Revision Notes
Chapter – 3
Our Changing Earth

• The lithosphere is broken down into a number of plates known as the Lithospheric plates.

• The movement of these plates causes changes on the surface of the earth. The molten magma inside the earth moves in a circular manner. The forces that act in the interior of the earth are called endogenic forces, while the forces that work on the surface of the earth are called exogenic forces.

• Sudden movements like earthquake and volcanoes cause mass destruction over the surface of the earth.

• A volcano is a vent (opening) in the earth's crust through which molten material erupts suddenly.

• The vibration in the plates of earth is called a earthquake.

• The place in the crust where the movement starts is called the focus.

• The place on the surface above the focus is called the epicentre. Vibrations travel outwards from the epicentre as waves. Greatest damage is usually closest to the epicentre and the strength of the earthquake decreases away from the centre.

• Although earthquakes cannot be predicted, the impact can certainly be minimized. Some common earthquake prediction methods adopted locally by people include studying animal behaviour.

• **Major Landforms:**

(i) The landscapes are continuously worn away by two forces, weathering and erosion.

(ii) **Weathering** is the breaking down of the rocks on the earth's surface.

(iii) **Erosion** is the wearing away of the landscape by different agents like water, wind and

ice.

(iv) The eroded material is carried away or transported by water, wind, etc. and eventually deposited. This processes of erosion and deposition create different landforms on the surface of the earth.

• Work of a River:

(i) When the river tumbles at a steep angle over hard rocks or down a steep valley side, it forms a waterfall.

(ii) As the river enters the plain, it twists and turns, forming large bends known as meanders.

(iii) At this point of time, the meander loop cuts off from the river and forms a cut-off called ox-bow lake.

(iv) During flooding, the river deposits layers of fine soil and other materials called sediments along its banks. This leads to the formation of a flat fertile plain called floodplain.

(v) The raised banks along the river are called levees.

(vi) As the river approaches the sea, the speed of the river begins to break up into a number of streams called distributaries. The river becomes so slow that it begins to deposit its load. Each distributary forms its own mouth and flowing water decreases. The collection of sediments from all the mouths forms a delta.

• Work of Sea Waves:

(i) The erosion and deposition of the sea waves gives rise to coastal landforms.

(ii) Due to seawaves, hollow-like caves and formed on the rocks. They are called sea caves.

(iii) As cavities become bigger in size, only the roof of the caves remain, thus forming sea arches.

(iv) The erosion further breaks the roof and only walls are left. These wall-like features are called stacks.

(v) The steep rocky coast rising almost vertically above sea water is called sea cliff.

(vi) The sea waves deposit sediments along the shores forming beaches.

• **Work of Ice:**

(i) Glaciers are rivers of ice which erode the landscape by bulldozing soil and stones to expose the solid rocks below.

(ii) The material carried by the glaciers, such as big and small rocks, sand and silt gets deposited. These deposits form glacial moraines.

• **Work of Winds:**

(i) An active agent of erosion and deposition in the deserts is wind. It makes rocks in shape of a mushroom, called mushroom rocks. Winds erode the lower section of the rock more than the upper part. Therefore, such rocks have narrower base and wider top.

(ii) When the wind stops blowing, the sand falls and get deposited in low hill like structures. These are called sand dunes.

(iii) When the grains of sand are very fine and light, the wind can carry it over long distances. When such sand is deposited in large areas, it is called loess.