Tree
Identification Guide

This guide can be used for the OPAL Tree Health Survey and OPAL Air Survey

OPAL — EXPLORE NATURE

Oak
Quercus species

Ash
Fraxinus excelsior

Horse chestnut
Aesculus hippocastanum

Sycamore
Acer pseudoplatanus

Rowan
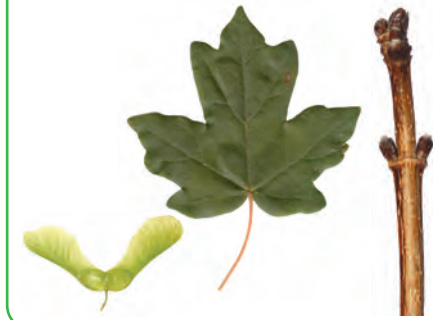*Sorbus aucuparia*

Elder
Sambucus nigra

Maple
Acer species

Hawthorn
Crataegus monogyna

London Plane
Platanus x acerifolia

Sweet chestnut
Castanea sativa

Beech
Fagus sylvatica

Whitebeam
Sorbus aria

Cherry
Prunus species

Willow
Salix species

Hornbeam
Carpinus betulus

Crab apple
Malus sylvatica

Birch
Betula species

Poplar
Populus species

Hazel
Corylus avellana

Lime
Tilia species

Elm
Ulmus species

Alder
Alnus species

↓ Start here ↓

Does the tree have needles or scale-like leaves? — **No** → Does the tree have simple leaves? — **Yes** → Do the leaves have lobes?

Yes ↓

Conifers
If you have found a conifer, choose another tree for your OPAL survey

Does the tree have simple leaves? — **No** ↓
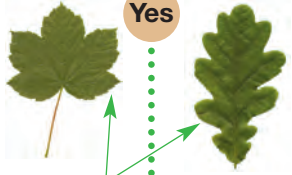
a **compound leaf** – made up of several leaflets

a **simple leaf** – a single leaf attached to a stalk

Horse chestnut ← **Yes** — Do all the leaflets grow from the end of the stalk?

No ↓

Elder ← **Yes** — Does the leaf have two or three pairs of leaflets?

Check: Elder leaves release a pungent smell when you rub them

No ↓

Opposite pairs – pairs of leaves grow from a single point on the stem

Ash ← **Yes** — Do the leaves grow in opposite pairs on the twig?
(Make sure that you are looking at the leaves and not just the leaflets)

Check: Ash has black buds

No ↓

Rowan ← — **Alternate pairs** – each leaf grows from a different place on the stem
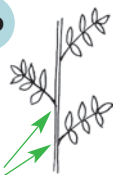
Check: Rowan never has black buds like Ash. Rowan leaflets are deeper toothed than Ash. Look out for red berries on Rowan in autumn

Do the leaves have lobes? — **Yes** ↓

Lobes are large projections at the edge of the leaf

Do the veins spread out from a single point? — **No** →

Yes ↓

veins spread out from a single point at the top of the leaf stalk – a palmate leaf

veins spread from several places along the leaf stalk - a pinnate leaf

Does the leaf have a toothed edge? — **No** → Do the leaves grow in opposite pairs?

Yes ↓

Teeth are small projections on the edge of the leaf

Sycamore

Do the leaves have lobes? — **No** →

Hawthorn

Yes ↑

Are the twigs thorny? — **No** ↓

Oak

London Plane

No ↑

Do the leaves grow in opposite pairs? — **Yes** ↓

Maple
Check: Maple leaves have more rounded lobes, while London Plane and Sycamore have more pointed lobes

Leaf Identification Key

Is the leaf at least twice as long as it is wide?
- **No** → **Does the leaf have a toothed edge?**
  - **Yes** → **Is the underside of the leaf pale?**
    - **Yes** → **Does the bud grow on a stalk?**
      - **No** → **Whitebeam**
      - **Yes** → **Crab apple**
    - **No** → **Is the leaf tip a distinct point?**

        distinct point – it looks like the end of the leaf has been pinched
      - **No** → **Is the leaf base asymmetrical?**
        - **No** → **Birch**

          Check you are looking at Birch not Alder. Alder has a rounded leaf tip, while Birch has a pointed leaf tip
        - **Yes** → **Elm**

          Check: Elm leaves feel rough when rubbed between the fingers
      - **Yes** → **Is the leaf stalk flattened?**
        - **No** → **Does the leaf bulge out more at one side?**
          - **No** → **Hazel**

            Check: Hazel leaves and leaf stems are hairy
          - **Yes** → **Lime**
        - **Yes** → **Poplar**
  - **No** → **Are there fine white hairs on the edge of the leaf?**
    - **No** → **Does the leaf have a blunt or rounded tip?**
    - **Yes** → **Beech**

      Check: Beech leaves have a wavy edge
- **Yes** → **Is the leaf shorter than 10 cm?**
  - **Yes** → **Is the edge of the leaf double toothed?**
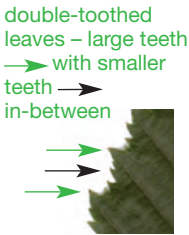   - **Yes** → **Hornbeam**
    - **No** → **Cherry**

      Check: Cherry leaves have a wide range of sizes

      double-toothed leaves – large teeth with smaller teeth in-between
  - **No** → **Sweet chestnut**

    Check: If there are 2 red spots at the top of the leaf stalk, it is probably a Cherry

    → **Does the edge of the leaf have large teeth?**
    - **No** → **Are there 2 red spots at the top of the leaf stalk?**
      - **No** → **Does the leaf have a blunt or rounded tip?**
        - **Yes** → **Alder**
      - **Yes** → **Cherry**
    - **Yes** → (→ back to double-toothed / Willow branch)

Willow