

Learning Organiser: What is a river?

Key objective

Understand the main physical and human features and functions of rivers and the impact that river flooding can have on local environments and communities.

Important things I will know, understand and be able to do

How the course and physical features of a typical river change from source to mouth

Why these physical features are formed

How to collect data at various points along a stream to show graphically how the river changes

How to create a simple cross section across a river

What an estuary is

The main physical and human uses of estuaries

Why estuaries are such an important habitat and ecosystem for wildlife

What the water cycle is

How rivers play an important part in the water cycle

Where the famous meander 'Isle of Dogs' is located along the River Thames

How and why the land uses and economic activities of the Isle of Dogs has changed over time

Why the port and docks of London declined and closed very quickly in the 1950s and 1960s

Where in the world Bangladesh is located and the rivers that flow through it

Why Bangladesh suffers from serious annual river flooding

What is being done in Bangladesh to manage and control river flooding

Important geographical techniques I will use

Fieldwork	Observing, recording, presenting and interpreting data from five measurements at different stages along a stream – bank and water width, bank height above water line, depth and velocity
Statistical representation	Drawing and interpreting: line graphs, multiple line graphs, bar graphs and histograms
Mapwork	Interpreting OS 1:25,000 Landranger maps using the key, eight points of the compass, four and six figure grid references, measuring distances using the scale line and constructing contour cross sections
Imagery	Terrestrial, aerial and satellite photographs (orientating with OS map locations) and GIS Google Earth Pro (plotting and following course of river)

Important Vocabulary I will learn

Landscape	everything that can be seen when looking at a place
Hazard	something natural or human that is a risk and source of danger
Course	the path or route along which a river flows
Estuary	the place where a river widens as it enters the sea and fresh and salty water mix
Profile	the slope along or across a river
Habitat	the natural home of a living thing such as a plant or animal
Ecosystem	the community of living things to be found in a particular area which depend upon each other
Pollution	something added to the environment that is harmful to living things
Water cycle	the path that all water takes as it moves around the Earth and its atmosphere
Confluence	the meeting point of two rivers where one flows into the other
Port	a place along a coastline where ships load and unload cargo
Dock	a closed in area with gates at a port to keep water out where ships are loaded or unloaded
Financial	businesses that deal with money rather than products
Commercial	something involving making products or providing services to make money
Monsoon	the wind that brings heavy rain to many countries in South East Asia in June each year

Important rivers I will study



The River Axe in Dorset, Somerset and Devon



The River Thames at the Isle of Dogs in London



Rivers Ganges, Brahmaputra and Meghna in Bangladesh

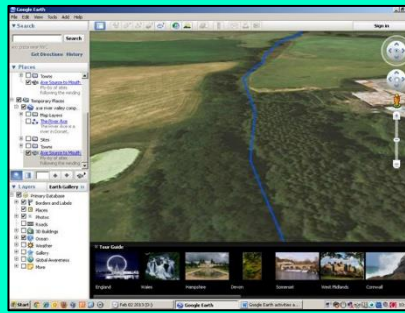
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Important land use changes I will know more about



London Docklands

Important geographical techniques I will use



Plotting the course of a river using Google Earth Pro

Important physical processes I will understand



Erosion



Flooding

Disciplinary thinking skills I will use to understand what I learn

Synthesise	Bring together a range of ideas and facts from different sources to develop an argument or explanation
Explain	Demonstrate understanding of how or why something is the way it is as a result of synthesising information.
Empathise	The capacity to place oneself impartially in another's position to better understand their motives, decisions and actions (even if they are not shared values).
Informed conclusion	A knowledgeable summing up of the main points or issues about something.
Reasoned judgement	A personal view or opinion about something supported by factual evidence.
Justify	Give reasons to show or prove what you feel to be right or reasonable
Apply	The transfer of knowledge and/or skills learned in one context to help make sense of a different situation
Evaluate	Weigh up and judge the relative importance of something in relation to counter ideas and arguments.
Critique	Review and examine something critically particularly to gain an awareness of its limitations and reliability as evidence
Hypothesise	Come up with an idea, question or theory that can be investigated to see whether it has any validity or truth.

Important geographical concepts I will know more about

Environment	the particular physical and human features which make places distinctive
Distribution	the arrangement or pattern of where physical and human features are located
Location	the position of something on Earth
Processes	the natural events and human actions that bring about change
Interdependence	how people and their environments are connected and rely upon each other
River	a moving stream of water that flows from high ground to the sea
Interaction	the links or connections within and between different natural and human processes.
Trade	buying or selling goods and services between people or countries.
Economic activity	manufacturing a good or providing a service that is bought by people.
Transport	move people and goods from one place to another using a vehicle, aircraft or ship.
Settlement	any place where people are living such as a village or city
Erosion	the wearing away of the land by forces such as water, wind and ice that then move the soil and rock to a new location
Land use	how people have decided to use an area for a specific purpose such as farming or building towns and cities
Relief	the general height and shape of the land of a particular place