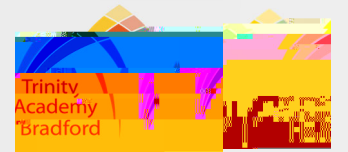


# How risky is our world?



## (1) Keywords

<b>Hazard risk</b>	The probability or chance that a natural hazard may take place.
<b>Tectonic plate</b>	A rigid segment of the earth's crust which drifts across the heavier, semi-molten rock below.
<b>Earthquake</b>	An earthquake is the sudden release of seismic energy that is felt as shaking.
<b>Effects</b>	The impacts of a natural hazard on people and property. Primary effects happen straight away, secondary effects happen some time later.
<b>Responses</b>	The reactions of people to a disaster. Immediate responses happen immediately, long-term responses happen weeks, months and years after the event.

## (2) What increases hazard risk?

The risk of a hazard can be increased by several factors including location, magnitude, poverty, development of a country, and preparedness.

- x Development - If a country is an LIC, hazard risk will be higher because it does not have the money to prepare itself with earthquake proof buildings. It cannot cope with the disaster due to a lack of trained emergency services.
- x Urbanisation - If a hazard takes place close to a large city risk will be higher because larger numbers of people will be affected by the hazard risk compared to less populated rural areas.
- x Magnitude- If an earthquake measures high, above 7.0 on the Richter scale, hazard risk will be higher because it will release more seismic energy which makes it more powerful and destructive.

## (3) Why was the Haiti earthquake so bad?

**Factfile: Haiti is a LIC.**

- 7.0 magnitude earthquake
- 80% earn less than \$2 a day
- 70% unemployed
- 15% children die before the age of 5
- 47% of people are illiterate

**Effects**

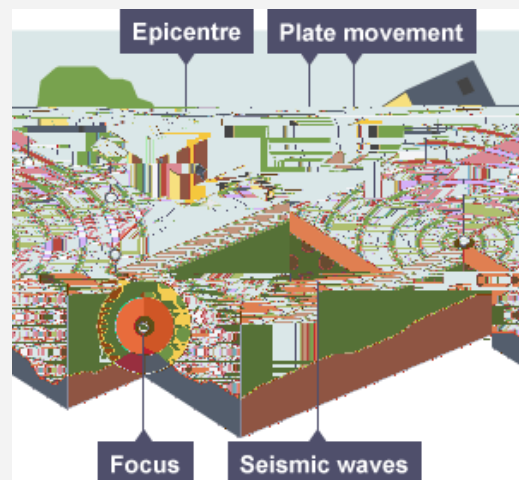
- 230,000 people killed and 1 in 5 jobs lost.
- Cholera outbreak due to poor sanitation
- 98% of rubble remained for 6 months.
- The World Bank waived Haiti's debt payments for 5 years

Three types of plate margin lead to hazards. Earthquakes occur at all three margins.

- x **Destructive margins** where plates move towards each other and the denser plate subducts into the mantle. Friction between the plates builds up until it is released as a powerful earthquake.
- x **Constructive margin** is where two plates are moving apart. Smaller earthquakes occur due to the build up of friction as magma rises and cools to fill the gap.
- x **Conservative margins** create earthquakes when two plates slide past each other in opposite directions, or in the same direction at different speeds. Friction builds up until it is released as seismic energy.

An earthquake is the sudden release of seismic energy that is felt as shaking.

- x The epicentre is the location directly above where the earthquake starts.
- x Seismic waves are waves of energy caused by the sudden movement of the earth's crust. We feel these as vibrations and shaking.
- x The Focus is the location inside the earth's crust where the earthquake begins.



## (6) Why was the risk lower in New Zealand?

**Factfile: New Zealand is a HIC.**

- 6.3 magnitude earthquake
- GDP/Capita: \$42,084
- 4.3% unemployed
- Average pay \$26.99 per hour

The margin or boundary between two tectonic plates.