

SUBJECT: Geography

UNIT: KS4 Natural Hazards - Tectonic



A natural hazard is a natural process which could cause death, injury or disruption to humans, property and possessions.

Earth's structure and movement:

Structure - Crust, Mantle, Outer Core, Inner Core.

Convection Currents – magma in the mantle moving in a circular direction.

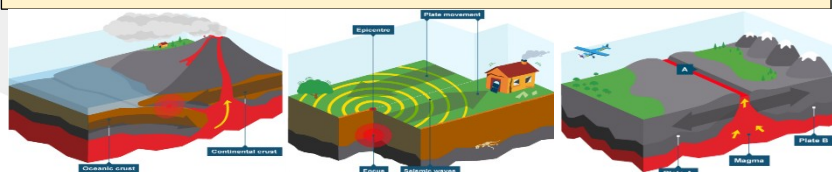
Plate margin/boundary – where two plates meet.

Conservative – two plates moving side by side.

Constructive – two plates move apart.

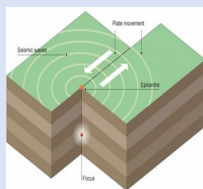
Destructive – the oceanic plate sinks beneath the continental plate.

Collision – two plates of similar density collide – make fold mountains.



Earthquakes are caused when two plates become locked causing friction to build up. From this stress, the pressure will eventually be released, triggering the plates to move into a new position. This movement causes energy in the form of seismic waves, to travel from the focus towards the epicentre. As a result, the crust vibrates triggering an earthquake.

- The point at which pressure is released
- is called the **FOCUS**.
- The point directly above the focus
- is called the **EPICENTRE**.
- **SEISMIC WAVES** (energy waves)
- travel out from the focus.



Case Study:

LIC - Nepal: 25th April 2015

Causes:

On a conservative plate margin, involving the Indo-Australian & Eurasian plates.

The magnitude 7.8 earthquake was only 80 KM from the Kathmandu.

Impacts:

- Approx. 9,000 people died and 22,000 injured.
- 3 million affected. Many emotionally affected.
- 1 million homes collapsed or were damaged. Millions homeless.
- Rubble blocked roads and shut down ports.
- World Heritage building collapse e.g. Dharahara Tower – reduction in tourism.
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Responses:

- Individuals tried to recover people.
- Many countries **responded with appeals or rescue teams**.
- Heavily relied on **international aid**, e.g. from the Indian and UK.
- **Many still** remained homeless after **6 months**.
- UK and France designed earthquake resistant buildings.

Case Study:

HIC – New Zealand: 14th November 2016

Causes:

On a destructive plate boundary of the Indo-Australian and Pacific Plate. The magnitude 7.8 earthquake close to the town of Kaikora in the Southern part of the Island.

Impacts:

- Two people died and 57 injured.
- State Highway 1 and railway lines blocked and damaged.
- Two homes collapsed.
- Services cut off e.g. electricity.
- Loss of income due to lack of tourism.
- 8ft Tsunami hit the east coast.

Responses:

- Evacuated all of Kaikora.
- 12km of railway repaired.
- Tsunami warning so people could move to higher ground.
- The Royal New Zealand Air Force dispatched 5 helicopters to provide supplies and rescue people.

SUBJECT: GCSE Geography

UNIT: Urban Issues and Challenges



Key Vocabulary:

Urbanisation – increase in % of people living in urban areas.

Rural to urban migration – move from the countryside to the city.

Megacity – population over 10 million.

Push factors – negatives pushing people away from an area. **Pull factors** – positives pulling towards an area.

Sustainable urban living – living in cities but don't pollute, use resources in ways that ensure these last for the future.

Greenfield sites – areas which have never been built on. **Brownfield sites** – areas which have been built on.

Key information linking to urbanisation:


Urbanisation occurring more rapidly in LIC/NEEs.

Push and Pull factors cause rural to urban migration.

Increase population = traffic congestion, increase waste, strain on resources and the development of illegal dwellings.

Managing urbanisation = water and energy conservation, creating green space, waste recycling, improving public transport, building on brownfield sites, regeneration projects.

HIC Case Study: Birmingham, UK – Europe.

Importance - Centre of England – more motorway links that any other city in England. 
Top 15 cities in Europe to do business. Fast rail links to London. International airport.

University. Historic centre for manufacturing – pull factors for migrants.

Migration - industrial revolution - population dramatically increased with people migrating for work. Attracted thousands of students from the UK & abroad, refugees from Syria and Iraq and international migrants from Poland etc. for jobs.

Challenges - Social: House prices have increased, house shortages. Racial tensions and segregation. Economic: Closure of the factories = unemployment. Environmental: Urban sprawl = decline of greenfield sites.

Opportunities - Social: Improved housing in the inner city. Improvements in education.

Economic: Retail sectors create thousands of jobs. Universities and a work experience programme. Broadband centres give local people access to the internet. Environmental: urban greening.

Regeneration – Health and regeneration (£400 000 setting up the Health Centre). Employment and Business-supporting young people to get work – Bullring shopping centre. EASTSIDE was rebranded as a 'learning and technology quarter', new housing to attract new businesses to the area and boost employment opportunities.

LIC/NEE Case Study: Rio De Janeiro, Brazil - South America.

Importance - second largest GDP in Brazil. Hosted the 2014 World Cup and 2016 Summer Olympics. Christ the Redeemer is a new 7 wonder. Many Trade links. 

Migration - Millions of people have migrated from rural areas that have suffered from drought, lack of services and unemployment to Rio. This expanding population has resulted in the rapid urbanisation.

Challenges - Social: shortage of housing, schools and healthcare centres available. Large scale social inequality. Economic: informal jobs with low pay and no tax contributions, for example in Favelas. Environmental: Favelas are established around the city, causing pollution and waste is not collected.

Opportunities - Social: Standards of living are gradually improving. The Rio Carnival – cultural event. Economic: Rio has one of the highest incomes per person in the country. The city has various types of employment including oil, retail and manufacturing. Environmental: investment in sewage works and public transport systems.

Regeneration – self-help schemes - provided basic materials to improve homes. Government demolished houses and created new estates. Community policing established, tougher stance on gangs in the Favelas. Greater investment in new road and rail networks to reduce pollution and increase connections.