

# The Magic and Mystery of Trees

By Jen Green

What is  
a Tree?





A tree is a huge plant that towers above us. You'll find trees standing alone in back gardens or clustered together in thick forests.

Trees are true wonders of nature. Some species can grow taller than a stack of 50 cars one on top of the other! Trees can live for hundreds of years, and the very oldest are thousands of years old.





Every part of a tree works together. From the deepest roots that burrow through the earth to the smallest leaf on the highest branch, every part of a tree is working hard to help it survive.

When you get to know these silent giants, you'll never look at trees the same way again ...





Where in  
the World?





From rocky coasters to lush valleys, trees are found almost everywhere. Forests are places where many trees grow together.





## Forest Types

There are three main types of forests: broadleaved forests, conifer forests and rainforests. Each of these forests is made up of different types of trees.







Broadleaved forests  
grow in parts of  
North America and  
Europe with mild  
climates.







A huge conifer forest stretches across northern North America, Russia and Northern Europe. These places have long, snowy winters.







The biggest rainforest in the world is the Amazon in South America. Tropical rainforests grow close to the Equator, around Earth's middle, where it is very hot all year round.







Canada's most famous trees, the maple, produces maple syrup.







The world's tallest trees, redwoods, live in western North America.







Monkey puzzle  
trees grow in  
Chile, at the tip of  
South America.







Eucalyptus, or gum, trees grow in Australia's dry forests. The keep their leaves all year round.







Kauri pines live  
only in New  
Zealand. They  
can get very old  
and large.







Forests cover  
almost a third of  
Earth's dry land.





# How Trees Live

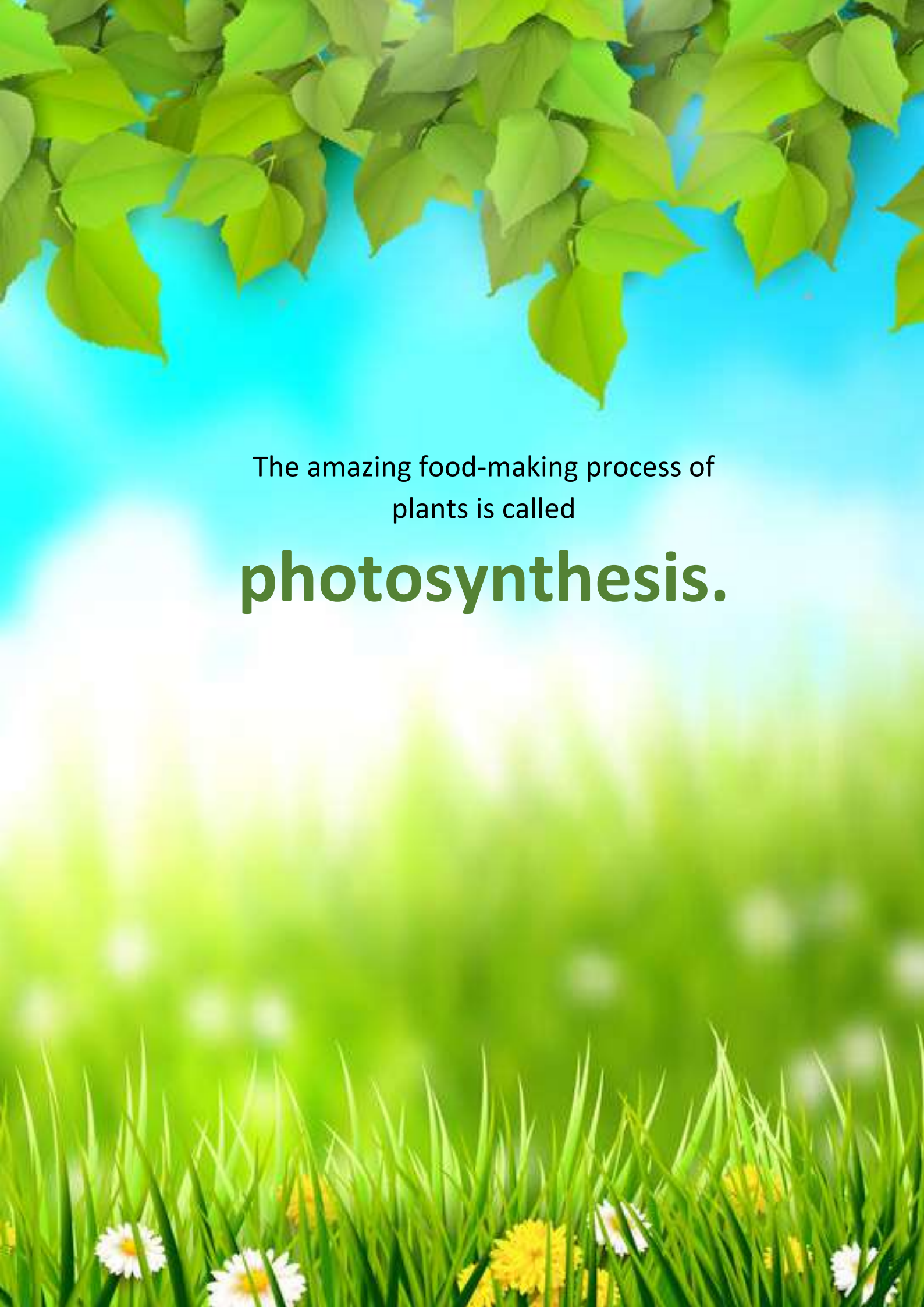




You've never seen a tree eat a bowl of noodles or a peanut butter sandwich, so what do they eat? As long as it has sunlight, water, and a gas called carbon dioxide, a tree can live, grow and even make its own food!







The amazing food-making process of  
plants is called  
**photosynthesis.**



## Mealtime

A tree's green leaves soak up light from the sun. Then they use energy from the light to mix carbon dioxide and water. This makes a sugary liquid called sap, which is the tree's food.





## Summer Day

Broadleaved trees only make food in spring and summer because there is more sunlight. They lose their leaves in the autumn. Conifers can have leaves or needles. They keep making food throughout the winter.





## Making Oxygen

While they are busy making sap, the tree's leaves give off a gas called oxygen. All animals, including us, breathe in oxygen and breathe out carbon dioxide. If there were no plants such as trees, we wouldn't have air to breathe.





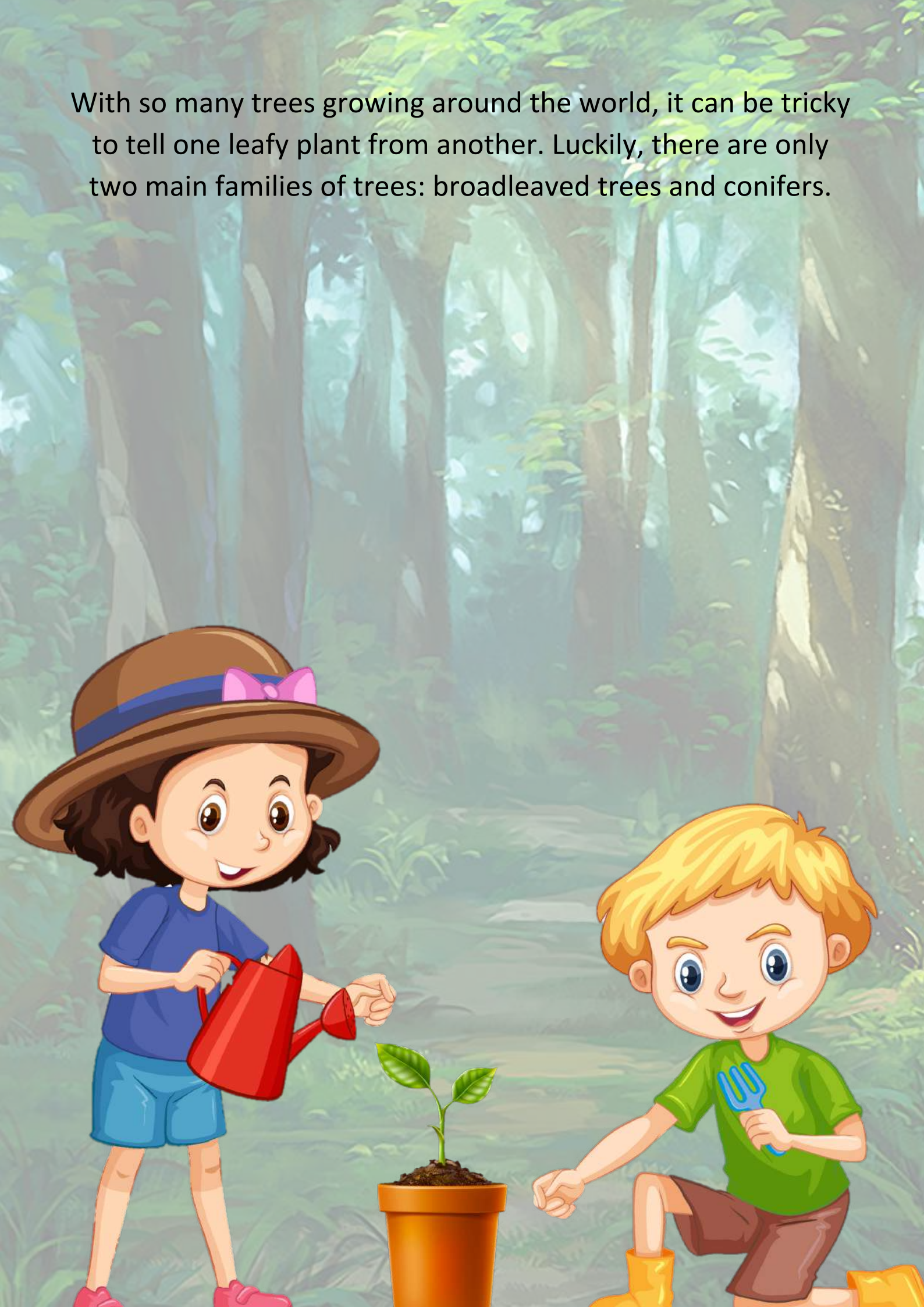


# Types of Trees





With so many trees growing around the world, it can be tricky to tell one leafy plant from another. Luckily, there are only two main families of trees: broadleaved trees and conifers.





## Broadleaved

These trees have wide, flat leaves. They all make flowers, although some are almost too small to see. Their seeds ripen inside juicy fruits such as plums or figs. Most broadleaved trees drop their leaves in autumn and grow new ones in spring.



Oak Leaf





## Conifer

These trees have long, thin leaves called needles. Many conifers are called evergreens because they keep their leaves all year round. Conifer seeds are found inside hard, knobbly cones, such as pinecones.



Pinecone





The leafy part of the tree above the trunk is called the crown.  
It comes in different shapes. Many broadleaved trees are wide and round, while conifers are often shaped like cones.





## Round

The branches of a round tree spread themselves evenly upwards and outwards from the trunk.



Oak Tree





## Broad

The branches of a round tree spread themselves evenly upwards and outwards from the trunk.



Maple Tree





## Spreading

These trees have branches that grow up and out to create a spreading shape.



**Banyan Tree**





## Oval

Oval trees have a rounded shape that is taller than it is wide.



**Hornbeam Tree**





# Palm

Palms are broadleaved trees that grow in hot countries.  
Unlike other trees, they don't grow side branches.



**Coconut Palm**





## Tall and Thin

Some trees have closely packed branches that grow upwards. Many conifers are tall and thin.



Cypress





## Cone

A cone-shaped tree's branches get shorter as they grow up the trunk, ending in a pointy tip.



**Spruce Tree**





# Weeping

A weeping tree has branches that droop downwards.



**Willow Tree**







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