

All
this from a
tiny acorn.

Oak

There are over 460 species of oak tree. Although they can grow in all kinds of habitats, for the most part, oaks are native to the northern hemisphere. Oaks can grow to over 40 metres high, and may live for 1,000 years.

Acorn
Catekin
Leaf

The oak is tall with a strong trunk and wide crown. Its bark is tough, and as important to a tree as skin is to you and me.

Many woodland oaks are deciduous trees, which means they drop their leaves in winter. Leaves aren't all they drop! Acorns fall in autumn when the woods are amber and bronze. Each is packed with everything a spring seedling could need.

Spark Leaflings treat any damage done to the bark of their tree. Trees are sensitive, even wrinkly old oaks, but they can also renew their bark as they grow.

Druids

In ancient Celtic times were the keepers of wisdom and knowledge. The word 'druid' means 'oak knower'.

A tree's bark protects it from harmful insects and fungi and also keeps the wood from drying out. Trees are around 50 per cent water (humans are 60 per cent).

I love hanging out!

A Tree of Life

From crown to root, the oak is teeming with life - particularly bugs! A single oak can house hundreds of species of insect - not all welcome guests.

Woodpeckers

Drill into trees when building their nests, and also to find and eat wood-boring insects. Mostly they favour dead wood, so leaflings don't mind them.

Using their long snouts, acorn weevils drill into an acorn to lay their eggs. Lane and Will are Shield Leaflings, and they must see to it that enough acorns grow into young trees. Acorns containing weevils will rot, so Shield Leafling, BEWARE!

The stag beetle lays its eggs in the dead wood of old oaks, and its larvae (young insects) eat up and break down the wood, turning it into soil for new trees.

In England there are more than 3,000 ancient oak trees, which are aged between 400 and 1,000 years. Ancient oaks are not the tallest oak trees, but in most cases they are the fattest. The Keeper Leafling of ancient oaks often have a similar appearance!

Acorn season!

Cook leafling house

Will
Rodgers, jays and squirrels eat the acorns.

Oscar

is a Minder Leafling and he knows the importance of the acorns to forest critters. Squirrels are known for hiding or caching acorns to recover later. Sometimes Minder Leaflings play hide-and-seek with the squirrels' acorns.

Now close your eyes and count to 100!

I'm feeling a bit peckish myself!

FLANN NOII

There is an ancient oak in Louth called the 'Beehive Oak'. In the year, the Square of the Beehive had a sit-down dinner for 50 guests in the hollow trunk of the tree. It is thought to be between 800 and 1,000 years old - one of the oldest trees in Europe.

Tree Talk

Trees have much to say and, like humans, they have more than one means of keeping in touch. It is up to Link Leaflings like Flann to keep the lines of communication open.

Trees in a forest, trees in a city park, even those in your garden are connected via a network of roots and fungi that has become known as the wood wide web.

Much scientific research is being done into the inner life of trees and into how they sense the world around them. Maybe leaflings have been listening to their voices since the first trees appeared on Earth.

shhh

snap!

pop!

rustle

creek

whisper

ping!

Listen carefully. Can you hear it? Tree talk.

Parent trees use the wood wide web to nurture their saplings, feeding them with a thick sweet liquid called glucose. Meanwhile, wise old trees that appear no more than hollow stumps are fed water and nutrients via the same network, and kept alive.

Trees look after their babies just like leaflings do!

Sometimes dying trees send nutrients to healthy neighbours. Leaflings know that together, trees are stronger. It is the same for leaflings.

Even when there is no danger, the web is abuzz with tree conversation as all manner of information is passed from tree to tree. In fact, the social life of all plants, it seems, is far busier than humans had presumed.

Aphid attack! Sound the alarm!

What are aphids? Little sap-sucking bugs!

In times of trouble, the wood wide web acts as an alarm call, so that other trees can prepare their defences.

You'll never believe what he told me...

Trees' voices are not like our own. Most of the sounds that trees produce are either too low or too high for our ears to pick up without the aid of listening instruments. Next time you are among trees - in a garden or in a forest, think of the fizzes, hummings, cracklings, harrings and clicking sounds that are just out of the reach of your senses.

What gossip and chatter might you be missing? The leaflings know. Perhaps they'll let you in on the conversation?

chatter

fizz

fizz

snap!



Baobab

In Africa, the baobab tree is known as the 'tree of life', and baobab leaflings know a thing or two about surviving. They are among the longest lived leaflings on Earth.

There are six species of baobabs on the island of Madagascar, off the coast of East Africa. Nya's tree is a Granddier's baobab, and it is one of the trees that line Madagascar's famous Avenue of Baobabs.

Baobab leaflings are tough cutters, and their trees are tough too, made to withstand drought, fire and termites. But there are modern threats to their survival, especially the clearing of forests for farmland.

The baobab tree is a native of Madagascar and West and Southern Africa. It is the largest succulent plant in the world, reaching up to 30 metres. It can live for up to 2,000 years.



The baobab puts the 'back' into succulent! A succulent is a plant that has adapted to store water, and the baobab's trunk can store thousands of litres. Humans can't access this water, but the tree's fruit is one of the most nutritious on the planet.



A Tree of Stories

With its strange upside-down appearance, great strength and size, is it any wonder the baobab is at the heart of so many African legends?

Trees in Love



The Hyena and the Baobab

A baobab tree is so tall that God promised each animal with a special gift.

Not far from there are among the best together, they are called the (baobabs in love).



Isiti

Madagascar is home to about half the world's species of chameleons. Just like a chameleon, Nya, a Minder Leafling, is an expert at blending in.



Mouse lemurs do have very large and peculiar eyes - spooky! Not to leaflings though.



The blossom leaflings on the Madagascar baobabs have the tree's foot-long flowers, and they must work at night, because the baobab is pollinated by nocturnal mouse lemurs, bats and moths.

FLANN NOTE

The Latin 'lemurs' means ghost and in Madagascar lemurs are associated with spirits - perhaps because they are active at night.



CLICK HERE

CLICK HERE

Coast & Giant Redwood

Standing tall, redwood or sequoia leaflings seem to look down on the leaflings of other trees. Even the leaflings of the coast and giant redwood can be standoffish with one another.

Beth tribes are impressive, but coast redwood leaflings are the tallest leaflings of all.

Being giants in leafling terms, you'd think the redwood leaflings wouldn't be hard to spot. Well, think again: in trees so tall, it's easy to hide.

Ah, there you are, Flann. I almost tripped over you!



How's the weather up there?



Leaf



Cones

Coast redwood grow along the Pacific coast of North America, while giant redwood are found in the Sierra Nevada mountain range, 300 kilometers to the east. Both conifers grow to heights of 90 meters and more and can live for thousands of years. Coast and giant redwoods are named for their pinkish-red wood. They are also called sequoia trees.

The tallest tree on Earth, a coast redwood, grows in Redwoods National and State Park, California, but its exact location is kept secret. It was discovered in 2006 and is named Hyperion. It stands a whopping 116.07 meters tall — about six storeys taller than the Statue of Liberty.

Walking among these great trees as the fog rolls in, it can feel like you're alone. Of course, there are leaflings above you, but the redwood forests are a habitat for all sorts of other creatures, though they can be a little shy.

Cambium layer
This produces bark and supports so that the tree grows wider.

Outer bark
This thick layer acts like a shield.

Inner bark or phloem
This moves sugar from the leaves to the rest of the tree.

Heartwood
Found at the centre of the tree. This is old wood, and it makes the tree stable and strong.

Sapwood
This delivers water from the roots to the rest of the tree.

Each ring shows a year of growth.
How old is this tree?

CLICK HERE

Hoo-hoo
Hoo-hoo



Hoo-hoo
Hoo-hoo

