

Earthquake:

Definition:

An earthquake is the shaking of the surface of the earth resulting from a sudden release of energy from the interior of the earth.

An earthquake may cause several destructions. However, it helps us to know about internal structure of earth.

Earthquake can range in magnitude from those that are so weak that they can't be noticed (*magnitude ≤ 2 Richter scale*) to those that cause violent destructions (*magnitude ≥ 6 Richter scale*).

- The earthquake that occurred in Nepal in 2015 (named as: **Gorkha earthquake**) was of magnitude **7.8 on Richter Scale**.

Causes of earthquake:

The main reason for the occurrence of earthquake is the movement of Tectonic plates (massive irregular shaped slab of solid rocks).

The earthquakes originate in tectonic plate boundary.

- The tectonic plates under the ocean are known as **Oceanic Plates**.
- The tectonic plates under the continental are known as **Continental Plates**.

BASIC TERMS RELATED TO EARTHQUAKE

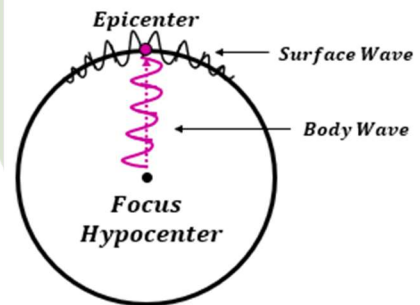
Hypocenter (Focus): [Earthquake focus / Focal point]

The point of origin of an earthquake.

A point beneath the Earth's surface where the vibrations of an earthquake originate.

The hypocenter corresponds to the location where the motion on a fault surface starts.

The focal depth of earthquake hypocenters may vary from the surface down to nearly **700 km**.



Epicenter:

The point on the earth's surface vertically above the focus of an earthquake.

Seismology:

The branch of science which deals with the scientific study of earthquake is called seismology.

Seismograph

Seismographs are instruments used to record the motion of the ground during an earthquake.

They are installed in the ground throughout the world and operated as part of a **seismographic network**.

Seismogram:

A seismogram is a *graph output by a seismograph*. It is a record of the ground motion at a measuring station as a function of time.