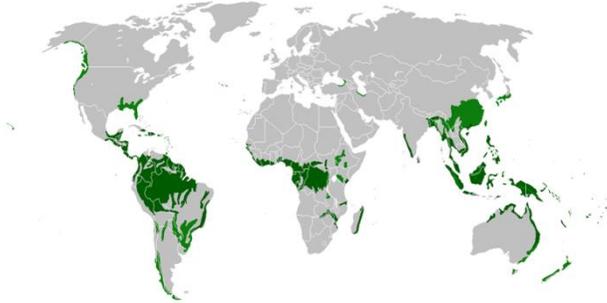
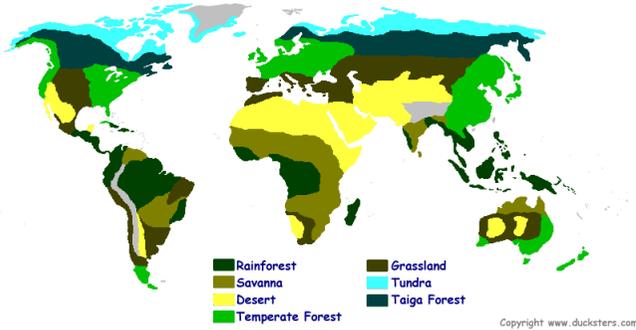


Class: Year: 5	Term: 1	Subject: Geography	Topic title: Rainforests
<p><u>NC Objectives and breath of study:</u></p> <p>Describe and understand key aspects of: physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn,</p>  <p>Pupils need to understand the water cycle, the location and significance of the tropics and their climate, and deepen their understanding of biomes in a specific location. They will understand the interdependence of human process with physical geography and how locations are changing, especially within the in Amazon rainforest in Brazil.</p>	<p style="text-align: center;"><u>Threshold Concepts</u></p> <p>Locational Knowledge Location of the world's rainforests and their location close to the Equator:</p>  <p>Place Knowledge Locate the Amazon and Congo rainforests on a world map, know their continental location, population statistics, climate and some of their biodiversity. Manaus city in the Amazon rainforest in Brazil was built using money from selling rubber trees and is home to 2 million people. In the late 1970s the Brazilian government and private companies began extensive deforestation to develop the mineral and agricultural wealth of the surrounding forested region. The government also installed a fishing terminal in Manaus. Rainforests are biomes. This is a specific environment with plant and animal life adapted to the place and climate.</p> <p>Physical Processes – Water Cycle and Rainfall:</p>	<p>Milestone 3: To investigate places:</p> <p>Collect and analyse statistics and other information in order to draw clear conclusions about locations.</p> <p>Identify and describe how the physical features affect the human activity within a location.</p> <p>Use a range of geographical resources to give detailed descriptions and opinions of the characteristic features of a location.</p> <p>Name and locate some of the countries and cities of the world and their identifying human and physical characteristics, including hills, mountains, rivers, key topographical features and land-use patterns; and understand how some of these aspects have changed over time.</p> <p>To investigate patterns</p> <p>Understand some of the reasons for geographical similarities and differences between countries.</p> <p><u>To communicate geographically:</u> Describe and understand key aspects of:</p> <p>Physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes and the water cycle.</p> <p>Human geography, including: settlements, land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals, and water supplies.</p> <p>No stakes quizzes and recall of prior learning:</p> <p>Rainforest follow me , location and biodiversity vocabulary.</p>	

Key Vocabulary

Biome : specific environment that's home to living things suited for that place and climate

Biodiversity – The wide range of living things on Earth

Canopy – The tallest layer of trees in a forest

Climate – The weather and temperature usually found in an area over a long period of time

Current: a body of water or air moving in a definite direction,

Condensation: the change in the state of water vapour to liquid water when in contact with a liquid or solid surface or cloud condensation

Deforestation – The destruction of trees over a large area

Humid – Having a high level of moisture in the air

Indigenous – A living thing that belongs naturally to an area

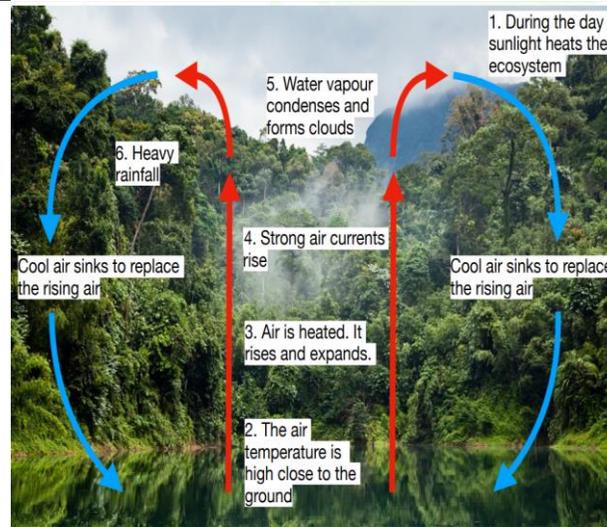
Temperate – Places where it is neither very hot or very cold. Usually has warm summers and cool winters

Tropical – Around the middle of the world in the region called the Tropics

Key Texts:

The Incredible Ecosystems of Planet Earth- p39

<https://www.oddizzi.com/teachers/explore-the-world/physical-features/ecosystems/rainforests/world-rainforests/amazon-rainforest/>



Physical Features

The structure of the rainforest:

Emergents are the tallest trees and are usually over 50 metres tall.

The Kapok tree is an example of an emergent. The sea of leaves blocking out the sun from the lower layers is called the canopy. **The canopy** contains over 50% of the rainforest wildlife. This includes birds, snakes and monkeys. Lianas (vines) climb to the canopy to reach sunlight. Epiphytes, or air plants, are also found in this layer. The **under canopy** mainly contains bare tree trunks and lianas. Lianas are vines that climb the vegetation in a bid to reach sunlight.

The **shrub layer** has the densest plant growth. It contains shrubs and ferns and other plants needing less light. Saplings of emergents and canopy trees can also be found here. **The forest floor** is usually dark and damp. It contains a layer of rotting leaves and dead animals called litter. This **decomposes** rapidly (within 6 weeks) to form a thin humus, rich in nutrients. Below the rich top soil the soil lacks nutrients. This is because nutrients are rapidly absorbed by vegetation.

Suggested Unit Structure- Key Questions :

- What are rainforests and where are they found?
- What is the water cycle and how does it work in the rainforest?
- What does each layer of the rainforest do?
- What foods and resources come from rainforests?
- What is a biome? What is the biodiversity of the rainforest?
- How many people live in the Congo? What is life like for them?
- How have human settlements changed in the Amazon?
- What is deforestation? What effect is it having on the rainforest and the local settlements?
- Should the rainforest be protected ? Why?

Useful website:

<https://www.livescience.com/41215-map-reveals-global-deforestation.html>

SMSC , British Values Cultural Capital:

Discussion of the human impact on climate and habitat, and reflect on Christian teaching about good environmental stewardship and courageous advocacy.

Reflect on communities and cultures in rainforest environment, what makes them unique. Contrast how the indigenous population have lived in harmony with the environment compared to modern industrial cultures.

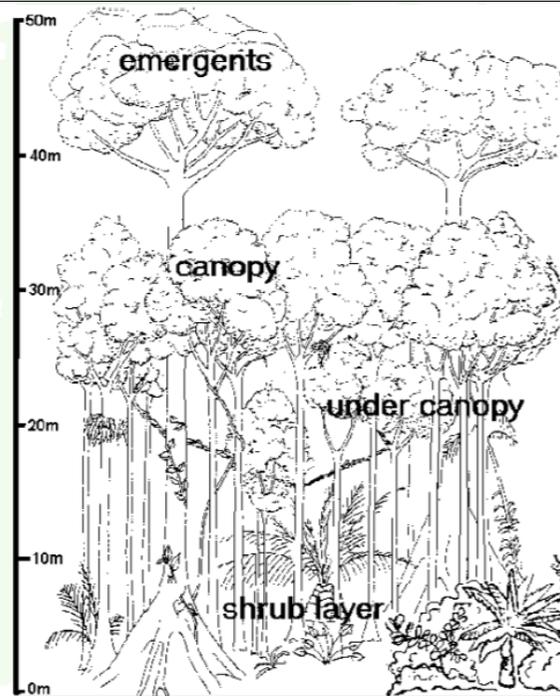
Bringing Geography to Writing

An explanation of the water cycle

Write a detailed description of a rainforest environment and biodiversity for a “ Lonely Planet” or similar guide book
Write a report on an indigenous community in the Amazon or Congo

POP task (assessment)

Write to the Secretary of State for the Environment to describe the biodiversity of the rainforest and why it should be protected.



Climate:

Rainforests grow in tropical climates. They are hot and humid. Tropics are the region of the Earth surrounding the Equator. They are delimited in latitude by the **Tropic of Cancer** in the Northern Hemisphere at 23 degrees N and the **Tropic of Capricorn** in the Southern Hemisphere at 23 degrees South.

Human Processes

Deforestation for logging and palm oil plantations is destroying homes for **indigenous nomadic** people in the Amazon and Congo. **Population increase** and demand for meat and crops as well as wood for fuel has led to the destruction of rainforests. **Manaus city** is an example of the use of rainforest for human habitation.

Interdependence:

Around 80% of the food eaten in the developed world originally came from the rainforest. A fifth of the world's oxygen is produced in the Amazon rainforest. The rainforests are used by humans to develop agriculture and use mineral resources.

