forced to move due to natural hazards or war
Relief effort	help given by organisations or countries to help those facing an emergency
Richter scale	a scale for measuring the magnitude of earthquakes
Risk zone	areas assessed upon the likelihood of hazardous events happening, such as storm surges
Saffir-Simpson hurricane scale	a scale that classifies hurricanes into five different categories according to their wind strength
Secondary effects	the indirect impacts of an event, usually occurring in the hours, weeks, months or years after the event
Seismometer	a machine for recording and measuring an earthquake using the Richter scale
Social impacts	the impacts of an event upon people
Solar insolation	the Sun's energy
Storm surge	a rapid rise in the level of the sea caused by low pressure and strong winds
Stratosphere	the layer of air 10-50km above the Earth's surface. It is above the cloudy layer we live in, the troposphere
Stratovolcano	type of volcano characterised by steep sides, also known as a composite cone
Subduction	describes oceanic crust sinking into the mantle at a convergent plate boundary. As the crust subducts, it melts back into the mantle

Sunspots	a dark patch that occasionally appears on the surface of the Sun
Tectonic hazards	natural events caused by movement of the Earth's plates that affect people and property
Tectonic plate	the Earth's surface is broken into large pieces, like a cracked eggshell. The pieces are called tectonic plates, or just plates
Thermal expansion	as a result of heating, expansion occurs. When sea water warms up, it expands
Trade winds	easterly winds that blow from high to low pressure, towards the Equator
Tree rings	the growth of a tree can be seen in its rings, each representing a year's growth. Scientists use these to examine past climate conditions
Tropical cyclone	an area of low pressure with winds moving in a spiral around a calm central point called the eye of the storm – winds are powerful and rainfall is heavy
Tropics	regions either side of the Equator where the Sun moves directly overhead from its farthest point in the North and the South
Tsunami	earthquakes beneath the sea bed generate huge waves that travel up to 900km/h
Typhoon	term given to a tropical cyclone in the western North Pacific
Volcanic Explosivity Index (VEI)	measures the explosiveness of volcanic eruptions on a scale of 1 to 8

Chapter 2: Development dynamics.

Key Term	Definition
Biogas	a gas produced by the breakdown of organic matter, such as manure or sewage, in the absence of oxygen. It can be used as a biofuel
Bottom-up development	experts work with communities to identify their needs, offer assistance and let people have more control over their lives, often run by non-governmental organisations
Cash crops	crops sold for cash, directly from farmers to be exported and traded on global markets
Caste-based society	the Hindu caste system determines a person's status (and job), a social custom found traditional rural villages in India
Clark Fisher model	theory produced by two economists, Clark and Fisher, that explains changes in employment structure as countries develop their economies
Colonisation	when another country takes over a foreign land and applies a system of power
Commodities	items of value that can be traded for money
Communism	is a system of government, based on the theories of Karl Marx, which believes in sharing wealth between all people
Containerization	the transport of goods using container ships
Core region	areas within a country that are important economic hubs, with high levels of employment and technological innovation
Cycle of poverty	a set of factors that cause continuous poverty unless intervention is made
Demographic data	all data linked to population e.g. birth rate, death rate etc.
Dependency ratio	the proportion of people below (aged 0-14) and above (over 65) normal working age. The lower the number, the greater the number of people who work and are less dependent
Development indicators	measures of how a country is improving

Economic liberalisation	when a country's economy is given the freedom of a 'market economy', consumers and companies decide what people buy based on demand
Emerging countries	a country with high-to-medium human development, and recent economic growth
Emerging economies	countries that have recently industrialised and are progressing towards an increased role in the world economy
Fertility rate	average number of births per woman
Footloose	term used to describe companies that are able to locate anywhere there is high-quality communication links
Foreign Direct Investment (FDI)	unrestricted flows of capital (money) from one country to another
Frank's dependency theory	theory developed by economist André Frank that describes development using two types of global region (core and periphery)
Global north	a group of wealthy countries found mainly in the Northern hemisphere
Global south	a group of less wealthy countries found mainly in the Southern hemisphere
Gross Domestic Product (GDP)	the total value of *goods and *services produced by a country in one year
Globalisation	increased connections between countries
High Income Countries (HICs)	countries where employment is dominated by tertiary and quaternary sectors
Human Development Index (HDI)	a standard means of measuring human development
Industrialisation	where a mainly agricultural society changes and begins to depend on manufacturing industries instead
Infant mortality	number of children per 1000 live births who die before their first birthday

Infrastructure	the basic services needed for an industrial country to operate e.g. roads, railways, power and water supplies, waste disposal, schools, hospitals, telephones and communication services
Inter-Governmental Organisations (IGOs)	governments and agencies working together
Intermediate technology	uses low-tech solutions using local materials, labour and expertise to solve problems
Irrigation	is the artificial watering of land that allows farming to take place
Knowledge economy	an economy based on specialised knowledge and skill
Level of development	means a country's wealth (measured by its GDP), and its social and political progress (e.g. its education, health care or democratic process in which everyone can vote freely
Maternal mortality	number of mothers per 100 000 who die in childbirth
Life expectancy	average number of years a person can expect to live
Low Income Countries (LICs)	countries where employment is dominated by the primary sector e.g. farming
Middle Income Countries (MICs)	countries dominated by the secondary sector (manufacturing), which often have large reserves of raw materials which has encouraged investment and growth e.g. Brazil and Chile
Multiplier effect	when people or businesses move to an area and invest money on housing and services, which in turn creates more jobs and attracts more people
Neo-colonialism	'new' colonialism
New economy	economy based on the sale of services, rather than manufactured products
Newly Industrialising Countries (NICs)	the name given to countries that have very recently started to rapidly develop, such as Hong Kong, Singapore and Malaysia (the 'Asian Tigers')
Non-governmental organisations (NGOs)	NGOs work to make life better, especially for the poor. Oxfam, the Red Cross and Greenpeace are all NGOs

Outsourcing	using people in other countries to provide services if they can do so more cheaply e.g. call centres
Population structure	the number of each sex in each age group (e.g. 10-14), usually displayed in a population pyramid diagram
Primary products	raw materials
Purchasing power parity (PPP)	shows what you can buy in each country, now used to measure GDP
Rostow's theory	theory by Walt Rostow about the economic growth of countries
Quaternary sector	employment based on highly specialised knowledge and skill
Quintile	a group of five
Recently Industrialising Countries (RICs)	countries such as China and India which have recently industrialised
Rural-urban migration	the movement of people from the countryside to the cities, normally to escape from poverty and to search for work
Secondary products	manufactured goods
Secondary sector	employment based in manufacturing
Subsistence farming	where farmers grow food to feed their families, rather than to sell
Tariff	additional cost added to the price of traded goods
Terms of trade	means the value of a country's exports relative to that of its imports
Tertiary sector	employment based on services

Top-down development	when decision-making about the development of a place is done by governments or large companies
Trans National Companies (TNCs)	those which operate across more than one country
World Trade Organisation (WTO)	a global organisation dedicated to making trade between countries easier

Chapter 3: Challenges of an urbanising world.

Key Term	Definition
Accessibility	the ease of access to a place
Bottom-up development	experts work with communities to identify their needs, offer assistance and let people have more control over their lives, often run by non-governmental organisations
Brownfield sites	former industrial areas that have been developed before
Central Business District (CBD)	the heart of an urban area, often containing a high percentage of shops and offices
Chawl	low quality multi-storey building
Conurbation	a continuous urban or built-up area, formed by merging towns or cities
Counter-urbanisation	when people leave towns and cities to live in the countryside
Deindustrialisation	decreased activity in manufacturing and closure of industries, leading to unemployment
Ethnic enclave	communities with a similar origin
Formal economy	means one which is official, meets legal standards for accounts, taxes, and workers' pay and conditions
Gross Domestic Product (GDP)	the total value of goods and services produced by a country in one year
Hyper-urbanisation	rapid growth of urban areas
Informal economy	an unofficial economy, where no records are kept. People in the informal economy have no contracts or employment rights
Informal housing	unplanned settlements such as squatter shacks

Internal migration	movement of people within the same country
International migration	the movement of people from one country to another
Knowledge economy	an economy based on specialised knowledge and skill
Megacity	a many centered, multi-city urban area of more than 10 million people. A megacity is sometimes formed from several cities merging together
Metropolitan area	urban settlement
Million city	a city with a population above one million
Natural increase	the birth rate minus the death rate for a place. It is normally given as a % of the total population
Net growth	the number left after subtracting those leaving from those arriving
Regeneration	re-developing former industrial areas or housing to improve them
Residential	areas where people live
Re-urbanisation	when people who used to live in the city and then moved out to the country or to a suburb, move back to live in the city
Rural-urban fringe	the surrounding urban areas of a urban centre
Rural-urban migration	the movement of people from the countryside to the cities, normally to escape from poverty and to search for work
Sanitation	the provision of hygienic living conditions, such as clean drinking water and safe disposal of sewage
Spatial	'relating to space' e.g. the spatial growth of a city means how much extra space it takes up as it grows

Sustainable development	defined by the Brundtland Commission as that which 'meets the needs of the present without compromising the ability of future generations to meet their own needs'
Top-down development	when decision-making about the development of a place is done by governments or large companies
Urban	built-up areas
Urbanisation	a rise in the percentage of people living in urban areas, compared to rural areas
Vermiculture	composting waste using worms
World city	trade and invest globally e.g. London and New York

Chapter 4: The UK's evolving physical landscape.

Key Term	Definition
Abrasion	the scratching and scraping of a river bed and banks by the stones and sand in a river
Alluvium	all deposits laid down by rivers, especially in times of flood
Antecedent rainfall	the amount of moisture already in the ground before a rainstorm
Anticline	a dome of folded rocks forming an arch
Arch	a curved passage through a headland created when a cave which was eventually broken through by erosion
Attrition	the wearing away of particles of debris by the action of other particles, such as river or beach pebbles
Backwash	the flow of water back to the sea after waves break on a beach
Bankful	the discharge or contents of a river which is just contained within its banks. This is when the speed, or velocity, of the river is at its greatest
Bar	an accumulation of sediment that grows across the mouth of a bay, caused by longshore drift
Beach	an area of sand or pebbles along the shore of a body of water
Beach profile	the shape of a beach resulting from how waves break
Berm	deposited sand formation
Carbon dating	uses radioactive testing to find the age of rocks which contained living material
Carboniferous period	a geological period of time, 250 to 350 million years ago

Cave	a large hole, either underground or in the side of a hill or cliff, often created when waves force their way into cracks in the cliff face
Channel	the bed and banks of a river
Concordant	(coasts) follow the ridges and valleys of the land, so the rock strata is parallel to the coastline
Constructive waves	build beaches by pushing sand and pebbles further up the beach
Cost-benefit analysis	looking at all the costs of a project, social and environmental as well as economic, and deciding whether it is worth going ahead
Cove	a sheltered area
Cross profile	shows a cross section of a river's channel and valley at certain points in the river's course
Cross section	a view or drawing that shows what the inside of something looks like after a cut has been made across it
Delta	a low-lying area at the mouth of a river where a river deposits so much sediment it extends beyond the coastline
Destructive waves	waves which erode beaches
Dip slope	a gentle slope following the angle of rock *strata, found behind escarpments
Discharge	the volume of water flowing in a river, measured in cubic metres per second
Discordant	(coasts) alternate between bands of hard rocks and soft rocks, so the rock *strata is at right angles to the coast
Dissipate	means to reduce wave energy, which is absorbed as waves pass through, or over, sea defences
Dredging	digging out drainage ditches and rivers to make them artificially deeper

Dry valleys	valleys where rivers once flowed
Erosion	wearing away the landscape
Escarpment	continuous line of steep slopes above a gentle dip slope, caused by the erosion of alternate strata
Estuary	where a river meets the sea
Evaporation	the changing of a liquid into vapour or gas. Some rainfall is evaporated into water vapour by the heat of the sun
Eyot	a small island in a river
Fault scarp	when faults form a steep edge
Faults	large cracks caused by past tectonic movements
Fetch	the length of water over which the wind has blown, affecting the size and strength of waves
Flood plain	flat land around a river that gets flooded when the river overflows
Friction	the force which resists the movement of one surface over another
Glaciated	formed or once covered by glaciers or ice sheets
Gorge	a steep valley
Gradient	slope
Groundwater flow	movement of water through rocks in the ground

wooden or stone structures built at right angles to the coast to trap sediment from longshore drift, allowing a beach to build up
building physical structures to deal with natural hazards, such as sea walls to stop waves
a continuous corkscrew motion of water as it flows along a river channel
(coastal management) takes into account all social, economic and environmental costs and benefits. This means looking at the coastline as a whole instead of an individual bay or beach
the force of water along the coast, or within a stream or river
a graph showing the amount of water in a place at different times
Rock type formed from lavas and deep magmas. They were once molten, then cooled and crystallised
the soaking of rainwater into the ground
the holistic management of coasts
the capture of rainwater by leaves and branches. Some evaporates again and the rest drips from the leaves to the soil
hills that stick out on alternate sides of a V-shaped valley, like the teeth of a zip
high level winds at around 6-10km that blow across the Atlantic towards the UK
a bay totally or partially enclosed by a spit, *bar or reef running across its entrance
naturally formed or artificially built embankments beside rivers
a pale grey rock consisting of crushed shells of corals that lived in tropical seas 300 million years ago

Load	material carried by a river such as boulders or stones
Long profile	shows how a river's gradient changes as it flows from its source to its mouth
Longshore drift	when waves break at an angle to the coast, rather than parallel to it. It usually occurs in one direction and transports sediment along the coastline creating new landforms
Lowland landscape	an area of flat land that is at, near or below sea level, which in the UK usually consists of younger and less resistant sedimentary rocks
Marine processes	wave-related processes that contribute to coastal erosion
Mass movement	the movement of material downslope, such as rock falls, landslides or cliff collapse
Meander	a naturally occurring sharp bend in a river
Metamorphic	sedimentary rocks that were heated and compressed during igneous activity
Middle course	the journey of a river from its source in hills or mountains to mouth is sometimes called the course of the river. The course of a river can be divided into three main sections a) upper course b) middle course and c) lower course
Misfit rivers	rivers created by glaciers that are too small to have eroded the valleys they flow through
Mudflats	flat coastal areas formed when mud is deposited by rivers and coasts
Nodules	(in reference to chalk) pieces of flint within chalk
Ox-bow lake	a lake formed when a loop in a river is cut off by floods
Permeable	allowing liquids or gases to pass through it
Plunge pool	a hollow at the foot of a waterfall

Point bar	a low, curved ridge of sand and gravel along the inner bank of a river which is formed in the middle course of a river
Prevailing wind	the most frequent direction the wind blows in a certain area
Recurved end	the hooked end of a spit
River cliff	the steep edge of a river formed when a river erodes and undercuts its outer bank
Rock outcrop	a large mass of rock that stands above the surface of the ground
Salt marsh	salt-tolerant vegetation growing on mud flats in bays or estuaries. These plants trap sediments which gradually raise the height of the marsh
Saltation	the bouncing of material from and along a river bed or a land surface
Sand dune	onshore winds blow sand inland, forming a hill or ridge of sand parallel to the shoreline
Scarp and vale topography	erosion which has left alternate strata of more and less resistant rock forms a landscape known as scarp and vale topography
Scree	angular rock pieces created by freeze-thaw weathering
Sediment	material such as sand or clay that is transported by rivers
Sedimentary	rock formed from sediments eroded and deposited by rivers, the sea, or on the sea bed
Shoreline Management Plan (SMP)	an approach which builds on knowledge of the coastal environment and takes account of the wide range of public interest to avoid piecemeal attempts to protect one area at the expense of another
Soft engineering	involves adapting to natural hazards and working with nature to limit damage
Soil creep	the slow gradual movement downslope of soil, scree or glacier ice

Solution	chemicals dissolved in water, invisible to the eye
Spit	a ridge of sand running away from the coast, usually with a curved seaward end
Stack	a tall column of rock left standing in the sea after wave erosion has separated it from the mainland
Stakeholders	a person with an interest or concern in something, such as those who are likely to be affected by natural hazards
Storm hydrograph	a graph which shows the change in both rainfall and discharge from a river following a storm
Storm surge	a rapid rise in the level of the sea caused by low pressure and strong winds
Strata	distinctive layers of rock
Stump	the part of a stack that has been left after wave erosion has caused the stack to collapse
Sub-aerial processes	occurring on land, at the Earth's surface, as opposed to underwater or underground
Surface run-off	rainwater that runs across the surface of the ground and drains into the river
Suspension	tiny particles of sediment dispersed in water
Swallow hole	a hole in the ground caused by water erosion, especially in limestone landscapes; also called a sink hole
Swash	when water rushes up a beach
Terminal groyne syndrome	when the last groyne along a coast prevents longshore drift from bringing material to other areas, causing erosion problems further down the coast
Thalweg	the line of the fastest flow along the course of a river

Throughflow	the flow of rainwater sideways through the soil, towards the river
Till	sediment deposited by melting glaciers or ice sheets
Traction	force that rolls or drags large stones along a river bed
Transpiration	when plants lose water vapour, mainly through pores in their leaves
Tributary	a river or stream that flows into a larger river or lake
Upland landscape	an area of high land, in the UK consisting of resistant igneous, metamorphic and sedimentary rock
Uplifted	(in geology) raised or pushed up as a result of tectonic activity
Upper course	the mountain stage of a river's course with steep gradients, narrow river channels and much erosion
Urbanisation	a rise in the percentage of people living in urban areas, compared to rural areas
U-shape	(river valley) deep valleys created by glaciers, shaped like the letter 'U' with steep, straight sides and a flat bottom
Velocity	the speed of a river, measured in metres per second
Water table	the upper limit of saturated rock below the ground
Waterfall	a place where water flows over the edge of a cliff or rock; generally formed in the upper course of a river
Weathering	the physical, chemical or biological breakdown of solid rock by the action of weather (e.g. frost, rain) or plants

Chapter 5: The UK's evolving human landscape.

Key Term	Definition
Accessible	easy to get to and from
Affordable housing	cheaper housing
Ageing population	when the proportion of older people in a population rises, due to longer life expectancy and/or falling fertility rates
Brownfield sites	land previously used for industrial purposes that has become vacant
Business parks	areas specifically designed for business offices and small factories
Connectivity	how easy it is to travel to or connect with other places
Conurbations	a continuous urban or built-up area, formed by merging towns or cities
Core regions	urban areas that drive the economy
Counter-urbanisation	when people leave towns and cities to live in the countryside
Culture	the ideas, customs and social behaviours of a group of people
Decentralisation	shift of shopping activity and employment away from the Central Business District (CBD)
Deindustrialisation	decreased activity in manufacturing and closure of industries, leading to unemployment
Depopulation	decline of the total population of an area
Deprivation	a lack of wealth and services. It usually means low standards of living caused by low income, poor health, and low educational qualifications

Diversification	when a business (e.g. a farm) decides to sell other products or services in order to survive or grow
E-commerce	buying online
Electrification	making something operate using electricity when it did not before
Enterprise zones	areas where the UK government offers companies help with start-up costs, reduced taxes on profits, and access to superfast broadband in order to attract them to the area
Environmental quality	environmental conditions in an area that affect humans and their quality of life, such as the amount of green space and quality of housing
Ethnicity	a person's national, racial or cultural origin
EU grants	funds to help the poorest regions of the EU whose GDP is below 75% of the EU average
Flexible working	giving employees flexibility on how, when and where they work, such as working from home
Footloose	companies not tied to location, such as many high-tech companies
Foreign direct investment (FDI)	investment by one country into another country
Free trade	the free flow of goods and services, without the restriction of tariffs
Gentrification	high-income earners move into run-down areas to be closer to their workplace, often resulting in the rehabilitation and regeneration of the area to conform with middle class lifestyles
Globalisation	increased connections between countries
Green belt	undeveloped areas of land around the edge of cities with strict planning controls
Immigration	people moving to another country to live there permanently

Index of multiple deprivation (IMD)	a government measure of how deprived areas are based on factors such as employment, housing and education
Infrastructure	the basic physical and organisational structures and facilities (i.e. buildings) a country needs to operate, such as roads and power supplies
Knowledge economy	an economy based on specialised knowledge and skill
Migration	movement of people from one place to another
Multicultural	a variety of different cultures or ethnic groups within a society
Multiplier effect	when people or businesses move to an area and invest money in housing and services, which in turn creates more jobs and attracts more people
Net immigration	the difference between the number of people who move to an area (immigrants) and those who leave (emigrants)
New economy	economic activities based on knowledge and information, rather than more traditional industries such as manufacturing
Northern powerhouse	a major core region of cities (with a similar population to London) that has the potential to drive the economy of northern England
Old economy	an economy based on traditional industries
Out-migration	people permanently leaving one place in order to live in another
Population density	the average number of people in a given area, expressed as people per km ²
Primary sector	sector of the economy involved with getting raw materials from the natural environment, such as farming, fishing and mining
Privatisation	the change in ownership of services from the public sector (run by the government or local councils) to the private sector (owned by shareholders)
Quality of life	a measure of how 'wealthy' people are, but measured using criteria such as housing, employment and environmental factors, rather than income

Quaternary sector	sector of the economy that is based on specialised knowledge and skill
Radial network	a network of roads that meet in the middle, like spokes in a wheel
Rebranding	a change of image
Recycling	collecting materials such as glass, paper and plastic and making them into something new, helping to reduce waste
Regeneration	redeveloping former industrial areas or housing to improve them
Regional development grants	grants and advice to help businesses start up. Most are targeted at peripheral areas, but funds are small
Retail park	a shopping area on the edge of a town or city, usually having several large chain stores
Re-urbanisation	when people who used to live in a city and then moved out to the country or to a suburb, move back to the city
Rural periphery	areas away from the urban core
Rural-urban fringe	the area where a town or city meets the countryside
Secondary sector	sector of the economy involved with manufacturing and assembling
Studentification	communities benefit from local universities which provide employment opportunities and a large student population which can regenerate pubs, shops and buy-to-let properties
Suburbanisation	the movement of people from the inner suburbs to the outer suburbs
Sustainable	causing little or no damage to the environment so can continue over a period of time
Tertiary sector	sector of the economy involved with providing services, such as insurance, teaching and health care

Tourism	the business of providing services to people on holiday
Trans-national corporation	companies that operate in more than one country
World city	a city that plays a disproportionate role in world affairs and is a centre for finance and trade, e.g. London

Chapter 6: Geographical investigations.

Key Term	Definition
Accuracy	being correct or exact; having no errors
Annotated	to have a short explanation or comments added to text or drawings
Anomalies	unusual data which do not fit the general pattern of results
Cartography	making or drawing maps
Categories	groups of people or things that are similar in some way
Census	an official count or survey, usually of the population in an area, that also collects information about them, such as age, sex, or occupation
Continuous	without interruption
Deprivation	lack of wealth and services. It usually means low standards of living caused by low income, poor health, and low educational qualifications
Environmental quality survey	measures different characteristics of a place based on numerical judgements with a simple scoring system
Equipment	the tools, clothing, etc. needed to complete a specific task
Geo-processing	a framework for processing geographic information gathered by GIS systems
GIS (geographical information system)	a computer-based system for capturing, storing, analysing and presenting geographical information that allows you to overlay data
Hydrograph	a graph showing the amount of water in a place at different times
Index of Multiple Deprivation (IMD)	a government measure of how deprived areas are based on factors such as employment, housing and education

Mean	the average of the values in data. This divides the data set into two halves
Median	ordering data then finding the middle value
Mode	the number that appears most frequently in a data set
Model	a good example of something that can be copied
Office for National Statistics (ONS)	an organisation that collects and publishes statistics related to the economy, population and society of the UK
Primary data	first-hand information; fieldwork data that you collect yourself (or as part of a group)
Qualitative data	techniques that don't involve numbers or counting. They are subjective and involve the judgment of the person collecting
Quantitative data	data that can be measured numerically
Quartiles	dividing a list of numbers into four equal groups – two above and two below the median
Random	where samples are chosen by chance, and every sample has an equal chance of being selected
Range	the difference between the highest and lowest values in a set of data
Reliability	the extent to which an investigation produced consistent results
Sample size	the number of measurements being taken
Secondary data	data that has been collected by someone else
SMP (Shoreline Management Plan)	an approach which builds on knowledge of the coastal environment and takes account of the wide range of public interest to avoid piecemeal attempts to protect one area at the expense of another

Stratified	collecting a sample made up of different parts
Systematic	working to a plan or set of methods to collect data
Theory	an idea that is suggested to explain a fact or event; an opinion or explanation
Trend	the general direction of something
Validity	being logically or factually sound

Chapter 7: People and the biosphere.

Key Term	Definition
Abiotic	non-living part of a biome, includes the atmosphere, water, rock and soil
Altitude	height of the land
Altitudinal zonation	the change in ecosystems at different altitudes, caused by alterations in temperature, precipitation, sunlight and soil type
Atmosphere	the layer of gases above the Earth's surface
Biomass	renewable organic materials such as wood, agricultural crops or wastes, when used as a source of fuel or energy
Biome	a large-scale ecosystem, e.g. tropical rainforest
Biosphere	the living layer of Earth between the lithosphere and atmosphere
Biotic	living part of a biome, made up of plant (flora) and animal (fauna) life
Boserupian	a view based on the published works of Ester Boserup, which argues that as population grows, innovative humans invent new ways of producing more food
Carbon sequestration	removing carbon dioxide from the atmosphere and locking it up in biotic material
Carbon sink	natural stores for carbon-containing chemical compounds, like carbon dioxide or methane
Climate	the average weather conditions over a 30-year period
Club of Rome	a think tank that popularised the Malthusian view in the 1970s
Decay	decomposition of organic materials by bacteria and fungi

Decomposition	the process of decay or rotting
Ecosystem	localized biome made up of living things and their non-living environment. For example a pond, a forest, a desert
Ecosystem services	a collective term for all of the ways humans benefit from ecosystems
Ecosystems	a localized biome made up of living things and their non- living environment. For example a pond, a forest, a desert
Evaporation	the changing of a liquid into vapour or gas
Fallout	dead plants and animals become litter on the soil surface
Food web	a complex network of overlapping food chains that connect plants and animals in biomes
Goods	physical materials such as timber from trees or fish caught in a lake
Groundwater	water that is stored in the ground
Hydrological cycle	the movement of water between its different forms; gas (water vapour), liquid and solid (ice) forms
Indigenous peoples	the original people of a region. Some indigenous groups still lead traditional lifestyles, e.g. a tribal system, hunting for food.
Industrialisation	where a mainly agricultural society changes and begins to depend on manufacturing industries instead
Infiltration	the soaking of rainwater into the ground
Interception	the capture of rainwater by leaves and branches
Latitude	how far north or south a location on the Earth's surface is from the Equator, measured in degrees

Leaching	nutrients are washed out of the soil as water moves through
Lithosphere	the uppermost layer of the Earth which includes the crust and the very top of the mantle
Litter	decaying leaves and twigs
Malthusian	a theory introduced in 1798 by Reverend Thomas Malthus which argues that human population will eventually grow so large that the planet will run out of resources
Natural resources	materials found in the environment that are used by humans
Nutrient cycle	nutrients move between the biomass, litter and soil as part of a continuous cycle which keeps both plants and soil healthy
Nutrient transfer	the movement and exchange of nutrients between biomass, litter and soil, which are called nutrient stores
Permeable	allows water to pass through
Photosynthesis	the process of plants converting sunlight into energy
Precipitation	water vapour that is released from clouds and falls to Earth as rain, sleet, snow or hail
Runoff	the movement of rainwater over ground
Services	functions that satisfy our needs
Slash-and-burn	a type of farming where farmers clear small areas of forests by cutting and burning, and the ash adds nutrients to the soil
Soil erosion	the removal of soil by wind and rain
Treeline	the limit, or altitude, in a biome where tress will no longer grow

Tundra	cold desert biome
Urbanisation	means a rise in the percentage of people living in urban areas, compared to rural areas
Weathering	the physical, chemical or biological breakdown of solid rock by the action of weather (e.g. frost, rain) or plants

Chapter 8: Forests under threat.

Key Term	Definition
Abiotic	non-living part of a biome, includes the atmosphere, water, rock and soil
Acid rain	rain with a pH lower than 5.7
Afforestation	the planting of trees
Agroforestry	growing trees and crops together to maintain biodiversity of agricultural land
Biodiversity	the number of different plant and animal species in an area
Biofuels	any kind of fuel made from living things, or from the waste they produce
Biomass	renewable organic materials such as wood, agricultural crops or wastes, when used as a source of fuel or energy
Biotic	living part of a biome, made up of plant (flora) and animal (fauna) life
Boreal forest	the taiga – the world's largest land biome
Clear-cutting	the logging of all trees in a wide area of forest
Climate	the average weather conditions over a 30-year period
Coniferous tree	type of tree which includes pine, spruce and fir, which grow tall and narrow to form a dense canopy
Conservation	protecting threatened biomes, e.g. setting up national parks or banning trade in endangered species
Deforestation	the deliberate cutting down of forests to exploit forest resources (timber, land or minerals)

Detritivores	animal which feeds on dead or decaying plant and animal matter
Drought	a long, continuous period of dry weather
Ecotourism	small-scale tourism that attracts visitors that are interested in wildlife and culture
Epiphytes	plants that live in the canopy on trees and have evolved to get all their nutrients from water and air rather than the soil
Geographical conflict	disagreement and differences of opinion linked to the use of places and resources
Geographical Information Systems (GIS)	a form of electronic mapping that builds up maps layer by layer
Global warming	the increase of Earth's temperatures, also known as the greenhouse effect
Hydroelectric power (HEP)	electricity generated by turbines that are driven by moving water
Invasive species	(or alien species) – a plant, animal or disease introduced from one area to another which causes ecosystem damage
Leaching	when nutrients are washed out of the soil by water moving through it
Lianas	climbing plants which cling to trees and climb up to the sunlight in the canopy, while getting water and nutrients from the soil below
Litter	decaying leaves and twigs
Migration	movement from one place to another
National parks	natural landscapes that are protected by the government for the conservation of wildlife or enjoyment of the general public
Net primary productivity (NPP)	a measure of how much new plant and animal growth is added to a biome each year

Non-governmental organisation (NGO)	NGOs work to make life better, especially for the poor. Oxfam, the Red Cross and Greenpeace are all NGOs
Nutrient cycle	The circulation of nutrients between abiotic (non-living) and biotic (living) parts of ecosystems
Primary forest	the original forest
RAMSAR wetland	international treaty dedicated to the conservation and sustainable use of wetlands with global importance
Secondary forest	regenerated or replanted forest
Selective logging	the removal of large, valuable trees leaving some of the forest intact
Strip mining	the digging of large holes in the ground to extract ores and minerals that are close to the surface
Sustainable management	meeting the needs of people now and in the future, and limiting harm to the environment
Tar sands	sediment that is mixed with oil, can be mined to extract oil to be used as fuel
UNESCO World Heritage Sites	a natural or man-made site that is protected because of their global importance
Wilderness	isolated, hard-to-reach places with little human interference or settlement
Wildfire	uncontrolled burning though forest, grassland or scrub. Such fires can 'jump' roads and rivers and travel at high speed

Chapter 9: Consuming energy resources.

Key Term	Definition
Accessibility	how easy a place is to get to
Biofuels	any kind of fuel made from living things, or from the waste they produce
Biogas	a gas produced by the breakdown of organic matter, such as manure or sewage, in the absence of oxygen. Can be used as a biofuel
Bitumen	a very dense sticky form of petroleum
Black gold	a term used for oil, as it is regarded as such a valuable commodity
Business as usual	future energy scenario that assumes that the world will continue to rely on fossil fuels as the main source of energy
Carbon footprint	a calculation of the total greenhouse gas emissions caused by a person, a country, an organisation, event or product
Carbon taxes	a tax on fossil fuels intended to discourage their use
Consumption	the utilization of a resource
Ecological footprint	the amount of land and water required by a country to produce resources and deal with waste, measured in global hectares (gha)
Energy consumption	energy usage
Energy diversification	getting energy from a variety of different sources to increase energy security
Energy insecurity	without reliable access to sufficient energy sources at an affordable price
Energy security	having access to reliable and affordable sources of energy

Energy-poor	lacking electricity or the income to pay for it
Food miles	the distance food travels from the producer to the consumer. The greater the distance, the more carbon dioxide is emitted
Fossil fuels	a natural fuel found underground, buried within sedimentary rock in the form of coal, oil or natural gas
Fracking	horizontally drilling and blasting water into rock fractures under pressure in order to release oil (hydraulic fracturing)
Geology	the rock type that forms the landscape
Global economy	the world economy based on the international exchange of goods and services
Greenpeace	an environmental campaign group
Hydroelectric power (HEP)	using water energy to drive a turbine that generates electricity
Industrialisation	where a mainly agricultural society changes and begins to depend on manufacturing industries instead
Kuznets curve	a hypothesis that the more developed an economy gets, the greater the priority to look after the environment becomes
Liquefaction	converting gas into liquid
Non-renewable	sources that are finite and will eventually run out, such as oil and gas
Opencast mining	digging large holes in the ground to extract ores and minerals that are close to the surface
Organisation of Petroleum Exporting Countries (OPEC)	established to regulate the global oil market, stabilise prices and ensure a fair return for its 12 member states who supply 45% of the world's oil
Peak oil	the theoretical point at which half of the known reserves of oil in the world have been used

Recyclable	energy resources that can be recycled or reused
Renewable	a resource that does not run out and can be restored, such as wind or solar
Seismic imaging	using sound waves bounced underground to detect rock structures containing oil and gas
Shale gas	natural gas that is trapped underground in shale rock
Sustainable development	meeting the needs of the present without compromising the ability of future generations to meet their own needs
Tar sands	sediment that is mixed with oil, can be mined to extract oil to be used as fuel
Wind turbines	convert the power of the wind into electricity