Big Question: What is so special about Rivers?

① How are rivers formed?

⇒ All rivers have a source. This is usually on high ground in the mountain.

⇒ Precipitation (Rain, snow etc) flows down the mountain into valleys where it collects into lakes or pools. These are the source from which rivers flow.

⇒ Over long periods of time the flow of water erodes softer rock which become rivers, stream, canyons and gorges.

⇒ The rivers will keep flowing downhill until they meet a large body of water like the sea.

② What threats do rivers pose to towns and cities?

⇒ Many years ago, towns and cities were delibertely built near rivers for lots of reasons: the rivers were vital for transport, watering crops, and the crossing points were great places to sell your goods.

⇒ Rivers are unpredictable: heavy rainfall at the source can cause rivers to become dangerously swollen, fast moving and cause millions of pounds of damage to towns and cities.

⇒ Humans around the world have developed ways of controlling flooding using flood plain, weirs and barriers.

③ What is so special about the River Thames?

⇒ **The River Thames starts in a meadow in Cotswolds and journeys 210 miles to the North Sea.**

⇒ **Part of the Thames (including the bit in London is tidal) so the direction of flow changes according to the tides.**

⇒ **A barrier was installed in the 1980s to stop very high tides from flooding London.**

⇒ **The river has been used for many things over the last 3000 years: a sewer, a market (it used to freeze in winter, a water highway, a trade route etc**

④ What is topography and how is it shown on maps to help us understand the features of the River Thames?

⇒ Topography is the study of the shape and features of the land.

⇒ It is show on a type of map called a 'topographical map'.

⇒ A topographical map uses a series of symbols to show what the land looks like and the natural and man-made features you can find there. (see back for symbols)

⇒ M aps need to be update regularly as things change.

⑤ What is river pollution and how can we prevent it?

⇒ Rivers have been polluted by humans for many years— before sewers they were used for human waste. Even today, some human waste is still being deliberately let out into the rivers.

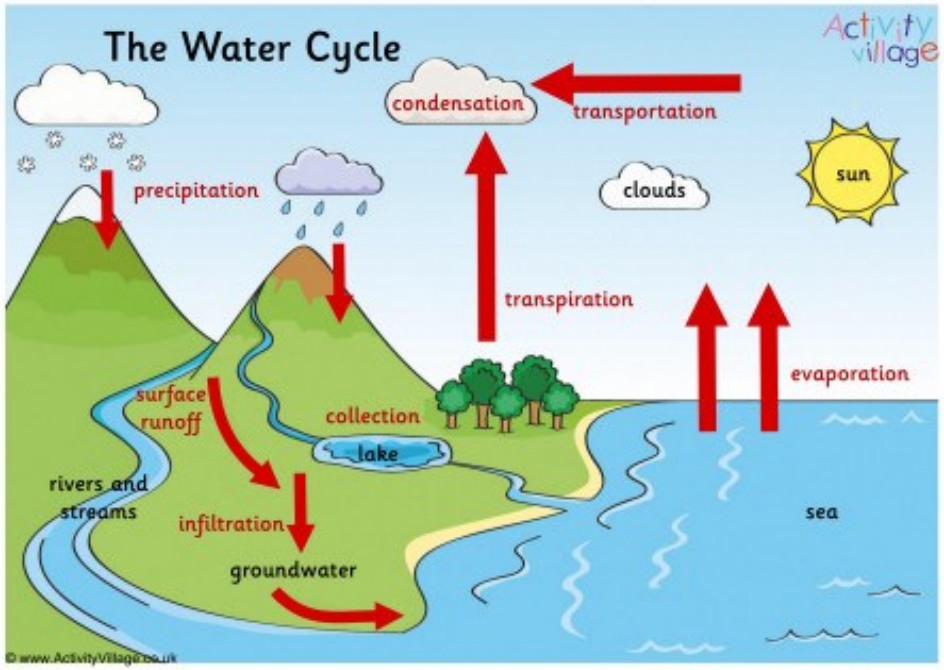
⇒ The water in rivers can be polluted by chemicals being used by farmers, factories or other industry. This kills animal and plant life and makes the water dangerous to humans.

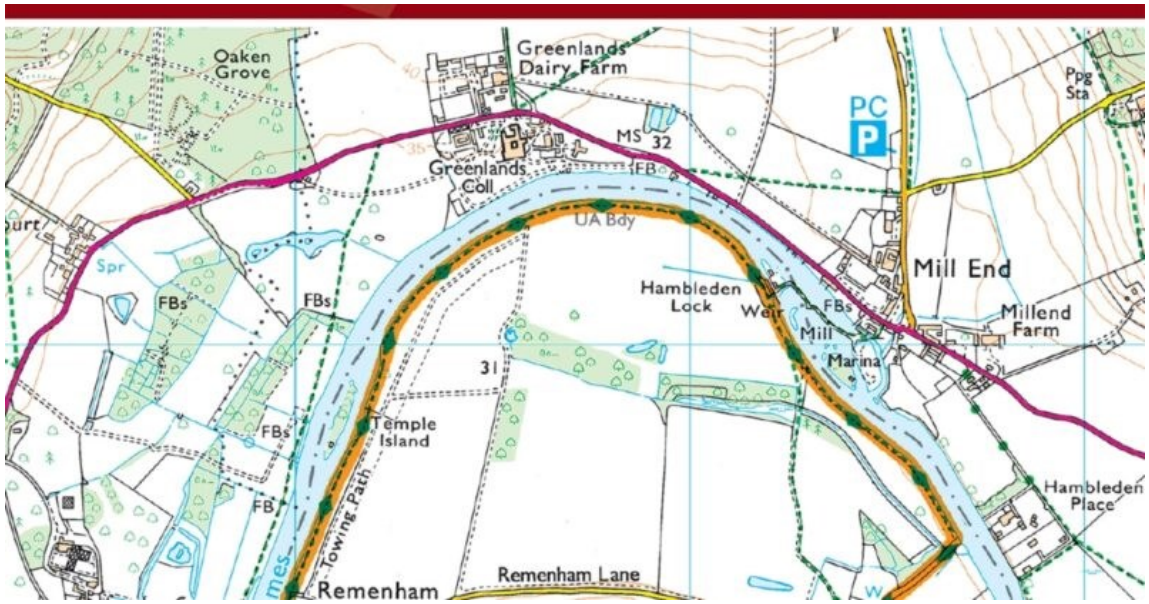
⇒ Global warming is causing water pollution as rising temperatures reduce the levels of oxygens.

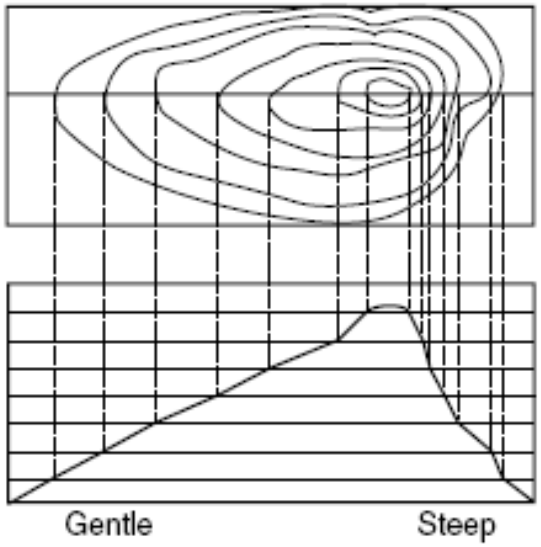
Core Vocabulary/Terminology

Source	Where a river begins. Snow melts or rain falls on high ground, like a mountain, and begins to flow downhill.
Upper Course	The first part of a river. The upper course of a river is usually steep and narrow.
Middle Course	The section of the river which comes between the upper and lower course. It is usually wider and deeper than the upper course and the water flows slowly.
Lower Course	The final section of a river which flows into another body of water which could be a loch, the sea, an ocean or even another river. A river's lower course is slower and has less energy to carry material, like sand and sediment.
Tributaries	A stream or river that flows into another stream or river instead of flowing into the sea. They add lots of water to the main river, which makes it wider and deeper.
Mouth	Where a river meets an ocean, sea or loch. The river deposits a lot of the gravel, sand, silt and clay that it has been carrying at the river's mouth.
Floodplain	The land next to a river that floods if it rains too much. When this happens, the river overflows into the surrounding area. The landscape around the lower course is flat so it is more prone to flooding.
Deposition	When water loses energy, it drops the material it has been carrying, like sand and gravel.
Erosion	When a material, like rock, wears away over time. The powerful water in a river's upper course causes lots of erosion in the landscape.
The Water Cycle	The water cycle describes how water evaporates from the surface of the earth, rises into the atmosphere, cools and condenses into rain or snow in clouds, and falls again to the surface as precipitation
Evaporation	The process where liquid water becomes a gas when heated. Evaporation results in water in the air and clouds.
Precipitation	When gaseous water falls back to earth as snow, rain or sleet.
Water pollution	Water pollution is any contamination of water with chemicals or other hazardous substances that are damaging to human, animal, or plant health.

Geography Knowledge Organiser – Rivers







Hill as shown on map.

Projection shows hill as it would look from the ground.