

Rainforest features

Imagine the rainforest is like a high-rise city. Some plants and animals have found that life at the top is just great! There's plenty of sunlight, fresh air and water on tap. The canopy is like another world. Its interlocking trees and leaves form a vast platform in the sky. From the air it looks like a giant broccoli.

Large branches are often covered with ferns, orchids and other epiphytes. These are plants which grow on other plants without damaging them.

Some trees - like kauri pines - grow through the canopy and tower over the rest of the forest. They are called "emergents".

Other plants have got used to living in the moist, gloomy world of the understorey. They include tree ferns, palms and the children of giant rainforest trees. These seedlings survive as dwarfs on the forest floor, and some maybe more than 20 years old. When the rainforest is disturbed by cyclones, landslides, bushfires or humans clearing trees, the result is a gap in the canopy. The sunlight that reaches the ground provides the energy for a growth spurt. The race to the top of the canopy begins!

At first, they're often beaten by pioneer plants like bleeding heart and stinging trees. Their big heart-shaped leaves fill the sunny spots and they quickly produce flowers and seeds. But as the pioneers die, they'll be replaced by the slow-growing rainforest seedlings which eventually reach the canopy, blocking out the light again.

Seedlings aren't the only plants taking advantage of sunlight coming through the gap in the canopy. No plants race more ferociously than the vines. They hoist themselves up other trees to the roof of the forest. They twist, twine and grapple their way to the top, sometimes smothering and even killing the trees that help them.

Down on the ground, tonnes of leaves and branches fall each year from the rainforest canopy. If it wasn't for the rainforest's very own recycling team there'd be piles of debris metres high and we wouldn't be able to walk around. Members of the recycling team include beetles, fungus, millipedes, worms and micro-organisms we can't even see. They break down whole trees into nutrients so that living plants can grow and reproduce. Nothing is wasted in the rainforest!