

YEAR 8 GEOGRAPHY - Rainforests Knowledge Organiser

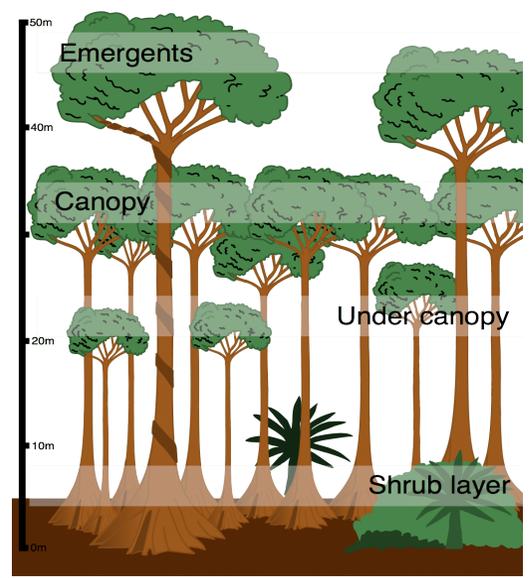
Key Learning from Lockdown:

- Structure of the Rainforest
- Uncontacted Tribes
- Importance of the Rainforest
- Threats to the Rainforest

Tropical rainforests

Tropical rainforests only cover 6% of the Earth's surface, yet they contain 50% of the plant and animal species.

Emergents	Tallest trees in the rainforest reaching around 50 metres
Canopy	Receives 70% of sunlight and 80% of rainfall. Around 30 metres high.
Undercanopy	Trees growing to a height of 20 metres
Shrub layer	Only small trees and shrubs. Less than 5% of sunlight reaches the forest floor
Epiphytes	Some plants grow on larger trees as they only need water and air to survive e.g. orchids
Convictional rainfall	Where the ground is heated intensely by the sun, the air rises, cools and condenses to form clouds and heavy downpours.



Uncontacted Tribes

We are more connected today than at any time in our history, yet isolated pockets of people still manage to live apart from globalized society. It is estimated that there are more than 100 across the globe.

Indigenous	Indigenous peoples, also known in some regions as First peoples, First Nations, Aboriginal peoples or Native peoples, are ethnic groups who are the original or earliest known inhabitants of an area,
Nomadic	Rainforest tribes live sustainably as they are nomadic, where they move around the rainforest and allow the area to replenish.
Uncontacted	Around 100 are left in the world who have very little contact. It is rare to have completely uncontacted tribes today.
Locations	Brazil, Peru, Western Papua, Malaysia, Andaman Islands and Central Africa.

Threats to tropical rainforests

Deforestation	The cutting down of trees, transforming a forest into cleared land for other uses such as building or growing crops
Logging	Trees cut down for items such as furniture, paper and utensils. Half of wood used for fuel.
Cattle ranching	Cattle raised on the cleared land to meet the demand for beef elsewhere e.g. USA.
Palm oil plantations	Palm oil is found in around half the products in supermarkets e.g. biscuits, shampoo, margarine.

Rainforests provide goods, these are products that benefit people



Food- nuts and fruit are key food sources for indigenous people
Medicine- rainforests have been linked to key medicines such as the rosy periwinkle used to treat childhood leukaemia.
Raw materials- wood is used for furniture, and paper. Rubber is used for making soles of shoes.

Rainforests provide services, these are functions of the rainforest ecosystem that benefit people.



Regulation of the atmosphere: take in large amounts of Carbon Dioxide and release Oxygen
Provide water- Trees act as water stores through interception and increases evapotranspiration leading to increased rainfall.
Shelter- rainforests provide indigenous people with shelter.

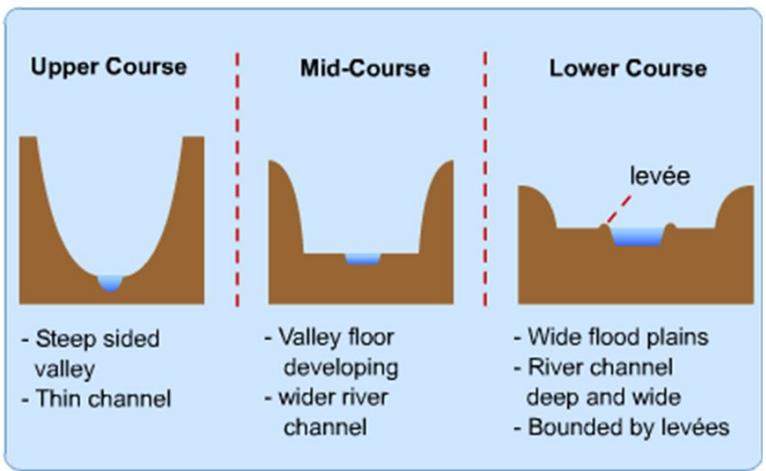
YEAR 8 GEOGRAPHY – Rivers Knowledge Organiser

Key Learning from Lockdown

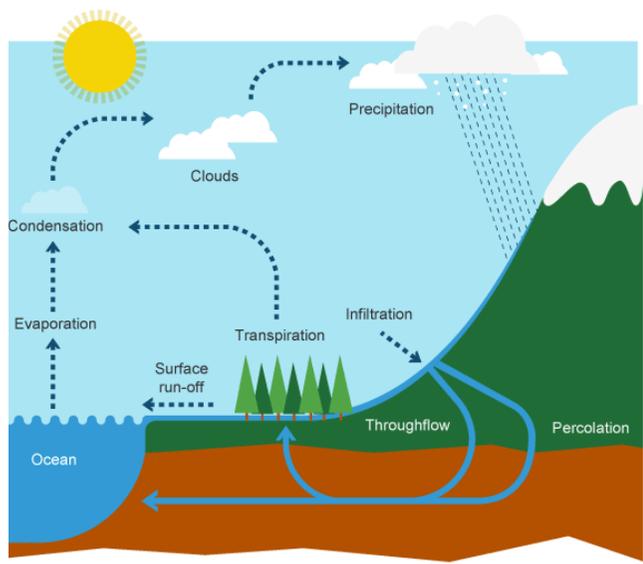
- The Water Cycle River Processes
 The River Profile River Landforms

River Erosive processes

Hydraulic action	The power of the water forces water and air into cracks in the rock. This pressure forces fractures in rock to split apart.
Abrasion (corrasion)	The water picks up rocks from the river bed and throws them against the river banks. Like using sandpaper.
Attrition	The water picks up angular rocks and knocks them into each other. This chips away the corners to make them rounder.
Solution (corrosion)	Salts or chemicals in the water act to dissolve the rocks they touch, for example limestone is dissolved by acidic river water.

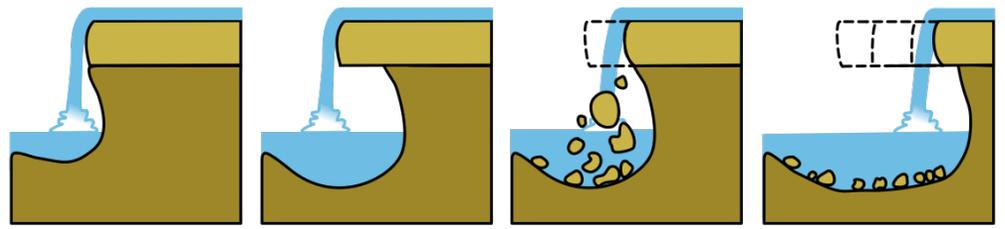


The River Profile



The Water Cycle

Formation of Waterfalls



Waterfalls form in the upper stages of a river where a band of hard rock overlays a soft rock. The soft rock is eroded away by hydraulic action and abrasion form a plunge pool. This creates an overhang. The hard rock layer collapses as it is unsupported. Erosion continues and the waterfall retreats upstream creating a gorge.

Energy from the Sun heats the surface of the Earth.
Water is evaporated from oceans, rivers, lakes, etc.
The warm, moist air rises because it is less dense .
Condensation occurs when water vapour is turned back into water droplets as it cools down. Clouds are formed.
Precipitation occurs as water droplets get bigger and heavier they begin to fall as rain, snow and sleet, etc.
Some water is intercepted by vegetation. Some water may then slowly reach the ground. Some will evaporate from the surface of leaves or be taken up by the plant roots, and some of will return to the air as vapour through transpiration .
Some water flows across the surface of the ground. Surface run-off is more likely to occur if the ground is saturated with water or when the rock is impermeable .
Some water infiltrates into the soil. This through flow moves more slowly back to the river than surface run-off.
Some water percolates deeper into the ground and is slowly transferred back to the river or sea.