



An example of the cause of an Earthquake

- For example as two plates move towards each other, one can be pushed down under the other one into the mantle.
- If this plate gets stuck it causes a lot of pressure on surrounding rocks.
- When this pressure is released it produces shock waves. These are called seismic waves. This is an earthquake.
- The waves spread out from the point where the earthquake started - the focus. More damage is done near the focus.
- The point on the earth's surface directly above the focus is the epicentre.

Tsunami (giant waves) often follow an undersea earthquake (Japan 2011)

The Rock Cycle

Rocks are usually grouped on how they were formed:

- a) **Igneous Rock:** rocks formed when magma (hot semi-liquid material inside the Earth) cools and solidifies. When Magma cools slowly large interlocking crystals form, resulting in rocks like granite
- b) **Sedimentary Rock:** rock formed when grains of sand and soil are carried away usually by running water and wind and are laid down in layers. Layers get compressed and hardened into rocks such as sandstone and limestone.
- c) **Metamorphic Rock:** rocks formed when igneous and sedimentary rock change into new rock by heat and pressure. For example, limestone turning into marble. Usually found where moving plates have collided with one another.

Forces that wear down the earth

Weathering:

Breaking up of rocks into small particles by wind, water, ice, plant roots and some chemical reactions.

Erosion:

Movement of the broken to other places.

Glaciers

Features of Glacial Deposition



How moving ice acts as an agent of erosion and deposition

- Today, a tenth of the earth's surface is covered in ice.
- Glaciers are a major agent of erosion on the earth's surface. These glaciers are constantly receding and growing, and it is this growing and receding that gives glaciers their ability to erode and build up the earth.

How Glaciers erode

- Glaciers erode in three ways as they move with their ice flowing outward and downward.
 - First, glacial ice pushes loose material along the sides and in front, in a sort of bulldozing action.
 - Second, as the ice continues to move and has embedded sediment in it, the ice and material scratch and gouge out new material from a new surface.
 - Third, glacial ice can freeze to underlying blocks of rock surfaces. As the ice continues to move, it may actually pull out blocks of material.