

Under the Canopy

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

Tropical Rainforests are found near the equator. The enormous amount of rain 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 Rainforests 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 understorey and the forest floor.



Rainforest Layers

Tropical rainforests are made up of four layers.

The diagram illustrates the four layers of a rainforest, separated by dashed horizontal lines. From top to bottom, the layers are: Emergent Layer (tallest trees), Canopy (dense layer of tree tops), Understorey (shorter trees and shrubs), and Forest Floor (ground level with fallen leaves and small plants).

The emergent layer consists of tree tops that poke up above the canopy. It receives plenty of sunlight but it is also windy and rainy. The layer is inhabited by birds, bats, butterflies and other insects, as well as some small monkeys, such as the Capuchin.

In the canopy, the leaves of the trees provide a 'roof' for the rainforest, blocking sunlight from reaching the layers below. There is a plentiful supply of nuts and fruit so many different animals live here (e.g. sloths which have a layer of green algae to act as camouflage).

The understorey is warm and humid, and young trees and shrubs are found here. Insects thrive in this layer and many popular house plants, such as ferns, come from the understorey. Animals in this layer include jaguars, lizards, frogs and snakes.

The forest floor is very dark and hot. Decomposition takes place in this layer, with fungi and insects breaking down the decaying plants. Larger animals (e.g. giant anteater) live in this layer, as well as rodents and pigs.

Scientific and geographical vocabulary

Word	Definition
Adaptation	The special features that a living thing has to help it to survive in a particular habitat.
Camouflage	The way that an animal hides itself by blending into its surroundings.
Climate	The weather and temperature usually found in an area.
Colony	A group of the same kind of animal that live and work together.
Decomposition	When something breaks up and decays.
Deforestation	The destruction of trees over large areas.
Ecosystem	A community of plants and animals that depend on each other to survive.
Environment	Everything in the world around us, which can affect our lives.
Equator	An imaginary circle around Earth. It runs east and west halfway between the North and South poles.
Extinct	An animal or plant species that has died out completely
Fertile	Soil that is able to produce a large amount of vegetation.
Habitat	The place where a living thing makes its home.
Humid	Having a high level of moisture in the air.
Indigenous	A living thing that belongs naturally to an area.
Interdependent	When two or more people or things rely on each other.
Logging	Felling and cutting trees.
Species	A group of living things that the same main features and can breed with one another.
Threat	Something that can cause harm to an animal, plant or habitat.
Vegetation	The plant life growing in a certain area.

Rainforest Products:

Many medicines were discovered in the tropical rainforest, for example ginger, which can be used to treat nausea and quinine, which is used to treat malaria.

Many foods also come from the rainforest, such as chocolate, coffee and bananas. Other common products from the rainforest include rubber and bamboo.



Causes of Deforestation:

1. To clear space for farming: growing crops (soya beans and palm oil) and grazing land for beef cattle.
2. Chopping down trees for wood.
3. To build roads to mine for metal, gold and diamonds.
4. To dig for oil.
5. To flood areas to make dams and generate electricity.

