

**Lisnagarvey High School**  
**Geography Department**



# **Rainforest Handbook**

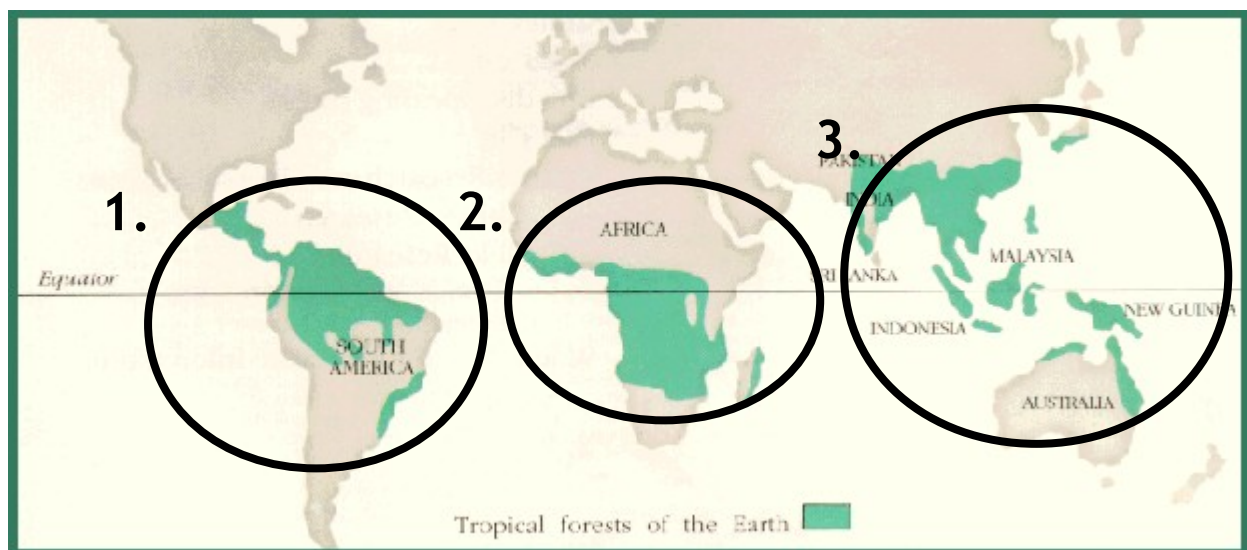
## What are the Tropical Rainforests?

Tropical rainforests are very large forests that grow near the equator. They are home to over 5 million different plant and animal species.

## Where are the Tropical Rainforests?

Tropical rainforests are found in equatorial regions (places near the equator).

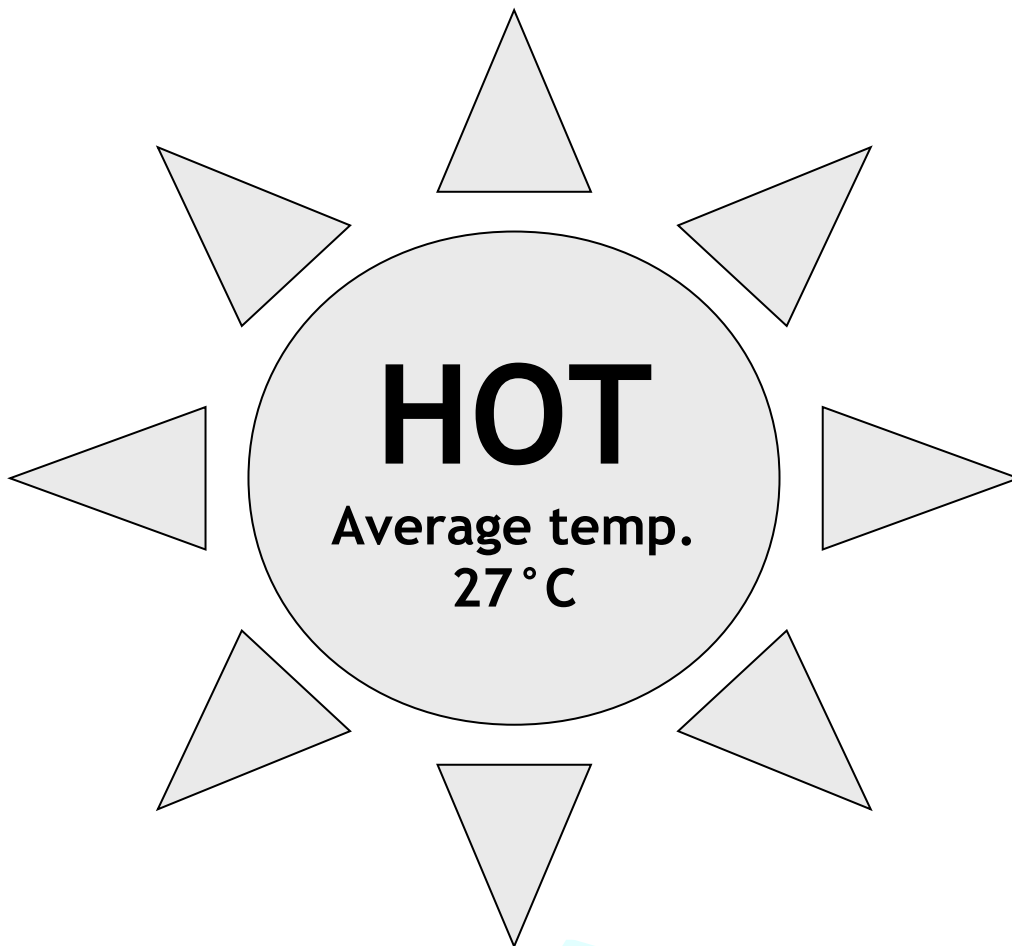
There are three main rainforest areas:



1. Amazon
2. Congo
3. South East Asia

# What is the climate of the Rainforest?

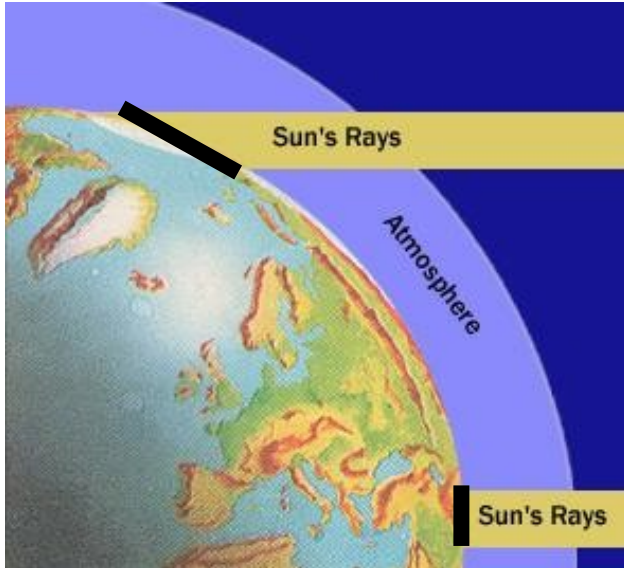
Topical rainforests are:



Average yearly rainfall 2150mm

## Why is it hot and wet?

It is hot because:



The sun's rays are focused on a smaller area at the equator than they are nearer the poles.

This means the sun's energy is concentrated here and it gets very hot.

It is wet because:



It is so hot that the air rises very quickly. As it rises it cools and clouds form and it eventually rains.

Because this happens so quickly in the rainforest, it rains virtually every afternoon.

The morning and evening will have sun and clear skies but the afternoon will be very cloudy with heavy rain.

## Plants of the Rainforest

Plants need sunlight and water to grow. In the rainforest there are high levels of both these things so plants grow quickly.



Lianas are vines which grow around larger plants and trees. They look a bit like old rope.

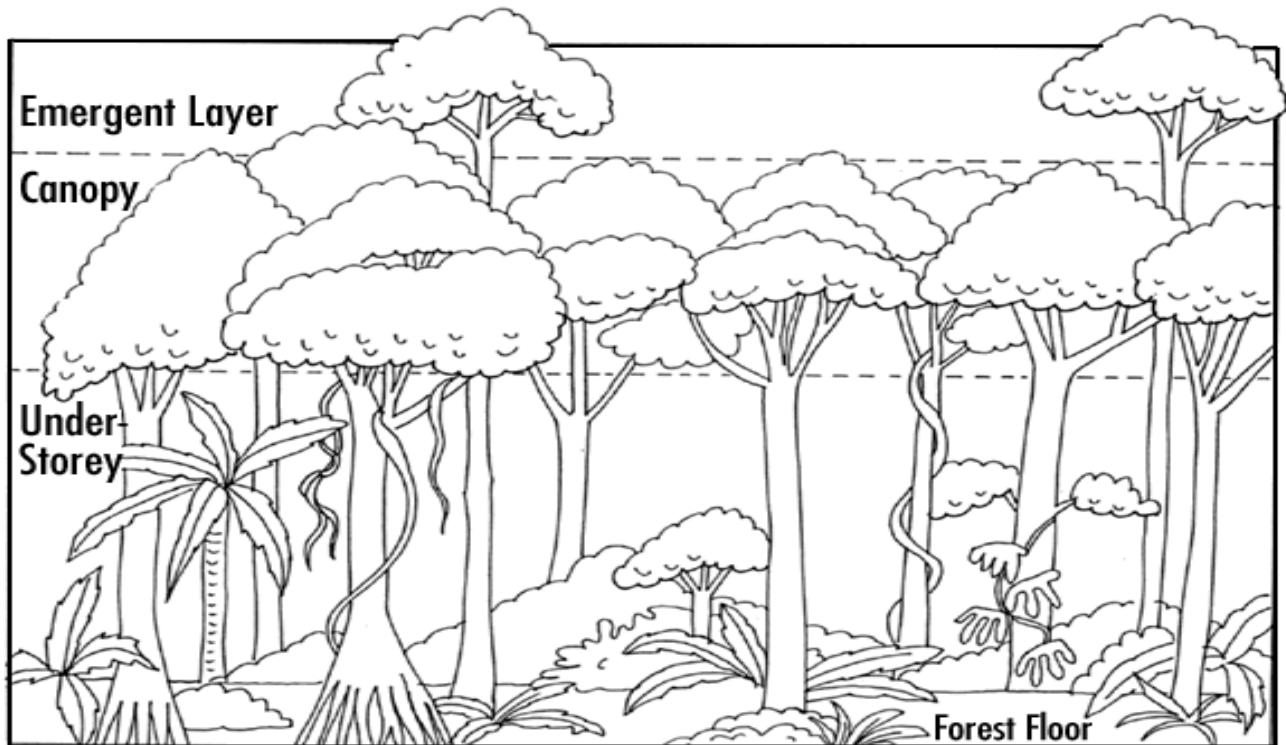
The underground roots of trees are very shallow so they will often have buttress roots. These are thick roots which grow out the side of the tree to help in balance, a bit like stabilisers on a bike.



Because of the heavy rainfall in rainforest areas the leaves of many plants have drip tips. This down-facing point at the end of the leaf allows water to run off easily, preventing damage.

# Layers of the Rainforest

The plants in the rainforest grow in layers.



**Layers of Rainforest**



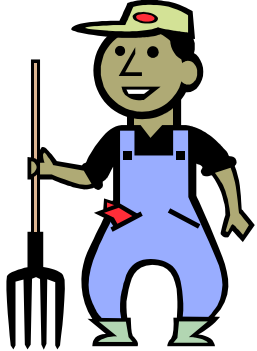


The **canopy** is very thick and blocks out most of the sunlight. This means the **forest floor** is very dark and so there are not a lot of plants here. The canopy also helps protect the lower layers from wind and heavy rain.

The trees in the rainforest have very straight trunks because they grow very quickly straight up, looking for sunlight.

**Emergents** are trees that have grown taller than the canopy. They get the most sunlight.

# How do people use the rainforest?

People use the rainforest for many things:

 <p>Settlement</p>	<p>Many different tribes call the rainforest home. These tribes will have lived in the forest for many generations and keep their traditions alive. They get everything they need from the forest.</p>
 <p>Timber</p>	<p>The trees in the rainforest are cut down and the timber is sold all over the world. Wood from the rainforest is popular and the large trees allow companies to get large amounts easily.</p>
 <p>Farming</p>	<p>Tribes who live in the rainforest use the land to farm. They grow crops and keep animals to feed themselves. This is called <b>subsistence farming</b>. The forest is also used for grazing large herds of beef cattle for companies like McDonalds.</p>
 <p>Mining</p>	<p>Many precious materials like iron, gold and diamonds can be found in the rainforest but they have to be mined out of the ground.</p>
 <p>Medicine</p>	<p>Many of the ingredients in our medicines come from the plants of the rainforest. It is thought there are still millions of undiscovered cures.</p>



## **What is deforestation?**

Deforestation is the large-scale removal of trees from an area by cutting or burning.





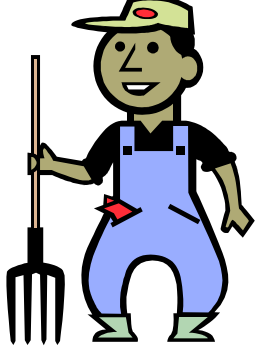

Human activity in the rainforests means that they are being removed at an alarming rate.

It is thought that about 15 football pitches of rainforest are cleared away every minute!

At this rate, the Amazon rainforest could be totally gone by 2050.

## How do our activities cause deforestation?

Let's look at some of the uses we listed on page 6.

 <p><b>Settlement</b></p>	<p>Tribes clear areas of the forest to live on. Because cities and towns are becoming so crowded, governments are encouraging people to move into the rainforests by giving them money. This means more land has to be cleared for rainforest towns.</p>
 <p><b>Timber</b></p>	<p>Once the trees are cut down for timber, few companies bother to plant new ones. The lorries needed to carry the timber are large. New roads have to be built and trees have to be cleared for this.</p>
 <p><b>Farming</b></p>	<p>Large-scale cattle farming means huge areas have to be cleared. The cattle then strip all the vegetation from the area and trample the ground, leaving it useless. Tribal farming does not damage the land much because the farmers move patches and allow the ground to recover.</p>
 <p><b>Mining</b></p>	<p>Trees are removed to allow space for digging into the ground. The machines needed to mine are very large so, as with logging, trees are cleared to build roads and storage spaces.</p>

## **Why is deforestation so bad?**

The destruction of the rainforest impacts many other things.

### **Ecosystem**

The trees provide shelter and food for many animals. These animals will either die or move to another area which will impact the whole food web.

### **Soil**

Soil is left exposed to the heavy rain and the nutrients are washed out, leaving it useless. The soil itself can also be washed away, leaving areas of land totally bare.

### **Native Tribes**

As the rainforest is being cleared, the native tribes are being removed from their land. Their culture and way of life is also under threat as people from the outside world bring modern life in, which often attracts the young people of the tribe and encourages them to leave.

### **World Climate**

The trees of the rainforest help to purify our air and provide our oxygen.

The quickest way to remove the trees is by burning and this releases a lot of carbon dioxide into the air, adding to the greenhouse effect.

## How can we help protect the rainforests?

Conservation is the word given to protecting something from destruction.



Use the internet to research  
**Rainforest Conservation.**

