HELPING TREES
CAMBRIDGE CANOPY PROJECT

AN EXPLORATION OF CAMBRIDGE'S URBAN FOREST

With the CAMBRIDGE CANOPY PROJECT

"The tree in front of my home is a word, the trees on my street are a sentence, the trees in my neighbourhood are a paragraph, and all the trees in the community are a story.

That story tells us about our relationship to nature, past and present. The future of this story lies in the hands of all residents."

Greg McPherson, USDA Forest Service

CAMBRIDGE CITY COUNCIL

PROTECT A TREE

#camtrees #camcreativepacks

Urban Forestry:

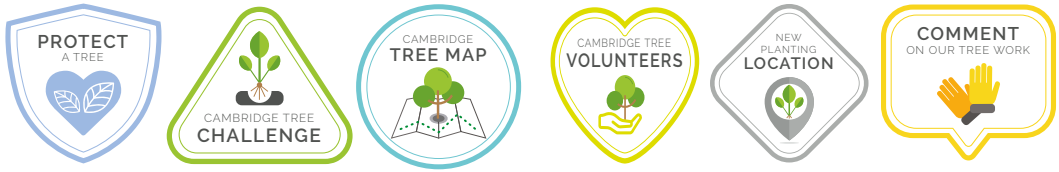
The art, science, and technology of managing trees, forests, and natural systems in and around cities, suburbs, and towns for the health and well-being of all people.

The Dictionary of Forestry (Helms, 1998)

"All residents, visitors, and other community members in Cambridge have their part to play in the story of our Urban Forest. You can contribute a few words to the story by helping us to manage the city's trees and by planting one in your garden!"

Dr Matthew Ling, Cambridge Canopy Project

The Cambridge Canopy Project has been established to help grow our urban forest. It is part of the Interreg 2 Seas Programme 'Nature Smart Cities Across the 2 Seas' project. The main aim of the project is to increase tree canopy cover in Cambridge by 2% by planting more trees and giving our existing ones better protection.



EXPLORE CAMBRIDGE'S URBAN FOREST WITH US AND HELP TO MAP, PLANT AND CARE FOR THE CITY'S TREES.

The Cambridge Canopy Project uses an 'Urban Forestry' approach to manage the city's trees as a continuous single population. By considering all the trees in Cambridge as a single unit, regardless of who owns them, we seek to maximise the social, environmental, and economic benefits they provide. By considering the cumulative benefits supplied by the entire tree population across towns and cities in this way it is possible to measure and manage the impacts on and influences of our trees on processes such as climate change and biodiversity.

To manage our urban forest well, we have to think carefully about its make-up and structure. This means planning what species are planted where so that the benefits they provide are maximised. Some species will grow better than others in certain locations, some will grow larger than others, and some will provide more shade for example. There are many factors to think about; that is why the Cambridge Canopy Project is working hard to plan exactly where each of the 2,000 new trees it is planting will go.

We currently have 17% tree canopy cover

We are aiming for 19% tree canopy cover by 2050

2% tree canopy cover is more than it sounds! It means going from 696 hectares to 778 hectares of Cambridge being covered by trees.

That's equivalent to about 120 football pitches worth of tree cover!

www.cambridge.gov.uk/help-us-manage-the-citys-trees

Trees give us oxygen, store carbon, stabilise the soil and give life to wildlife. They give us food, shelter, beauty and happiness, they reduce stress, tell the story of traditions and folklore, and they provide us with the materials for tools.

THE CAMBRIDGE CANOPY PROJECT IS PREPARING OUR CITY FOR A CHANGING CLIMATE BY GROWING OUR URBAN FOREST - AND WHEREVER YOU LIVE AND WHATEVER AGE YOU ARE - THERE ARE LOTS OF WAYS YOU CAN HELP AND BECOME A

TREE HERO !

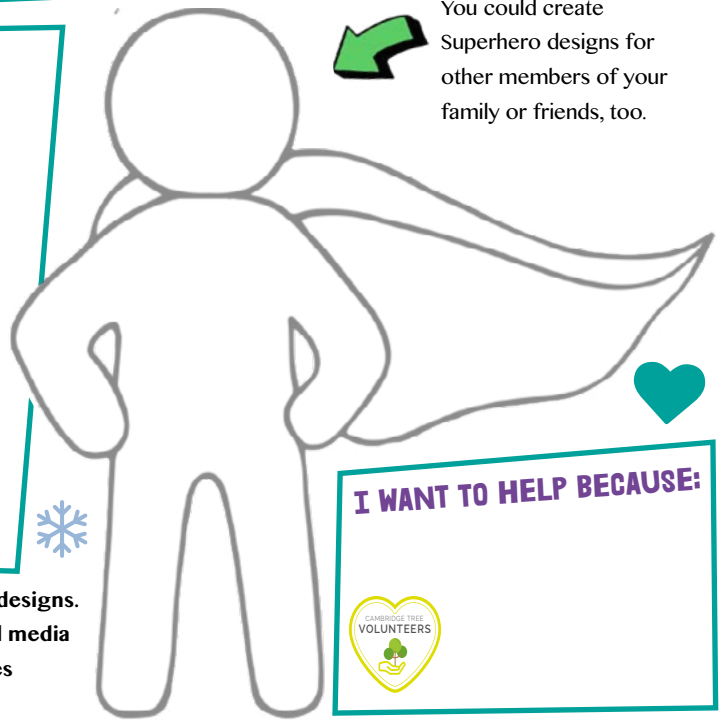
PROTECT A TREE

MY TREE HERO NAME IS:

.....

MY TREE HERO SUPER POWERS ARE:

Design your Tree Hero. You could create Superhero designs for other members of your family or friends, too.



I WANT TO HELP BECAUSE:

CAMBRIDGE TREE VOLUNTEERS

We would love to see your designs. Please share them on social media with the hashtags #camtrees and #camcreativepacks

This booklet will help you discover more ways to protect trees and become a Tree Hero - keep adding to your list of powers and the reasons you want to help - you may even need another sheet of paper!

Create a Tree Journal. Start by choosing a tree in your garden, your street or a park you like to visit and recording it below...

MY URBAN TREE

TYPE OF TREE:

AGE OF TREE:

LOCATION:

MINIBEASTS FOUND:

NOTES:

TREES ARE SUPERHEROES TOO!

Your tree is helping to save the planet! Think about what it is doing for us, for wildlife and the environment. Can you make a thank you card for your tree? Maybe you could photograph the card with your tree; tie it to the tree or display it in your window, and share it by using #camtrees!

HOW TO RECORD YOUR TREE

- Draw your tree in the box. Where abouts is it?
- Draw or collect a leaf to help you identify the tree.

You could create a leaf rubbing to add to your drawing. Put the paper on top of a leaf and rub over it with a crayon. You can do the same against the trunk to create a bark rubbing.

There's a tree guide at www.treezilla.org, and lots of information on www.woodlandtrust.org.uk where you can also download a free British Tree Identification app.

- Draw and list any minibeasts you find (do the 'Shake A Tree' activity that is in this booklet).
- How old is your tree? ('Age a Tree' - also in this booklet.)
- Watch and record any other creatures you see visiting or living in the tree. Add them to your drawing.
- Can you add any other notes to the description?

DID YOU KNOW...

- **Cambridge, despite being a city, is actually also a forest?** The Food and Agriculture Organisation of the United Nations classify forests as a connected area with more than 10% tree canopy cover. Cambridge already has 17% tree canopy cover! The aim of the Cambridge Canopy Project is to grow this cover to 19% by 2050.

YOU CAN HELP BY PROMOTING THE MANY AMAZING VALUES OF TREES, HELPING US TO MANAGE THE CITY'S TREES, AND BY PLANTING TREES IN YOUR GARDENS OR ASKING YOUR SCHOOLS TO PLANT IN THEIR GROUNDS!

- **Trees are vitally important for supporting wildlife, especially in our towns and cities which are often disconnected from the countryside and have relatively little green space and few natural features.**
- A single mature oak tree can provide shelter and habitat for 500 other species.

TELL THE STORY OF A TREE

You will need:

Paper and a pencil or pen. Your imagination.

What do you think the tree in your garden, street or park has experienced during its lifetime? What do you think it would tell you? What has it seen and heard? What has lived in it? How has it been used? What are its memories and its hopes for the future? Write a poem or story about the tree. Be as fantastical as you like! Decorate the page with leaf rubbings, bark rubbings, and drawings of the tree and what lives in it. We would love to read it.

Please share your story on social media with the hashtags #camtrees and #camcreativepacks

ADD TO THE CAMBRIDGE TREE MAP

Help us to record, understand and protect the trees we have in Cambridge. Add any trees you identify to the map at **www.curio.xyz** or download the **Curio-xyz** smartphone app.

Find out more at **www.cambridge.gov.uk/help-us-map-the-citys-trees**

SHAKE A TREE

HOW MANY MINIBEASTS CAN YOU FIND?

You will need:
A white sheet or paper

You may also want:
A magnifying glass
A clear container
Pencils or pens and paper

- Find a tree or bush with some low hanging branches and lay your sheet or paper underneath.
- Shake the branch or gently hit it with a stick once. Don't be too rough! You don't want to damage it.
- Look closely at some of the minibeasts you have found (you could gently put them in the container using the paintbrush to see what you've got). Make notes and sketches to help identify each minibeast.

How many legs does it have?

Does it hop, run, walk or crawl?

Does it have wings?

Note it's colour, size and any markings.

- Remember that, to the bugs, you're a GIANT. So be gentle and don't hurt these tiny creatures. Put them back carefully as soon as you've had a look.

Use an ID sheet if you want to go into a little bit more detail.

Search for 'Shake A Tree' on **www.rspb.org.uk** for more information and minibeast ID sheets, as well as lots of other activities and games.

DID YOU KNOW?

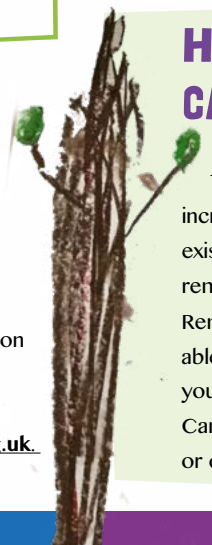
- The science of studying insects is called Entomology. 'Entom' is the insect bit and 'ology' means 'the study of'.
- Flowering trees are a vital source of nectar for insects like butterflies, hoverflies, bumblebees, and honeybees. Trees are often in flower at different points of the year to other flowering plants, providing important early and late season nectar for pollinators. Urban trees also act as vital 'pit stops' for some pollinators that travel long distances – helping to connect urban populations to the surrounding countryside.

HELPING TREES TO HELP NATURE
CAMBRIDGE CANOPY PROJECT

DID YOU KNOW?

- Trees provide physical shelter for insects, birds, and mammals like squirrels, dormice, and bats.
- Trees are an essential source of food. Leaves are eaten by insects and large mammals like deer. Fruit, nuts, and seeds are eaten by insects, birds, and mammals – including humans!
- Deadwood is an important source of food and habitat for insects like beetles.
- Twigs are used by birds for nest building, and leaves are used by hibernating mammals like hedgehogs.
- Hollows and crevices beneath bark or where branches have fallen off provide nesting holes for woodpeckers and tree creepers, and places where bees and hornets can make nests.
- Trees provide structure for other plants like ferns, and mosses, lichens, and fungi to establish upon.

Illustrations by children at Histon Early Years Centre, courtesy of Cambridge Curiosity and Imagination. To discover more of their work and develop your own curiosity and imagination as you explore your environment, visit **www.cambridgecandi.org.uk**.



TREE AGE

HOW TO CALCULATE THE AGE OF A TREE

If a tree has been cut you will be able it see it's 'growth rings.' They appear as alternating rings of dark and light shaded wood. You can find out the age of a tree by counting the number of dark rings.

For example, if a tree has 65 dark circles, it is 65 years old. The growth rings are created every year when a brand new layer of wood is added to the branches and trunk(s) of the tree.

You can also estimate the age by measuring the girth (or circumference - the measurement around the trunk) of a living tree. Use a tape measure or piece of string to measure around the trunk at about 1 metre from the ground – measure to the nearest centimetre. Roughly, every 2.5cm of girth represents about one year's growth. So to estimate the age of a living tree, divide the girth by 2.5.

Different species grow at a different rates. For a more accurate calculation, identify the type of tree and put the measurements into the 'Tree Age Calculator' on **www.tree-guide.com**.

HOW DO WE MEASURE TREE CANOPY COVER?

With another simple calculation of course!

Total Tree Cover = (existing tree cover + tree cover increases from newly planted trees + growth of the existing tree cover) - tree cover loss from damage, removal, or death.

Remember we need YOUR help to be able to do this: please add trees in your garden or neighbourhood to the Cambridge Tree Map at **www.curio.xyz** or download the **Curio-xyz** smartphone app.

CAMBRIDGE TREE MAP

A VISION FOR THE FUTURE

TO CREATE A BETTER FUTURE, WE NEED TO BE ABLE TO IMAGINE IT...

IMAGINE CAMBRIDGE IN THE FUTURE, WHAT WILL IT LOOK LIKE?

WE WILL NEED MORE TREES AND NATURAL FEATURES...

Draw your vision here:

- Begin with a simple pencil drawing of an outdoor space you know, like your street, garden, or park.
- Transform your drawing into a colourful representation of the world you would like to see in the future.

Be inspired by the spaces that wildlife has created for itself.
How can we include this design in our spaces?

How will we all get our food?

How will we live, work and play?

How will we work, travel, learn and relax?

- To create a 3D model, gather together all sorts of materials (like recycled containers, paints, crayons, pipe-cleaners, fabric scraps, or whatever you have at home) to create a collage or 3D model.

"We need to think less NIMBY (Not In My Back Yard), and more SWIMBY (Something Wonderful In My Back Yard)"

Rob Hopkins
Author of
'From What Is To What If?'

Please share your vision on social media with the hashtags #camtrees and #camcreativepacks

Artwork created by families at the World of Tomorrow workshop, at the Museum of Zoology.

Biophilia:
Love of living things and nature, which some people believe humans are born with. The inborn affinity human beings have for other forms of life.
The Cambridge English Dictionary

FIND OUT MORE:

- This workshop was first delivered at The Museum of Zoology in Cambridge in partnership with the Cambridge Conservation Initiative.
- For more wildlife news, activities and crafts from the museum, visit **museumofzoologyblog.com**.
- Find out more about the Cambridge Conservation Initiative at **www.cambridgeconservation.org**.

Forage:
To go from place to place searching for things that you can eat or use
Cambridge English Dictionary

FORAGING: FOOD FOR FREE!

FROM BLACKBERRIES, APPLES AND BEECH NUTS - SO MANY AND CHERRIES, TO WALNUTS FIGS, ACORNS CAMBRIDGE TREES GIVE US FOOD FOR FREE!

Search for Cambridge on www.fallingfruit.org to find the location of trees on public land in and around the city.

- Elder flowers and berries for cordial, syrups and wine
- Apples
- Pears
- Plums
- Greengages
- Hazel/cob nuts
- Cherries
- Beech leaves
- Lime leaves
- Chestnuts
- Acorns and beech nuts
- Haws
- Rowan berries
- Whitebeam berries
- Sloes
- Walnuts
- Figs
- Blackberries

Blackberries are ideal for making jams, puddings, wine, tarts, gin, muffins and syrup and there are plenty of places to pick them around Cambridge - particularly around Coldham's Common, along the River Cam and King's Hedges Road.

MAKE BLACKBERRY COBBLER

You will need:
115g butter, melted
200g caster sugar
125g self-raising flour
180ml milk
300g fresh blackberries

Method:
- Preheat oven to 180°C / Gas mark 4.
- Pour the melted butter into the bottom of a 20cm square baking tin.
- Mix the sugar, self-raising flour and milk together until moistened; pour the mixture over the butter. Do not stir.
- Spread blackberries evenly over the batter.
- Bake in a preheated oven until the top is browned and the cobbler is bubbling (about 45 minutes).

DID YOU KNOW?

The Beech is known as 'the queen of British trees', and the ancient Greeks believed that beech nuts were the first food eaten by humans.

FOR TIPS AND RECIPES:

Search 'foraging' on **www.woodlandtrust.org.uk** for a monthly guide to what to look out for, identification and recipes.

ELDERBERRY CORDIAL

You will need:
Bucket of elderberries
Granulated sugar
Cloves

There are two great elderberry recipes on the Cambridge Carbon Footprint website - search for 'elderberry' at **www.cambridgecarbonfootprint.org**
There's also a good sloe gin recipe for the grown ups!

APPLES!

There are also apple trees growing on common land around Cambridge. Some of these may originally have been from Chivers orchards, the local firm that became an international success selling very British jams, jelly and marmalade.

For much of the 20th century the Cambridge firm of Chivers and Sons was Great Britain's leading manufacturer of preserves, jams and jellies. Read more by searching 'Chivers' on **www.museumofcambridge.org.uk**

Chivers image: Museum of Cambridge

PAINT WITH PLANTS TOO!

You can experiment with different berries to make paints! Elder can be used to make blue and purple dyes from the berries, yellow and green from the leaves, and grey and black from the bark. Different berries will make different colours.
Mash and sieve them to get the the juice, and add a little flour to thicken. Collect twigs, feathers and leaves to make brushes with.

SOME FORAGING RULES:

- Never eat any wild food if you are uncertain what it is.
- Only harvest fruit, leaves and foliage, and flowers for your own consumption from common land. And always leave enough for others.
- It is not legal to forage on any cultivated area such as farmland or in orchards.
- Respect the plants and the area you are picking in!

Please remember how much it helps us to take care of Cambridge trees if you add them to our Cambridge Tree Map at **www.curio.xyz** or download the **Curio-xyz** smartphone app. Need help using it? Email CCP@Cambridge.gov.uk

THE VENUS OF THE WOODS

JOIN THE CAMBRIDGE ASH HUNT

There are more than 50,000 ash trees in the city and they are threatened by Ash dieback disease. Mapping them will help us to better understand and manage the threat of the disease. We know where all the publicly owned ash trees in Cambridge are. But we need YOUR help to find every ash tree found in gardens and on private land, or in wild areas. Track them down now and add them to our Cambridge Tree Map.

WITH YOUR HELP WE CAN PLAN A RESILIENT URBAN FOREST, AND MINIMISE THE IMPACT OF ASH DIEBACK ON THE CITY'S BIODIVERSITY.

Map on the App:

Add to the map at **www.curio.xyz** or download the Curio-xyz smartphone app and sign up to our **ash mission**. Add any ash tree you find – it doesn't matter how big it is or how healthy it is.

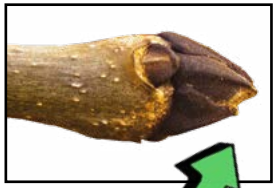
www.curio.xyz

Join us for an Ash Hunt - we will show you how to identify ash trees and use the mapping app.
Email: CCP@Cambridge.gov.uk for more information.

ID AN ASH TREE:

Many insects live in the fissured trunk and bats enter splits in the bark to roost.

The central leaf stem bears 9 – 13 leaflets in pairs, with one at the tip.



The buds are black and 'velvety'.

Ash seeds, known as keys, hang in clusters.

Ash keys are a good source of food for bullfinches.

Nuthatches and woodpeckers often nest in holes left by fallen branches

Be an Ash Ambassador

Search your chosen area of the city for any ash trees that are not yet on the map. We'll give you all the information you'll need to help you on your way to becoming an **Ash Ambassador**. Email: CCP@Cambridge.gov.uk

DESIGN A TREE OF LIFE

The Tree of Life can symbolise connection with nature, knowledge, strength and sharing. Decorate this tree with colourful leaves and pictures, symbols, or words of things that are important to you and your hopes for the future. Or to create a larger design, you could add cut outs from magazines. Display it in your window. We would love to see your design! Post it on social media with the hashtags #creativeartpacks #camtrees.

The ash tree was believed to have mystical properties and the wood was burned to ward off evil spirits. In Norse mythology, ash was the 'TREE OF LIFE' and the first man on Earth was said to have come from an ash tree. It is still sometimes known as the 'VENUS OF THE WOODS'.

MAKE A WAND

In Britain, druids regarded the ash as sacred and their wands were often made of ash because of its straight grain.

Find a stick that you like the look or feel of - you could decorate it if you would like to. What special powers to help nature does it give you?
We would love to see a photo and hear about its story!

In Harry Potter, Ron Weasley's original wand - inherited from Charlie, and later destroyed by crashing the Ford Anglia into the Whomping Willow - had a unicorn core and was made of ash wood, based on his birthday and the Celtic wand wood calendar.

Find out more about **Wand Woods** and be inspired at **www.wizardingworld.com**

DID YOU KNOW?

- In the book Cambridgeshire Customs and Folklore, Enid Porter writes about a common Cambridgeshire practice of how to cure a child suffering from a strain or hernia. Until the 1880's, the affected child would be passed 'through a split ash sapling, which was then bound tightly at intervals along the split with twine. It was believed that as the tree knitted together so the hernia would be reduced.'
- Ash trees are related to Jasmine, Lilac and Olive, and produce oil that is chemically similar to olive oil.
- In the 19th century ash was commonly used to construct carriages, and Britain's Morgan Motor Company still grows ash to make the frames for its cars.

FIND OUT MORE:

- More information about the Ash Hunt go to: **www.cambridge.gov.uk/ash-trees**
- Learn more about tree identification at: **www.woodlandtrust.org.uk**
- Search for more information on ash dieback disease at: **www.forestresearch.gov.uk**

CREATE ART AND TREES

LEAVES ON A STICK

BY LAND ARTIST RICHARD SHILLING

- Explore wherever you are and collect one leaf from each different plant you can find.
- Examine each leaf and see the different colours, thicknesses, vein structures and shapes.
- Lay your leaves out on the ground or thread them onto sticks to display them.

Explore the environment around you. Breathe it in. Take time. Keep being creative... more than ever we need creativity. Have fun. And hug a tree...

NATURE MANDALA

Collect leaves, twigs and pebbles to create a 'Nature Mandala'. A 'mandala' is a geometric shape and means 'circle' in Sanskrit. It is a common design among many different cultures. In Hinduism and Buddhism, it is a symbol representing the universe and life. The circular design shows that everything is connected in life.

CAMBRIDGE TREE CHALLENGE

WE NEED YOU!

CO_2

NEW PLANTING LOCATION

Private residential land makes up about 40% of the total land area of the city and is the single largest land cover type. In this portion of the city there are more than 40,000 homes with gardens. This is where the biggest opportunity for tree planting exists in Cambridge. If each one of the residents with a garden planted a single tree we would grow our urban forest substantially, and by doing so it would make a meaningful contribution to combatting the impacts brought about by climate change.

Find out more at www.cambridge.gov.uk/cambridge-canopy-project

#TREEHERO

THANK YOU FOR BEING A TREE HERO!

Cambridge City Council is a partner in a European project aimed at helping cities prepare for the impacts and changes likely to be brought about by climate change – factors including urban heating, air pollution, and flooding.

Along with ten other partners from Belgium, France, the Netherlands, and England, Cambridge City Council is part of the **Nature Smart Cities Across the 2 Seas** project.

Read more about the Nature Smart Cities project by visiting: **https://naturesmartcities.eu/**

HELPING TREES TO HELP THE CITY

HELPING TREES TO CAPTURE CARBON

HELPING TREES TO CLEAN THE AIR

HELPING TREES TO SLOW THE FLOW

HELPING TREES TO HELP NATURE

HELPING TREES FOR OUR WELLBEING

HELPING TREES TO KEEP US COOL

PRODUCTION INFORMATION:

Concept, activities, and design:

Hilary Cox Condron

www.hilarycoxcondron.co.uk

Coordinated by:

Tree Team, Cambridge City Council

www.cambridge.gov.uk/trees

#camtrees

#camcreativepacks

www.cambridge.gov.uk/cambridge-canopy-project

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camtrees

facebook.com/camcitco

Join our mailing list to receive monthly updates from the Cambridge Canopy Project.

Sign up at: **http://eepurl.com/gZjkU5**

The project is part of the Interreg 2 Seas programme 2014-2020 and is co-funded by the European Regional Development Fund under subsidy contract No. 2S05-048.