What are Earthquakes?

* A sudden shaking of the ground coming from within the Earth, due to movement of the mantle and the lithosphere
* Shaking of the surface of the Earth, resulting from the sudden release of energy in the Earth’s lithosphere that creates seismic waves
* Vibrations of Earth produced by the rapid release of energy within the lithosphere
* A sudden and violent shaking of the ground, sometimes causing great destruction, as a result of movements within the Earth’s crust or volcanic action. Earthquakes are very hard to predict because they can happen literally anywhere. They most commonly occur near the edges of tectonic plates. The study of earthquakes is called seismology. Earthquakes are generally very short (time), but can have many aftershocks (smaller earthquakes)
* A sudden and violent shaking of Earth, causing destruction, as a result of movements within the Earth’s crust. There are many earthquakes that occur every year, most are unnoticeable, while some are felt and cause damage.
* Caused by transform tectonic plates and most are not noticeable, but they can be very destructive when they are they mostly occur on fault lines
* A vibration of Earth produced by the rapid release of energy. By the sliding passed of tectonic plates
* The vibration of Earth produced by the rapid release of energy within the lithosphere and the mantle

Tsunami

* Big waves that can reach up to 100 ft and above. The tallest of reaching 1720 ft tall
* A seismic sea wave caused by and earthquake. Very powerful wave that causes mass destruction and death
* Underwater earthquake can cause it - volcano eruption or a landslide mostly causes a tsunami - up to 500 mph
* A long high sea wave caused by an earthquake, submarine landslide, or other seismic disturbance, very destructive, the closer the wave gets to shore, the larger it appears
* Commonly called underwater earthquakes
* A wave formed on the ocean floor it shifts suddenly during an earthquake
* Travels 20-30 mph - waves 10-100 ft

Plate Movement

* Is a scientific theory describing the large-scale motion of Earth's plates and how they interact with one another, Caused by the asthenosphere convection currents moving the rigid lithosphere
* The plates are constantly moving - the make up continents - volcanoes along borders - large scale motion of 7 large plates - Earth’s lithosphere
* There are three types of plate movements; divergent, convergent, and transform. Divergent is when the plates pull apart, converhent is when they come together, and transform is when they slide against each other.
* Created by convection currents in the mantle. Responsible for land formations and continents . Responsible for earthquakes
* The earth’s crust is broken into plates that move around relative to each other. As a result of the movement, three types of plate boundaries are formed; divergent, convergent, transform
* Plates move very slowly
* Moves in different ways including convergent colliding, divergen moving apart, transform sliding pass
* Tectonic plate movements are always happening. When they shift drastically an earthquake happens

How to measure

* Richter Scale (how powerful it is), seismogram (intensity for primary-waves)
* Changes in pressure due to changes in water level, seismometers are used to measure earthquakes, GPS
* Earthquakes-Moment Magnitude which is derived from the amount of displacement that occurs along a fault zone and estimates the energy released by and earthquake
* Dart is how scientist measure tsunamis, this is done through a measure in the change in pressure, at up to 500 meters under the sea level