

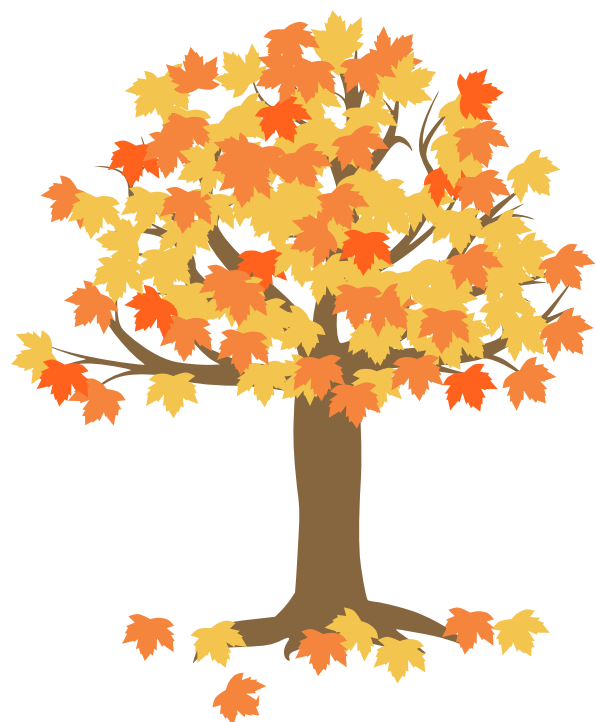


# Identifying Trees

An OWL Scotland resource for teachers







# Identifying Trees

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ASH LEAF

IMAGE © FORESTRY AND LAND SCOTLAND 2021

## Introduction

*‘Names, good names, well used, help us see and they help us care. We find it hard to love what we cannot give a name to and, what we do not love, we will not save.’*

Robert Macfarlane, award-winning author of *The Lost Words* (Newsnight, Dec 2017)

In 2015, the words ‘acorn’ and ‘conker’ were quietly uprooted from the *Oxford Junior Dictionary* to make space for words such as ‘broadband’.

Although this decision may reflect real life for more and more children, there are compelling reasons for us to try to reverse this trend and get to know our trees and find their names. However, for many of us, identifying and naming trees can be overwhelming.

## Arrgh!! Trees aren’t for me I don’t know any of them

You are definitely not on alone! The *Oxford Junior Dictionary*’s decision to remove tree-related words is the tail end of a long process of ‘tree-name die back’ that has now affected most adults too. A 2013 YouGov poll for the Woodland Trust found that just one in five adults could recognise an ash tree from a picture of its leaf. (The figure is one in ten for children.)

This resource will support you whatever your level of knowledge. Brush up your own identification skills first; or dive straight in to explore with your learners. This resource has what you need. You can do each activity wherever there is a single tree – in gardens, school grounds, street verges, around your local park or in your local woodlands. See the [Inside this resource](#) section below for more info.

## Why is naming and knowing trees relevant?

Learning to identify trees and putting that skill to use gives a positive context and provides key tools for addressing one of the most pressing concerns of the climate emergency, loss of biodiversity and inequality. It also brings Learning for Sustainability through Outdoor Learning to life.

These tree identification activities can provide a real-life, lower stress, creative context for addressing the National Improvement Framework for Education’s priorities of:

- improvement in attainment, particularly in literacy and numeracy
- closing the attainment gap between the most and least disadvantaged children
- improvement in children’s and young people’s health and wellbeing
- improvement in employability skills and sustained, positive school leaver destinations for all young people.



Woodlands and forests are part of Scotland's future. The proposed increase in forest cover over the lifespan of our young people will provide many opportunities including careers in forestry, ecology and tourism.

*"In 2070, Scotland will have more forests and woodland, sustainably managed and better integrated with other land uses. These will provide a more resilient, adaptable resource, with greater natural capital value, that supports a strong economy, a thriving environment P10 Please copy title of table and the heading titles from previous page.*

<https://forestry.gov.scot/forestry-strategy>

Being able to identify and name trees will be an important aspect of this. Within this resource, creative and surprising ideas are offered that will support you and your learners to engage in the sensory exploration and detailed observation which underpins, and often motivates, tree identification. The activities are also designed to help you find personal, local, national and global purposes for discovering and using the names of trees.

## 1. Inside this resource

This resource is organised into these sections:

- Activities to help you start tree identification using questions and observations to get you started and links to useful ID guides (sections 2/3)
- Use these icons to help identify your starting point:



- Activities to share with your learners giving curricula areas and resource links (sections 2-7)
- Remember learning is rarely linear. Please use these suggested levels for meaningful differentiation and progression for your learners.

A Seasonal Planner can help you schedule your tree-related activities for the most appropriate time of year. Link the seasonal events with celebrations, deepening the significance and enhancing learning.

Thanks to Kate Walters, Magenpie Environmental Education, Aline Hill, Trainer and Ian Kirkwood for the production and design of this resource.

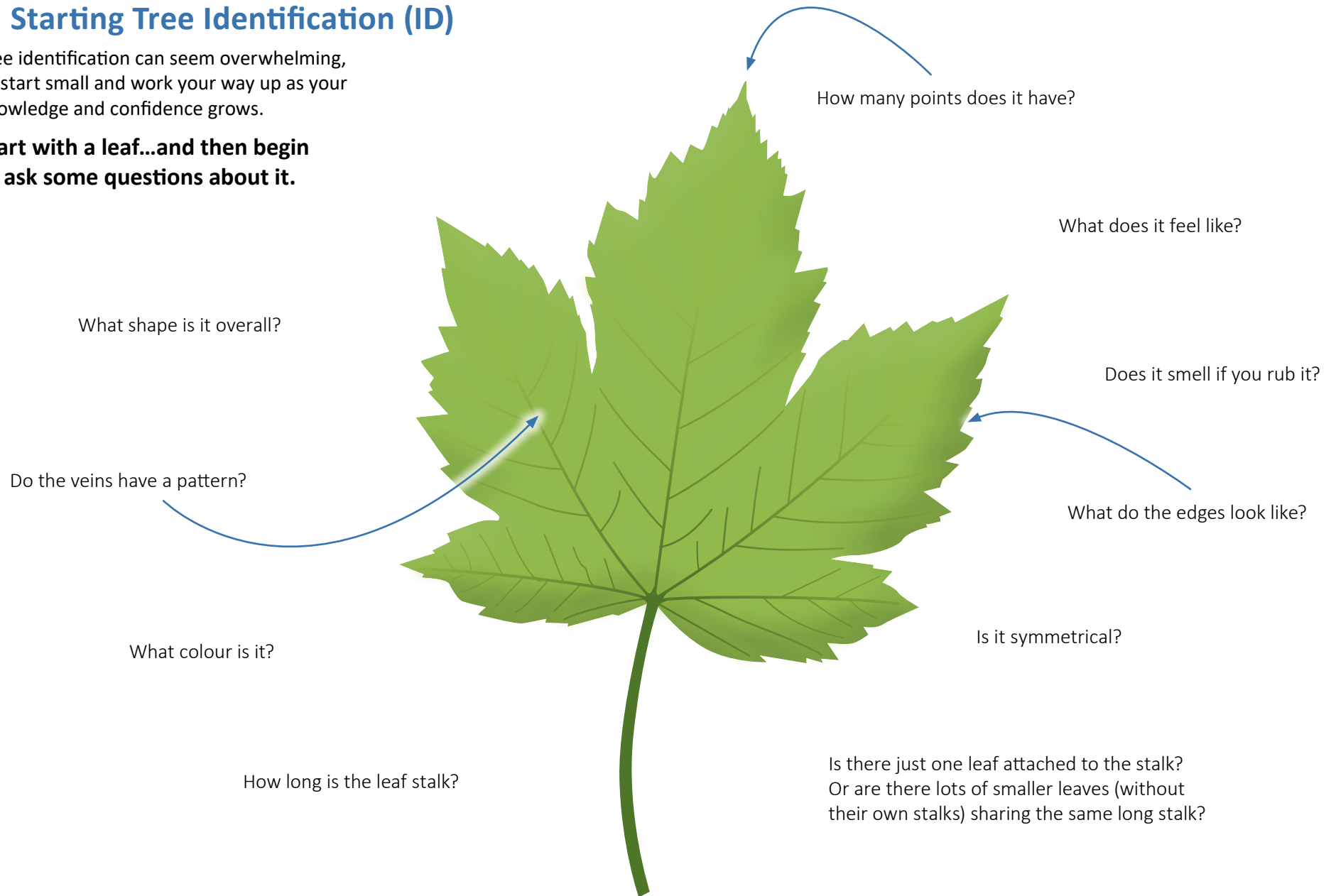


IMAGE © FORESTRY AND LAND SCOTLAND 2021

## 2. Starting Tree Identification (ID)

Tree identification can seem overwhelming, so start small and work your way up as your knowledge and confidence grows.

**Start with a leaf...and then begin to ask some questions about it.**



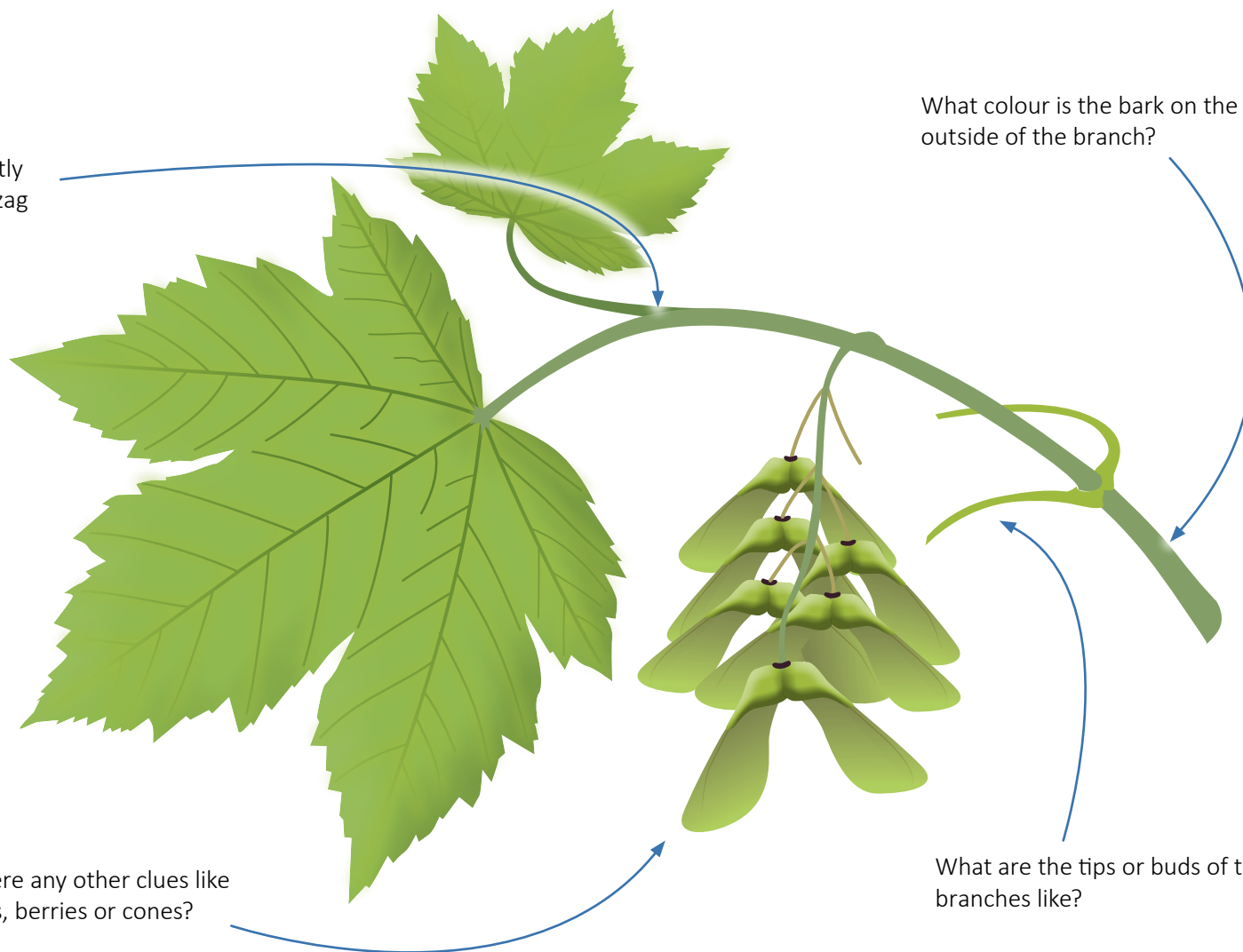
**Next, look at the branch that the leaf is attached to and ask some questions about it.**

How are the leaves attached to the branch? Can you spot any pattern? (maybe they are directly opposite each other, more zig-zag or spiralling)

What colour is the bark on the outside of the branch?

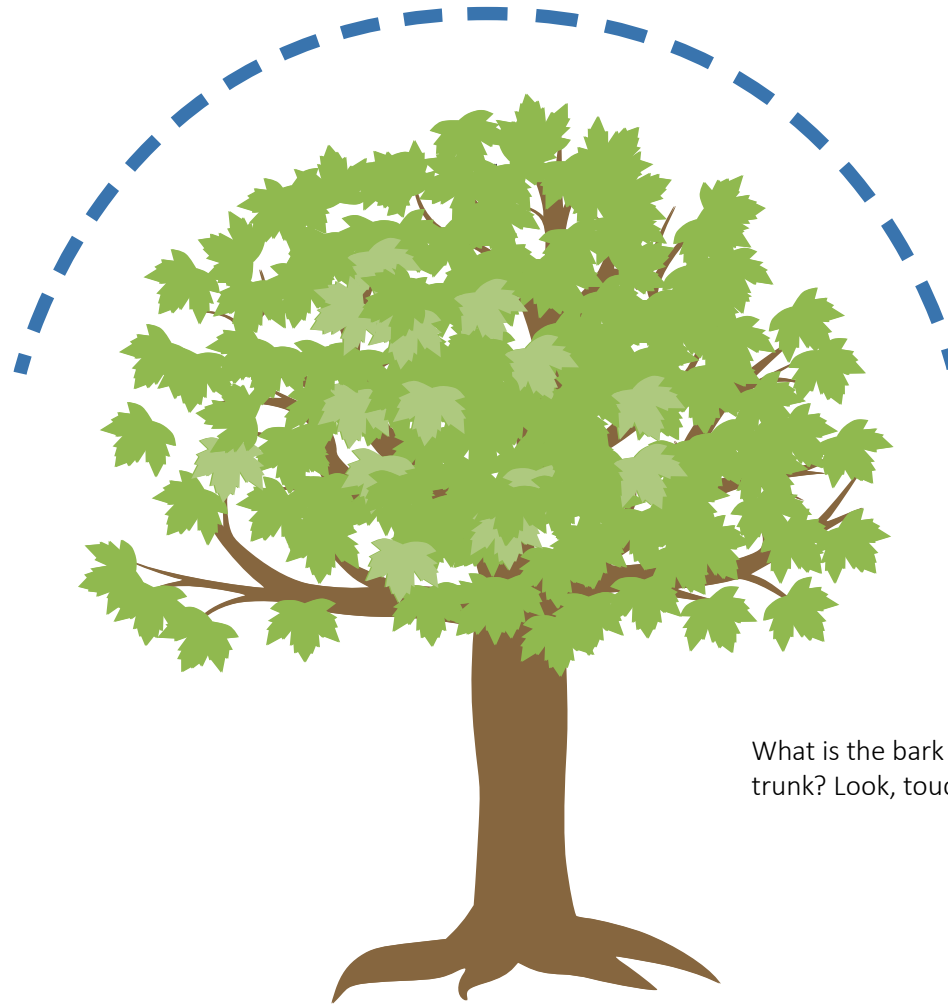
Are there any other clues like flowers, berries or cones?

What are the tips or buds of the branches like?



**If you need more clues, step back  
and look at the whole tree.**

How do the branches grow?  
(They might go straight up, or  
droop down, or grow at right-  
angles to the trunk)



What is the shape of the tree top  
or 'crown'? (Some look very round,  
others can be pear-shaped or maybe  
triangular)

What is the bark like on the  
trunk? Look, touch and smell it!



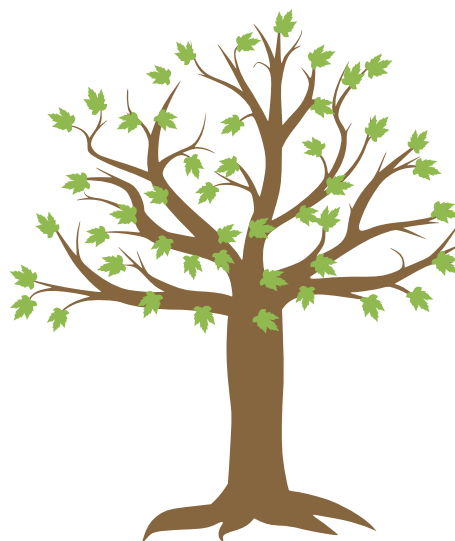
Discovering all this information about a tree's leaves and branches will enable you to use a simple identification chart (called a key) or app to help you find out what your tree might be! Some of the terminology they use might be unfamiliar so there is a table of common terms on P8 to help.

Tree identification guides are listed on P9 - 10. The list includes a 'suitable for' category to help you choose the most appropriate ones for you or your group.

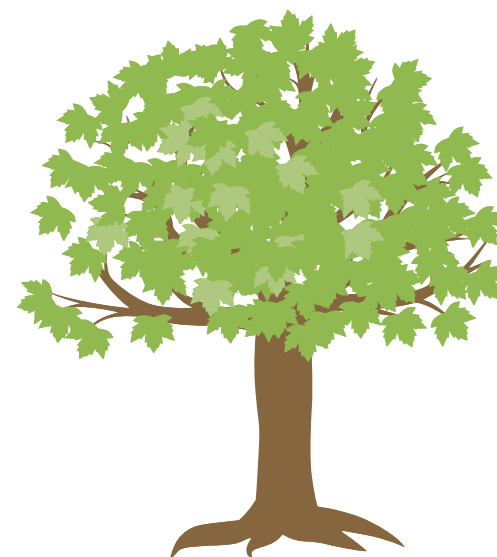
You will find some [activities](#) in this pack to help you get started.

And if you are still unsure, try asking someone.

- Is there a local ranger or woodland manager you could ask?
- Are there any local wildlife groups or enthusiasts who you could join on a woodland walk?
- Do you know any keen gardeners? They can be a great source of information. Join an online group such as a Facebook group.
- Trees change seasonally, so revisit them at different times of the year to discover more about them. Look at our 'Tree Year Wheel' for ideas of ways to learn about trees.



Spring



Summer



Autumn



Winter

### 3. Tree Identification (ID) Resources

#### Common terms used in identification keys

The Woodland Trust website has more detail about these:

[www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/how-to-identify-trees/](http://www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/how-to-identify-trees/)

Term	Meaning
Compound leaf	Lots of smaller leaves (without their own stalks) that share the same long stalk, which then joins to a twig
Coniferous	Trees that produce cones (usually evergreens - see Evergreen)
Crown	The entire top part of the tree, above the trunk (the leaves, branches, twigs and anything growing from them)
Deciduous	Trees that lose all of their leaves for part of the year, usually in autumn
Evergreen	Trees that have leaves on them all year round, and that are always green
Leaf bud	Small (often rounded) lump on side or end of a twig, where the new leaf will grow from
Leaflet	The smaller leaves that form a compound leaf (see Compound)
Lobe	Roundish edges or divisions of leaf edge, that do not go all the way to the stalk (think of lots of earlobes - some look a bit like human earlobes; some are more like fox ears!)
Needle	Long, narrow needle-like leaves
Palmate	Looks like a hand with outspread fingers
Pinnate	Looks like a bit like a feather or a fern. They are usually a central stalk with leaflets coming off of it (see Compound)
Scale	Overlapping plate-like features on conifer leaves (think of fish scales)
Simple leaf	One leaf attached to the stalk (think of the 'classic' leaf shape!)
Stalk	Thin stem which joins the leaf (or leaflets) to the twig. Flowers, berries, cones and seeds can also have a stalk
Tooth / teeth	Small, jagged edges of a leaf (think of a saw blade)



IMAGE © FORESTRY AND LAND SCOTLAND 2021

## Tree identification table

Resource Title	Provider/Author	Type*	URL/Location	Suitable for...			Comments/description
				 Early / First	 Second	 Third / Fourth	
Tree Tools for Schools (look in Activities for 'Leaf iDial')	Woodland Trust	Download	<a href="http://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>	x			
Trees	Forestry & Land Scotland	Download	<a href="https://forestryandland.gov.scot/learn/trees">https://forestryandland.gov.scot/learn/trees</a>	x	x		
Collins Gem: Trees	Alastair Fitter & David More	Book	<a href="http://www.harpercollins.co.uk/9780007183067/trees/">www.harpercollins.co.uk/9780007183067/trees/</a>	x	x		Handy, portable guide to most common trees of Britain and Ireland.
How to Identify Trees	Woodland Trust	Online resource & app	<a href="http://www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/how-to-identify-trees/">www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/how-to-identify-trees/</a>	x	x		Includes link to their free tree identification app.
Tree ID foldout guide	Field Studies Council	Publication	<a href="http://www.field-studies-council.org/product-category/publications/">www.field-studies-council.org/product-category/publications/</a>	x	x	x	Simple, portable, fold-out tree identification chart that covers the common broadleaved and coniferous trees found in Great Britain and Ireland.
British Trees	Woodland Trust	Online resource	<a href="https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/">https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/british-trees/</a>		x	x	Including A to Z of British Trees, How to ID trees and a link to the Tree ID app
An easy guide to Forest Trees and their uses (English & Gaelic versions)	Forest Research	Download	<a href="http://www.forestresearch.gov.uk/research/an-easy-guide-to-forest-trees-and-their-uses/">www.forestresearch.gov.uk/research/an-easy-guide-to-forest-trees-and-their-uses/</a>		x	x	
A Guide to Tree Identification	Woodlands	Online resource	<a href="http://www.woodlands.co.uk/blog/tree-identification/">www.woodlands.co.uk/blog/tree-identification/</a>		x	x	Good photos for ID
A Key for Identifying British Trees and Shrubs	Science & Plants for Schools (SAPS)	Online resource	<a href="http://www.saps.org.uk/trees/index.htm">www.saps.org.uk/trees/index.htm</a>		x	x	Has summer shoots or winter twigs options. Data including ID photos with scale rule, facts & UK distribution maps
Identification Guides & Resources: Trees	OPAL	Download	<a href="http://www.opalexplornature.org/identification">www.opalexplornature.org/identification</a>		x	x	Inc Tree ID Poster guide (simple key)
Identification keys	iSpot Nature	Download	<a href="http://www.ispotnature.org/webkeys/index.jsp">www.ispotnature.org/webkeys/index.jsp</a>		x	x	Various inc. lichens on trees, listed by skill level (beginner, some experience, expert)

## TREE IDENTIFICATION TABLE (continued)




Resource Title	Provider/Author	Type*	URL/Location	Suitable for...			Comments/description
				 Early / First	 Second	 Third/ Fourth	
A simple guide to identifying trees	Country Life	Online resource	<a href="http://www.countrylife.co.uk/gardens/a-simple-guide-to-identifying-british-trees-85493">www.countrylife.co.uk/gardens/a-simple-guide-to-identifying-british-trees-85493</a>		x	x	Simple British tree list
Identifying Nature	Natural History Museum	Download	<a href="http://www.nhm.ac.uk/take-part/identify-nature.html">www.nhm.ac.uk/take-part/identify-nature.html</a>			x	In-depth ID guide & good links to other potential areas of interest
Bark & Buds: How to ID twelve common deciduous trees in winter	Paul Kirtley (blog)	Online resource	<a href="http://paulkirtley.co.uk/2011/bark-buds-common-european-deciduous-trees-winter-identification/">http://paulkirtley.co.uk/2011/bark-buds-common-european-deciduous-trees-winter-identification/</a>			x	
Know Your Conifers	Forest Research	Download	<a href="http://www.forestresearch.gov.uk/documents/6418/FCBK015.pdf">www.forestresearch.gov.uk/documents/6418/FCBK015.pdf</a>			x	Old booklet from FC archive (1966)
Collins Tree Guide	Owen Johnson & David More	Book	<a href="http://www.harpercollins.co.uk/9780007207718/collins-tree-guide/">www.harpercollins.co.uk/9780007207718/collins-tree-guide/</a>			x	Complete field guide to all the trees of Britain and Ireland.
Native & Naturalised Trees of Britain & N. Ireland	First Nature	Online resource	<a href="http://www.first-nature.com/trees/">www.first-nature.com/trees/</a>			x	Good photos for ID
Code of Conduct for picking plant material	Botanical Society of Britain & Ireland's (BSBI)	Download	<a href="https://bsbi.org/resources">https://bsbi.org/resources</a>	x	x	x	Useful guidance of how to gather plant material sustainably.



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# Activities to share with your learners

## 4. Caring for Trees



Before any formal identification gets underway time spent observing and connecting with the tree will really help the naming process. The activities below will help you explore your local trees with all your senses, put your creativity to work and start to build practical, emotional and intellectual relationships with nature.

Find support with [Starting Tree Identification \(ID\)](#)

Find [Tree Identification \(ID\) Resources](#)

### Activities to help you... develop curiosity and care

**Remember to sustainably gather, harvest or forage** from all tree & plants. There is some useful guidance in the Botanical Society of Britain & Ireland's (BSBI) Code of Conduct – <https://bsbi.org/resources>.

**Get creative** in your exploration of trees! Challenge yourself to make pictures, mandalas or sculptures from the tree parts you find around you – with sustainably gathered twigs, buds, leaves, fruits and nuts etc. Would your artwork look the same in every season? Take inspiration from environmental artists

and sculptors, such as Andy Goldsworthy [www.livingyourwildcreativity.com/art-gallery-1-mitchell-1](http://www.livingyourwildcreativity.com/art-gallery-1-mitchell-1)

**Head out to gather** as many different types of leaf as you can. Look at their shape and structure. See if you can start to sort them into groups of similar types. Make rubbings of the bark, leaves and twigs from different trees – how are they unique? The prompts on these pages might help you. [Starting Tree Identification \(ID\)](#)

**Spend time exploring an individual tree** with your senses. Start at a distance – how does it look overall? What different details, shapes and patterns can you see? Where do its roots go? Move closer – what can you see now? What visual effect does the wind, sun or rain have on it? What does it sound like? What does the air smell like around it? Does the bark have a scent? What does a crushed leaf smell like?

Drawing, photographing or journaling can all help you with this. [www.lilyandthistle.com/how-to-start-a-nature-journal-today/](http://www.lilyandthistle.com/how-to-start-a-nature-journal-today/)

**Get to know a tree through the year.** Change is a natural part of life. Things are always changing, even the trees, which seem so permanent to us. How do broadleaf trees prepare themselves for change? Choose a broadleaf tree nearby and take a photograph of it from exactly the same spot every week (fixed-point photography). Use the pictures to study how it responds to changes during the year. You could use the pictures to have an exhibition or make a time-lapse film using a suitable app. Woodland Trust (films all 1min approx) *A Year in the Life of a Tree*: [www.youtube.com/playlist?list=PLbKmvYI09ziwg\\_Gdp2mUdyUeiL9jjTw2U](https://www.youtube.com/playlist?list=PLbKmvYI09ziwg_Gdp2mUdyUeiL9jjTw2U)



NE OWL GROUP AUTUMN MANDALA MAKING WEB

IMAGE © BONNIE MAGGIO

## CARING FOR TREES (continued)



**Help care for trees:** the seasonal cycles of our native trees provide scientists with vital information about the effects of climate change. Join Nature's Calendar and input data about your local trees to help scientists discover how to support trees and help record the impact of climate change. Nature's Calendar (signs of the seasons survey): [naturescalendar.woodlandtrust.org.uk/](https://naturescalendar.woodlandtrust.org.uk/)

**Your trees need you!** Becoming a citizen scientist is one of the ways you can become an active citizen, and help to protect our trees from pests and diseases. What diseases can trees have? What makes them susceptible to illness? Can we tell if trees are unwell just by looking at them?



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The OPAL Tree Health Survey activities will help you find out more and make a real life contribution to tree health. OPAL Tree Health Survey: [www.opalexplornature.org/treesurvey](https://www.opalexplornature.org/treesurvey)

The RBGE Tree Video about Ash Dieback might also help you: [www.youtube.com/user/RBGEEdinburgh/videos](https://www.youtube.com/user/RBGEEdinburgh/videos)



Get more involved by becoming an Observatree volunteer (citizen science for tree pests and disease): [www.observatree.org.uk/](https://www.observatree.org.uk/)

**Tree Alert:** You could also submit a sighting report of tree pests and diseases to Forest Research's Tree Alert project: [treealert.forestresearch.gov.uk/](https://treealert.forestresearch.gov.uk/)

**Manage a tree pest or disease:** Find out what you can do to prevent or help minimise the introduction, establishment, spread and impacts of tree pests and diseases here: [www.gov.uk/guidance/manage-a-tree-pest-or-disease-overview](https://www.gov.uk/guidance/manage-a-tree-pest-or-disease-overview)

## Early & First Levels: Exploring trees

Use your senses to explore all the different parts that make up a whole tree, notice how they differ from tree to tree, and start to wonder why.

Activity ideas		Supporting resources
Leaf art: which shape of leaf is best for making... a head, a body, wings? Read <i>Leaf Man</i> or look online to find ideas and inspiration for leaf art linked to shape observation. Would your artwork look the same in every season? Could you make a person for each season?	Expressive arts	<i>Leaf Man</i> by Lois Ehlert  Leaf art ideas: <a href="http://www.redtedart.com/leaf-crafts/">www.redtedart.com/leaf-crafts/</a>
<i>We're going on a leaf hunt!</i> Read this autumn leaf-inspired story, then head out and see which leaves you can find. Use the book's verse structure to tell the story of your own leafy adventure. See if you can spot the leaves on a tree identification key. Use photographs and some of the art ideas in this resource to make your own simple leaf identification book for your local trees.	Trees that produce cones (usually evergreens – see Evergreen)	<i>We're Going on a Leaf Hunt</i> by Steve Metzger  <i>I Can Name 50 Trees Today!</i> by Bonnie Worth (The Cat in the Hat Learning Library)
There is a wealth of words that can be used to describe trees and leaves. How many new words can you add to your vocabulary? Rhyming patterns can really help children to build their language and communication skills, such as those in the book <i>I Can Name 50 Trees Today!</i>	Language & literacy	<i>Messy Maths</i> by Juliet Robertson
Look at the shapes of leaves gathered from different trees. Do they have the same amount of points? How about veins? How long is the stalk? Can you estimate how wide they are? Do they fit together exactly? If you fold them in half, does each side match? Now look at the twigs and branches – do they all join the tree at the same angle and in the same way? Make rubbings of the bark from different trees – how are they unique?	Mathematics	Tree Tools for Schools (find the activities related to the parts of a tree by searching for words such as bark, leaf, root, stick or twig): <a href="http://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>  OPAL Tree Activities for Children: <a href="http://www.opalexplornature.org/tree-activities-children">www.opalexplornature.org/tree-activities-children</a>
Explore your local trees and start to notice all the shapes, sizes, smells, textures and patterns that can be found on each one. Get to know your trees personally, from root to tip! The 'Nature Detectives' website or OPAL's Tree Activities for Children have lots of hands-on outdoor activity ideas to help.	Sciences	
Activities like these that stimulate practical, emotional and intellectual relationships with nature are the essential building blocks for learning. You can include this in Learning for Sustainability from an IDL perspective.	Learning for Sustainability	

## Second Level: Protecting trees

Trees are crucial to our own and others' physical and emotional health and wellbeing, and they are under increasing threat. Citizen science is the name for real-life studies that anyone can get involved with to make a difference.

Activity ideas		Supporting resources
Leaf art: which shape of leaf is best for making... a head, a body, wings? Read <i>Leaf Man</i> or look online to find ideas and inspiration for leaf art linked to shape observation. Would your artwork look the same in every season? Could you make a person for each season?	Expressive arts	<i>Leaf Man</i> by Lois Ehlert  Leaf art ideas: <a href="http://www.redtedart.com/leaf-crafts/">www.redtedart.com/leaf-crafts/</a>
<ul style="list-style-type: none"> <li>• <i>We're going on a leaf hunt!</i> Read this autumn leaf-inspired story, then head out and see which leaves you can find. Use the book's verse structure to tell the story of your own leafy adventure. See if you can spot the leaves on a tree identification key. Use photographs and some of the art ideas in this resource to make your own simple leaf identification book for your local trees.</li> <li>• There is a wealth of words that can be used to describe trees and leaves. How many new words can you add to your vocabulary? Rhyming patterns can really help children to build their language and communication skills, such as those in the book <i>I Can Name 50 Trees Today!</i></li> </ul>	Language & literacy	<i>We're Going on a Leaf Hunt</i> by Steve Metzger  <i>I Can Name 50 Trees Today!</i> by Bonnie Worth (The Cat in the Hat Learning Library)  <i>Messy Maths</i> by Juliet Robertson
Look at the shapes of leaves gathered from different trees. Do they have the same amount of points? How about veins? How long is the stalk? Can you estimate how wide they are? Do they fit together exactly? If you fold them in half, does each side match? Now look at the twigs and branches – do they all join the tree at the same angle and in the same way? Make rubbings of the bark from different trees – how are they unique?	Mathematics	Tree Tools for Schools (find the activities related to the parts of a tree by searching for words such as bark, leaf, root, stick or twig): <a href="http://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>  OPAL Tree Activities for Children: <a href="http://www.opalexplornature.org/tree-activities-children">www.opalexplornature.org/tree-activities-children</a>
Explore your local trees and start to notice all the shapes, sizes, smells, textures and patterns that can be found on each one. Get to know your trees personally, from root to tip! The 'Nature Detectives' website or OPAL's Tree Activities for Children have lots of hands-on outdoor activity ideas to help.	Sciences	The Dead Good Deadwood Survey <a href="http://www.tcv.org.uk/scotland/dead-good-deadwood-survey/">www.tcv.org.uk/scotland/dead-good-deadwood-survey/</a>
Activities like these that stimulate practical, emotional and intellectual relationships with nature are the essential building blocks for learning. You can include this in Learning for Sustainability from an IDL perspective.	Learning for Sustainability	



### Third & Fourth Levels: Tree health

Trees are vital to our planet. The health of trees and woodlands impacts upon ecosystems, biodiversity, forestry production, arboriculture (the cultivation, management and study of individual trees especially in urban areas), conservation and our wider society, including health and wellbeing. Citizen science surveys provide a real-life opportunity to get involved with helping scientists to protect trees.

Activity ideas		Supporting resources
Poor health can affect trees as well as people. Despite some species being more resilient to pollution or certain pests and diseases than others, they can all suffer with ill health at times in the same way that humans can. Studies are increasingly supporting the idea that the presence of trees nearby can have a positive impact on human mental health and wellbeing. Explore the current research available and develop creative solutions that demonstrate how the results found could be sustainably integrated into our modern lives.	Health & wellbeing	Urban Mind (mental well-being in cities study): <a href="http://www.urbanmind.info">www.urbanmind.info</a>  Tree Threats – overview: <a href="http://www.gov.uk/guidance/manage-a-tree-pest-or-disease-overview">www.gov.uk/guidance/manage-a-tree-pest-or-disease-overview</a>
Gather observed data about trees and learn how to recognise diseases. Consider how to capture and display the data in a meaningful way. Look at ways to ensure the accuracy of data collected and to enable the process to be repeated to ensure meaningful conclusions.	Mathematics	SAPS (including Tree Health & CSI Trees): <a href="http://www.saps.org.uk/secondary/teaching-resources">www.saps.org.uk/secondary/teaching-resources</a> (and select 'Plant Disease')
<i>Biosecurity has become an important element of both rural and urban lives. Learn about the preventative measures already in place to help reduce the transmission of infectious diseases in plants and animals, and discover how scientists are working to develop more effective solutions for the future. What could you do to help?</i>	Sciences	Observatree (citizen science for tree pests and disease): <a href="http://www.observatree.org.uk/">www.observatree.org.uk/</a>  Forest Research: Tree Alert (for reporting pests and diseases): <a href="http://treealert.forestryresearch.gov.uk/">treealert.forestryresearch.gov.uk/</a>
If you find evidence of any tree diseases, input your information into the relevant online database.	Technologies	
Being a 'citizen scientist' is one of the ways you can become an active citizen in protecting our trees from pests and diseases.	Learning for Sustainability	The Dead Good Deadwood Survey <a href="http://www.tcv.org.uk/scotland/dead-good-deadwood-survey/">www.tcv.org.uk/scotland/dead-good-deadwood-survey/</a>

## 5. Knowing Your Trees

Learning the names of trees can help you find out more about them; not just scientific knowledge but other things like cultural, history and stories. This may even release your own your inner poet! The activities below will help you get started.

Find support with [Starting Tree Identification \(ID\)](#)

Find [Tree Identification \(ID\) Resources](#)

### Activities to help you... get to know your trees



**Start trying to identify trees** in late spring or summer. It's the best time to begin as the leaves will have fully emerged. Once you've found a tree you are interested in, use our 'Where do I start with [Starting Tree Identification \(ID\)](#) to help you find out its name. Take your identification resources, such as those suggested on the [Tree Identification \(ID\) Resources](#) page, with you to the tree so that you can keep checking the details.



**Once you are knowledgeable** try to find other examples of a tree type you are familiar with, without using the key. Stretch yourself by testing your skills in a different woodland. Make sure you go for a true leaf growing from a higher branch or twig, not a larger leaf growing from a sucker shoot low down on the tree's stem or roots.



**Feeling really conifer-dent?! Try to identify different types of conifer tree!** These are mostly evergreen, with needles and cones, and their clues are secretive, subtle and satisfying to solve. Does that tree sap smell of grapefruit or tangerine...?! Remember to use all of your senses.



**Really challenge yourself** by trying to identify trees in winter, using just their buds and twig patterns. Or visit a botanic garden or arboretum to discover less common trees. Do any of them share similarities with the trees you already know? Does the binomial name tag confirm your suspicion that they are related? Hybrids, garden escapees, and other oddities can be fun to spot as well.



**Exploring the meaning of your tree names** can be fascinating and help you find out more about them. For example, Rowan means red or ruddy, named for its bunches of brilliant red berries. Its scientific two-term (binomial) name is *Sorbus aucuparia*. This refers to the red berries (*Sorbus*), but adds 'bird catching' (*aucuparia*), which introduces us to the fact that – long-ago – the fruits were used as bait to catch birds. The first part also tells you the 'genus' of the tree, and can help you find its relatives.

## KNOWING YOUR TREES (continued)

### Early and first levels: Identifying trees

Once they have started to get to know their trees, children will become naturally curious about what they are called. Tree identification and naming can be a creative and fun process, as well as investigative.

Activity ideas		Supporting resources
By imprinting leaves onto clay, you can build up a collection of pendants of the different leaves you find locally. Paint them, and then try to find the tree they originally came from and hang them back in it! If you identify the tree species, write its name on the reverse too.	Expressive arts	Clay leaf pendants: <a href="http://artfulparent.com/clay-leaf-prints/">artfulparent.com/clay-leaf-prints/</a>
What is a tree identification key? Explore what 'key' means in this context. Are there any new words used within them? Use the Tree Tools for Schools examples to get you started. Try to create your own based on local trees using a similar vocabulary, or get creative and develop your own!	Language & literacy	Woodland Trust: Tree Tools for Schools (look in Activities for 'Tree Identification'): <a href="http://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>
Collect as many different tree leaves as you can in 5 minutes. Is each leaf the same? Are they symmetrical? What are the similarities and differences? Sort them into piles of the same shapes and then try to identify them using a simple identification key.	Mathematics	BBC Teach (film 5m52s) Exploring Evergreen and Broadleaf Leaves: <a href="http://www.youtube.com/watch?v=joStQgyNaQ">www.youtube.com/watch?v=joStQgyNaQ</a>
Are your trees 'spiky green winter kings' or 'rattling winter skeletons'? Trees change through the seasons. Some keep their leaves all year round (evergreen) and some lose them in autumn (deciduous). They produce flowers in some parts of the year and fruits, berries, nuts or seeds at other times. Explore the trees nearby and use the BBC film to find out more.	Sciences	

## Second level: What's in a name?

The plants and animals around us have often been given names that help us understand what they are and what they do. It helps us to know them better, and relate to them. Throughout known human history trees feature in the names we have given to other elements of our world – town names, surnames, street names. Now it is time to create your own!

Activity ideas		Supporting resources
<ul style="list-style-type: none"> <li>• Get to know your trees better through their names. Scientific binomial (two-term) names often give us clues about the plants they describe. Explore and rediscover your local area by remapping it and give places, features &amp; trees their own creative names based on kennings (see below) or another two-term format.</li> <li>• Create your own appropriate names for your local trees using your sensory observations of tree traits combined with known facts and folklore, then use an online translation tool (English to Greek or Latin) to help create realistic scientific-sounding names for them.</li> <li>• D'ye ken that the Scots word 'ken' means to 'know'? Kennings (knowings) are a compound word, usually hyphenated, that describes something in a more imaginative and poetic way, such as 'sky-candle' for the sun. Use the descriptive words you gather about trees to create your own kennings that will help others to 'know' them more. Join all your kennings for a tree species together to create an explosion of eloquent tree lore.</li> <li>• Fantasy novels, graphic novels and computer games also use this two-term format to create mystical-sounding names for plant creatures within them (think of Ents like 'Treebeard', 'Skinbark' and 'Wandlimb' in <i>The Lord of the Rings</i>). Create your own tree characters and use them in your tree tales (see activity 2.3).</li> </ul>	Language & literacy	<p>Woodland Trust Scotland Outdoor Learning Pack (including Gaelic &amp; Modern Language tree names): search 'Outdoor Learning Pack' online for a link to download</p> <p>Woodland Trust: Tree Tools for Schools website: <a href="http://treetoolsforschools.org.uk/">treetoolsforschools.org.uk/</a></p> <p>Forestry &amp; Land Scotland Tree Resources: <a href="http://www.forestryandland.gov.scot/learn/trees/tree-resources">www.forestryandland.gov.scot/learn/trees/tree-resources</a></p> <p>Linnean Society – Create your own 'Special Species' including a card game: <a href="http://www.linnean.org/learning/teaching">www.linnean.org/learning/teaching</a></p> <p>Fantasy Name Generator: <a href="http://www.fantasynamgenerators.com/">www.fantasynamgenerators.com/</a></p> <p>Tree Names Decoded (See Appendix 1)</p>



## KNOWING YOUR TREES (continued)

### Third and fourth levels: how plants get their names

Once they have started to get to know their trees, children will become naturally curious about what they are called. Tree identification and naming can be a creative and fun process, as well as investigative.

Activity ideas		Supporting resources
<ul style="list-style-type: none"><li>• Get to know your trees better through their names. Scientific binomial (two-term) names often give us clues about the plants they describe. Use online translation tool (Greek or Latin to English) to help understand tree names and evaluate how well each fits what you can find out about that species.</li><li>• Try to create your own realistic scientific-sounding names for other trees. Use observations of tree traits combined with known facts to create an appropriate name. Use an online translation tool to help them sound more 'scientific'.</li></ul>	Language & Literacy / Science	<p>How Plants get their Names: <a href="http://www.ukgardening.co.uk/plant-naming.php">www.ukgardening.co.uk/plant-naming.php</a></p> <p>Plants: Names, terms &amp; Botanical Latin: <a href="http://www.botanicalartandartists.com/plant-names-and-botanical-latin.html">www.botanicalartandartists.com/plant-names-and-botanical-latin.html</a></p> <p>Botanary, the botanical dictionary: <a href="https://davesgarden.com/guides/botanary/">https://davesgarden.com/guides/botanary/</a></p> <p>Tree Names: <a href="http://www.treenames.net">www.treenames.net</a></p> <p>The meaning of latin plant names: <a href="http://theseedsite.co.uk/latin.html">http://theseedsite.co.uk/latin.html</a></p> <p>Tree Names Decoded (see Appendix 1)</p>

## 6. Trees and Creativity

Trees have inspired human imagination, wonder, curiosity and creativity for thousands of years. Spending time with trees and finding out their names can help you join this tradition by discovering your own responses, and comparing them to those recorded and passed on in folklore, tales, poems and songs. When we find similarities, it's interesting to wonder what the scientific, aesthetic, cultural or spiritual reasons might be! The suggestions below will help you get started.

Find support with [Starting Tree Identification \(ID\)](#)

Find [Tree Identification \(ID\) Resources](#)

### Activities to help you... get creative with trees



#### **Spend some time with a tree that appeals to you.**

Sit or lie on your back below its leafy crown, curl amongst its roots or drape yourself along its branches. How does being with your tree make you feel? Can you sense how the tree might feel? Stand in front of your tree and imagine your feet are growing down into the ground. Feel them drawing up moisture and nutrients and sending them upward. Feel your body thickening, your arms reaching out like branches, leaves spreading from the top of each finger. Imagine each leaf like a little solar panel, breathing in carbon dioxide breathing out oxygen, sending carbohydrates

back down to build up its twigs, branches and roots a little bit at a time. How old is your tree? You can find out just by measuring the size of its trunk! [www.owlsotland.org/images/uploads/resources/files/TreeMeasuring2018.web3.pdf](http://www.owlsotland.org/images/uploads/resources/files/TreeMeasuring2018.web3.pdf) How long has it been there? What changes might it have seen during its lifetime? How has human society and the landscape altered since it was a sapling?

**Create your own tree tale** based upon your observations and experiences: look at the shape of a tree's leaves; the way it moves; the texture of the trunk; the way it might change through the year. Why might it have come to have those particular traits? How are they important to the tree? What do they tell us about it? Be as imaginative as you like! Look at [Starting Tree Identification \(ID\)](#) for some more prompts of things to observe.

Explore **other stories** that have been told about your type of tree (once you've identified it, of course!). 'Tree Stories' by Claire Hewitt is a good place to start [http://www.owlsotland.org/resources/resource-library/tree\\_stories](http://www.owlsotland.org/resources/resource-library/tree_stories). What about folklore and poems? A-B-Tree / A-B-Craobh - [www.mandyhaggith.net/a-b-tree.asp](http://www.mandyhaggith.net/a-b-tree.asp). Or maybe they feature in a song! Try these lists to start you off: <https://www.theguardian.com/music/2017/dec/28/readers-recommend-playlist-your-songs-about-trees> or: <https://spinditty.com/genres/Traditional-British-Folk-Songs-Involving-Trees>

**Gather words to help you write a poem.** Start by allowing words and phrases to come to you as you observe and spend time with a tree. It can help to close your eyes and relax for a while before you start. Your words might be sensory observations, emotions, or strengths. Don't self-edit; just scribble them down as they come to you. Once you have a bit of a hoard,

look back at them and see if you can organise some of them into a poem. You could write the poem in the shape of your tree (concrete poems) or make an acrostic from its name (see those in *The Lost Words – Anthology* [www.johnmuirtrust.org/initiatives/the-lost-words](http://www.johnmuirtrust.org/initiatives/the-lost-words) for inspiration).

## Early and first levels: Being trees

Spend some time just being with a favourite tree. How do you feel? What's it like to be a tree? Getting under the skin (or bark) of another living thing can help to develop feelings of empathy and understanding.

Activity ideas		Supporting resources
<ul style="list-style-type: none"> <li>Find your favourite tree to be under, up or in. Lie on your back below its leafy crown, curl amongst its roots or drape yourself along its branches. How does being with your tree make you feel? What kind of tree is it? What can you find out about it? Use a tree identification key.</li> </ul>	Expressive arts Health & wellbeing	Dynamic Earth leaf drama: <a href="http://www.dynamicearth.co.uk/media/1251/circle-of-life-drama.pdf">www.dynamicearth.co.uk/media/1251/circle-of-life-drama.pdf</a>
		From Seed to Tree (New Scientist film 1m14s): <a href="http://www.youtube.com/watch?v=4BtKakP5xOk">www.youtube.com/watch?v=4BtKakP5xOk</a>
Discover the Gaelic names for many of our native trees through the SF tree resources. Try making the Gaelic alphabet using twigs! Then find out more about them by reading some traditional tree tales, myths and folklore.	Language & literacy Expressive Arts	Eco Drama: Out-To-Play resource pack (theatre company based in Glasgow): <a href="http://www.ecodrama.co.uk/resources/">www.ecodrama.co.uk/resources/</a>
Close your eyes, listen to some music of the seasons like Coat of Leaves and try to move in time to the music.	Mathematics	Tree Tools for Schools (search for Leaf Crowns): <a href="http://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>
Investigate the ways trees are decorated in celebration and explore differing significance. In the UK, Tree Dressing Day falls on the first weekend of December but it is based upon old customs from around the world. Trees feature in religions and cultural traditions in other ways too. Find out more about them or create a new one that has meaning to your community.	Religious & moral education	Coat of Leaves: Autumn Music on BBC Teach (YouTube Channel): <a href="http://www.youtube.com/watch?v=c7KX1ZObedk">www.youtube.com/watch?v=c7KX1ZObedk</a>
Join in with Tree Dressing Day by decorating your favourite tree. Use the nearby link for ideas. Maybe you could find a way to add some edible 'decorations' too, to help feed the local wildlife in the winter.	Sciences	F&LS Tree Resources: <a href="http://forestryandland.gov.scot/learn/trees">forestryandland.gov.scot/learn/trees</a>
Sustainable communities need access to locally-sourced foods. Celebrating Apple Day is just one way to help highlight or reconnect with local resources and their provenance, as well as considering the impact of the food we eat on land and nature.	Learning for Sustainability	Tree Stories by Claire Hewitt: <a href="http://www.owlscotland.org//resources/resource-library/tree_stories">www.owlscotland.org//resources/resource-library/tree_stories</a>  Tree Dressing and Apple Day: <a href="http://www.commonground.org.uk/tree-dressing-day/">www.commonground.org.uk/tree-dressing-day/</a>

**Second level: Being tales**

Stories about trees are often inspired by observations of the nature of a particular species, or by our human associations through folklore, history or usefulness. Use the 'Lost Words' book (given free to every school in Scotland thanks to a crowd-funding initiative) or the 'Tree Stories' booklet to get you started.

Activity ideas		Supporting resources
<ul style="list-style-type: none"> <li>Find your favourite tree to be under, up or in. Lie on your back below its leafy crown, curl amongst its roots or drape yourself along its branches. How does being with your tree make you feel? What kind of tree is it? What can you find out about it? Use a tree identification key.</li> </ul>	Expressive arts	TRACS Storytelling Resources: <a href="http://tracscotland.org/our-resources/">tracscotland.org/our-resources/</a>
<ul style="list-style-type: none"> <li>Create your own tree tale based upon your observations: look at the shape of its leaves, the way it moves, the texture of the trunk, the way it changes through the year or any things you know or can find out about that type of tree. Why might it have those particular traits? How are they important to the tree? What do they tell us about it? Be as imaginative as you like!</li> <li>As a group gather a hoard of words to pick from to help you write a poem. Write the poem in the shape of your tree (concrete poems) or make an acrostic from its name (see 'Willow' in Lost Words - An Explorer's Guide for inspiration).</li> </ul>	Language & literacy	Tree Stories (by Claire Hewitt. In English & Gaelic): <a href="http://www.owlscotland.org//resources/resource-library/tree_stories">www.owlscotland.org//resources/resource-library/tree_stories</a>  A-B-Tree / A-B-Craobh (facts & Lore): <a href="http://www.mandyhaggith.net/a-b-tree.asp">www.mandyhaggith.net/a-b-tree.asp</a>  Lost Words - An Explorers Guide: <a href="http://www.johnmuirtrust.org/initiatives/the-lost-words">www.johnmuirtrust.org/initiatives/the-lost-words</a>
Discuss why being able to name trees and express our thoughts and feelings about them matters for sustainability. Lost Words may add to or inspire your own ideas.	Learning for Sustainability	



### Third and fourth levels: Wonderful trees

Throughout modern history artists, musicians, writers and craftspeople have taken inspiration for the natural world around them. Trees are the subject of particular awe and wonder because of their size and because their life spans often exceed our own. This makes them appear as a permanent feature of the backdrop to our lives, representing such enviable and desirable qualities as endurance, strength and resilience.

Activity ideas		Supporting resources
Botanical art started out as way to help doctors clearly identify the features of a plant that could be used in medicine. Plant hunters and conservationists, such as David Douglas, also used botanical drawings to record the plants they discovered around the world to help botanists understand more about the plant specimens they brought home. Learn about what differentiates botanical art from other art forms and then try your hand at it. It is a real skill.	Expressive arts	Botanical Art & Artists: <a href="http://www.botanicalartandartists.com">www.botanicalartandartists.com</a>  Trees & The Scottish Enlightenment link  Mythology & Folklore: <a href="http://treesforlife.org.uk/into-the-forest/trees-plants-animals/">treesforlife.org.uk/into-the-forest/trees-plants-animals/</a>
Trees often appear in poetry. Sometime the poems are about the tree's character, but they also appear as an analogy or metaphor representative of something else, such as an emotion. Is there a specific species of trees that you connect with most? Why might that be? Learn more about how some species have become linked with common human challenges through fact, use, myth or folklore. They can help us to express elements of the human condition that we find hard to resolve or understand.	Health & wellbeing	William Blake – A Poison Tree: <a href="https://prezi.com/3xchtpeyxz-6/poetry-slam-a-poison-tree/">https://prezi.com/3xchtpeyxz-6/poetry-slam-a-poison-tree/</a>
<ul style="list-style-type: none"> <li>• Trees also feature in performance poetry, such as 'slam' poetry. Write your own tree-based poem to perform to an audience, in a 'slam' style.</li> <li>• Nature writings are also often full of tree-based observation and metaphor, and new titles still top best-seller charts today (such as The Hidden Life of Trees by Peter Wohlleben). Discover and explore some of this type of work through something like Listopia.</li> <li>• Watch the TED talk about How Trees Talk to Each Other. Imagine the things the trees might communicate with each other.</li> </ul>	Language & literacy	Listopia (search for 'nature writing' or 'trees'): <a href="http://www.goodreads.com/list">www.goodreads.com/list</a>  TED talk on How Trees Talk to Each Other: <a href="http://www.ted.com/talks/suzanne_simard_how_trees_talk_to_each_other">www.ted.com/talks/suzanne_simard_how_trees_talk_to_each_other</a>  Dear Future Generations – Sorry: <a href="http://www.youtube.com/watch?v=eRLJscAlk1M">www.youtube.com/watch?v=eRLJscAlk1M</a>
Trees are amazing in many ways, including the role they play in helping to balance our changing climate. Do you agree with the Veritasium film that suggests that the way trees move water up so high is one of the most amazing things about trees? If not, what would you consider it to be?	Sciences	Veritasium How Trees Bend the Laws of Physics (video 7m22s): <a href="http://www.youtube.com/watch?v=BickMFHAZRO">www.youtube.com/watch?v=BickMFHAZRO</a>
Watch the short film Dear Future Generations: Sorry and consider what it is saying about our stewardship of the planet. What do you feel humanity's role should be?	Social studies	John Muir Award: <a href="http://www.johnmuirtrust.org/john-muir-award">www.johnmuirtrust.org/john-muir-award</a>
The John Muir Award provides a very useable framework for schools and individuals wanting to building a more sustainable relationship with their local areas, including trees.	Learning for Sustainability	

## 7. Uses of Trees

**The Climate emergency, loss of biodiversity and inequality** are shining a spotlight on how essential trees are to us. In the UK, the right trees planted in the right places will lock up carbon dioxide from the atmosphere, helping to mitigate the impact of climate change. Trees are an essential part of the complex workings of the Biosphere. Over thousands of years humans have found a phenomenal number of ways to use trees and forests. Here are a few examples:

- Wildlife and people use trees for food, shelter and water. So many living things rely directly on trees to meet their needs, that trees are vital species within our interconnected ecologies.
- People use trees for craft and creativity, wood products such as paper and fuel
- and, increasingly, to improve mental health and wellbeing.

Whether you want to plant trees or use them, or a bit of both, each tree species has its own unique qualities. So it is important to be able to tell them apart (including for your own health & safety). Activities like the ones suggested below provide real-life reasons to use your identification skills.

Find support with [Starting Tree Identification \(ID\)](#)

Find [Tree Identification \(ID\) Resources](#)

### Activities to help you... discover some uses of trees



**Remember to sustainably gather, harvest or forage** from all tree & plants. There is some useful guidance in the Botanical Society of Britain & Ireland's (BSBI) Code of Conduct: <https://bsbi.org/resources>.



**Find out how trees help us.** Some of the benefits of trees are described on the Arboricultural Association's website, including a video introduction by Greta Thunberg naturenow: [www.trees.org.uk/Help-Advice/Benefits-of-Trees](http://www.trees.org.uk/Help-Advice/Benefits-of-Trees).



**Try some simple elder wood crafts.** Elder is a common and resilient tree, and there are lots of accessible ways to use it to make jewellery, pencils, whistles, toys and sculptures. This link will give you some ideas [richardirvine.co.uk/2017/01/elder1/](http://richardirvine.co.uk/2017/01/elder1/) and introduce you to the satisfaction and sustainability of making things for yourself.

**Forage for food and drink!** From early spring through to late autumn, our common trees provide a succession of edible (or drinkable) blossom (lime & elder), leaves (lime, beech, hawthorn), fruit (crab apple, rowan) and nuts (hazel, sweet chestnut).



Try to identify which food producing trees are around in your local area. You could then find related products in local shops – teas, cordials, fruits and nuts.



Use your identification skills to forage for fresh, healthy snacks in your local area. Use your identification skills to ensure you only eat wild foods that you know are safe. Remember to take only what you will use and pick carefully so that it has a minimal impact on the plant. Start with exploring what's available in nature's larder on a site like this [www.woodlandtrust.org.uk/visiting-woods/things-to-do/foraging](http://www.woodlandtrust.org.uk/visiting-woods/things-to-do/foraging)



**De-stress and recharge** with ‘forest bathing’ or Shinrin Yoku. Slowing down, switching off technology and having a wander among trees can give your body, heart and mind huge benefits. Sit down under a tree that appeals to you. Use the simple introduction in this link to help you [www.growwilduk.com/blog/2015/12/03/5-simple-steps-practising-shinrin-yoku-forest-bathing](http://www.growwilduk.com/blog/2015/12/03/5-simple-steps-practising-shinrin-yoku-forest-bathing). Identifying the tree later and finding out more about it can provide interesting information about why you might have liked it. [Trees and Creativity \(Section 6\)](#).



**Find out how trees provide for other life.** Trees are often the most crucial of an ecology’s inhabitants – directly supporting many other forms of life and taking relatively little in return. Spend some time really exploring a tree in detail to find out what’s living on its branches, twigs and bark. What’s benefitting from the shade and shelter of its leaves and hollows? How many other lives are supported by the nutrients in its leaves, seeds, fruits or nuts. Don’t forget to count yourself! You are benefiting from oxygen, shade, shelter, immune-system strengthening, and mental restoration affecting your brainwave patterns and neurotransmitters! The older the tree the better, such as those mapped on the Ancient Tree Inventory [ati.woodlandtrust.org.uk/](http://ati.woodlandtrust.org.uk/).

There is an increasing amount of research available about the positive impacts of nature connection, such as NHS Forests’ Growing Forests for Health [nhsforest.org](http://nhsforest.org) or the Wildlife Trusts’ Nature for Wellbeing [www.wildlifetrusts.org/nature-health-and-wild-wellbeing](http://www.wildlifetrusts.org/nature-health-and-wild-wellbeing).

Or you could contribute to the Urban Mind project, which is researching mental well-being in cities: [www.urbanmind.info](http://www.urbanmind.info)



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## USES OF TREES (continued)

### Early & First Levels: Things to do with trees

Trees are important in our lives for many reasons.

Start to explore our creative as well as our physical relationship with trees.

Activity ideas		Supporting resources
<ul style="list-style-type: none"> <li>One of the most common art media is made from the twigs of the willow tree - artists charcoal. Trees such as elder are often used in crafts as the wood is soft and easy to use. If you combine the two, you can make an elder pencil!</li> <li>Although we all know modern paper is made of wood pulp, many of the original sources of paper were from trees too. Try to make your own.</li> </ul>	Expressive arts	<p>How to make charcoal: <a href="http://www.woodlands.co.uk/blog/practical-guides/how-do-you-make-charcoal/">www.woodlands.co.uk/blog/practical-guides/how-do-you-make-charcoal/</a></p> <p>Elder crafts (including pencil): <a href="http://richardirvine.co.uk/2017/01/elder1/">richardirvine.co.uk/2017/01/elder1/</a></p>
<p>Create a foragers feast! Tree fruit, nuts and even some flowers and leaves are edible. Use your identification skills to ensure you only eat wild foods that you know are safe. Remember to take only what you will use and pick carefully so that it has a minimal impact on the plant. If you are unsure, buy from a shop instead and be aware of people with tree-nut allergies.</p> <ul style="list-style-type: none"> <li>Nuts: hazel, sweet chestnut (not horse chestnut 'conkers'), beech mast</li> <li>Fruits (not seeds): elderberry, hawthorn berries, sloe (from blackthorn), crab apples, rowan</li> <li>Flowers: elderflower</li> <li>Leaves: lime, hawthorn, beech</li> </ul>	Health & wellbeing	<p>Foraging (Woodland Trust): <a href="http://www.woodlandtrust.org.uk/visiting-woods/things-to-do/foraging">www.woodlandtrust.org.uk/visiting-woods/things-to-do/foraging</a></p> <p>Elderflower Cordial recipe: <a href="http://www.rivercottage.net/recipes/elderflower-cordial">www.rivercottage.net/recipes/elderflower-cordial</a></p> <p>Leaf bashing ('Hapa Zome'): <a href="http://www.playengland.org.uk/resource/nature-play-activity-recipes/">www.playengland.org.uk/resource/nature-play-activity-recipes/</a></p>
Follow a recipe for elderflower cordial.	Language & literacy	<p>Leaf printing on fabric: <a href="http://artfulparent.com/printing-leaves-on-fabric/">artfulparent.com/printing-leaves-on-fabric/</a></p>
Measure your quantities for the elderflower cordial recipe.	Mathematics	
Make an identification resource that is both beautiful and useful. You could paint the leaves with fabric paint and print them on to blank tea towel, or 'bash' them onto some natural fabric to make leaf patterns (also known as 'Hapa Zome') to make a beautiful cloth banner that celebrates the rich variety of local trees.	Technologies	



## Second Level: Why trees matter

Meet your local trees! Get to know them better. They are important for wildlife and people in lots of ways, including for food, shelter, creativity, timber, craft or fire. Each tree species has its own unique qualities that make it more or less suitable so it is important to be able to tell them apart (including for your health & safety) providing the perfect real-life reason to use your identification skills.

Activity ideas		Supporting resources
<ul style="list-style-type: none"> <li>• Meet a Tree' and get to know it better. Spend some time just being with a tree and try 'Observing Nature like John Muir'. Which tree do you like most? What qualities attracted you to it?</li> <li>• Being around trees can benefit peoples' health so why not try some Japanese Forest Bathing (also known as Shinrin-Yoku) to see how it make you feel.</li> </ul>	Health & wellbeing	Sharing Nature ('Meet a Tree' and 'Observing Nature like John Muir' activities): <a href="http://www.sharingnature.com/nature-activities.html">www.sharingnature.com/nature-activities.html</a>
<ul style="list-style-type: none"> <li>• A healthy ecosystem will have high biodiversity.. Which species of trees support the most wildlife in your area? Try 'Shaking a Tree' with RSPB's activity to find out which minibeasts live of different trees &amp; bushes in your local area.</li> <li>• Which species rely on trees (bats, owls, lichen, wood ants...)? Are any specific to just one species of tree? What impact might that have on the way we manage (or look after) our trees &amp; woodlands? What impact does our changing climate have on it all?</li> </ul>	Sciences	<p>Guide to Shinrin-Yoku: <a href="http://www.growwilduk.com/blog/2015/12/03/5-simple-steps-practising-shinrin-yoku-forest-bathing">www.growwilduk.com/blog/2015/12/03/5-simple-steps-practising-shinrin-yoku-forest-bathing</a></p> <p>Shake a Tree (RSPB): <a href="http://www.rspb.org.uk/fun-and-learning/for-families/family-wild-challenge/activities/shake-a-tree/">www.rspb.org.uk/fun-and-learning/for-families/family-wild-challenge/activities/shake-a-tree/</a></p>
Historically, people relied greatly on food from trees. Learn more about this through <i>Wolf Brother's Wildwoods</i> (especially Chapter 3: Themed Outdoor Learning Activities and Appendix 2: The Trees of Torak's Forest). What do we most value trees for today? Are they the same as in Torak's time?	Social Studies	SNH Biodiversity Activities Pack: <a href="http://www.nature.scot/biodiversity-activities-pack">www.nature.scot/biodiversity-activities-pack</a>
<ul style="list-style-type: none"> <li>• You could plant some trees but which species would you chose? How would you decide? Would it be to support your local biodiversity? Or would you like an orchard that you could gather produce from? Plant a tree in your school grounds or in a local woodland with the ranger - which tree species will be the best ones for you? Gather own seeds from the local area, or see if you can get some free trees from the Woodland Trust.</li> <li>• Take part in Citizen Science with Nature's Calendar. Use your tree identification skills to track seasonal changes in your area. Record your findings online to help scientists discover whether the changing climate is affecting our wildlife in the UK.</li> </ul>	Learning for Sustainability	<p>Wood Ant activity pack: <a href="http://www.nationalinsectweek.co.uk/files/wood-ant-activity-packpdf">www.nationalinsectweek.co.uk/files/wood-ant-activity-packpdf</a></p> <p>BBC Teach Scotland's Native Woodlands (video 16m50s): <a href="http://www.youtube.com/watch?v=Ecbwpzr92Ps">www.youtube.com/watch?v=Ecbwpzr92Ps</a></p> <p>Wolf Brother's Wildwoods: <a href="http://www.owlsotland.org/resources/resource-library/wolf_brothers_wildwoods">www.owlsotland.org/resources/resource-library/wolf_brothers_wildwoods</a></p> <p>Plant trees with your School (Woodland Trust Free Trees): <a href="http://www.woodlandtrust.org.uk/plant-trees/schools-and-communities/">www.woodlandtrust.org.uk/plant-trees/schools-and-communities/</a></p> <p>Tree Council's Hedgerow harvest: <a href="http://www.hedgerowharvest.org.uk/">www.hedgerowharvest.org.uk/</a></p> <p>Nature's Calendar: <a href="https://naturescalendar.woodlandtrust.org.uk/">https://naturescalendar.woodlandtrust.org.uk/</a></p>



## USES OF TREES (continued)

### Third & Fourth Levels: Valuing trees

Trees help reduce pollution and bring nature to urban areas. They support the rural economy, provide food and habitats for wildlife, and help to combat the climate emergency. Develop and use tree identification skills in order to understand, debate and contribute.

Activity ideas		Supporting resources
Do you have an area of productive forestry nearby? . Experiment with different tree measuring techniques to find out the timber volume of the standing trees and use the 'Timber Price Indices' to find out their financial worth as a product to the forestry industry.	Mathematics	Tree Measuring (OWL Scotland): <a href="http://www.owlscotland.org/images/uploads/resources/files/TreeMeasuring2018.web3.pdf">www.owlscotland.org/images/uploads/resources/files/TreeMeasuring2018.web3.pdf</a>
the climate emergency threatening the survival of living things? Look at Adaptation Scotland to learn more about how trees can be part of the solution.	Sciences	Forest Research: Tools & Resources (inc. Timber Price Indices): <a href="http://www.forestresearch.gov.uk/tools-and-resources/">www.forestresearch.gov.uk/tools-and-resources/</a>
<ul style="list-style-type: none"> <li>Explore the many benefits of trees to society and the wider world, starting with the Benefits of Trees website. Consider the value of the natural environment to both humans and wildlife, and the impact of human activity upon it.</li> <li>Look at different reasons for tree planting - such as in Manchester's City of Trees project - municipal planting in cities, economic planting for forestry, flood defence, pollution reduction and food sources.</li> <li>Treeconomics: How are these things measured and quantified? Are there ways we can measure the less easily quantifiable things such as mental health and wellbeing?</li> <li>Compare our modern societies' relationship with trees and the natural world, through some Outdoor Archaeological Learning resources that look at the lives of ancient peoples.</li> </ul>	Social studies	<p>Adaptation Scotland: <a href="http://www.adaptationscotland.org.uk/how-adapt/tools-and-resources/climate-ready-places">www.adaptationscotland.org.uk/how-adapt/tools-and-resources/climate-ready-places</a></p> <p>Benefits of Trees (Arboricultural Association) - including Greta Thunberg's @naturenow video: <a href="http://www.trees.org.uk/Help-Advice/Benefits-of-Trees">www.trees.org.uk/Help-Advice/Benefits-of-Trees</a></p> <p>City of Trees (Manchester): <a href="http://www.cityoftrees.org.uk">www.cityoftrees.org.uk</a></p>
Research how emerging technologies are (or potentially will) impact on the global use of wood and the conservation of natural resources. Bio economy?	Technologies	Treeconomics: <a href="http://www.treeconomics.co.uk/">www.treeconomics.co.uk/</a>
<ul style="list-style-type: none"> <li>You could plant some trees but which species would you chose? How would you decide? Would it be to support your local biodiversity? Or would you like an orchard that you could gather produce from? Plant a tree in your school grounds or in a local woodland with the ranger - which tree species will be the best ones for you? Gather own seeds from the local area, or see if you can get some free trees from the Woodland Trust.</li> <li>Take part in Citizen Science with Nature's Calendar. Use your tree identification skills to track seasonal changes in your area. Record your findings online to help scientists discover whether the changing climate is affecting our wildlife in the UK.</li> </ul>	Learning for Sustainability	<p>Outdoor Archaeological Learning (F&amp;LS): <a href="http://forestryandland.gov.scot/what-we-do/conservation/historic-environment-conservation/learning">forestryandland.gov.scot/what-we-do/conservation/historic-environment-conservation/learning</a></p> <p>Online Atlas of British and Irish flora: <a href="http://www.brc.ac.uk/plantatlas/">www.brc.ac.uk/plantatlas/</a></p> <p>Plant trees with your School (Woodland Trust Free Trees): <a href="http://www.woodlandtrust.org.uk/plant-trees/schools-and-communities/">www.woodlandtrust.org.uk/plant-trees/schools-and-communities/</a></p> <p>Nature's Calendar (signs of the seasons survey): <a href="http://naturescalendar.woodlandtrust.org.uk/">naturescalendar.woodlandtrust.org.uk/</a></p> <p>Treezilla: <a href="http://www.forestresearch.gov.uk/research/urban-trees-and-greenspace-in-a-changing-climate/quantification-and-valuation-of-ecosystem-service-provision-of-urban-trees/treezilla/">www.forestresearch.gov.uk/research/urban-trees-and-greenspace-in-a-changing-climate/quantification-and-valuation-of-ecosystem-service-provision-of-urban-trees/treezilla/</a></p>



## 8. Seasonal planner

Trees are perceived as permanent features in the backdrop of our daily lives – if noticed at all. Yet in fact they are ever-changing, responding to the weather, the seasons and the world around them.

This planner is designed to help you plan the best time to carry out the different activities within this resource. You could also link your identification activities with the seasonal events and celebrations below to build significance and deepen the experience.

By repeating some of the activities suggested in this pack throughout the year, and comparing the results, you can provoke meaningful reflections, help embed learning and build a deeper appreciation of the significance of trees within our lives.

### Ideas

- Use fixed-point photography: photographing trees (or just one tree) regularly to see the changes through year. Use the pictures to make a time-lapse video using a suitable app.
- Create a calendar of pictures (photos of your art/patterns/gatherings) to illustrate seasonal changes.
- Investigate the origins of tree names: for examples *Malus* (apple) meaning ‘bad’ or ‘evil’ (and linked to Adam & Eve’s fall from paradise). Also, the Gaelic name *samh* for Juniper is associated with Samhain, or Hallowe’en, as juniper was burnt at the doors of Scottish homes on that night as it was thought to ward off evil spirits.

- Have a tree-related Hallowe’en with bonfires, toffee apples, birch-twigs witches ‘besoms’ and Harry Potter wands of all different species.
- Write some Christmas tree kennings and use them to decorate your tree on tree dressing day.
- Mindfulness – trees that support or inspire you (maybe linked to myths or folklore)

### Useful Links

- Yews trees: [www.ancient-yew.org](http://www.ancient-yew.org)
- Religious Festivals calendar: [www.reonline.org.uk/festival-calendar/](http://www.reonline.org.uk/festival-calendar/)
- Christmas Trees: [www.religioustolerance.org/xmas\\_tree.htm](http://www.religioustolerance.org/xmas_tree.htm)
- Seed gathering season (23rd Sept–23rd Oct each year) [www.treecouncil.org.uk/Take-Part/seed-gathering-season](http://www.treecouncil.org.uk/Take-Part/seed-gathering-season)
- National Tree Week, leading up to Tree Dressing Day (end Nov to start Dec each year): [www.treecouncil.org.uk/Take-Part/National-Tree-Week](http://www.treecouncil.org.uk/Take-Part/National-Tree-Week)

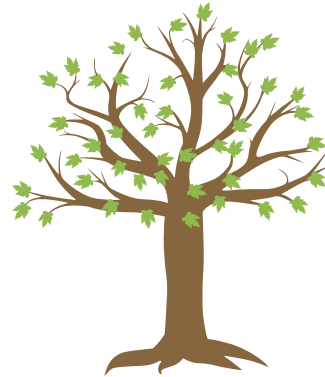
## Seasons and Celebrations

### Seasonal

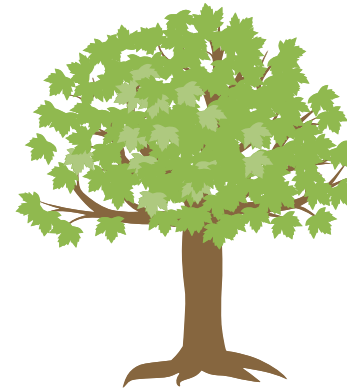
- Bud burst
- Flowers and Cones
- Birds nesting

### Celebration

- Palm Sunday (*Christian*)
- Beltane (*Wiccan/Pagan*)
- Tu B'Shevat Yew Year of Trees (*Jewish*)
- Holi (*Hindu*)
- Hanami (*Japan*)



Spring



Summer

### Seasonal

- Lots of leaves on trees
- Minibeast food

### Celebration

- Summer Solstice (*Wiccan/Pagan*)

### Seasonal

- National Tree Week
- No leaves so use bark or buds for ID
- Bare root tree planting season

### Celebration

- Tree Dressing (*Various, Global*)
- Christmas trees (*Christian*)
- Bodhi Day (*Buddhist*)
- Treeplanting (*Islam*)



Autumn



Winter

### Seasonal

- Fruiting and seed dispersal
- Apple Day
- Scottish Conker Championships

### Celebration

- Harvest festival, including tree nuts (*Christian*)
- Samhain / halloween (*Wiccan/Pagan*)

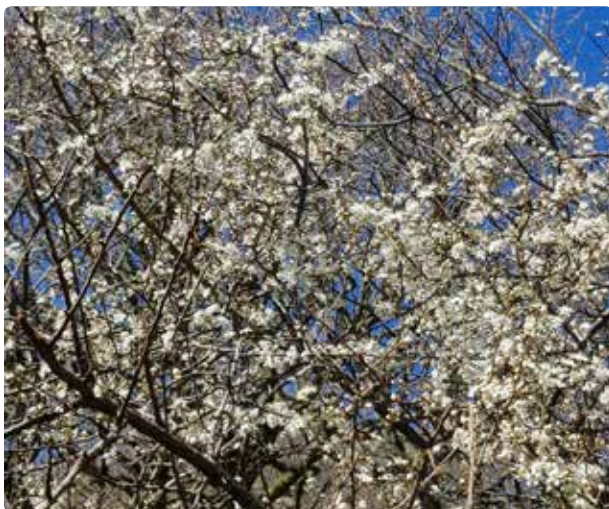


## 9. Scottish Tree Names

**A table of common Scottish tree names is given below, with their common, scientific and Gaelic names decoded.**

Why do we use scientific names? The system of scientific names enables people to communicate clearly about species, even if they do not speak the same language or live in the same area. It is a universal language that bridges language barriers throughout the world. This might not seem like a big deal, and for many non specialists scientific names are often considered old fashioned, complicated and irrelevant. All our food and most medicines come from the living world, and these circumstances a mistake in communication could be deadly.

For example, the tree we know as 'rowan' in Scotland is known in other parts of the world as



BLACKTHORN

IMAGE © BONNIE MAGGIO

'mountain ash'. Because of this, it might be assumed to be a member of the ash family (*Fraxinus*). However, it's scientific name '*Sorbus*' tells us it is an entirely different genus. It has other common names too, such as wicken-tree, bird catcher, witchbane, witch wood, wiggin and round tree. Plus there are 55 different species of rowan or mountain ash. Imagine how hard it would be to make certain you are talking about exactly the same tree! Scientific binomial names enable us to do this, so that we can tell a *Sorbus aucuparia* from a *Sorbus americana*.

Carl von Linné, also known as Carl Linnaeus [www.linnean.org/learning/who-was-linnaeus](http://www.linnean.org/learning/who-was-linnaeus), is recognised as the father of modern taxonomy for his naming system described in *Systema Naturae* (1758). The binomial nomenclature gives us the Latin two-term name for species that is still used throughout the world today.

Here is slightly more in-depth explanation of how and why we use botanical names:

[www.gardenersworld.com/plants/gardening-for-beginners-latin-plant-names/](http://www.gardenersworld.com/plants/gardening-for-beginners-latin-plant-names/)

## Scots Language

[www.dsl.ac.uk](http://www.dsl.ac.uk) Dictionary of Scots Language

[www.scots-online.org/dictionary/english\\_scots.php](http://www.scots-online.org/dictionary/english_scots.php)

For more tales about Scottish plants:

*Scottish Plant Lore: An Illustrated Flora*, Gregory Kenicer, (2020)

Publisher: Birlinn General ISBN: 9781780276908

## Gaelic

Our main reference is

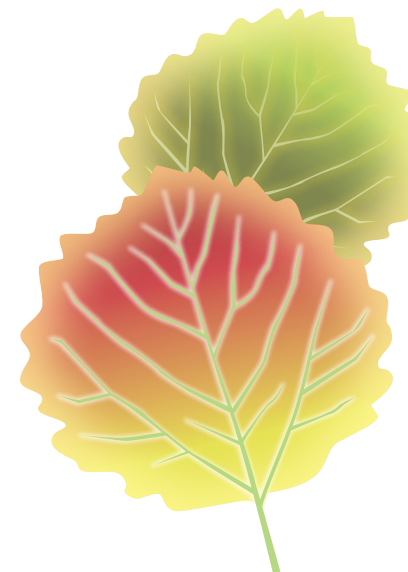
<https://learngaelic.scot/dictionary/index.jsp>

We chose the main spelling of the single word, and then added the prefix for tree. There are no neutral nouns in Gaelic, and trees are predominantly male.



## SCOTTISH TREE NAMES TABLE

Name				Interesting note	Identification tip
English	Latin	Scots	Gaelic		
Alder (common)	<i>Alnus glutinosa</i> <i>Alnus</i> : alder <i>glutinosa</i> : sticky	aller/allar ern/arn	Feàrna (alder) Crann- feàrna (alder tree)	sticky ' <i>glutinosa</i> ' refers to the roots. Found in wet places.	The word "carr" in a place name is the flat waterlogged landscape which is transitioning from wetland to woodland. Alder often found in these landscapes.
Ash (common)	<i>Fraxinus excelsior</i> <i>Fraxinus</i> : ash <i>excelsior</i> : noble exalted ever upward	Aish	Uinnseann (ash) Craobh-uinnsinn (ash tree)	This beautiful tree is dying out because of Ash Dieback Disease.	Black buds. The end of the branch tips sweep upwards. Pinnate leaves – individual leaflets from a main stalk which together form the leaf (similar to rowan).
Aspen	<i>Populus tremula</i> <i>Populus</i> : people <i>Tremula</i> : trembling	Quaikin aish	Critheann (aspen) Craobh crithinn (aspen tree)	Aspen leaves appear to shimmer in the wind.	Long flattened leaf stalks.
Beech (common)	<i>Fagus sylvatica</i> <i>Fagus</i> : beech <i>sylvatica</i> : of the forest	Beech	Faidhbhile (beech) Craobh-fhaidhbhile (beech tree)	Grows on a wide range of well-drained soil types.	Edges of the leaves are wavy and hairy.
Birch (Silver)	<i>Betula pendula</i> <i>Betula</i> : Latin for birch <i>pendula</i> : pendant, hanging	Birk Birkenshaw (Birchwood)	Beithe (birch) Craobh-bheithe (birch tree)	Has a range of fungi that are commonly associated with it like birch milk cap, birch polypore.	Silvery white bark, all year round, which sheds in layers. Drooping ends of branches when mature.
Birch (Downy)	<i>Betula pubescens</i> <i>Betula</i> : Latin for birch <i>Pubescens</i> : hairy	Birk Birkenshaw (Birchwood)	Beithe (birch) Craobh-bheithe (birch tree)	Grows further north than any other broadleaf species.	Twigs are soft and hairy to touch when new in spring.
Cherry (Wild)	<i>Prunus avium</i> <i>Prunus</i> : of plum family <i>avium</i> : of the birds	Gean	Siris (Cherry) Craobh-shiris (cherry tree)	<i>Avium</i> refers to birds which play a role in dispersing the seed by eating them, then excreting the seeds.	Leaf stems have two red glands at the top.



Aspen

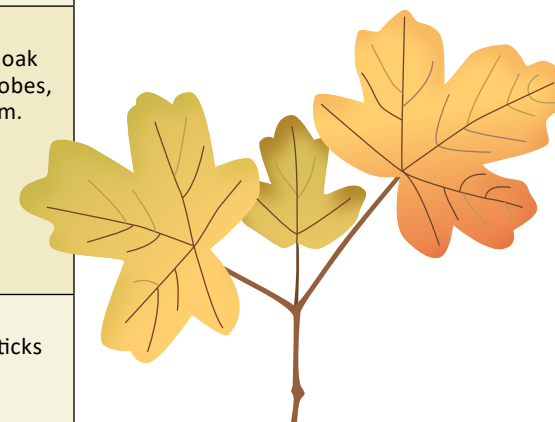
## SCOTTISH TREE NAMES TABLE (continued)

English	Latin	Scots	Gaelic	Interesting note	Identification tip
Horse Chestnut	<i>Aesculus hippocastanum</i> <i>Aesculus</i> : Latin for 'edible acorn' <i>Hippocastanum</i> : <i>hippo</i> : horse; <i>castanea</i> : chestnut	Chestnut Fruit called: Cheggies Chessies Conkers	Geanm-chò (chestnut) Craobh gheanm-chò (Chestnut tree)	The seed is used for playing conkers, between 2 people. The World Conker Championships are held annually in October.	The leaf scars left on twigs after the leaves have fallen have a distinctive horseshoe shape, complete with "nails". Dark shiny red-brown buds are sticky.
Crab Apple	<i>Malus sylvestris</i> <i>Malus</i> : 'bad' or 'evil' <i>sylvestris</i> : 'growing wild' or 'of the woods'	Scrab Scribe Screyb	Fiadh-ubhal (crab apple) Craobh-ubhail fhiadhain (crab apple tree)	<i>Malus</i> , bad or evil, refers to the apple in the Biblical garden of Eden. Small bitter fruit.	The edges of the leaf bud scales have a short row of hairs.
Douglas Fir (also known as Oregon Pine)	<i>Pseudotsuga</i> : false tsuga <i>menziesii</i> : named for Archibald Menzies, 19th century Scottish botanist and seed collector.	No specific Scots language name	giuthus MhicDhùghlais	<i>Tsuga</i> is the Japanese name for a hemlock tree, so the Douglas Fir really is a false <i>Tsuga</i> .	The seed cones hang straight down from the tree branches. From each scale protrudes a unique three-pointed bract.
Elder (common)	<i>Sambucus nigra</i> <i>Sambucus</i> : named from the Sambuca, a stringed instrument made from the elder wood. <i>nigra</i> : black (the berries are black)	Bourtree/ Boortree	Crann-dromainn (elder tree)	The stems of young elder, hollowed out were used as pipes to blow on a fire; the Pipe or Bore Tree in English and Bourtree/Boortree in Scots. So called because the branches naturally bend, creating a bower, hence bower-tree or bourtree.	The leaves consist of 5-7 oval and toothed leaflets which smell unpleasant when touched or bruised.
Wych Elm	<i>Ulmus Glabra</i> <i>Ulmus</i> : Latin for Elm <i>Glabra</i> : smooth	Wych Elme: Scottish Elm	Ailm – (genus) Tuilm (Wych Elm)	After Dutch Elm disease, this once common street tree is hard to find on our streets.	Base of the individual leaf halves meet the stem asymmetrically.



Douglas Fir cone

English	Latin	Scots	Gaelic	Interesting note	Identification tip
English Elm	<i>Ulmus Procera</i> <i>Ulmus</i> : Latin for Elm <i>Procera</i> : high/lofty/ upraised	Elme	Ailm – (genus) Craobh-learnhain (English Elm tree)	After Dutch Elm disease, this once common street tree is hard to find on our streets.	Base of the individual leaf halves meet the stem asymmetrically.
European Larch	<i>Larix decidua</i> <i>Larix</i> : Latin for larch <i>Decidua</i> : Latin <i>de</i> (down) and <i>cadere</i> (to fall)	Larrick/Larick Laurick	Learag (larch) Craobh-learaige (larch tree)	Larch is one of the few deciduous conifer trees. The Latin name <i>decidua</i> gives us the word deciduous.	Larch needles turn brown in autumn and drop off. In spring the vivid green needles grow back. Female flower is red and grows into small cones. (less than 1cm).
Field Maple	<i>Acer campestre</i> & <i>Acer</i> species <i>Acer</i> : Acrid (the Maple genus) <i>campestre</i> : found in plains or similar flat or level places	Maser/ Masar Macer/ Mazer	Malpas- coitcheann (maple of the common grazing land)	<i>Acrid</i> is also means sharp in Latin. This refers to the hardness of maple wood which was used for spears by Roman soldiers.	Twigs develop a corky bark with age. Leaves turn golden yellow in the autumn.
Hawthorn (common)	<i>Crataegus monogyna</i> <i>Crataegus</i> : hardness, referring to the quality of the wood <i>monogyna</i> : one ovary; one seed	Hathorne/ Haw-tree Haw – fruit Hawbrek (Ayrshire): Hawthorn blossom May: flower	Sgeach (hawthorn berry) Craobh-sgithich (hawthorn tree)	The Scots saying “Ne’er cast a clout till may is oot”. Don’t start thinking the weather is warm before the may flower is out, and think that summer is here! A clout is a cloth/ clothes. The saying refers to the flower and not the month.	Spiky needle-like thorns. Leaves are like miniature oak leaves but with toothed lobes, cut to half way to the stem.
Hazel (common)	<i>Corylus avellana</i> <i>Corylus</i> : from the Greek <i>krylos</i> , meaning Hazelnut <i>avellana</i> : of or from Avella, Italy	Hissel/Hissil Hazzle/Hasill	Calltainn (hazel) Craobh-challtainn (hazel tree)	Can be coppiced: cut back to less than 20cm to re-grow in straight stems. Used for walking stick, hurdles, thatching spars.	Grows multi-stemmed producing long straight sticks straight from the ground.



Hawthorn

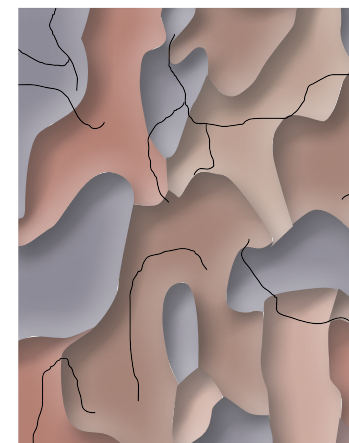
## SCOTTISH TREE NAMES TABLE (continued)

English	Latin	Scots	Gaelic	Interesting note	Identification tip
Holly	<i>Ilex aquifolium</i> <i>Ilex</i> : Latin name for holly <i>aquifolium</i> : holly-like leave	Holin(e) Holyn(e)	Cuileann (holly) Craobh-chuilinn (holly tree)	Only the female tree produces berries. You need both a female tree and a male tree to be near enough one another to be pollinated to get the berries.	Glossy spiky leaves. Used at Christmas for decoration when the berries are still on the branch.
Juniper	<i>Juniperus communis</i> <i>Juniperus</i> : from the Latin iuniperus, classic name for the genus <i>Communis</i> : 'common' and maybe 'grows in company with other plants'	Aiten Etnach/ Aitnach: of the juniper	Aiteann (genus – juniper) Dearc-aitinn (juniper berry)	Juniper is one of only three native conifers in the UK (others are Yew and Scots Pine).	Small bush. Very slow growing. Compact blue/black berries which can be used in cooking and a botanical flavour component in gin.
Lime	<i>Tilia spp.</i> <i>Tilia</i> : Latinized name for the Linden (or lime) tree <i>Tilia platyphyllos</i> : Large-leafed lime <i>platy</i> : broad <i>phyllos</i> : leaves <i>Tilia cordata</i> : Small-leafed lime <i>Cordata</i> : heart-shaped <i>Tilia x Europea</i> : hybrid	Lime Lim Lyme Linden Lynd	Teileach (lime) Craobh-theile (lime tree)	Everything becomes sticky in summer caused by honey dew from greenfly. Nectar in some lime flowers is narcotic to bees and makes them drowsy. <b>Note:</b> the common name for the lime tree in Sweden is Linn, and is the origin of Carl Linnaeus' name.	Heart shaped leaves. Shoots grow from the trunk (called epicormic growth).
Lodgepole Pine	<i>Pinus contorta</i> <i>Pinus</i> : old name for pine <i>contorta</i> : twisted	No specific Scots language name	No specific Scots Gaelic language name	Were cut and used for central pole of Native American teepees – thus the lodge pole.	Long needles that twist in bunches of two (hence <i>contorta</i> name).



Holly

English	Latin	Scots	Gaelic	Interesting note	Identification tip
Pendunculate Oak	<i>Quercus robur</i> <i>Quercus</i> : Latin name for oak <i>Robur</i> : Hard timber, strength	Aik/Ake Oak	Darach (Oak) Craobh-dhairaich (oak tree)	Also known as English Oak – Acorns on stalks like a small pipe. Oak forests support more forms of life than any other type of forest.	Produces acorns. Oak leaves are lobed.
Sessile Oak	<i>Quercus petraea</i> <i>Quercus</i> : Latin name for oak <i>petraea</i> : From <i>petra</i> , meaning solid/strong	Aik/Ake Oak	Darach (Oak genus) Dhairaich-neo-ghasagach (Sessile Oak tree)	Acorns are fixed to the twig – no stalk. Sessile Oak is the official national tree of Ireland.	Produces acorns. Oak leaves are lobed.
Rowan (also known as mountain ash)	<i>Sorbus aucuparia</i> <i>Sorbus</i> : classical name for this genus <i>aucuparia</i> : bird catcher	Rowan Roddin (berry) Rodrikin	Caorann (rowan) Craobh-chaorann (rowan-tree)	Used to be thought to ward off witches. Often planted in Scottish churchyards and manse (Church Minister's house) gardens.	Cluster of red berries in the autumn. Pinnate leaves – individual leaflets from a main stalk which together form the leaf (similar to ash).
Scots Pine	<i>Pinus sylvestris</i> <i>Pinus</i> : old name for pine <i>sylvestris</i> : 'growing wild' or 'of the woods'	Scots Pine	Giuthas-Albannach	Scotland's National Tree as voted for in a public vote in 2014.	Red orange bark which flakes off in plates. One of Scotland's 3 native conifers, and only native pine.
Sitka Spruce	<i>Picea sitchensis</i> <i>Picea</i> : from 'pitch' (sticky resinous black or dark brown substance, semi-liquid) <i>sitchensis</i> : of or from Sitka, Alaska (U.S.)	Spruse Spruis	Giuthas-Sitka	Main tree grown for timber in the UK – Timber crop produced in 40-50 years.	Blue green needles. Sharp and jagged.



Scots Pine bark



English	Latin	Scots	Gaelic	Interesting note	Identification tip
Sycamore	<i>Acer pseudoplatanus</i> <i>Acer</i> : acrid (the Maple genus) <i>pseudoplatanus</i> : false Platanus (the Greek name for the Plane tree)	Plane or Great Plane	Sice (Sycamore) Craobh-shice (sycamore tree)	Acrid is also from a Latin word meaning sharp, apparently in reference to the hardness of maple wood which was used for spears by Roman soldiers.	Palm shaped leaf, with 5 points. Seeds like little helicopters that spiral down to ground when ripe. Can travel long distances on the wind and so can self-seed far from the original tree.
Whitebeam (common)	<i>Sorbus aria</i> <i>Sorbus</i> : classical name for this genus <i>aria</i> : from the Latin, referring to ancient Persia	No specific Scots language name, though it may take the same name as rowan	Gall-uinseann ( <i>sorbus aria</i> )	Same family as rowan. Whitebeam is a white fine grained timber used for furniture making and wood turning.	Hairy leaf. Silvery green leaf, with down like hairs on the leaves. Berries like rowan.
Willow	<i>Salix caprea</i> <i>Salix</i> : from Greek 'isalos' meaning 'waterline', for the place where willows grow <i>Caprea</i> : wild she-goat	Sauch, Saugh Stems are called: Widdie, Wuidie, withie, Greetin sauch ( <i>Salix Babyloncia</i> ) is a weeping willow Greetin: crying	Sùileag (salix caprea) Goat Willow Craobh-sheilich (willow tree)	There are at least 18 different willows native to Britain, with the most common in Scotland being goat willow ( <i>Salix caprea</i> ), grey willow ( <i>Salix cinerea</i> ), woolly willow ( <i>Salix lanata</i> ), eared willow ( <i>Salix aurita</i> ), white willow ( <i>Salix alba</i> ) and crack willow ( <i>Salix fragilis</i> ). There also the osier willows that are used for making willow sculptures in school grounds.	Catkins look like cat's tails, hence the common name pussywillow. Names with "Sauch" in them mean place of the willows. e.g. Sauchie – of the willows Sauchiehall Street – Sauchie – of the willows Haugh (hall) – low lying valley.
Yew	<i>Taxus baccata</i> <i>Taxus</i> = old name for yew <i>baccata</i> = from Latin 'bacca' or 'berry' from thepoisongarden.co.uk with berry-like fruit.	Yew	iubhar (yew) craobh- iubhair (yew tree)	<i>Taxus</i> is thought to be possibly from Greek 'taxon' meaning 'bow, as result of use of wood to make bows. Yew commonly used to make longbows as it was flexible and strong. Often grown in old church yards.	Seed and leaves are poisonous if eaten. Dark green flat needles.



Willow



IMAGE © FORESTRY AND LAND SCOTLAND 2021

## Appendix A1 Tree ID Further support – courses, workshops or resources

No.	Resource	Body	Type of support	Url
1	Outdoor & Woodland Learning Scotland (OWL Scotland)	Outdoor & Woodland Learning Scotland (OWL Scotland), supported by Scottish Forestry (SF)	Website, resources, local OWLS groups, training, events, information, research	<a href="http://www.owlscotland.org/">www.owlscotland.org/</a>
2	Outdoor Learning Directory	SF, FLS, RBGE, SNH, SEPA, HES, ES, Cairngorms NP, L&T NP.	Signposting Website. Collaboration between various organisations enable searches via an online map of visits, places, resources and contacts	<a href="http://outdoorlearningdirectory.com/">http://outdoorlearningdirectory.com/</a>
3	Forests and Environment	Scottish Forestry (SF)	Information about Scotland's rich and diverse forests and woodlands, which are an important natural asset, and home to a host of wildlife.	<a href="http://forestry.gov.scot/forests-environment/">forestry.gov.scot/forests-environment/</a>
4	Natural History courses	Field Studies Council (FSC)	Tree identification workshops	<a href="http://www.field-studies-council.org/courses-and-experiences/natural-history-courses/">www.field-studies-council.org/courses-and-experiences/natural-history-courses/</a>
5	Tree identification courses	Countryside Jobs Service	Tree identification courses	<a href="http://www.countryside-jobs.com/training/identification-and-field-survey-skills-plants-and-habitats">www.countryside-jobs.com/training/identification-and-field-survey-skills-plants-and-habitats</a>
6	Storytelling resources	Traditional Arts & Culture Scotland (TRACS)	Downloads of activities, advice and stories to inspire storytelling with children.	<a href="http://tracscotland.org/our-resources/">tracscotland.org/our-resources/</a>
7	Trees for schools	The Woodland Trust	Free sapling trees for schools to order, plus activity support pack to download. Uses ID skills to help choose best trees to plant in your area.	<a href="http://www.woodlandtrust.org.uk/support-us/act/your-school/plant-trees-with-your-school/">www.woodlandtrust.org.uk/support-us/act/your-school/plant-trees-with-your-school/</a>
8	Going Out There	SG, HSE, SAPOE, ES and ADES.	The Scottish framework for safe practice in off-site visits	<a href="http://www.goingoutthere.co.uk/">www.goingoutthere.co.uk/</a>
9	Scottish Outdoor Access Code (Outdoor Learning)	Scottish Natural Heritage (SNH)	Information about right and resources to support responsible access to the countryside for educational visits.	<a href="http://www.outdooraccess-scotland.scot/practical-guide-all/outdoor-learning">www.outdooraccess-scotland.scot/practical-guide-all/outdoor-learning</a>
10	SAPOE	Scottish Advisory Panel for Outdoor Education (SAPOE)	Representatives for local authorities consider and debate best practice in the development and safe delivery of outdoor learning in Scotland.	<a href="http://www.sapoe.org.uk/">www.sapoe.org.uk/</a>

## Appendix A2 All books, publications and resource for learners

Resource Title	Provider/Author	Type	URL/Location	Suitable for...				Comments/description
				 Early / First	 Second	 Third/ Fourth	 Adult / Senior	
TREE IDENTIFICATION RESOURCES								
Tree Tools for Schools (look in Activities for ‘Leaf iDial’)	Woodland Trust	Download	<a href="http://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>	x				
Trees	Forestry & Land Scotland	Download	<a href="https://forestryandland.gov.scot/learn/trees">https://forestryandland.gov.scot/learn/trees</a>	x	x			
Tree Tools for Schools (look in Activities for ‘Tree Identification’)	Woodland Trust	Activity	<a href="http://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>	x	x			
Collins Gem: Trees	Alastair Fitter & David More	Book	<a href="http://www.harpercollins.co.uk/9780007183067/trees/">www.harpercollins.co.uk/9780007183067/trees/</a>	x	x			Handy, portable guide to most common trees of Britain and Ireland.
Tree ID foldout guide	Field Studies Council	Publication	<a href="http://www.field-studies-council.org/product-category/publications/">www.field-studies-council.org/product-category/publications/</a>	x	x	x	x	Simple, portable, fold-out tree identification chart that covers the common broadleaved and coniferous trees found in Great Britain and Ireland.
British Trees	Woodland Trust	Online resource	<a href="http://www.woodlandtrust.org.uk/visiting-woods/trees-woods-and-wildlife/british-trees/">www.woodlandtrust.org.uk/visiting-woods/trees-woods-and-wildlife/british-trees/</a>		x	x	x	Including A to Z of British Trees, How to ID trees and a link to the Tree ID app
An easy guide to Forest Trees and their uses (English & Gaelic versions)	Forest Research	Download	<a href="http://www.forestresearch.gov.uk/research/an-easy-guide-to-forest-trees-and-their-uses/">www.forestresearch.gov.uk/research/an-easy-guide-to-forest-trees-and-their-uses/</a>		x	x		
A Guide to Tree Identification	Woodlands	Online resource	<a href="http://www.woodlands.co.uk/blog/tree-identification/">www.woodlands.co.uk/blog/tree-identification/</a>		x	x		Good photos for ID
A Key for Identifying British Trees and Shrubs	Science & Plants for Schools (SAPS)	Online resource	<a href="http://www.saps.org.uk/trees/index.htm">www.saps.org.uk/trees/index.htm</a>		x	x	x	Has summer shoots or winter twigs options. Data including ID photos with scale rule, facts & UK distribution maps
Identification Guides & Resources: Trees	OPAL	Download	<a href="http://www.opalexplornature.org/identification">www.opalexplornature.org/identification</a>		x	x	x	Inc Tree ID Poster guide (simple key)
Identification keys	iSpot Nature	Download	<a href="http://www.ispotnature.org/webkeys/index.jsp">www.ispotnature.org/webkeys/index.jsp</a>		x	x	x	Various inc. lichens on trees



## ALL BOOKS, PUBLICATIONS AND RESOURCE FOR LEARNERS (continued)

Resource Title	Provider/Author	Type*	URL/Location	Suitable for...				Comments/description
				 Early / First	 Second	 Third/ Fourth	 Adult / Senior	
A simple guide to identifying trees	Country Life	Online resource	<a href="http://www.countrylife.co.uk/gardens/a-simple-guide-to-identifying-british-trees-85493">www.countrylife.co.uk/gardens/a-simple-guide-to-identifying-british-trees-85493</a>		x	x		Simple British tree list
Identifying Nature	Natural History Museum	Download	<a href="http://www.nhm.ac.uk/take-part/identify-nature.html">www.nhm.ac.uk/take-part/identify-nature.html</a>			x	x	In-depth ID guide & good links to other potential areas of interest
Bark & Buds: How to ID twelve common deciduous trees in winter	Paul Kirtley (blog)	Online resource	<a href="http://paulkirtley.co.uk/2011/bark-buds-common-european-deciduous-trees-winter-identification/">http://paulkirtley.co.uk/2011/bark-buds-common-european-deciduous-trees-winter-identification/</a>			x	x	
Know Your Conifers	Forest Research	Download	<a href="http://www.forestresearch.gov.uk/documents/6418/FCBK015.pdf">www.forestresearch.gov.uk/documents/6418/FCBK015.pdf</a>			x	x	Old booklet from FC archive (1966)
Collins Tree Guide	Owen Johnson & David More	Book	<a href="http://www.harpercollins.co.uk/9780007207718/collins-tree-guide/">www.harpercollins.co.uk/9780007207718/collins-tree-guide/</a>			x	x	Complete field guide to all the trees of Britain and Ireland.
Native & Naturalised Trees of Britain & N. Ireland	First Nature	Online resource	<a href="http://www.first-nature.com/trees/">www.first-nature.com/trees/</a>				x	Good photos for ID
Code of Conduct for picking plant material	Botanical Society of Britain & Ireland's (BSBI)	Download	<a href="https://bsbi.org/resources">https://bsbi.org/resources</a>			x	x	Useful guidance of how to gather plant material sustainably.
CARING THEME RESOURCES								
Andy Goldsworthy: Environmental Artist	Living Your Wild Creativity	Online resource	<a href="http://www.livingyourwildcreativity.com/art-gallery-1-mitchell-1">www.livingyourwildcreativity.com/art-gallery-1-mitchell-1</a>			x	x	
How to start a nature journal	Lily & Thistle	Online resource	<a href="http://www.lilyandthistle.com/how-to-start-a-nature-journal-today/">www.lilyandthistle.com/how-to-start-a-nature-journal-today/</a>			x	x	
A Year in the Life of a Tree	Woodland Trust	Video / animation	<a href="https://www.youtube.com/playlist?list=PLbKmvYI09ziwg_Gdp2mUdyUeil9jjTw2U">www.youtube.com/playlist?list=PLbKmvYI09ziwg_Gdp2mUdyUeil9jjTw2U</a>	x	x			Woodland Trust (videos all 1m approx)
Nature's Calendar	Woodland Trust	Online resource	<a href="https://naturescalendar.woodlandtrust.org.uk/">https://naturescalendar.woodlandtrust.org.uk/</a>	x	x	x		Citizen Science: UK Phenology Project inc. live data maps
Tree Health Survey	OPAL	Download	<a href="http://www.opalexplornature.org/TreeSurvey">www.opalexplornature.org/TreeSurvey</a>		x	x		Citizen Science: Tree Health Survey




Resource Title	Provider/Author	Type*	URL/Location	Suitable for...				Comments/description
				 Early / First	 Second	 Third / Fourth	 Adult / Senior	
Dead Good Wood Survey	TCV	Download	<a href="https://www.tcv.org.uk/scotland/dead-good-deadwood-survey/">https://www.tcv.org.uk/scotland/dead-good-deadwood-survey/</a>		x	x	x	Citizen Science: Dead Good Wood Survey
RBGE Tree Videos inc. ash dieback (search 'tree')	Royal Botanic Garden Edinburgh	Video / animation	<a href="https://www.youtube.com/user/RBGEEdinburgh/videos">www.youtube.com/user/RBGEEdinburgh/videos</a>		x	x		Inc. What is a tree?; Moving Forward from Ash Dieback; How to create Herbarium Specimens.
Tree Alert	Forest Research	Online resource	<a href="https://treealert.forestresearch.gov.uk/">https://treealert.forestresearch.gov.uk/</a>			x		Real disease reporting
Tree Threats - overview	Gov UK	Online resource	<a href="https://www.gov.uk/guidance/manage-a-tree-pest-or-disease-overview">https://www.gov.uk/guidance/manage-a-tree-pest-or-disease-overview</a>			x	x	
Leaf Man	Lois Ehlert	Book	<a href="https://www.scholastic.com/teachers/books/leaf-man-by-lois-ehlert/">www.scholastic.com/teachers/books/leaf-man-by-lois-ehlert/</a>	x				A simple tale to inspire leaf art through shape observation.
Leaf art ideas	Red Ted Art	Online resource	<a href="https://www.redtedart.com/leaf-crafts/">www.redtedart.com/leaf-crafts/</a>	x				
We're Going on a Leaf Hunt	Steve Metzger	Book	<a href="https://www.scholastic.com/teachers/books/we-re-going-on-a-leaf-hunt-by-steve-metzger/">www.scholastic.com/teachers/books/we-re-going-on-a-leaf-hunt-by-steve-metzger/</a>	x				
I Can Name 50 Trees Today!	Bonnie Worth (The Cat in the Hat Learning Library)	Book	<a href="https://www.penguinrandomhouse.com/series/CLL/cat-in-the-hats-learning-library">www.penguinrandomhouse.com/series/CLL/cat-in-the-hats-learning-library</a>	x				An basic introduction to global tree species and identification terms through rhyme.
Messy Maths	Juliet Robertson	Book	<a href="https://www.crownhouse.co.uk/publications/messy-maths">www.crownhouse.co.uk/publications/messy-maths</a>	x	x			Playful, outdoor approaches for early years teachers, including physical activities to help make sense of the abstract ideas of maths.
Tree Tools for Schools	Woodland Trust	Download	<a href="https://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>	x	x			
Tree Activities for Children	OPAL	Download	<a href="https://www.opalexplornature.org/tree-activities-children">www.opalexplornature.org/tree-activities-children</a>	x	x			
Mental Wellbeing in Cities - research project	Urban Mind	App	<a href="https://www.urbanmind.info/">https://www.urbanmind.info/</a>			x	x	

## ALL BOOKS, PUBLICATIONS AND RESOURCE FOR LEARNERS (continued)

Resource Title	Provider/Author	Type*	URL/Location	Suitable for...				Comments/description
				 Early / First	 Second	 Third / Fourth	 Adult / Senior	
How Healthy are your Trees?	Science & Plants for Schools (SAPS)	Download	<a href="http://www.saps.org.uk/secondary/teaching-resources/1277-how-healthy-are-your-trees">www.saps.org.uk/secondary/teaching-resources/1277-how-healthy-are-your-trees</a>			x		Links imp. of ID to monitoring tree health (disease etc)
CSI Trees: Investigating Plant Pathogens	Science & Plants for Schools (SAPS)	Download	<a href="http://www.saps.org.uk/secondary/teaching-resources/1273-csi-trees-investigating-plant-pathogens">www.saps.org.uk/secondary/teaching-resources/1273-csi-trees-investigating-plant-pathogens</a>			x		Links imp. of ID to monitoring tree health (disease etc)
KNOWING THEME RESOURCES								
Clay leaf pendants	Artful Parent	Online resource	<a href="http://artfulparent.com/printing-leaves-on-fabric/">artfulparent.com/printing-leaves-on-fabric/</a>	x	x			
Tree Tools for Schools (look in Activities for 'Tree Identification')	Woodland Trust	Activity	<a href="http://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>	x	x			
Leaf ID (age 6+)	Woodland Trust	Activity blog	<a href="https://www.woodlandtrust.org.uk/blog/2020/03/tree-id-kids/">https://www.woodlandtrust.org.uk/blog/2020/03/tree-id-kids/</a>	x	x			
Exploring Evergreen and Broadleaf Leaves	BBC Teach (YouTube Channel)	Video / animation	<a href="http://www.youtube.com/watch?v=joIStQgyNaQ">www.youtube.com/watch?v=joIStQgyNaQ</a>	x	x			In Scotland's, Chatelherault Country Park with Martin Hughes-Games (from Springwatch) (5.52mins)
Outdoor Learning Pack (inc. Gaelic and modern language tree names)	Woodland Trust Scotland	Download	Search for 'Outdoor Learning Pack' online for a link to download it from.	x	x			
Tree Tools for Schools	Woodland Trust	Download	<a href="http://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>	x	x			
Tree Resources	Forest & Land Scotland	Download	<a href="http://forestryandland.gov.scot/learn/trees/tree-resources">forestryandland.gov.scot/learn/trees/tree-resources</a>	x	x			Various inc. Tree ID, tree stories and other resources & factsheets
Special Species	Linnean Society	Activity	<a href="http://www.linnean.org/learning/teaching">www.linnean.org/learning/teaching</a>		x	x	x	Bringing biology alive in the classroom
Fantasy Name Generator	Fantasy Name Generator	Online resource	<a href="http://www.fantasynamgenerators.com/">www.fantasynamgenerators.com/</a>		x	x		
How Plants get their Names	UK Gardening	Online resource	<a href="http://www.ukgardening.co.uk/plant-naming.php">www.ukgardening.co.uk/plant-naming.php</a>			x		Simple explanation of botanical / scientific naming & why to use them.
Plants: Names, terms & Botanical Latin	Botanical Art & Artists	Online resource	<a href="http://www.botanicalartandartists.com/plant-names-and-botanical-latin.html">www.botanicalartandartists.com/plant-names-and-botanical-latin.html</a>			x		Career link to Botanical art?

Resource Title	Provider/Author	Type*	URL/Location	Suitable for...				Comments/description
				 Early / First	 Second	 Third / Fourth	 Adult / Senior	
Botanary, the botanical dictionary	Dave's Garden	Online resource	<a href="https://davesgarden.com/guides/botanary/">https://davesgarden.com/guides/botanary/</a>			x	x	
Tree Names	Tree Names	Online resource	<a href="http://www.treenames.net">www.treenames.net</a>			x	x	Includes many different common names for trees, as well as their scientific name
The meaning of latin plant names	The Seed Site	Online resource	<a href="http://theseedsite.co.uk/latin.html">http://theseedsite.co.uk/latin.html</a>			x	x	
List of Latin & Greek words commonly used in systemic names <further>	Wikipedia	Online resource	<a href="https://en.wikipedia.org/wiki/List_of_Latin_and_Greek_words_commonly_used_in_systematic_names">en.wikipedia.org/wiki/List_of_Latin_and_Greek_words_commonly_used_in_systematic_names</a>			x	x	
TREES AND CREATIVITY THEME RESOURCES								
Tree Measuring	OWL Scotland	Download	<a href="http://www.owlscotland.org/images/uploads/resources/files/TreeMeasuring2018.web3.pdf">www.owlscotland.org/images/uploads/resources/files/TreeMeasuring2018.web3.pdf</a>	x	x	x		
Tree Stories	OWL Scotland	Download	<a href="https://www.owlscotland.org//resources/resource-library/tree_stories">https://www.owlscotland.org//resources/resource-library/tree_stories</a>	x	x	x		Claire Hewitt's Year of Tree Stories (in Gaelic)
A-B-Tree / A-B-Craobh	Mandy Haggith	Online resource	<a href="http://www.mandyhaggith.net/a-b-tree.asp">www.mandyhaggith.net/a-b-tree.asp</a>		x	x		Snippets of facts, poems and 'lore' about each of the trees in the Gaelic alphabet
A-B-Tree / A-B-Craobh	Mandy Haggith	Book	<a href="http://www.mandyhaggith.net/a-b-treepoems.asp">www.mandyhaggith.net/a-b-treepoems.asp</a>					A poem for each tree in the Gaelic tree alphabet.
Songs about Trees	The Guardian	Online resource	<a href="https://www.theguardian.com/music/2017/dec/28/readers-recommend-playlist-your-songs-about-trees">https://www.theguardian.com/music/2017/dec/28/readers-recommend-playlist-your-songs-about-trees</a>			x	x	Playlists
Traditional British Folk Songs Involving Trees	Spinditty	Online resource	<a href="https://spinditty.com/genres/Traditional-British-Folk-Songs-Involving-Trees">https://spinditty.com/genres/Traditional-British-Folk-Songs-Involving-Trees</a>		x	x	x	
The Lost Words	Robert Macfarlane & Jackie Morris	Book	It is hoped that every school in Scotland should get copy of this, made possible through crowd-funding!		x	x		This beautifully illustrated book of acrostic poems aims to bring back some nature words that are in danger of vanishing from children's lives

## ALL BOOKS, PUBLICATIONS AND RESOURCE FOR LEARNERS (continued)

Resource Title	Provider/Author	Type*	URL/Location	Suitable for...				Comments/description
				 Early / First	 Second	 Third/ Fourth	 Adult / Senior	
The Lost Words - An Explorers Guide	John Muir Trust	Download	<a href="http://www.johnmuirtrust.org/initiatives/the-lost-words">www.johnmuirtrust.org/initiatives/the-lost-words</a>		x			Activities to help bring The Lost Words poem alive for your learners.
Dynamic Earth leaf drama	Dynamic Earth	Download	<a href="http://www.dynamicearth.co.uk/media/1251/circle-of-life-drama.pdf">www.dynamicearth.co.uk/media/1251/circle-of-life-drama.pdf</a>	x	x			
From Seed to Tree	New Scientist	Video / animation	<a href="http://www.youtube.com/watch?v=4BtKakP5xOk">www.youtube.com/watch?v=4BtKakP5xOk</a>	x	x			New Scientist video: 1m14s
Eco Drama: Out-To-Play resource pack	Theatre company based in Glasgow	Download	<a href="http://www.ecodrama.co.uk/resources/">www.ecodrama.co.uk/resources/</a>	x	x			
Tree Tools for Schools (search for Leaf Crowns)	Woodland Trust	Download	<a href="http://www.treetoolsforschools.org.uk/">www.treetoolsforschools.org.uk/</a>	x	x			
Coat of Leaves (Autumn Music)	BBC Teach (YouTube Channel)	Video / animation	<a href="http://www.youtube.com/watch?v=c7KX1ZObedk">www.youtube.com/watch?v=c7KX1ZObedk</a>	x				Animation about autumn set to 'Autumn' from Vivaldi's Four Seasons (6.16mins)
F&LS Tree Resources	Forestry & Land Scotland	Download	<a href="https://forestryandland.gov.scot/learn/trees/tree-resources">https://forestryandland.gov.scot/learn/trees/tree-resources</a>		x	x		
Tree Dressing Day	Common Ground	Online resource	<a href="http://www.commonground.org.uk/tree-dressing-day/">www.commonground.org.uk/tree-dressing-day/</a>	x	x			
Storytelling resources	TRACS (Traditional Arts & Culture Scotland)	Download	<a href="https://tracscotland.org/our-resources/">https://tracscotland.org/our-resources/</a>	x	x			
Botanical Art & Artists	Katherine Tyrrell	Online resource	<a href="http://www.botanicalartandartists.com">www.botanicalartandartists.com</a>			x	x	
Mythology & folklore	Trees for Life	Online resource	<a href="https://treesforlife.org.uk/into-the-forest/trees-plants-animals/">https://treesforlife.org.uk/into-the-forest/trees-plants-animals/</a>		x	x		
William Blake - A Poison Tree	Prezi	Online resource	<a href="https://prezi.com/3xchtpeyxz-6/poetry-slam-a-poison-tree/">https://prezi.com/3xchtpeyxz-6/poetry-slam-a-poison-tree/</a>			x		
Listopia (search for 'nature writing' or 'trees')	Good Reads	Online resource	<a href="http://www.goodreads.com/list">www.goodreads.com/list</a>			x	x	

Resource Title	Provider/Author	Type*	URL/Location	Suitable for...				Comments/description
				 Early / First	 Second	 Third / Fourth	 Adult / Senior	
How Trees Talk to Each Other	TED Talk	Video / animation	<a href="http://www.ted.com/talks/suzanne_simard_how_trees_talk_to_each_other">www.ted.com/talks/suzanne_simard_how_trees_talk_to_each_other</a>			x	x	
Dear Future Generations: Sorry	You Tube	Video / animation	<a href="http://www.youtube.com/watch?v=eRLJscAlk1M">www.youtube.com/watch?v=eRLJscAlk1M</a>			x	x	
How Trees Bend the Laws of Physics	Veritasium	Video / animation	<a href="http://www.youtube.com/watch?v=BickMFHAZRO">www.youtube.com/watch?v=BickMFHAZRO</a>			x	x	How trees transport water inside them (not ID but still very cool!) (video 7m22s)
John Muir Award	John Muir Trust	Online resource	<a href="http://www.johnmuirtrust.org/john-muir-award">www.johnmuirtrust.org/john-muir-award</a>		x	x		
USES OF TREES THEME RESOURCES								
Benefits of Trees – including Greta Thunberg’s naturenow video	The Arboricultural Association	Online resource	<a href="http://www.trees.org.uk/Help-Advice/Benefits-of-Trees">www.trees.org.uk/Help-Advice/Benefits-of-Trees</a>			x	x	Really broad & in-depth info on many tree-related areas (food, health, property value, urban trees, pollution, asset value, flood defence, environment & habitat, veteran trees)
Elder crafts (including pencil)	Richard Irving Outdoor Learning	Online resource	<a href="http://richardirvine.co.uk/2017/01/elder1/">richardirvine.co.uk/2017/01/elder1/</a>	x	x	x	x	
Foraging	Woodland Trust	Online resource	<a href="http://www.woodlandtrust.org.uk/visiting-woods/things-to-do/foraging/">www.woodlandtrust.org.uk/visiting-woods/things-to-do/foraging/</a>	x	x	x	x	
Scotland’s Foraging Fortnight	Partnership events	Visits, Places, Contacts	<a href="http://www.foragingfortnight.co.uk">www.foragingfortnight.co.uk</a>			x	x	
Best Foraging Courses in UK	Countryfile	Visits, Places, Contacts	<a href="https://www.countryfile.com/how-to/foraging/best-foraging-courses-in-uk/">https://www.countryfile.com/how-to/foraging/best-foraging-courses-in-uk/</a>			x	x	
Guide to Shinrin-Yoku	Grow Wild (Kew Gardens)	Online resource	<a href="http://www.growwilduk.com/blog/2015/12/03/5-simple-steps-practising-shinrin-yoku-forest-bathing">www.growwilduk.com/blog/2015/12/03/5-simple-steps-practising-shinrin-yoku-forest-bathing</a>		x	x		
Ancient Tree Inventory	Woodland Trust	Online resource	<a href="https://ati.woodlandtrust.org.uk/">https://ati.woodlandtrust.org.uk/</a>		x	x	x	Citizen Science: Mapping the oldest and most important trees in the UK







## ALL BOOKS, PUBLICATIONS AND RESOURCE FOR LEARNERS (continued)

Resource Title	Provider/Author	Type*	URL/Location	Suitable for...				Comments/description
				 Early / First	 Second	 Third/ Fourth	 Adult / Senior	
NHS Forest: Growing Forests for Health	NHS	Online resource	<a href="https://nhsforest.org">nhsforest.org</a>			x	x	
Nature for Wellbeing	Wildlife Trusts	Online resource	<a href="https://www.wildlifetrusts.org/living-landscape/nature-health-and-wild-wellbeing">www.wildlifetrusts.org/living-landscape/nature-health-and-wild-wellbeing</a>			x	x	
Urban Mind	Various partners	Online resource & app	<a href="https://www.urbanmind.info">www.urbanmind.info</a>			x	x	Urban Mind is an app that measures your experience of city living in the moment. By collecting real-time data, they hope to understand how different aspects affect mental well-being.
How to make charcoal	Woodlands	Online resource	<a href="https://www.woodlands.co.uk/blog/practical-guides/how-do-you-make-charcoal/">www.woodlands.co.uk/blog/practical-guides/how-do-you-make-charcoal/</a>	x	x			
Elderflower Cordial recipe	River Cottage	Online resource	<a href="https://www.rivercottage.net/recipes/elderflower-cordial">www.rivercottage.net/recipes/elderflower-cordial</a>		x			
Hapa Zome (leaf bashing)	Play England	Online resource	<a href="http://www.playengland.org.uk/resource/nature-play-activity-recipes/">http://www.playengland.org.uk/resource/nature-play-activity-recipes/</a>	x	x			
Leaf printing on fabric	Artful Parent	Online resource	<a href="https://artfulparent.com/printing-leaves-on-fabric/">artfulparent.com/printing-leaves-on-fabric/</a>		x	x	x	
Nature Activities (examples from the book 'Sharing Nature')	Sharing Nature Foundation	Online resource	<a href="https://www.sharingnature.com/nature-activities.html">www.sharingnature.com/nature-activities.html</a>	x	x			Some of Joseph Cornell's immersive, hands-on activities inc. 'Meet a Tree' and 'Observe Nature like John Muir'.
Sharing Nature	Sharing Nature Foundation	Book	<a href="https://www.sharingnature.com/books.html">www.sharingnature.com/books.html</a>	x	x			Games & activities to help deepen connections with the natural world.
Shake a Tree	RSPB	Online resource	<a href="https://www.rspb.org.uk/fun-and-learning/for-families/family-wild-challenge/activities/shake-a-tree/">www.rspb.org.uk/fun-and-learning/for-families/family-wild-challenge/activities/shake-a-tree/</a>		x			
Biodiversity Activities Pack	SNH	Download	<a href="https://www.nature.scot/biodiversity-activities-pack">www.nature.scot/biodiversity-activities-pack</a>		x	x		Various sensory and creative activities

ALL BOOKS, PUBLICATIONS AND RESOURCE FOR LEARNERS (continued)

Resource Title	Provider/Author	Type*	URL/Location	Suitable for...				Comments/description
				 Early / First	 Second	 Third / Fourth	 Adult / Senior	
Wood Ant activity pack	National Insect Week	Download	<a href="http://www.nationalinsectweek.co.uk/files/wood-ant-activity-packpdf">www.nationalinsectweek.co.uk/files/wood-ant-activity-packpdf</a>		x	x		
Minibeasts in the Forest	Forestry England	Download	<a href="https://www.sustainablelearning.com/resource/minibeasts-forest">https://www.sustainablelearning.com/resource/minibeasts-forest</a>					
Big Schools' Birdwatch <2.4>	RSPB	Online resource	<a href="http://www.rspb.org.uk/fun-and-learning/for-teachers/schools-birdwatch/">www.rspb.org.uk/fun-and-learning/for-teachers/schools-birdwatch/</a>					
Scotland's Native Woodlands	BBC Teach (YouTube Channel)	Video / animation	<a href="http://www.youtube.com/watch?v=Ecbwpzr92Ps">www.youtube.com/watch?v=Ecbwpzr92Ps</a>		x	x		Introduction to native woodlands of Scotland, introduced by Nick Baker (16.50mins)
Wolf Brother's Wildwoods	OWL Scotland	Publication / Download	<a href="http://www.owlscotland.org/resources/resource-library/wolf_brothers_wildwoods">www.owlscotland.org/resources/resource-library/wolf_brothers_wildwoods</a>		x	x		Esp. Chapter 3: Themed Outdoor Learning Activities p15-41and p48 5.2 Appendix 2: The Trees of Torak's Forest.
Trees for Schools	Woodland Trust	Download	<a href="http://www.woodlandtrust.org.uk/plant-trees/schools-and-communities/">www.woodlandtrust.org.uk/plant-trees/schools-and-communities/</a>	x	x			
Hedgerow Harvest	Tree Council	Online resource	<a href="http://www.hedgerowharvest.org.uk/">www.hedgerowharvest.org.uk/</a>		x	x		Stories, recipes and projects.
Nature's Calendar	Woodland Trust	Online resource	<a href="https://naturescalendar.woodlandtrust.org.uk/">https://naturescalendar.woodlandtrust.org.uk/</a>	x	x	x		Citizen Science: UK Phenology Project inc. live data maps
Tree Measuring	OWL Scotland	Download	<a href="http://www.owlscotland.org/images/uploads/resources/files/TreeMeasuring2018.web3.pdf">www.owlscotland.org/images/uploads/resources/files/TreeMeasuring2018.web3.pdf</a>	x	x	x		
How to find the height of a Tree	Science & Plants for Schools (SAPS)	Download	<a href="http://www.saps.org.uk/primary/teaching-resources/141-how-to-find-the-height-of-a-tree">www.saps.org.uk/primary/teaching-resources/141-how-to-find-the-height-of-a-tree</a>		x			
Timber Price Indices	Forestry Research	Download	<a href="http://www.forestresearch.gov.uk/tools-and-resources/">www.forestresearch.gov.uk/tools-and-resources/</a>			x	x	

## ALL BOOKS, PUBLICATIONS AND RESOURCE FOR LEARNERS (continued)

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				 Early / First	 Second	 Third/ Fourth	 Adult / Senior	
Adaptation Scotland	Adaptation Scotland	Online resource	<a href="http://www.adaptationscotland.org.uk/how-adapt/tools-and-resources/climate-ready-places">www.adaptationscotland.org.uk/how-adapt/tools-and-resources/climate-ready-places</a>			x		
City of Trees (Manchester)	Various partners	Online resource	<a href="http://www.cityoftrees.org.uk">www.cityoftrees.org.uk</a>			x	x	
Treeconomics	Treeconomics & partners	Online resource	<a href="http://www.treeconomics.co.uk/">www.treeconomics.co.uk/</a>			x		Putting real value on trees using different assessment tools. Inc. relative value of different tree species for carbon capture.
Outdoor Archaeological Learning resources	Forest & Land Scotland	Download	<a href="https://forestryandland.gov.scot/what-we-do/conservation/historic-environment-conservation/learning">https://forestryandland.gov.scot/what-we-do/conservation/historic-environment-conservation/learning</a>			x	x	Books and activities to download
Online Atlas of British and Irish flora	Biological Records Centre	Online resource	<a href="http://www.brc.ac.uk/plantatlas/">www.brc.ac.uk/plantatlas/</a>			x	x	Detailed information and data sets (inc. distribution maps)
Treezilla	Open University & partners	Online resource	<a href="http://www.treezilla.org/">www.treezilla.org/</a>			x		Citizen Science. Online open source UK tree recording site, trying to map every tree in Britain! It is Forest Research, OU & Treeconomics online tree-related science research.
Scotland's Native Woodlands	OWL Scotland	Download	<a href="http://www.owlscotland.org/images/uploads/resources/files/NativeWoods.20March.pdf">www.owlscotland.org/images/uploads/resources/files/NativeWoods.20March.pdf</a>				x	A learning resources for Senior phase environmental science
Videos & animations	Wood for Good	Video / animation	<a href="https://woodforgood.com/videos/">https://woodforgood.com/videos/</a>			x		

ALL BOOKS, PUBLICATIONS AND RESOURCE FOR LEARNERS (continued)





Resource Title	Provider/Author	Type*	URL/Location	Suitable for...				Comments/description
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OTHER BOOKS								
A Handbook of Scottish Trees	Reforesting Scotland	Book	<a href="http://www.reforestingscotland.org/publications/">www.reforestingscotland.org/publications/</a>			x	x	The essential guide for enthusiasts, gardeners, and woodland lovers to species, cultivation, habits, uses & lore.
Why Willow Weep	Various authors	Book	<a href="http://www.woodlandtrustshop.com/products/893-why-willows-weep-paperback.aspx">www.woodlandtrustshop.com/products/893-why-willows-weep-paperback.aspx</a>		x	x	x	Nineteen contemporary tales inspired by our trees & woods.
Spirit of the Forest: Tree Tales from Around the World	Helen East, Eric Madden & Alan Marks	Book	<a href="http://www.waterstones.com/book/spirit-of-the-forest/eric-madden/helen-east/9781845072681">www.waterstones.com/book/spirit-of-the-forest/eric-madden/helen-east/9781845072681</a>	x	x	x	x	A leafy anthology of traditional tales that can also help aid identification and spotting the traits of some trees.
Into the Forest: An Anthology of Tree Poems	Mandy Haggith	Book	<a href="https://saraband.net/sb-title/into-the-forest/">https://saraband.net/sb-title/into-the-forest/</a>			x	x	A collection of poems gathered around woodland species found on these isles. Inspired by the Celtic tradition.
Celebrating Nature	Gordon MacLellan	Book	<a href="http://www.amazon.co.uk/Celebrating-Nature-Gordon-MacLellan/dp/1861631685">www.amazon.co.uk/Celebrating-Nature-Gordon-MacLellan/dp/1861631685</a>		x		x	Creative activities to help connect with the natural world through the arts.
Dirty Teaching	Juliet Robertson	Book	<a href="http://www.crownhouse.co.uk/publications/dirty-teaching">www.crownhouse.co.uk/publications/dirty-teaching</a>	x	x		x	Tips and tricks to help any primary school teacher kick-start or further develop their outdoor practice.



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