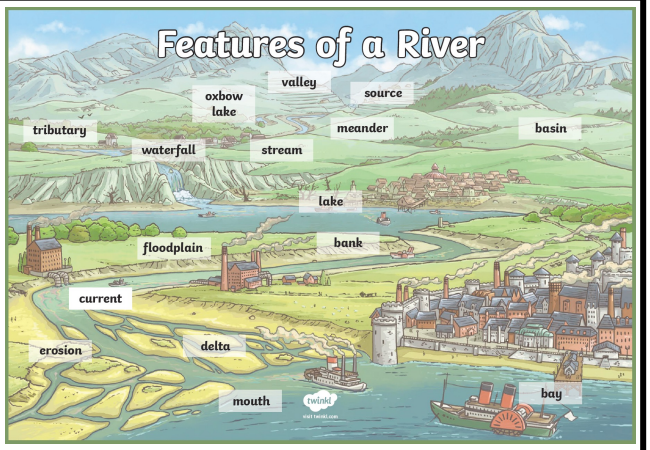
Phase 2 – Mountains and Rivers

Features of a River



Types of Mountains

Fold mountains are formed when **tectonic plates** move and collide with each other. One plate is pushed down while the other is pushed up and compressed, which forms fold mountains. Fold mountains have upward folds called **anticlines** and downwards folds called **synclines**.

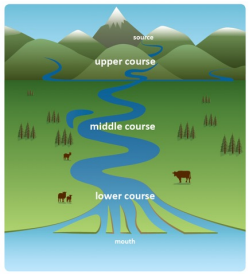
Volcanic mountains are formed when **lava, ash** and **gases erupt** through the Earth's crust. The **lava** cools and forms a mountain. Volcanic mountains have steep slopes and are often symmetrical.

Fault-block mountains are formed at **plate boundaries** where **tectonic plates** meet. On one side of the boundary, the earth is forced up, creating a mountain. On the other side, the land collapses and moves downwards, creating a valley. Fault-block mountains have steep sides with **valleys** between them.

Dome mountains are formed when **magma** pushes upwards against the Earth's crust. Instead of erupting through the crust, the magma cools and hardens. The overlying layer of rock erodes, leaving a dome-shaped mountain. Dome mountains have fairly flat tops and gently sloping sides.

Plateau mountains are formed when land is lifted up by **magma** below the Earth's **crust**. Large, flat areas of land are forced upwards, creating a **plateau**. Plateau mountains have flat tops. Rivers can cut across plateaus, **eroding** them over time to create valleys.

Journey of a River



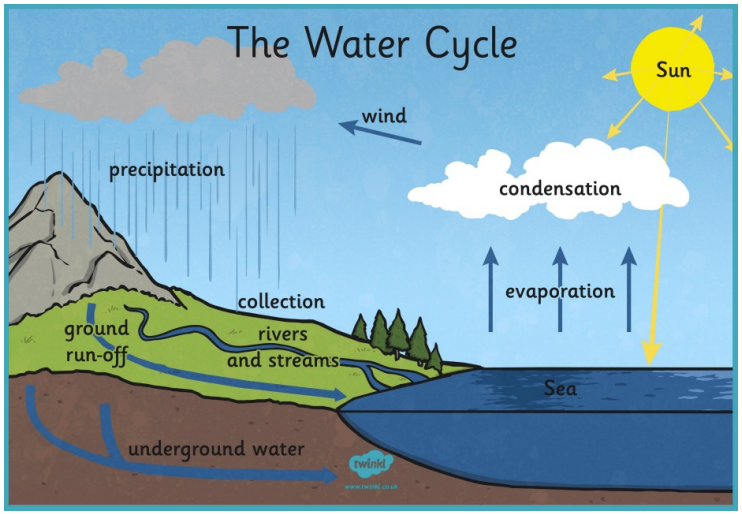
Rivers can be divided into three different stages along their course. The **upper course** is where the river starts and is usually in the hills. The **middle course** is where the river descends to lower levels and widens. The **lower course** is where the river runs into the sea. Each stage of the river has distinctive characteristics.

Upper Course: The source could be a **stream** high in the hills. Here, the **riverbed** is steep, narrow and rocky. The water travels quickly over the rocks. It **erodes** the tock as it flows, forming a V-shaped **valley** with steep sides.

Middle Course: The landscape flattens and the river becomes wider and deeper, moving more slowly. It curves and forms bends called **meanders**. Sometimes the river cuts across a meander to form an **oxbow lake**.

Lower Course: The land becomes very flat and nears sea level. At the river mouth, some rivers run into wide **estuaries**. The river ends by flowing into the sea.

The Water Cycle



Key Vocabulary

ERUPTION: When lava bursts out of a volcano.

FLOODPLAIN: An area of flat land next to a river that floods when the river bursts its banks.

MAGMA: Hot molten (liquid) rock.

MOUNTAIN: A raised piece of land that is usually covered in snow and ice.

RIVER: A large amount of fresh water flowing continuously in a long line across the land.

SOURCE: The place where a river starts.

TECTONIC PLATES: The outermost layer of the Earth (the crust) is broken into large pieces called tectonic plates. These huge pieces of Earth's surface slowly move at about the speed that your fingernails grow.

VALLEY: A low stretch of land between hills, especially one that has a river flowing through it.