

Rainforests

Geography

Oak

Previous Knowledge

What should I already know?

Key Stage 1 (Years 1-2)

- Name and locate the seven continents and five oceans and identify the characteristics of the four countries and capital cities of the United Kingdom.
- Understand geographical similarities and differences of the United Kingdom and a non European country.

Key Stage 2 (Years 3-5)

- Identify the human and physical features of the UK, Europe, South and North America.
- The names of some key rivers around the world including the Thames and the Nile.
- The main biomes and climate zones around the world, including rainforests.
- The climate of places is affected by their location (e.g. the equator, Tropics).

Geographical skills and knowledge

What will I know at the end of this unit?

- Locate the major tropical rainforests in the world.
- Identify the main features of a rainforest and compare to forests and woodlands in the UK.
- Explore the differences between the 4 layers of the rainforest.
- Research how the Amazon river sustains the rainforest and people who live there.
- To identify the different types of tribes that live in the rainforest, their culture and way of life.
- To explain the causes and effects of deforestation on the forest and the wider environment of the planet.
- Use 4 and 6 figure grid references on OS maps.

Text Link

The Explorer by Katherine Rundell

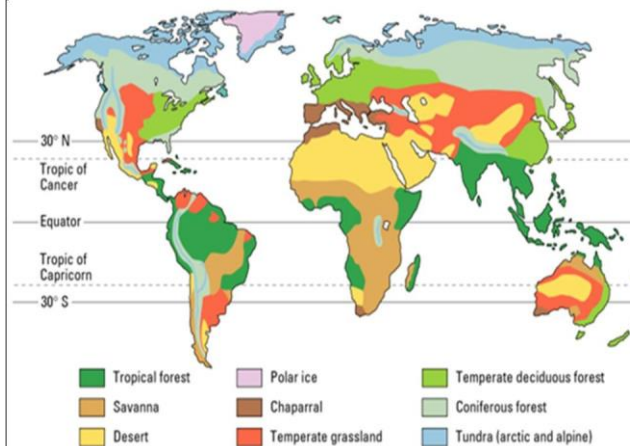
Overview

Subject - Geography

As geographers, the children will build on their prior learning around the physical geography of the world through an in-depth study of the rainforests. They will use atlases, globes and digital technologies to contextualise their learning and identify key countries. Through the use of a range of geographical resources- including fieldwork- the children will develop their subject-specific vocabulary while learning about the key aspects of rainforests. Continuing their work from Year 4 (biomes) they will consider the impact that human actions can have on the physical environment.

Enquiry question

Should people be allowed to destroy the Amazon rainforest?



Rainforests

Rainforests are the oldest ecosystems on Earth and are the home to millions of people, plants and animals. There are two types of rainforest: tropical and temperate.

Tropical Rainforests occur in the equatorial and sub-equatorial climate zone, which are in the tropics. The high levels of precipitation and tropical heat means that the conditions in the rainforest are humid and damp. These rainforests only cover 6% of the surface of the Earth but scientists believe that about 50% of the plant and animal species in the world live in them.

Temperate deciduous Forests are found along coasts in temperate zones. They are cooler and receive much less rain than tropical ones. They have only three layers; the canopy, the understory and the forest floor.

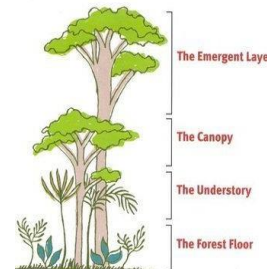
Layers of the Tropical Rainforest

Emergent - Giant trees that enjoy the most sun but experience high winds.

Canopy— Dense layer of trees. Home to most animals in the rainforest.

Understory - Relatively dark, open area below the canopy.

Forest floor—mainly consisting of fallen leaves, fruit etc. that decomposes as food for the trees.



Layers of the Temperate Deciduous Forest

Tree Stratum - Oak, ash, beech, birch

Small trees and saplings - Hawthorn, hazel, holly, rowan

Shrubs - Rhododendron

Herbs - Ferns, grasses, herbs

Ground - Mosses, lichens



Location of Tropical Rainforests

The countries in which the top five largest rainforests are located:
Brazil, Democratic Republic of the Congo, Indonesia, Peru and Colombia

Location of Temperate Deciduous Forests

Most temperate deciduous forests are located in the eastern United States, Canada, Europe, China, Japan and parts of Russia. The UK has many deciduous forests.

Creatures living in Tropical Rainforests	
<p>Animals and reptiles that live in rainforest habitats include: boa constrictor, capybara, forest elephant, giant anteater, jaguar, macaw, marmoset, poison dart frog, sloth, spider monkey, tamarin, tapir, toucan and tree frog.</p> <p>Insects and bugs that live in rainforest habitats include: clear winged butterfly, dragonfly, goliath bird eater spider, leaf insect and long-horned beetle.</p> <p>Trees and plants that live in rainforests include: bromeliad, cacao tree, carnivorous plants, epiphytes, lianas (vines), orchid and rubber tree.</p>	
Creatures living in Temperate Deciduous Rainforests	
<p>UK woodlands are home to a diverse range of mammals, birds, amphibians, reptiles, butterflies, dragonflies, damselflies, beetles, bees, moths and spiders. Some are endangered, such as the dormouse and nightingale.</p>	
Rainforest Products	
<p>We get many items of food such as bananas, chocolate, coffee, nuts, coconut, cinnamon and rubber from the tropical rainforests. About 25 per cent of the medicines we use come from plants in the rainforest.</p> <p>Temperate forests are very important to people as they provide enjoyment as well as many resources, including food, timber and oxygen for us to breathe. A threat to this biome is acid rain as it damages the leaves of trees, and can cause them to die. Acid rain is caused by industrial pollution and vehicle emissions. Another threat is that trees are cut down for timber and land is cleared for agriculture. Groups like the Woodland Trust are working to protect this biome in the UK.</p>	
Significant person	
<p>Amazonian tribes</p> <p>Our rainforests are not just home to animals and plants, they are also home to groups of people. There are many tribes of people who call the rainforest home but the most well-known are the Awa, Yanomami, Pygmy and Huli tribe.</p> <p>The Awa are the indigenous people of Brazil living in the eastern Amazon rain forest. They are the most endangered tribe in the world. They live deep in the Amazon rainforest and are an ancient group of around 400 people who carry everything they own; their children, their weapons and their pets.</p>	

Key Vocabulary	
canopy	The thick layer of leaves covering a rainforest.
deciduous	Losing its leaves in autumn.
deforestation	Cutting down large areas of trees.
emergent	Tall trees growing above the canopy.
emissions	Things such as gasses which are released into the atmosphere.
equatorial	At the Equator.
indigenous	The first people who lived in any region or area.
precipitation	Rain, snow, sleet or hail.
shrubs	Small bushes near the floor of a rainforest.
sub-equatorial	Close to the equator.
temperate	Neither very hot or cold.
timber	Wood from trees.
understory	Trees just below the canopy.

Deforestation
<p>Deforestation of tropical rainforests has been an issue for over 50 years and is still occurring. However, the overall rate of global deforestation is slowing down (Brazil's rate of deforestation has decreased by 21% in 2000 - 2010 compared to 2000 - 2005). Unfortunately, some countries still have an increasing rate of deforestation. For example, between 1990 and 2010, Pakistan lost 33.2% of its forest cover.</p> <p>Causes of deforestation: to clear space for farming: growing crops (soya beans and palm oil) and grazing land for beef cattle; chopping down trees for wood; to build roads to mine for metal, gold and diamonds; to dig for oil; and to flood areas to make dams and generate electricity.</p> <p>Effects of Deforestation: 28,000 species of animals are expected to become extinct in the next 25 years 4; local people's homes are destroyed; and levels of carbon dioxide in the air are increasing and oxygen is decreasing.</p>

