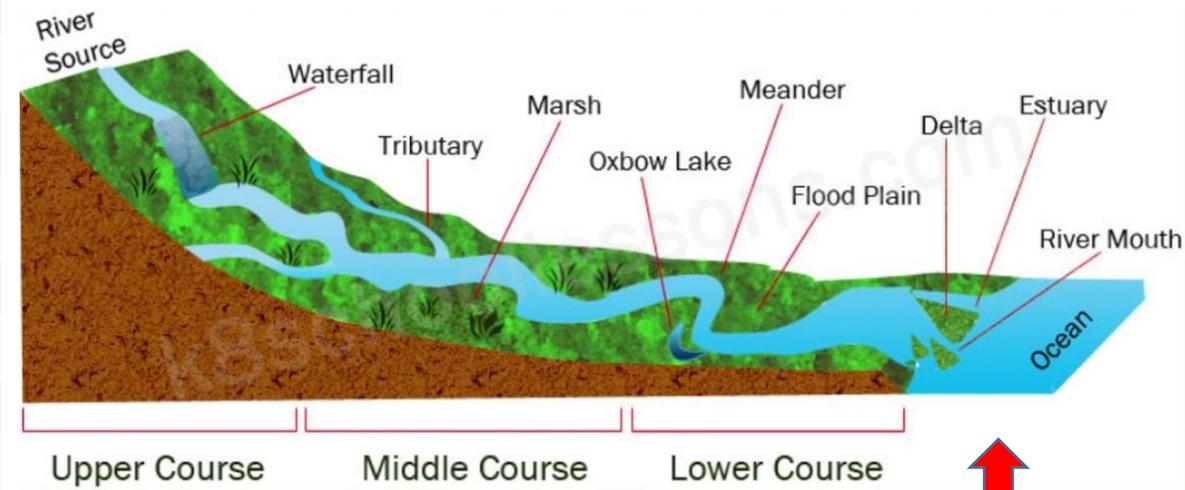


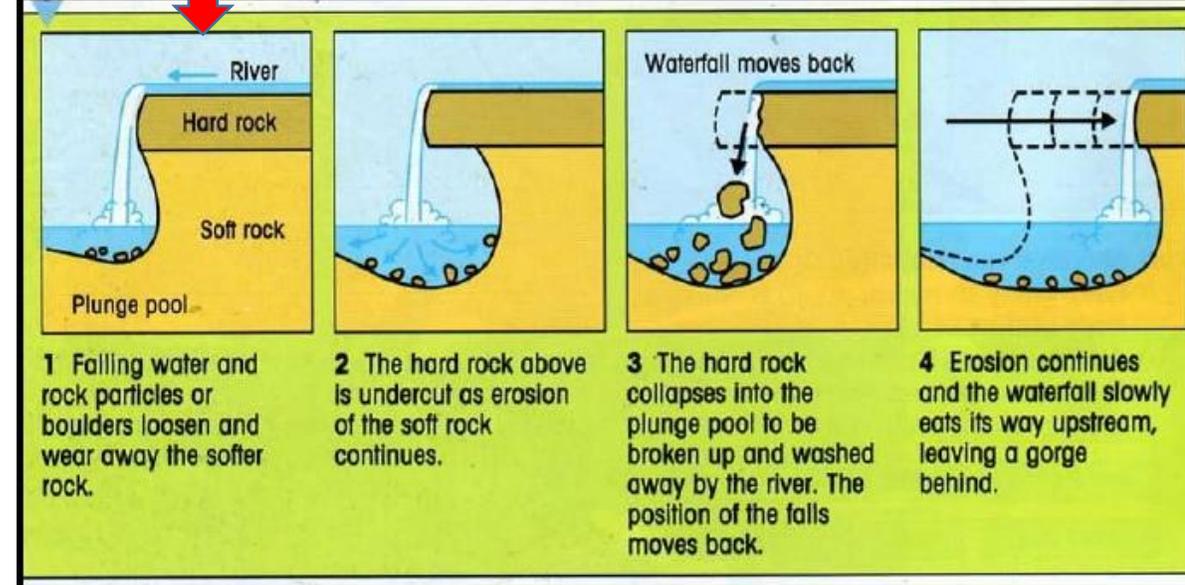
Year 8 River's Knowledge Organiser

Key Word	Definition
River	A naturally flowing watercourse, moving freshwater from source to sea.
Source	The start of the river, often in the mountains.
Mouth	Where the river finishes, entering another body of water such as the sea.
Waterfall	Found in the upper course, where water flows over a cliff edge, created by vertical erosion.
Estuary	Near the mouth of the river, where it slows and drops sediment.
Tributary	A smaller river or stream that joins a larger river.
Confluence	The point where two rivers meet.
Flood Plain	The flat area of land next to the river when the river floods.
Channel	The part of the river that holds the water.
Erosion	The removal of sediment that occurs when the river has high levels of energy.
Abrasion	Small particles rubs along the bank of the river and erode it.
Attrition	Particles in the river crash together and erode each other.
Solution	Small particles dissolve in the river and travel downstream.
Hydraulic Action	Erosion in the river due to the force of the water.
Saltation	Small stones and particles are bounced along the riverbed.
Meander	A natural bend in the river caused by different rates of erosion and deposition.
River's load	The material that a river carries as it moves downstream.
Transport	The movement of materials in the river.
Drainage Basin	The area of land that is drained by a river and all its tributaries.
Deposition	When material held within the river is deposited.
Suspension	Fine, light material is carried along in the river.
Traction	Big rocks and boulders are rolled along the bed of the river due to the force of the water.



Long Profile of a River

Formation of a Waterfall



Type of Hard Engineering	Pros/Cons
Dams/Reservoirs	+ Can produce electricity. – Flooding, settlement displacements and expensive.
River straightening/dredging	+ More water held in channel. – Speed up river, increase flood chances downstream.
Embankments	+ Cheap/contains water. – Looks unnatural and can flood downstream.
Flood Relief Channels	+ Remove excess water. – Expensive and extra channel can flood.
Type of Soft Engineering	Pros/Cons
Flood warning and preparation	+ Have time to protect belongings, eg using sandbags. – Not everyone has access to warnings, not work for flash-floods. Does not stop flooding, is only a warning.
Floodplain zoning	+ Expensive buildings further from the river, so less damage caused. – Cannot change existing plans, cannot prepare for all sorts of floods.

Boscastle Flood – 2004

Where – Village in North Cornwall, UK.

What happened – In August 2004, the village of Boscastle saw a month's worth of rain fall in two hours. The drainage basin of Boscastle is steep and **impermeable** rock. Boscastle is also located on a **confluence** of three rivers. These factors led to a flash flood which caused over one thousand homes, cars and businesses to be swept away and damaged.

Management – Environmental Agency invested £10 million in flood defences such as: widening/deepening the river channel, removing low bridges, raise car park and make it permeable, removal of dead trees so the water does not carry them away.

Bangladesh – 2004

Where – Country in Asia, bordering India, Myanmar and the Indian Ocean.

What happened – Bangladesh is often exposed to flooding due to the two large rivers that run through the country. It is next to the sea and is low-lying land. The monsoon was particularly heavy that year.

Consequences – 30 million left homeless, 60% of the country was submerged in water. \$7billion worth of damage to schools and hospitals. Embankments have been built, but flood plain has been built on which makes it more vulnerable. In 2006, half the population lived below the property line.