Knowledge Organiser Year 5 - Summer 1 2024

Geography - The Amazon Rainforest and Hydro-electric Plants

Key Vocabulary

The Equator - the imaginary east-west line encircling the earth midway between the North and South poles. Divides the Earth into the Northern and Southern hemispheres.

Tropic of Cancer - line of latitude that is north of the equator.

Tropic of Capricorn - line of latitude that is south of the equator.

Costal - an area of land where the sea and land meet.

Inland - toward the area away from the coast

Emergent - very tall rainforest trees that rise above all other trees

Canopy - the tallest layer of trees in a forest

Under canopy - the layer of vegetation in a forest below the canopy but above the ground shrub

Layer - the undergrowth of a forest from about 3 to 15 ft high

Decomposes - an organism that breaks down dead organisms and returns important materials to the environment

Deforestation - the destruction of trees over large areas

Afforestation - establishing a forest where there has previously been no tree cover

Slash and burn - a method of farming which involves clearing land by destroying and burning all the trees and plants on it, farming there for a short time and then moving on shifting

Cultivation - where areas of land are cultivated for a short time and then left to regenerate their natural vegetation conservation - the protection of things found in nature

Preservation - looking after natural resources so they will still be around in the future

Sustainable - meeting the needs of the present generation without compromising the needs of future generations.

What does the rainforest provide?

At least 80% of the developed world's food originated in the tropical rainforest. Its bountiful gifts to the world include fruits like avocados, coconuts, figs, oranges, lemons, grapefruit, bananas, guavas, pineapples, mangos and tomatoes; vegetables including corn, potatoes, rice, winter squash and yams; spices like black pepper, cayenne, chocolate, cinnamon, cloves, ginger, sugar cane, turmeric, coffee and vanilla and nuts including Brazil nuts and cashews. At least 3000 fruits found in the rainforests; of these, only 200 are now in use in the Western World. The Indians of the rainforest use over 2,000. The Amazon Rainforest produces more than 20% of the world's oxygen. The Amazon Basin contains 20% of the world's fresh water.

People of the rainforest

The Yanomami Tribe There are many different indigenous tribes living in rainforests around the world; one of the largest is the Yanomami. The Yanomami live in South America in the rainforests and mountains of North Brazil and southern Venezuela. With a population of around 20,000 people, the Yanomami live in large communal houses called shabonos. These shelters can accommodate between 50 and 400 people and are oval with a central

Where is the Amazon Rainforest Located?

The Amazon Rainforest is located 10° north and south of the Equator. The Amazon is a vast biome that spans over countries: Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana and Suriname. The rainforest covers 60% of Brazil.

Green Energy in South America

• **Hydro-electric plants:** Hydropower is the main source for electricity generation in South America which accounts for 45% of total electricity. Reservoirs store water behind dams and release it downhill to power turbines that generate electricity.

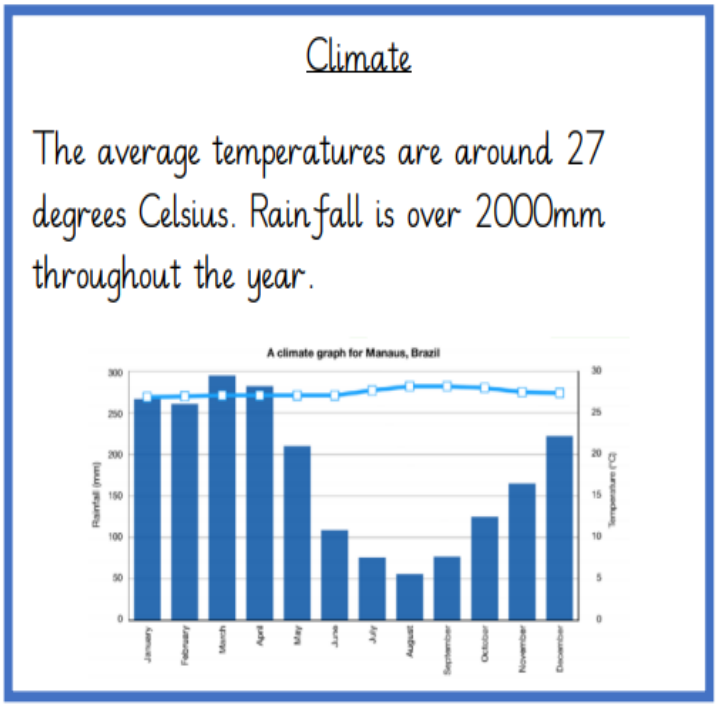
The main **advantage of hydro-electricity** is that it provides electricity at a low cost for people and it is a renewable source of energy.

The main **disadvantage of hydro-electricity** is its heavy water consumption at a time

Time line of conservation

	Environmentalists gather for a workshop on the rainforest crisis
1988	First major conference about rainforest destruction
1989	Smart Wood found to improve forest management by providing economic incentives to businesses that practice responsible forestry.
1992	Smart Wood expands to Brazil, Chile, Honduras, Indonesia, Mozambique and Papua New Guinea
1994	Smart Wood expands to include work with temperate and boreal forests in the US and Canada.
2000	About 15 percent of all bananas in the international market grow on Rainforest Alliance Certified farms.
2005	By 2005, a total of 377,852 acres (153,000 hectares) of tropical farmlands certified, sustainably producing bananas, coffee, cocoa, citrus and ferns.
2008	Rainforest Alliance shows that standards have seen fewer wildfires and less deforestation.
2009	Mars Incorporated, commits to getting its entire cocoa supply certified as sustainably produced by 2020.
2010	All of the coffee served on American Airlines flights is now from Rainforest Alliance certified farms.

open area. They rebuilt every year or so as they are fragile and easily damaged by storms.



When water conservation is a worldwide concern.

Nuclear fuels The main nuclear fuels are uranium and plutonium. In a nuclear power station, the energy released used to boil water. The expanding steam spins turbines, which then drive generators to produce electricity. Advantages •Unlike fossil fuels, nuclear fuels do not produce carbon dioxide or sulphur dioxide. Disadvantages •Like the fossil fuels, nuclear fuels are non-renewable energy resources. They will run out one day if we keep on using them. •If there is an accident, large amounts of radioactive material release into the environment. In addition, nuclear waste remains dangerously radioactive and harmful to health for thousands of years. It must be stored safely.

Project for Home Learning

Can you find out all about the Amazon Rainforest and energy production in South America?

-A 3D model of the Amazon Rainforest and hydro-electric energy
-A leaflet
-A poster
- Create maps
- Fact file
- Farm where we can see the wind turbines work.