

Knowledge Organiser: Year 8 Geography; Risky World – Plate Tectonic Theory

Key Words		
Continental crust	Part of the earth crust that make up the earths surface. It is dense and heavier than oceanic crust.	
Oceanic crust	Part of the earths crust that make up the ocean basins. It is less dense and lighter than the continental crust.	
Tectonic plate	These are pieces of the rocky outer layer of the Earth known as the crust.	
Convection currents	The process of heat rising and falling in the mantle that moves the tectonic plates.	
Destructive plate boundaries	This is when 2 tectonic plates move towards each other (both continental or one continental and one oceanic).	
Constructive plate boundaries	This is when 2 tectonic plates move apart, away from each other. This is normally with oceanic plates. New land is formed.	
Conservative plate boundaries	This is when no land is made or destroyed. It is when 2 tectonic plates slide past each other causing friction and pressure to be built up.	
Subduction	When two tectonic plates meet and one is pushed under the other and into the mantle.	
Distribution	The earthquakes and volcanoes are located and spread out across the world.	





Knowledge Organiser: Year 8 Geography; Risky World – Earthquakes

Keywords		
Earthquake	A sudden violent movement of the Earth's surface.	
Focus	The location that the earthquake starts.	
Epicentre	The point directly above the focus.	
Seismic waves	The waves of energy caused by the earthquake.	
Fault line	The line that 2 tectonic plates move by each other.	

Managing the Risk of Earthquakes

Preparation:

Earthquake resistant buildings:

Shock absorbers

- Earthquake survival kitGuidance and
- Cross bracing
- Shear wall
- Base isolator
- supportEarthquake drills

Measuring Earthquakes

Mercalli Scale The earthquakes intensity is split into twelve groups. Roman numerals I to XII are used to show the effects. It is based on observation and opinions.

This measures seismic waves using a seismograph. The Richter scale is logarithmic: an earthquake measured at 7 is 10x stronger than that at 6. Numbers range from 0 to 9

Richter Scale

Earthquake in Italy- HIC

A 6.3 magnitude earthquake struck the city of L'Aquila in Italy on 6th April 2009. It occurred on a collision plate boundary.

Effects – Primary – *309 people died and 1500 people were injured *65000 people were made homeless *10000-15000 buildings collapsed Secondary –

- •Access to some areas of the city was restricted due to unsafe buildings
- •Transport was damaged due to landslides
- •University applications have declined for the University of L'Aquila

Responses-

Short term –

- •Bills and mortgages for those affected were suspended
- •The EU provided US\$552.9 million from its major disaster fund

Long term-

- •No taxes were paid by the residents of L'Aquila during 2010
- •To encourage students back to the University fees were dropped for 3 years
- •A memorial procession is held on the anniversary of the earthquake

How do earthquakes happen? An earthquake is a sudden shockwave caused by rocks being under stress from the movements of plates at plate boundaries. Eventually the stress in the rock builds up enough reaches breaking point. At that point, the stored up energy is released in the form of shockwaves.

Tsunamis

A tsunami is a series of ocean waves that send surges of water onto land. They cause widespread destruction when they crash onto shore.

Tsunamis often occur as a result of undersea earthquakes.

Most tsunamis happen within the Pacific Ocean's 'Ring of Fire' where there is lots of tectonic activity.



Earthquake in Haiti - LIC

A 7.0 magnitude earthquake struck the country of Haiti at 16:53 (4:53pm) local time on Tuesday 12 January 2010. It occurred on a conservative plate boundary.

<u>Effects –</u>

Primary –

- 316,000 people were killed and 1 million people were made homeless.
- Hospitals (50+) and schools (1,300+) were badly damaged, as was the airport's control tower
- The main prison was destroyed and inmates escaped Secondary –
- People were squashed into shanty towns or onto the streets because their homes had been destroyed
- The large number of bodies meant that diseases, especially cholera, became a serious problem.

Responses-

Short term –

- \$100 million in aid given by the USA and \$330 million by the European Union.
- 4.3 million people provided with food rations in the weeks following the earthquake.

Long term –

- Water and sanitation eventually supplied for 1.7 million people.
- 1 million people still without houses after 1 year so still must live in aid camps



Knowledge Organiser: Year 8 Geography; Challenging Cities

	Keywords	1. What is urbanisation?
Urban area	A town or city.	Urbanisation means an increase in
Urbanisation	An increase in the proportion of people living in urban areas.	the proportion of people living urban areas.
Sustainable city	A sustainable city is one in which there is minimal damage to the environment.	In 2020 it was reported that 56.2% of the global population lived in cities. This figure is projected to
Rural area	A countryside area	increase to 68% by 2050.
Migration	The movement of people from one place to another.	
Slum	An overcrowded, poorly built urban residential area.	

2. What is rural to urban migration?

Rural to urban migration describes the movement of people from rural areas into towns and cities.

Rural migration to the city occurs in every country. However the reasons as to why people leave the rural environment can vary depending on the country we are looking at.



3. Pull factors v. push Factors		Factors	4. Megacities
	The advantages and opportunities offered by cities make them act like a 'magnet', pulling people towards them from the countryside. E.g. safety, jobs, education.		A megacity is an urban area with a population of over 10 million people. In 1975 there were only four megacities – New York, Tokyo, Mexico City and São Paolo. Today, there are over twenty.
Something that makes someone want to move away from a place. E.g. war or poor housing etc.		makes someone want to n a place. E.g. war or poor	 Tokyo 37.39 million. Delhi 30.29 million. Shanghai 27.05 million.
5. Case study – Dharavi			6. Sustainable cities
Mumbai in India is a megacity that experienced rapid urbanisation. An effect of this has been the Dharavi slum. <u>Challenges</u> <u>Solutions</u>		acity that experienced fect of this has been the <u>Solutions</u>	A sustainable city is designed to have minimal impact on the environment. They are energy efficient and may use renewable technology like solar power.
People I sewage land tha live on. high. Ho crowdeo rationeo share 1	ive amongst and on waste it is illegal to Disease is ouses are over d. Water is d. 500 people public toilet	\$2 billion development to re-house residents in apartment blocks. Residents are not happy with this though. They like the slum and want only minor improvements.	They may also make use of local employment and services to reduce the impacts of commuting. Bedzed (Beddington Zero Energy Development) is an environmentally friendly housing development in



Knowledge Organiser: Year 8 Geography; Ice Age

Key Words		1. How has climate changed?
Climate	The long term weather patterns of an area.	 Temperature has fluctuated over the last 420,000. This results in glacial and interglacial periods. The last ice age was in the quaternary period but we are now living in a warmer interglacial period.
Glacier	Massive bodies of slowly moving ice that form on land.	
Glacial period	A time marked by colder than usual temperatures and glacial advance. The warm period between 2 glacials.	
Interglacial period		
Quaternary	Current geological time period covering the last 2.6 billion years and a time of glacials and interglacials.	Cold 200,000 400,000 400,000 400,000 Age (years)
2. How has climate changed in the UK?		3. What is a glacier and how do

Much of Britain was covered by ice during several "Ice Ages" over the last 500,000 years. The most recent one ended only 10,000 years ago. Glaciers created landscapes in the Scottish Highlands and the Lake District.

4. How do glaciers change the landscape?

Glaciers shape the landscape through

debris once contained within it.

Glaciers can sculpt and carve landscapes by **eroding** the land beneath them as they

deposition of rocks and sediment. As the ice melts, it drops the rocks, sediment, and



5. What evidence do we have for climate change?

Glaciers begin to form when snow

transform into ice. Each year, new

remains in the same area year-round,

where enough snow accumulates to

layers of snow bury and compress the

Rocks and fossils

previous layers.

they form?

Ice cores



6. How have humans contributed to recent climate change and what are the environmental impacts?



move.

Although evidence suggests that global climates have fluctuated, human activity is speeding up climate change causing a **global warming** that has never been seen before. For example, burning fossil fuels causes greenhouse gases like CO2 that enhances the **greenhouse effect**.

Environmental impacts:

- Rising sea levels
- Increased extreme weather events like drought, wildfires and storms.
- Damage to wildlife population and habitats.



Knowledge Organiser: Year 8 Geography; Blue Planet

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Key Words		1. What is the difference between	
Ocean circulation	The large scale movement of seawater around the world	<u>Ocean</u> - a very large expanse of	
Thermohaline	The transportation and mixing of the worlds sea water depending on temperature and salinity (saltiness)	saltwater that covers most of the earths sea. <u>Sea</u> – an areas of saltwater that	
Tide	The up and down movement of the ocean caused by the moon		
Overfishing	Where too much fishing has left a reduced number of fish and species in the sea	NORTH AMERICA COLAN AFRICA AFRICA AFRICA COLAN AFRICA AFRICA COLAN AFRICA AFRICA AFRICA	
Coral bleaching	Where the coral turns white under stress	OCEAN ANTARCTICA Copyright@worldmapwithcountries net	
2. How do oceans circulate?		3. What is the impact of plastics in	
Ocean circulation is the way the seawater moves around the world; there are 3 ways oceans circulate: • The moon which creates tides • Thermohaline • Surface ocean winds		the oceans? Social – plastic washes up on beaches that are used for recreation Economic – Countries spend lots of money on ways to clear plastic out of the ocean Environmental – fish ingest plastic causing injury and death	
4. What could we do to reduce the amount of rubbish in the ocean?		5. What is happening to the coral a the Great Barrier Reef?	
Scotland have launched a 'deposit return scheme' where people pay 20p deposit if they buy a drink in a single use container but get it back when they return in.		The Great Barrier Reef is being destroyed and coral are experiencing bleaching.	
 We all have a responsibility to keep plastics out of our oceans and can do this by: Recycling plastic products Not using products with microbeads in Stop buying bottled water 		This is where coral experience stress and the algae the depend on to survive leaves. Coral is then left Bleached.	

6. What is overfishing?



The number of fish in the ocean is declining. This is because we are overfishing the seas.

More people = more demand for fish.

Fisher men are using large nets called trawlers to catch as many fish as possible to meet the demand and earn money.