

Learning Organiser: Why do some earthquakes cause more destruction than others?

Key objective

Understand what creates an earthquake and the factors which determine the number of deaths and level of destruction they are likely to cause.

Important things I will know and understand

What causes an earthquake.

The distribution of earthquakes occurring around the world.

Why earthquakes happen at some locations but not others.

How the magnitude of an earthquake is measured.

Why earthquakes with the greatest magnitude do not necessarily cause the most deaths and destruction.

What causes a volcano.

Why volcanoes and earthquakes often occur at the same locations around the world.

The location of the 'Pacific Ring of Fire' and why it is a hot spot for earthquakes and volcanoes.

The location, cause and effects of the Christchurch (New Zealand) earthquake of 2011.

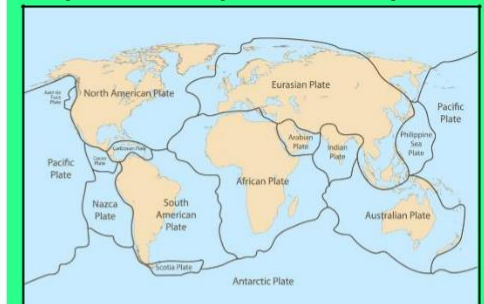
Important geographical techniques I will use

Statistical representation	Interpreting tabular data and drawing scatter graphs to indicate correlation; storyboarding
Mapwork	Interpreting and annotating thematic distribution maps: political, relief, population density, distribution of earthquakes and volcanoes, and choropleth maps
Imagery	Terrestrial, aerial and satellite photographs and GIS Google Earth Pro

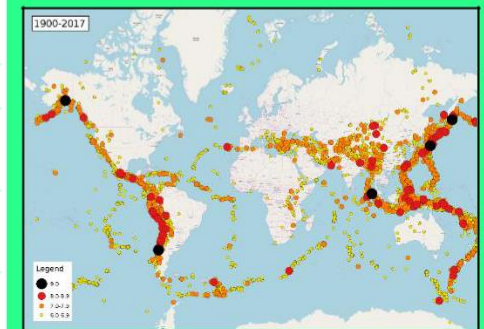
Important vocabulary I will learn

Earthquake	the sudden shaking of the ground which happens when masses of rock change position along a fault in the earth's crust
Strata	layers of rock
Epicentre	the point on the Earth's surface directly above where an earthquake happens underground
Richter scale	how the magnitude or energy released by an earthquake is measured
Projection	an estimate of what might happen in the future based on what is happening now
Pattern	how objects are arranged or laid out on the earth's surface
Tectonic plate	one of the large moving sections of the Earth's crust
Remote	a faraway place situated a long distance from centres of population
Crust	the thin outermost layer of the Earth made of solid rock
Mantle	the very thick layer of rock that lies between the Earth's crust and its central core
Core	the very hot centre of the Earth which is solid on the inside and liquid on the outside
Volcano	a landform (usually a mountain) from which red hot liquid rock called magma erupts
Fault	a crack in the earth's crust particularly between two tectonic plates

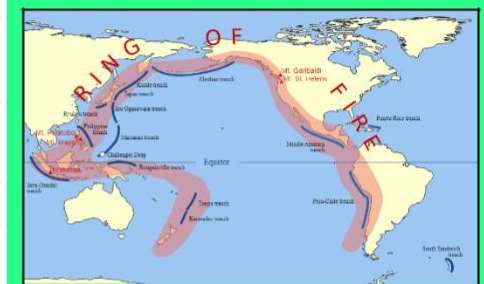
Important maps I will study



Tectonic plates of the Earth's crust



Distribution of earthquakes



Location of the Pacific Ring of Fire

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Important concepts I will understand

Distribution	The pattern of where physical and human features are located
Location	The position of something on Earth
Processes	The natural events and human actions that cause environmental change
Interaction	The links or connections within and between different natural and human processes
Hazard	Extreme physical or human events that are very dangerous
Development	The level of quality of life experienced by people living in different places
Interdependence	How people and their environments are connected and rely upon each other
Region	An area of land that has common features such as a particular climate or religion

Important subject skills I will apply

Describing	giving an account of something.
Selecting	choosing the information most suitable and relevant.
Reasoning/speculating	thinking and forming ideas about something without necessarily firm evidence to back it up.
Synthesising	bringing together a range of ideas and facts from different sources to develop an explanation.
Explaining	showing understanding of how or why something is the way it is.
Empathising	placing yourself in another's position to better understand their actions.

Important locations I will visit



New Zealand



Haiti



Chile

Important earthquakes I will study



Christchurch,
New Zealand



Tirua, Chile



Leogane, Haiti