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<tr><td>KS2.CA.T2</td><td colspan="3">Area of study: Weather, Climate and The Water Cycle

Unit aims / outcome: To understand and by able to explain the water cycle process. To know and name the features of rivers and understand their significance to the water cycle</td></tr>
<tr><td colspan="2">Observe, measure, record and present data linked to a local river study
Children to record the flow rate of the river and observe river features taught in the unit of work

Use statistics to compare the length of rivers around the world and the UK

Create a physical feature sketch map of the area studied for the river study and record information gathered into a graph: using correct symbols for river, woodland, fields, trees, green open spaces and place in a key</td><td colspan="2">Geographical concepts to organise knowledge:
Location – to locate rivers in the UK and around the world
Place – to know the key features of rivers
Physical and Human features and processes – to know how topography can impact the water cycle. Understand that the water cycle is a physical process and know ways in which humans can impact this process.
Geographical skills, fieldwork and observations – Complete a river study, observing, measuring and recording data</td></tr>
<tr><td colspan="4">Key strands of learning:
Settlements
Land use
Scale
Regions
Topography
Local Study</td></tr>
<tr><td>Learning in Reception:</td><td>Tier 2</td><td colspan="2">Tier 3</td></tr>
<tr><td></td><td><u>New</u>

<u>Review</u>

Physical
Human
City
Environment
Hill
Mountain
Coasts
River
Observe
Measure
Record
Human impact
Land use
Temperature
Environment</td><td colspan="2"><u>New</u>

Celsius ‘understand the meaning of C – Roman Numerals meaning 100’
Water cycle
Steam
Tributary
Riverbed
Current
Settlements
Flow rate
Source

<u>Review</u>
<u>Science – LKS2.CA.T1)</u>
Physics
Evaporation
Condensation
Precipitation</td></tr>
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	Continents Earth Oceans Transporting Downstream	Runoff Vapour Liquid Gas Solid Boiling point Freezing point Estuary Mouth *Geography (LKS2.CA.T1)* Topography Geographical region

NC objective:	Vocabulary and crucial knowledge:
Describe and understand key aspects of: physical geography, including: rivers and the water cycle human geography, including: types of settlement and land use, and the distribution of natural resources including water use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied (rivers) use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods,	<u>Context of study:</u> This unit of work is a cornerstone for two critical aspects of geographical knowledge and understanding: rivers and the water cycle. The children have already been exposed to rivers Amazon River (KS1.CA.T3) River Trent (KS1.CA/B.T1) and the River Thames (KS1.CB.T2) but this unit now teaches the children the features of rivers. Throughout the unit the children's understanding of their links with coasts (KS1.CB.T3); ocean and continents (KS1.CA.T2) will further develop. The water cycle is taught following a unit of work on seasonal change (KS1.CB.T3) as well as states of matter within science (LKS2.CA.T1). This cross over of vocabulary and understanding being deliberately built upon will add depth to the children's knowledge of the physical process. Having also just completed a unit of work on geographical regions and topography (LKS2.CA.T1), linking the learning here will allow children to broaden their knowledge of topography and its impact on rivers. Bringing these two aspects together allows for the study of rivers during fieldwork, observations and skill based work as well as opportunities to think critically around the human impact on land use (LKS2.CA.T1) can have on river systems and the water cycle. Crucial Knowledge: Water Cycle Understand that the water cycle if a physical process The w**ater cycle** is part **Physics** (LKS2.CA.T1) Know the term for each part of the water cycle: **Evaporation** (LKS2.CA.T1), **condensation** (LKS2.CA.T1), **precipitation** (KS1.CB.T3), **runoff** Know that **evaporation** is the process when water changes from a liquid to vapour (gas) when it gets hotter. Understand that 100oc is the boiling point of water (science)

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<td>including sketch maps, plans and graphs, and digital technologies.</td>
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Know that temperature is measured in degrees Celsius (maths) – link C to mean 100 (Y2 maths)
Know that condensation is the process when water vapour turns to a liquid through cooling.
Know that you can see condensation on windows on cold day
Know that when water condenses clouds are formed
understand that when there is enough water vapour in the clouds and it is cold enough, rain falls
Know that precipitation is rain
Understand that runoff is when the precipitation falls and runs into streams, rivers, or lakes

Understand that when liquids are cooled to 0oc, freezing point, it forms a solid (ice) when it melts, it becomes back part of the water cycle again

Know that 70% of the Earth is water
Know that 96% of the Earth's water is stored in oceans and seas and the remaining 4% stored in rivers and lakes.

Rivers
Understand that a river is a large natural stream of water which flows along a channel to the sea, a lake or another river
Know that water always flows downstream which means it flows downhill
Understand the importance of rivers on the water cycle with transporting water away from the land
Know the following vocabulary and know these key features of rivers and identify these using pictures, aerial photos and digital mapping:

<table>
<tr><th>Vocabulary</th><th>Definition</th></tr>
<tr><td>Stream</td><td>Small, narrow river</td></tr>
<tr><td>Estuary (KS1.CB.T3)</td><td>Where a river meets the sea</td></tr>
<tr><td>Mouth (KS1. CB.T3)</td><td>End of the river, where it meets the sea, lake or another river</td></tr>
<tr><td>Source</td><td>Where the river starts</td></tr>
<tr><td>Tributary</td><td>A small river or stream that joins a larger river</td></tr>
<tr><td>Riverbed</td><td>The bottom of the river, usually made of mud, sand and rock</td></tr>
<tr><td>Current</td><td>The flow, speed and strength of a river</td></tr>
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Understand that rivers start on higher ground, hills or mountains (LKS2.CB.T1)
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	Understand that rivers start as streams and a number of these streams, **tributaries**, merge to form larger rivers. Understand that settlements are often built near to significant rivers (KS...) Know the five longest rivers of the UK: 1. Severn (354km) 2. Thamas (346km) (KS1.C.T) 3. Trent (298km (KS1.C.T) 4. Great Ouse (230km) 5. Wye (215km) Know the names and locate the seven continents (KS1.CA.T2) Know the five longest rivers around the world: 1. Nile (6700km) Africa 2. Amazon (6400km) South America (KS1.CA.T3) 3. Yangtze (6300km) Asia 4. Mississippi-Missouri (6000km) North America 5. Yenisel-Angara-Selenga (3500km) Europe/Asia **Skills and observations** Observe the impact a river or stream can have on its environment Measure the current of a stream or river Understand the environmental factors that can impact flow rate Use sketch maps to present findings of the physical features around the locality of the river Observe and measure the process of evaporation Record their findings of a weather study over time Locate rivers on a world map