


The
Secret Life of
TREES



words & pictures



*My arms stretch out all day long.
I can be climbed,
but I'm not a mountain.
What am I?
I am Oakheart,
the oldest tree in the forest!*



Dear Reader,

I do love riddles. After all, I am hundreds of years old and I know so very many of them. Did you know that I was born when people carried swords and galloped on horseback through the forest?

I have seen countless years bloom, flower and fall, so I have a store of tree secrets to tell. A few of them are my own, such as how I was born, how I grew and how I made my leaves. Others I have heard on the wind, and some were whispered to me by my friends the animals. They are very fond of magical stories and they have heard many on their travels. They know I love to hear them tell of tree wizards, dragons and fairies as they nestle in my branches.

Read my book and one day, perhaps, your fingers will touch tree bark like mine and feel its lines, like a map of time. You will know the stories of my kind, and I hope you will help to care for us, little human.

The knowledge of trees is my gift to you.

Oakheart the Brave





WHEN I WAS BORN

A forgetful mouse and a lucky escape


I was once a seed hiding inside a tough brown coat – a tiny acorn sitting in a cup.

One day it was time for my parent tree to part with me, so I fell from its branch.

Some tree seeds are blown to other parts of the forest by the wind. Some are eaten by birds and fall later in their droppings. Me? I was stolen by a mouse!


As I lay on the ground, the mouse picked me up in her tiny paws and ran. Then *scribble, scrabble*, she dug a hole in the soil and hid me, thinking to come back and eat me later on. It was a close call. Luckily for me, my mouse wasn't the brightest furry beast in the forest, and she soon forgot all about me.



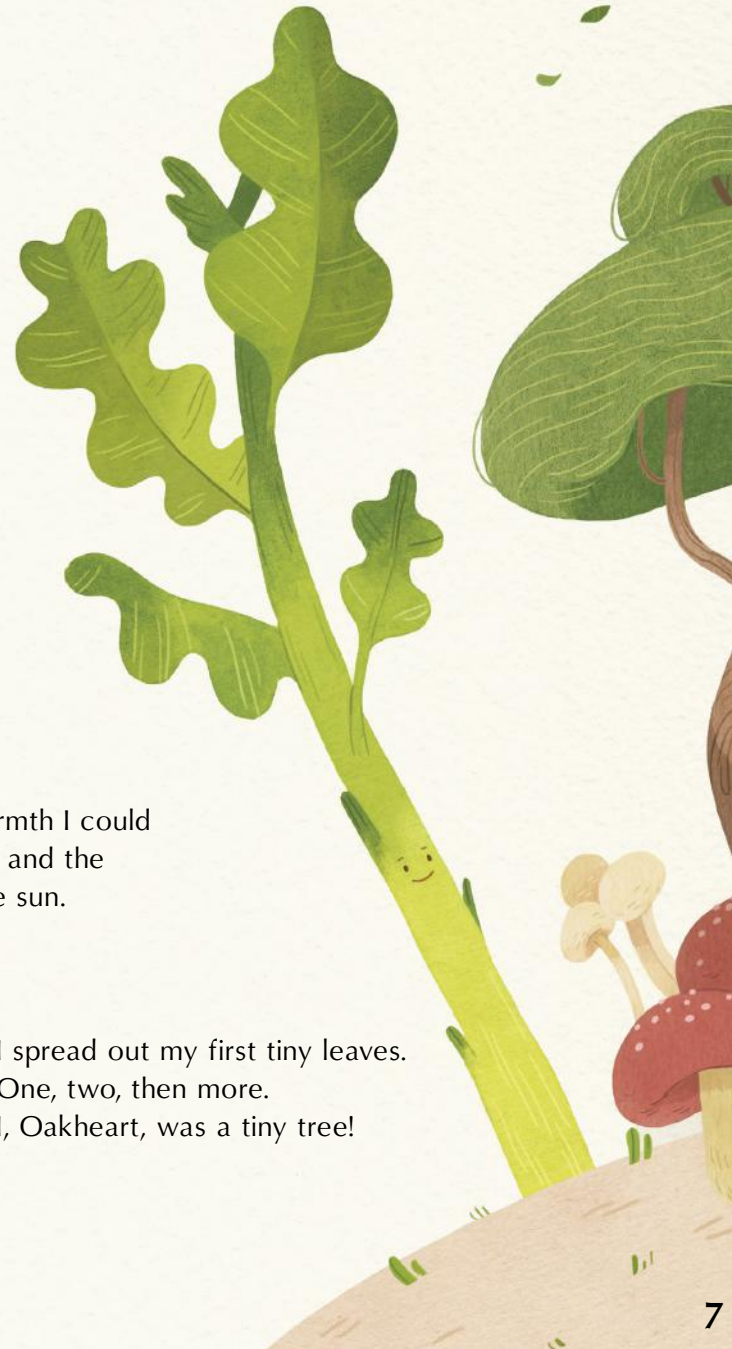


I was warm and cosy in my blanket of soil,
and I had food with me inside my nut.

After a while I sent out a tiny root,
very thin at first. It was a taproot that
helped me to drink water and nutrients
from the ground.



Then I sent out a shoot, up and up towards the warmth I could
feel above me. Up and up I grew, through the grass and the
leaves littering the forest floor, until at last I saw the sun.



I spread out my first tiny leaves.
One, two, then more.
I, Oakheart, was a tiny tree!



THE BANYAN SEED

A tree tale from India

Two funny friends and a marvellous miracle

Meet my friend Tiny Bird. She has built a nest in my branches these past two summers, and tells me tales heard on her travels. When I explained to her how I began as a seed, she told me this seed story. Oh, and you should know that some trees have their seeds inside nuts, like I do, some have their seeds in cones, and others have seeds inside fruit, like the tree in this story.

In India there is a wonderful type of fig tree called the banyan. It's unusual because its roots drape down to the ground from high in its branches. It's a perfect place to shelter from the rain and sun, and for finding tasty sweet figs, too. Those who know the banyan value it greatly as a wise tree that can teach us many lessons about the world.

One day a monkey and an elephant met beneath a giant banyan tree. They sat resting happily in the shade of the roots, munching delicious figs.

"What an amazing place this world is," sighed the monkey. "It's full of miracles. I believe that anything is possible here."

"Not ANYTHING," scoffed the elephant. "I couldn't float over this tree, could I? You couldn't fly over it, could you? Really, Monkey. Be sensible."



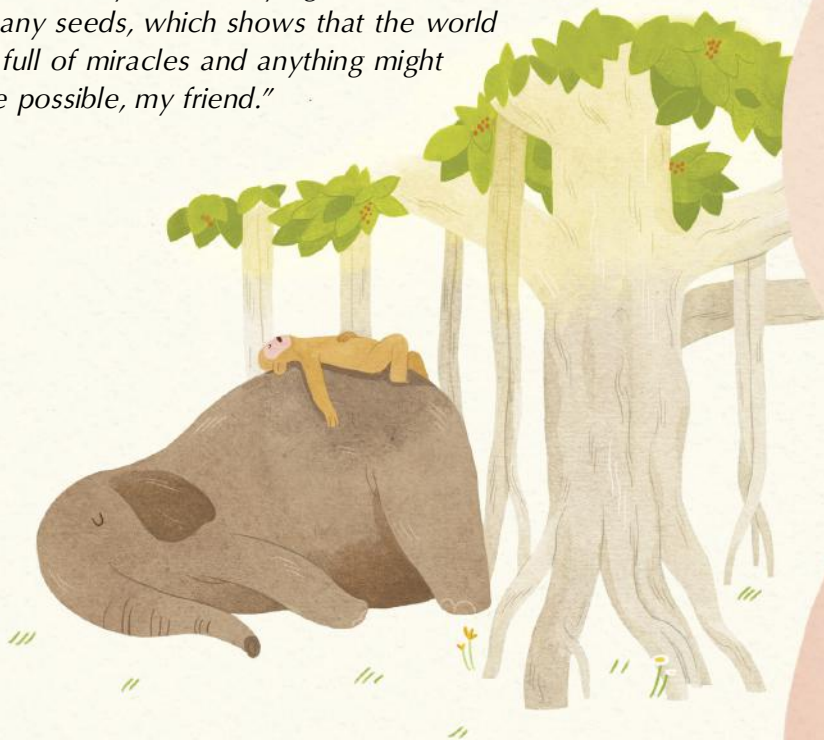


The monkey picked one of the figs from the banyan tree and pulled it open. Inside there were lots of tiny seeds, hardly bigger than specks.

"Inside just one of these seeds there is a mighty tree waiting to grow. Do you agree?" she asked.

"Yes. It's incredible when you think about it," nodded the elephant.

"It's a miracle, right here in front of us," replied the monkey, "and every fig on this tree has many seeds, which shows that the world is full of miracles and anything might be possible, my friend."



Then the monkey and the elephant snoozed the afternoon away beneath the wise old banyan, and the elephant dreamt that he could float and the monkey dreamt that she could fly.

Nuts are seeds that come from trees around the world. Do you like eating them?



Brazil Nuts

Next time you eat a fruit from a tree, see if you can find some seeds inside.



Apple Seeds

Some trees' seeds are inside wing-shapes, so they can blow away on the wind and find a new place to grow.



Winged Maple Seed

Some trees make their seeds in cones that ripen, burst and scatter the seeds all around.

Pine Cone



HOW TO FEED A TREE

A leafy recipe and some counting squirrels

What flutters but isn't a flag?

What falls but isn't water?

A leaf!

My leaves make me the food I need.



Oakheart's dinner recipe

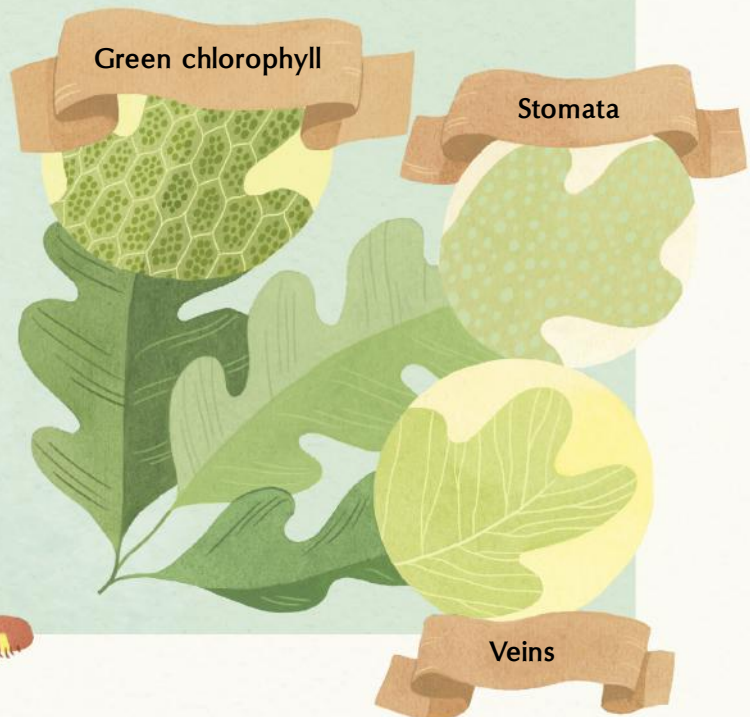
(not for humans!)

If you want to make something yummy to eat you need a recipe. We trees have a recipe for our food, too, though it's not like yours. It's a kind of sugary mixture that helps us grow and stay alive. All the things we need to make it are in our leaves.

Ingredients

- **A green chemical called chlorophyll** (*clor-oh-fill*)
It makes my leaves green and helps them to soak up sunlight.
- **A gas called carbon dioxide**
My leaves soak it up from the air, through tiny holes called stomata (*stow-ma-ta*).
- **Water**
It comes all the way up from my roots in the ground. Tiny veins carry it around inside my leaves.

My leaves use the carbon dioxide, the water and sunlight soaked up by my chlorophyll to make sugary food. This mixes with more water and flows through my leaf veins. Any water that I don't need goes out through the stomata in my leaves into the air around me, along with a gas that I make called oxygen. That's a gas that you humans breathe. I'm glad I make some of it for you. Altogether, my food-making is called photosynthesis (*foe-toe-sin-the-sis*).



I am an old oak tree now. I think I have been alive for 500 years or so. Imagine! Every year since I grew tall I have made around 200,000 leaves. My friends the squirrels are good at numbers, and they worked out that I must have made about 100 million leaves altogether in my life. They asked me if I was tired, but I'll be fine for many more years, as long as I keep making my food.

