

# Photo guide to Trees in winter

Use this guide between September and March to identify 12 different trees from the bark and buds. Then turn over for places to visit these trees in Glasgow.

## What are buds?

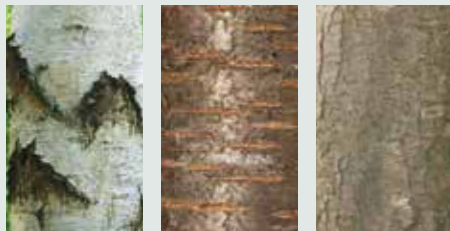
Buds are small lumps on tree twigs in winter. You can identify trees using the buds once the leaves have fallen.



In spring, the buds burst open into new leaves and flowers.

## What is bark?

Bark is the outer part of woody plants. Different trees have bark of different colours and textures.



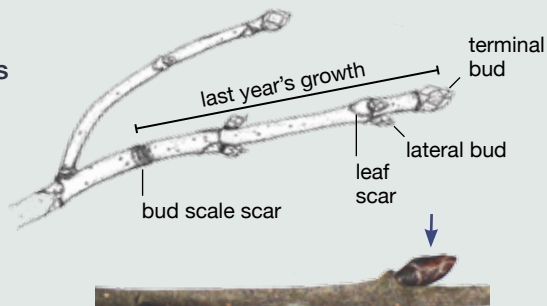
The best place to look at bark is on the main trunk of the tree.

## Opposite buds and alternate buds

Check how the lateral buds are arranged on the twig. **Opposite buds** are matched pairs of buds on either side of the twig. **Alternate buds** are offset or spiralling around the twig.



↑ **Opposite buds**  
GO TO SECTION A



↑ **Alternate buds**  
GO TO SECTION B

## A Opposite buds

### Ash

*Fraxinus excelsior*



**Buds** dark black and hard. **Bark** light grey. Bark is smooth when young, but develops vertical ridges with age.

### Horse Chestnut

*Aesculus hippocastanum*



**Buds** dark brown, large and very sticky. **Bark** grey-brown, becoming flaky with age.

### Sycamore

*Acer pseudoplatanus*



**Buds** pale green, with purple edges. **Bark** grey. Smooth on young trees but with age flakes off in rectangles.

### Field Maple

*Acer campestre*



**Buds** reddish-brown, with white hairy edges. **Bark** grey or brown. With age may become flaky and corky.



## Alternate buds

### Oak

*Quercus* species



**Buds** orange-brown, plump, with waxy hairless scales. **Bark** grey, becoming vertically ridged with age.

### Cherry

*Prunus* species



**Buds** red-brown and pointed. **Bark** red, brown or grey, with orange-brown horizontal lines.



## Alternate buds

### Birch

*Betula* species



**Buds** green or brown, and pointed. **Bark** orange-red when young, becoming white grey ('silver').

### Rowan

*Sorbus aucuparia*



**Buds** purple-brown, cone-shaped and hairy. **Bark** grey and smooth, with horizontal scars.

### Beech

*Fagus sylvatica*



**Buds** brown, long and pointed away from the twig. **Bark** grey, developing criss-crossing ridges and furrows.

### Hornbeam

*Carpinus betulus*



**Buds** brown, pointing towards the twig. **Bark** grey, develops orange or silver vertical furrows with age.

### Lime

*Tilia* species



**Buds** green or red, plump and bluntly rounded. **Bark** grey-brown, furrowed, with suckers (leafy twigs at the base).

### Alder

*Alnus* species



**Buds** purple, shaped like boxing gloves. **Bark** purple-brown, becoming grey and cracked.



# Exploring trees in Glasgow

Use **what3words** to follow our new winter tree trails in Kelvingrove and Pollok. Or read about how **Clyde Climate Forest** is helping mitigate climate change locally.

## Clyde Climate Forest

Around 18 million trees will be planted in both urban and rural parts of Glasgow City Region over the next decade.



### Canopy

Urban trees provide shade, slow down heavy rainfall, store carbon and are a wildlife habitat

Canopy cover in urban Glasgow

16.6% **BY 2032** 20%



### Connectivity

Native woodlands connect fragmented habitat and will help wildlife migrate north as the climate warms

Average broadleaved woodland network area in Glasgow City Region

119 ha **BY 2032** 142 ha



### Carbon

New forests are carbon sinks, grow timber for construction and help reduce downstream flooding

Land covered by forests or woodland in Glasgow City Region

17% **BY 2032** 20%



## /// what3words

It's easy to track down trees with **what3words**. Every 3 metre square in the world has a unique combination of three words: a what3words address. Follow the QR code (right) to download the free **what3words** app to your phone, then get out and explore!



## Kelvingrove Park Tree Trail

This Tree Trail starts and ends at the Stewart Memorial Fountain, by the Royal Terrace entrance to Kelvingrove Park.

Time needed: 1 hour. Distance: 600 metres. Fully accesible with smooth tarmac paths. 1 km from Kelvinbridge Subway.



**1. Cherry** 2 trees east of Fountain with horizontal lines on the trunk.

/// field.next.supper

**2. Beech** Large tree with spreading branches, on river side of the path.

/// glow.emerge.echo

**3. Horse Chestnut** Small group at side of right-hand path leading uphill.

/// along.tables.yoga

**4. Hornbeam** Medium-sized tree with twisted and furrowed trunk.

/// intervals.natively.heat

**5. Ash** 4 medium-sized trees downhill of path with vertical ridges on trunk.

/// estate.shunts.transfers

**6. Lime** Large tree just downhill from the Tigress and Cubs statue.

/// drama.wings.delay

**7. Rowan** Medium-sized tree overlooking terrace path.

/// effort.solved.cubes

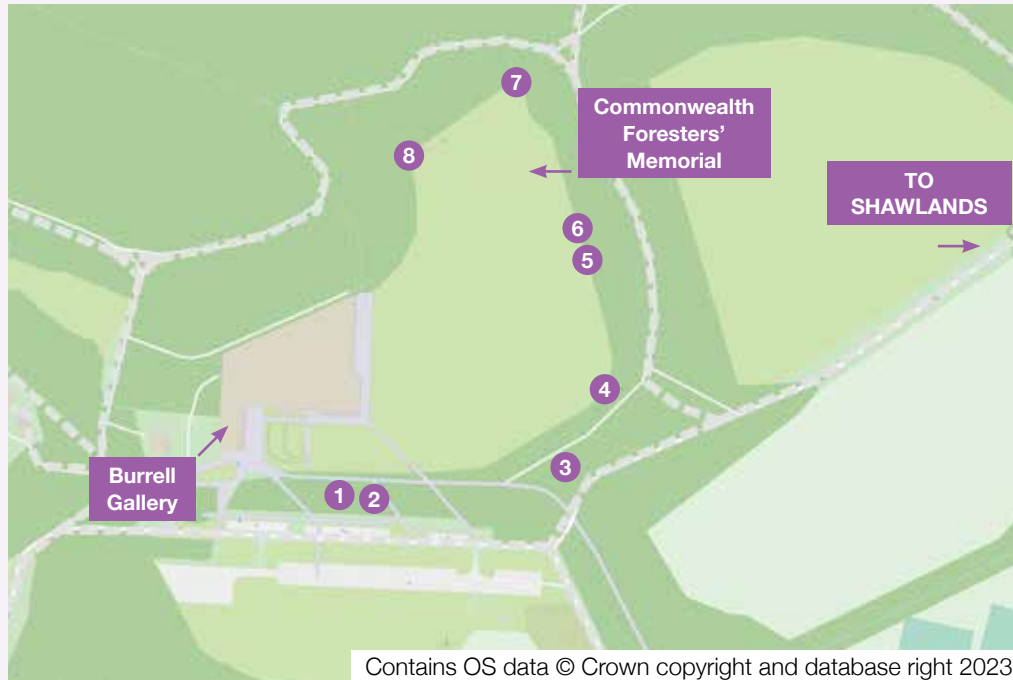
**8. Birch** 5 trees east of Fountain, white trunk with black diamond marks.

/// apron.years.stable

# Pollok Country Park Tree Trail

This Tree Trail starts and ends at the Burrell Gallery car park within Pollok Country Park.

Time needed: 1 hour. Distance: 600 metres. Some parts of the trail may be muddy after rain. 1 km from Shawlands station.



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**1. Oak** Medium-sized tree close to lower bike shelter.

/// sting.refuse.valves

**2. Sycamore** Next to the Oak (tree 1), with bark flaking off in rectangles.

/// patrol.neat.tunnel

**3. Hornbeam** Several young trees on tarmac path below Burrell Field.

/// river.jabs.logs

**4. Birch** Several trees at field entrance, white trunk with black diamond marks.

/// rice.ahead.panels

**5. Alder** Within line of trees halfway up hill along side of Burrell Field.

/// throw.twice.shell

**6. Beech** Within line of trees halfway up hill along side of Burrell Field.

/// shins.home.reach

**7. Horse Chestnut** 5 trees at hill top by Commonwealth Foresters' Memorial.

/// stocks.blend.herds

**8. Ash** Tall tree with grey bark (speckled with lichens and moss) at hill top.

/// media.salad.filler

# Get to know your tree

Here are some ideas of what you can do, either on your own or with your family, friends, colleagues or community group.



## How much carbon?

Want to know how much carbon there is in a tree's trunk, leaves and roots?

- 1 Measure the circumference of the trunk (in cm) at 1 metre above the ground.



- 2 Estimate the dry weight of the tree by finding the nearest value to your circumference measurement.

Circumference (cm)	Dry weight (kg)	Carbon (kg)
20	9	4.5
30	27	13.5
40	82	41
50	106	53
75	310	155
100	668	334
125	1208	604
150	1964	982
200	4221	2110.5

- 3 Approximately half of the dry weight of the tree is carbon. So

$$\text{Carbon content} = \frac{\text{Dry weight}}{2}$$

## Exploring trees

- 1 **Bark rubbing.** Rub a crayon on a piece of paper held against the bark.
- 2 **Back to back sketching.** For 2 people. One person describes the twigs and buds. The other person can't see the buds, but tries to draw them from the description.
- 3 **Spot the difference.** Make a short video to tell apart two different types of tree in winter, like Oak and Cherry.
- 4 **Share your photos and videos.** Use the hashtag #TreesforClimateAction

## Want to get involved with trees in Glasgow?

**Clyde Climate Forest.** Help us to plant and look after 18 million new trees in the Glasgow region

[treesforcities.org/clydeclimateforest](https://treesforcities.org/clydeclimateforest)

Find out more about the plans and our *1000 Trees* local campaigns for this winter's tree planting season at [clydeclimateforest.co.uk](https://clydeclimateforest.co.uk)

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