

## Year 7 Autumn 2 Geography: Rivers

**Precipitation:** water that falls from the sky in different forms

**Infiltration:** water that soaks into the soil

**Percolation:** water that soaks into the rock

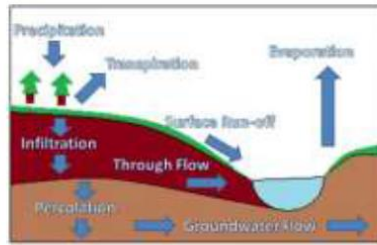
**Transpiration:** water that is used by trees and then released by water vapour

**Surface run off:** water that runs over the surface of the land

**Through flow:** water that flows through the soil

**Percolation:** water that soaks through the rock

**Evaporatin:** water that goes up into the sky as water vapour



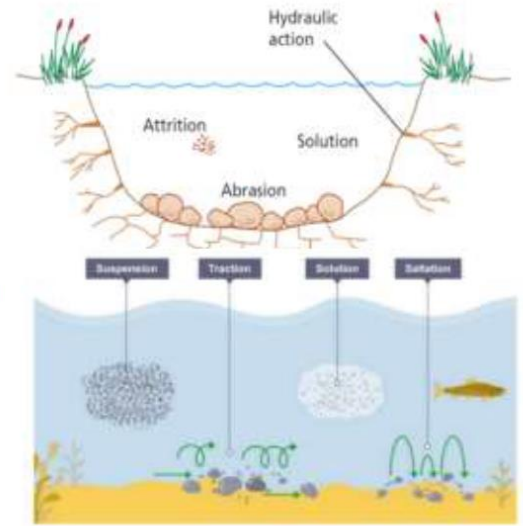
### The different types of erosion

**Hydraulic Action:** when water and air get into the cracks and break it off

**Attrition:** When rocks bang into each other and break bits off

**Abrasion:** When rocks bang into the river bank and break off bits of the river bed and banks

**Corrosion:** the chemical erosion of rocks



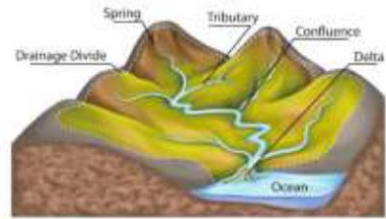
### The different types of transportation

**Solution:** the rocks break down by chemicals and are moved with the water

**Suspension:** the very small sediment that float along with the river

**Saltation:** the slightly bigger sediment that bounces along with the river

**Traction:** the large sediment that is dragged along the river bed

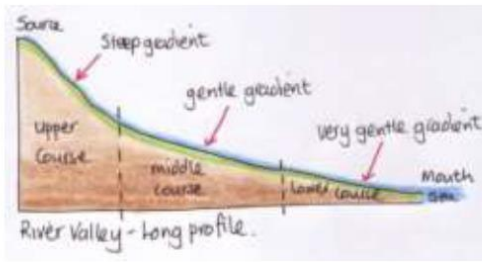


Water that falls from the sky will make its way to a river by moving slowly downhill, either through surface run off, through flow and groundwater flow. The area that is drained by a river and its tributaries is called a **drainage basin**. The edge of a drainage basin is called a **water shed**. Where two rivers meet is called a **confluence**, a smaller river joining a bigger river is called a **tributary**.

In the **upper course**, a river has very **steep valley sides** and is dominated by **vertical erosion**. The **discharge** of water (**volume and speed**) is low in the upper course of the river, and the further down the river you go the discharge increases, the channel gets wider and the **gradient** becomes more gentle and eventually flat before the river joins the sea.

**Cross profile:** the width of the channel

**Long profile:** the gradient of a river from source to mouth



### Landform in the upper course: Waterfalls

These are formed when a piece of hard rock sits on top of a piece of softer rock. The soft rock erodes faster by hydraulic action and abrasion, meaning undercutting occurs. This leaves an overhang which eventually becomes unsupported and falls off. This repeats overtime, meaning the waterfall retreats.



### Landform in the middle and lower course: Meanders and ox bow lakes

These occur when there is a **fastest current**, which starts to erode one side of the river bank. This erosion occurs over time, with deposition occurring on the other side. A bend starts to occur, with the erosion on the **outer bend**, and deposition on the **inside bend**. Over time, a meander is formed and then further over time the bend becomes so big it actually joins and cuts it off leaving an **ox bow lake**. The **cross section** of a meander shows a deeper channel on the outer bend, a shallower channel on the inside bend.

### Human and physical causes of flooding

**Human:** building on a flood plain, lack of flood defences, urbanisation, deforestation

**Physical:** prolonged rainfall, heavy rainfall, geology (impermeable rock),

