

Rainforests revision

Draw onto the map where the rainforests are found in the world. Label 3 of the rainforests.



Use your map to describe the location of the rainforests.

Rainforests are found along the equator, between the tropics of Cancer and Capricorn. They are found in North and South America, Africa, Asia and Oceania. E.g., the Amazon Rainforest, Brazil, South America.

Anomalies are found in Asia, Africa and South America, where rainforests extend outside the tropic lines.

What's the climate like in the rainforest? To tell me this, describe the...

1. Temperature

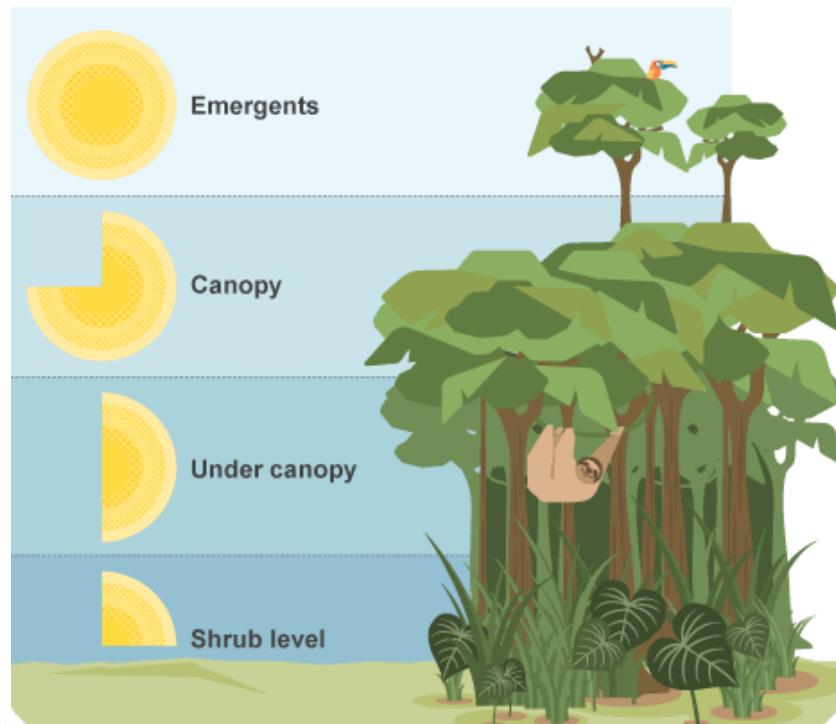
Temperatures are high all year, with average daily temperatures of 28°C. The temperature is usually between 20°C and 35°C. They do not have the same seasons as temperate zones, such as the one we live in, instead they have just two, a wet season and a dry season. They are warmest in the dry season.

2. Rainfall

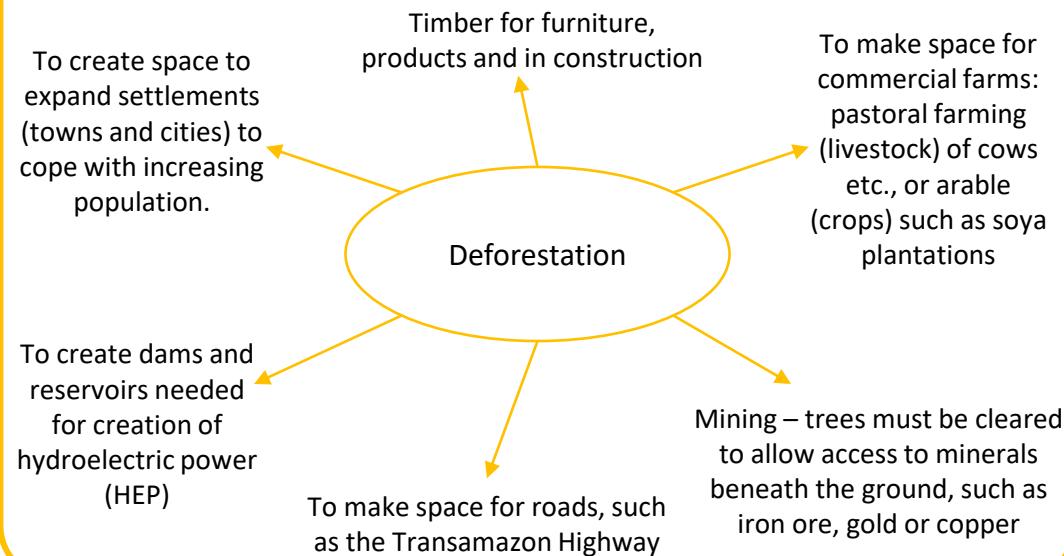
Rainforests have over 2000mm of rainfall per year. The rainfall is heaviest in the wet season, also known as the rainy or monsoon season.

The structure of the rainforest

Draw a diagram to show the layers of the rainforest (shrub layer, canopy, under canopy, emergent)



Complete the mind map below to say why deforestation happens.



Why does the rainforest have this climate?

They have a stable, warm climate because of their location. In higher latitudes, the tilt of the Earth on its axis causes the ground to be tilted away from the sun annually, this gives us cold seasons. Areas around the equator are not affected by this as much, so their temperatures are much more stable. As the ground is roughly at a 90° angle to the sun, its radiation is focussed over a small surface area. This concentrates the heat and heats the ground, which then heats the air above it. This heat evaporates water from the ground, which creates water vapour. The hot air and water vapour rise, and as they do, they cool, causing rain to fall along the tropical zone.

What does sustainability mean?

If something is sustainable, it means that we can keep doing or using it, without affecting our ability to do so in the future, and without causing damage to the environment, economy or society.

Name a plant that is found in the rainforest.

Strangler Fig trees.

How has this plant adapted to survive in the rainforest?

There is little light in the shrub layer and under canopy, so to help them to get to the light faster, young strangler figs wrap around a mature tree and grow up it. They block out light from their host tree and steal its nutrients. The strangler fig eventually encases its host, which dies and rots away.

Name an animal that is found in the rainforest.

Spider monkey

How has this animal adapted to survive in the rainforest?

Spider monkeys have long, strong tails, legs and arms, which help them to climb up to the canopy and emergent layers to access the many fruits. They can also move quickly through the treetops to avoid predators.

How can the rainforest be managed sustainably?

1. Selective logging to allow young trees to continue to grow and provide habitats.
2. Replanting trees
3. Educating locals and also consumers to help them to choose sustainably sourced products
4. Ecotourism to provide employment while protecting the forest and educating visitors
5. International agreements to set targets for reducing deforestation, including debt reduction deals in return for protecting rainforests.

What effect does deforestation have on the rainforest, the animals and the people that live there?

- Loss of plants that could potentially have been used to develop new medicines
- Loss of habitats which could lead to loss of species which could go extinct
- Loss of a carbon sink as trees extract CO₂ from the air and produce O₂
- Disruption to the water and nutrient cycles
- More soil erosion as there is less interception of the rain by leaves and branches, and less roots to hold the soil together
- Local people could lose their source of jobs, their food and their homes.