Earthquake Notes Wk 2 Day 3

**World Plates**

The main 7 tectonic **plates** around the **world** are: the Eurasian **plate**; African **plate**; Indo-Australian **plate**; Pacific **plate**; North American **plate**; South American **plate**; and the Antarctic **plate**.

**What are tectonic plates made of?**

* Plates are made of rigid **lithosphere**.
* The lithosphere is made up of the crust and the upper part of the mantle.

**What lies beneath the tectonic plates?**

* Below the lithosphere (which makes up the tectonic plates) is the asthenosphere.

**Plate Boundaries**

* Divergent
* Convergent
* Transform

**What is a fault?**

* Fault- a breaks in the earth’s surface along which rocks can move.
* Three kinds of faults – determined by how the rocks move against each other:
  1. Thrust or reverse fault
  2. Normal fault
  3. Strike-slip fault

**How do they move?**

* 5 ways
* **Strike-Slip Quake** (happen at transform boundaries)
* **Normal**- Hanging wall moves down. (divergent boundaries)
* **Reverse/Thrust Quakes-** hanging wall moves up (convergent boundaries.)
* **Reverse fault** – rocks push together until a section of rock moves upward
* **Normal fault**, the rocks on one side try to slip up and over the other set of rocks.
* Example: Sierra Nevada Mountains
* **Strike slip fault-** the rocks on one side of the fault try to slip by the rocks on the other side of the fault. Friction builds up. Then, like a rubber band releasing, the rocks move and there is a release of energy, which we call an earthquake.
* Example: San Andreas fault in California.

**How are earthquakes measured?**

* Earthquakes generate seismic waves which can be detected with a sensitive instrument called a seismograph .
* The Richter Scale is based on energy released and measured by maximum wave amplitude on a seismograph
* Earthquake activity commonly happens before an eruption
* Result of magma pushing up towards the surface
* Increase volume of material in the volcano shatters the rock
* This causes earthquakes

Earthquake activity is measured by Seismographs

Seismographs are stationed on the flanks of the volcano

These record the frequency, duration and intensity of the earthquakes and report it back to the volcano observatory.