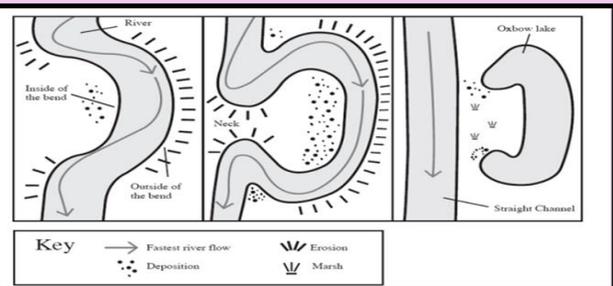
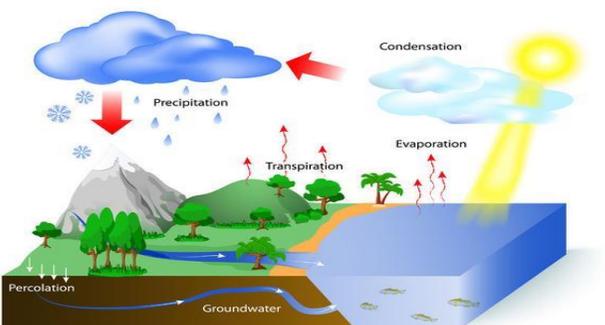


## Formation of meanders & ox-bow lakes

The fast water on the outside of the meander erodes the river bank and causes a steep river cliff to form. On the inside of the meander the water is much slower and has no energy to carry material so it deposits it and forms a beach called a slip off slope. An oxbow lake can be formed when two outside edges of a meander are eroded away meaning that the river can take a more direct route and does not have to go around the meander. An ox bow lake is shaped like a horseshoe. It will eventually dry up as it does not get any river water.



## The hydrological cycle



## Key terms

- Evaporation**-The change of water from a liquid to a gas.
- Condensation**- The change of water from a gas to a liquid.
- Precipitation**- Water falling from the sky (e.g. Rain, sleet, hail, snow).
- Transpiration**- The release of water vapour from the leaves of trees of plants.
- Throughflow**- Flow of water through the soil.
- Infiltration**- When water soaks down through the ground

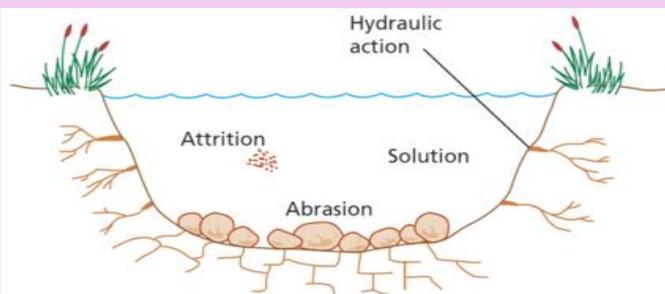
## Key process- erosion

**Abrasion/Corrasion**- This is the process by which the bed and banks are worn down by the river's load. The river throws these particles against the bed and banks, sometimes at high velocity.

**Hydraulic Action**- This process involves the force of water against the bed and banks.

**Corrosion**- This is the chemical action of river water. The acids in the water slowly dissolve the bed and the banks.

**Attrition**- Material (the load) carried by the river bump into each other and is smoothed and broken down into smaller pieces.



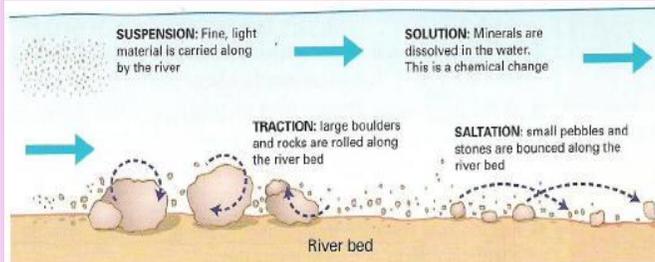
## Key process- transportation

**Traction** - Where large rocks and boulders are rolled along the river bed.

**Saltation** - Where smaller stones are bounced along the river bed in a leap frogging motion

**Suspension**- Where very small grains of sand or silt are carried along with the water

**Solution** - Where some material is dissolved (like sugar in a cup of tea) and is carried downstream.



## Key process- deposition

When a river loses energy, it deposits (drops) its load.

## River basins

**Drainage basin**- the area of land drained by a river.

**Catchment area**- the area within the drainage basin.

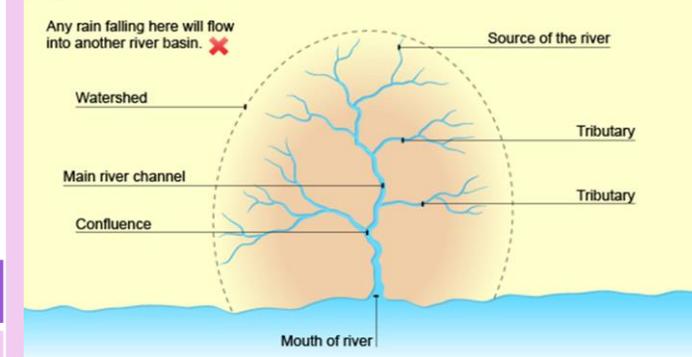
**Watershed**- the area of highland surrounding a drainage basin.

**Source**- The beginning or start of a river.

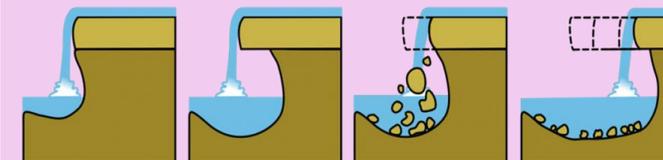
**Confluence**- the point at which two rivers or streams join.

**Tributary**- a stream or smaller river which joins a large stream or river.

**Mouth**- the point where a river comes to the end at the sea.



## Formation of waterfalls



1. Waterfalls typically form in the upper stages of a river. They occur where a band of hard rock overlies a softer rock. Falling water and rock particles erode the soft rock below the waterfall, creating a plunge pool.
2. The soft rock is undercut by erosional processes such as hydraulic action and abrasion creating a plunge pool where water and debris swirl around eroding the rock through corrosion further deepening it and creating an overhang.
3. Hard rock overhang above the plunge pool collapses as its weight is no longer supported.
4. Erosion continues and the waterfall retreats upstream leaving behind a gorge.