**Earthquakes**

* An earthquake is a break in the earth’s crust/deformation
* Caused by **stress** on the Earth

**Stress** (force on Earth) **causes** **Strain** (deformation of Earth)

* **Types of stress 🡺 Types of Strain**
  + Compression 🡺 Shortening
  + Tension 🡺 Lengthening
  + Shear 🡺 Twisting

**Diagram of an Earthquake**

**Seismic Waves**

* Primary – 1st wave, fastest = up and down
* Secondary – 2nd wave = side to side
* Surface – Most damaging = up and down and side to side

**Faults**

* Location of earthquake origins
* Type is determined by stress type and direction of land movement

**Types of Faults**

Normal Reverse Strike-Slip

Tension Compression Shear

Plate falls down Plate shoots up Plates twist

**Measuring Earthquakes**

* Richter Scale – measures the level (number) of the quake
* Mercalli Scale – measures the damage caused by the quake