

# Why Should Rainforests Be Important to Us All?

## Enquiry Questions

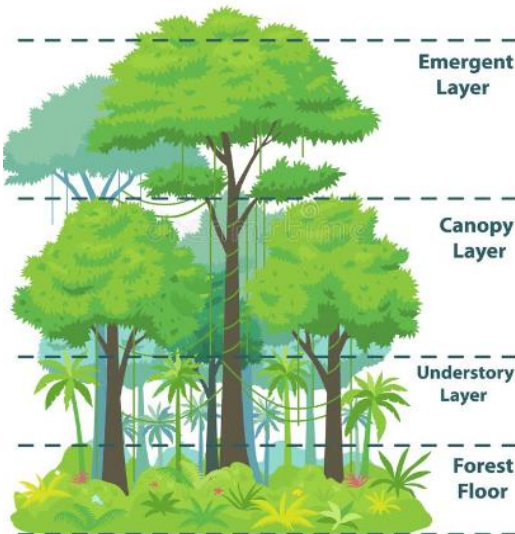
1. What are biomes?
2. What are rainforests and where might I find them?
3. What are tropical and temperate rainforests?
4. Why are rainforests made up of layers?
5. What might I find in a rainforest?
6. What is deforestation?
7. What is the impact of deforestation?



The Congo Rainforest



## RAINFOREST LAYERS



The Layers of a Rainforest

Causes of Deforestation	
1	To clear space for farming: growing crops (e.g. soya beans & palm oil) and space cattle to generate cheap beef.
2	Chopping down trees for wood.
3	To build roads to mine for metals, gold & diamonds.
4	To dig for oil.
5	To flood areas to make dams & generate electricity.

Impact of Deforestation	
1	An area the size of 20 football pitches is destroyed every 60 seconds.
2	1/3 of the tropical rainforests we had are gone.
3	28,000 species of animals are expected to become extinct in the next 25 years.
4	Local people's homes are destroyed.
5	Levels of carbon dioxide in the air are increasing and oxygen is decreasing.

## Key Vocabulary

**Buttress roots** - Large, wide roots that support tall trees in shallow soil that lacks nutrients

**Canopy Tall** - trees that usually bear fruit all year with large leaves and thick branches that create a roof to the rainforest, preventing sunlight reaching the smaller plants

**Climate** - Temperature, wind, humidity, snow, and rain in a place over time

**Deforestation** - Widespread clearing of trees, often to make way for plantations and buildings

**Emergent (layer)** - Tall trees that stand out above the canopy. Only the strongest trees are emergent as they have competed for the sunlight

**Fertile** - The soil allows plants and crops can be grown

**Forest floor** - Almost no plants grow here because it is dark due to the taller trees blocking out the sun so organisms decay quickly

**Humid** - High levels of water vapour in the atmosphere Lianas Woody climbing plants that hang from trees

**Organisms** - A living thing, such as an animal or plant.

**Plantation** - A large area of land where crops are grown

**Precipitation** - Water falling from clouds (e.g. rainfall, snow, hail)

**Shrub (layer)** - Mainly made out of bushes. It contains most of the rainforests orchids because the orchids use water from the forest floor

**Terrain** - The features of the surface of a piece of land (e.g. hilly, flat...)

**Understorey** - A tangle of shrubs, young trees, saplings, palms and vines. It is hot and damp here and the air is very still

**Weather** - Day-to-day temperature, precipitation and wind

## Temperate Rainforests

### What are Temperate Rainforests?

Temperate rainforests occur in **mid-latitude**, zones with **heavy rainfall** due to an 'oceanic' climate.

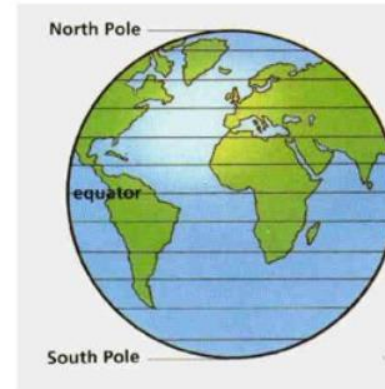
A **key indicator** is an abundance of mosses, liverworts, lichens and polypody ferns growing on the branches and trunks of trees.



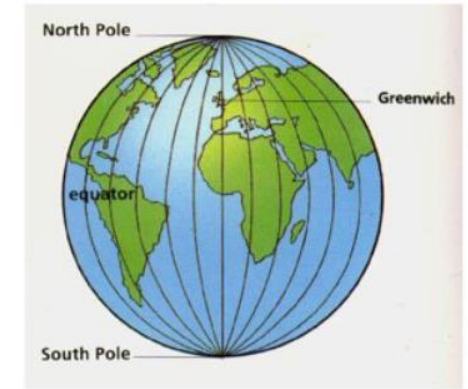
Polypody ferns and bryophytes growing on a tree



## Lines of Latitude



## Lines of Longitude



## Tropical Rainforests

### Physical Characteristics

Tropical rainforests are found close to the Equator, where the climate is hot and humid all year round. The concentrated sunlight warms the moist air, and as it rises, it condenses to form large clouds and convectional rain. This results in high annual rainfall.



2000–3000 mm rainfall



25–30°C



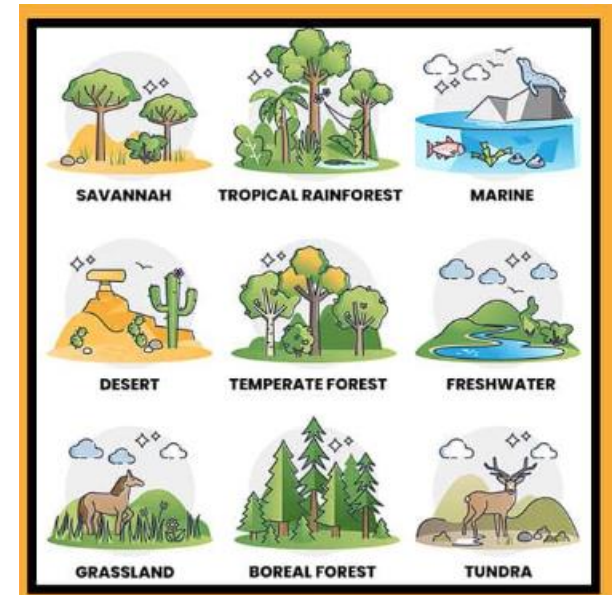
No distinct seasons\*

\* Some rainforests, such as the Amazon rainforest, do have a 'dry' season.

## Golden Threads

## Biomes

Biomes are ecosystems that are grouped together according to similar climates



## Vegetation Belts

A vegetation belt is an area with distinct plant types, determined by climate, soil, drainage and elevation.

There are five major vegetation belts:

forest  
grassland  
tundra  
desert  
ice sheet

