



Cambridge University

Botanic Garden

Explore art and photography



Lesson Plan: Explore art and photography

Duration: Variable

Learning objectives:

- Sketchbook creation
- Studies in different media of plants or landscapes in the Garden
- Photographic studies of plants or landscapes in the Garden

Introduction:

This resource offers suggestions of particular plants or areas of the Garden with striking colour or form, which would be good subjects for Art and Photography students. Also, check out the weekly “Plant Picks”, which are displayed on the board near the Brookside Lawn, and online at <https://www.botanic.cam.ac.uk/plant-picks-week/>

A ///what3words address is provided for the plants; this is a free app which maps the entire world in 3m squares. You can type the addresses given into the app and click navigate to start your journey to the plant. Different devices have different accuracy levels for GPS, but using ///what3words should narrow down the search area.

For those not using a smartphone, we have also provided a grid reference from our visitor map.

Main task:

Use the location information provided to find plants with interesting form or colours in order to make studies of them for your sketchbooks or portfolio.

Resources:

- Art materials or camera
- Map of the site
- Optional: ///what3words app downloaded to a smart device

Remember:

- All pupils under 17 must be accompanied by an adult at all times
- You should be split into groups of 10 or fewer
- The Rock Garden (F9), stepping stones (D9) and the British Wild plants mound (N7) are out of bounds for school groups

All year

Persian ironwood, *Parrotia persica*:

///ship.librarian.film

Grid ref: M6

This incredible tree has fascinating forms in its branches and patterns on its bark. The branch pattern is so intricate because the tree self-grafts, and branches fuse together where they touch. The tree originates in southern Caucasus and northern Iran. In winter look out for the tiny crimson flowers, which come directly from the branch.



Main walk:

///hobby.begins.amuse

Grid ref: G7

The Main Walk, with the fountain at one end, is the place to go for long vistas and giant trees. The Redwoods and Cypresses have fascinating form and looking up into their branches is a great thing to do for a different perspective. They also frequently drop cones, which you can pick up from the ground and are excellent subjects to take back to school.



Arid house:

Grid ref:J11

The plants within the arid house are all adapted for environments lacking in water. Students will notice cacti with a concertina shape that allows them to harvest and store water, and others with spiral forms.



All year

Alpine house:

Grid ref: H10

The Alpine house is a fantastic place to practice macro photography or draw small details, as many of the plants here are small to adapt to the harsh environments they grow in.

Tropical house:

Grid ref: H11

Look out for intricate flower forms from vines above your head and orchids of all sizes in hanging baskets. This is a good location to focus on texture and shade with multiple layers of rainforest plants represented. Plants at ground level often have patterned leaves to allow the plant to use a greater spectrum of light to photosynthesize, and to camouflage from herbivores.



Spring and summer

Systematic beds:

Grid ref: F6

The Systematic Beds are laid out to a historic design from the Garden's beginnings in 1846. Plants are grown in beds with other members of the same family and have been used since the Victorian era to teach Cambridge students about the science of Botany and classification. Try making studies of several plants in a family and show their key characteristics.



Spring and summer

Bee borders:

///kind.flips.play

Grid ref: H10

In late spring and summer, the Bee Borders are a riot of colourful flowers providing a fantastic food source for bees and butterflies. Across the path, alongside the glasshouses, you can find succulents growing in fascinating Fibonacci spirals. A great area to look at things in detail and close up. The exterior of the Glasshouses are also an element of interest. The main structure dates from 1932.



Autumn

Amur peppervine, *Ampelopsis*

***brevipedunculata*:**

///mugs.rescue.trout

Grid ref: P10

The colours in the berries come from the interaction between two chemicals - anthocyanins and flavonoids. The anthocyanins are pigments that react to pH changes. As the berry ripens it moves from being acidic to more alkaline so the colour changes. The flavanols are thought to act as co-pigments, stabilising the anthocyanin pigmentations, resulting in the varied colours of the berries – ranging from pale pink and turquoise to rich purples and dark blue.



Autumn

Liquidambar, *Liquidambar styraciflua*:

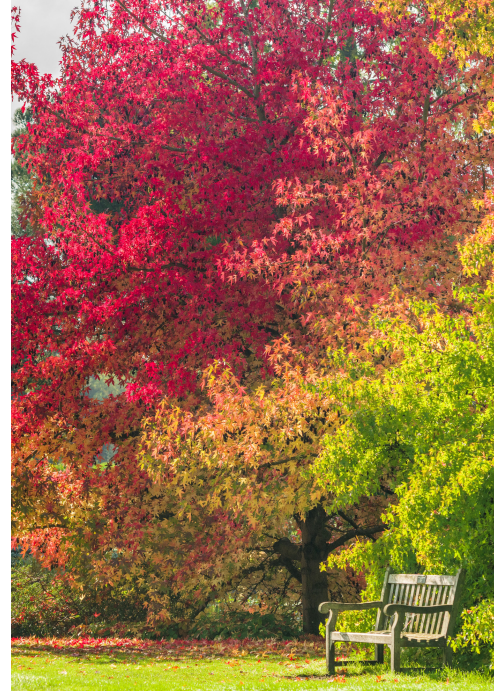
[///calms.camera.oppose](#)

Grid ref: D9 (please access this from the main path, not through the Rock Garden which is out of bounds for school groups).

Also at [///boat.quench.natively](#)

Grid ref: T8

Visit the American sweetgum for incredible autumn colour. The leaves turn a flaming red and also have an interesting shape. The tree reflects beautifully in the lake. You will also find intricately spiked fruits.



Winter

Snowdrops, *Galanthus* (Jan/Feb):

[///breath.wasps.organs](#)

Grid ref: C10

There are 59 types of snowdrop planted around the garden and they are a perfect plant to study in detail. The many different varieties all have different markings on the petals – some even look like faces. The woodland garden is a particular hotspot.



Winter garden:

[///piper.desks.trail](#)

Grid ref: R8

In the Winter Garden you will find planting designed to show colour and texture all year round. Of particular interest is the peeling bark of the Paperbark maple, *Acer griseum* and the bold red stems of the Dogwood, *Cornus alba* 'Sibirica'.



Winter

Snakebark maple, *Acer*:

///sport.fine.than

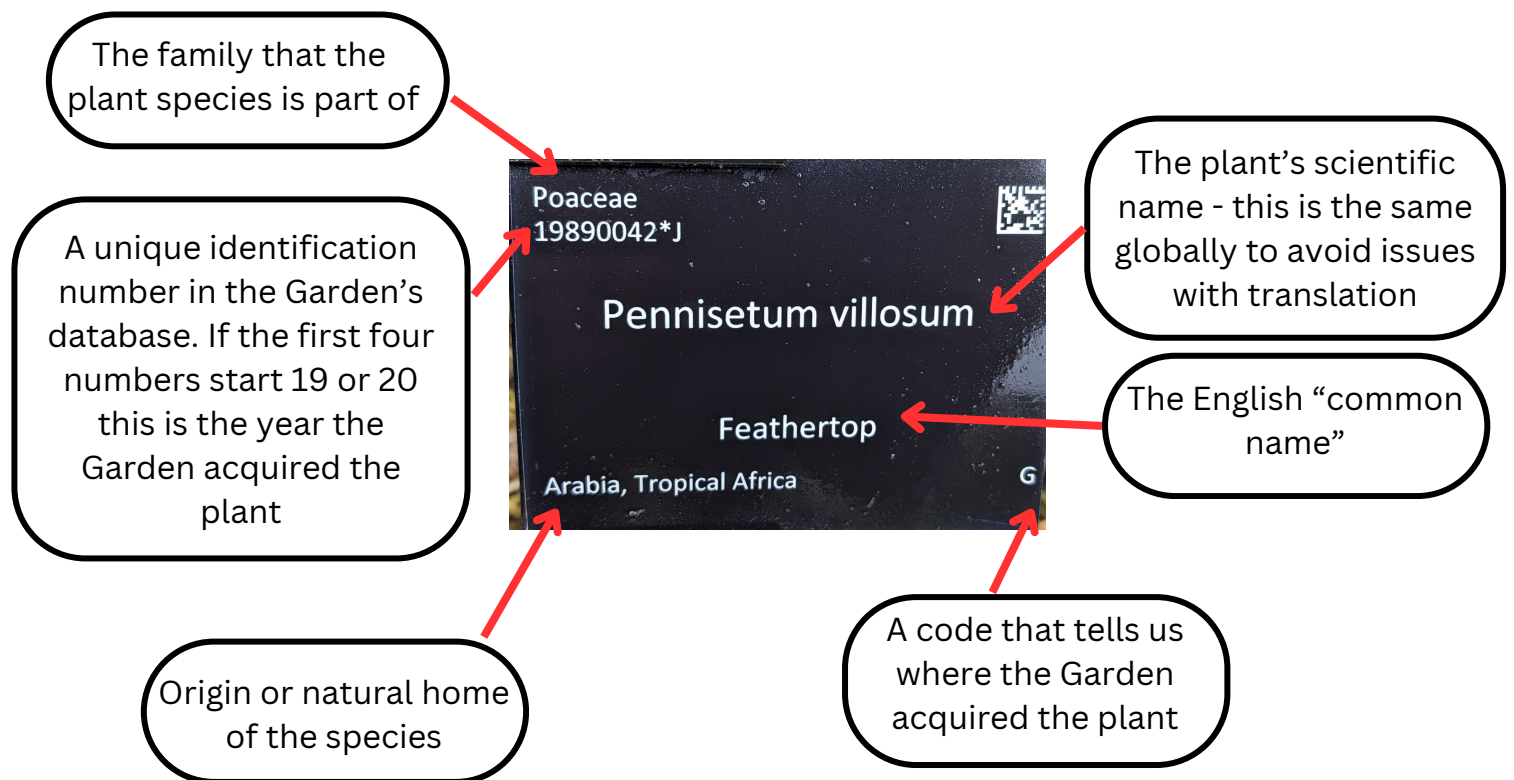
Grid ref: R10

This Maple has amazing bark with distinctive silver-grey streaks which run lengthwise along the trunk and stems.



Identifying the plants

Plants are labelled in a Botanic Garden. You can check the black labels to identify the plant you are looking at. Here is how to read a plant label:





- 1: Stream Garden
- 2: Woodland Garden
- 3: Bog Garden
- 4: Schools' Garden
- 5: Rock Garden
- 6: Main Walk

- 7: Systematic Beds
- 8: The Rising Path
- 9: New Pinetum
- 10: Mediterranean Beds
- 11: The Glasshouse Range
- 12: Bee Borders

- 13: Terrace Garden (New Zealand Flora)
- 14: Gilbert Carter Woodland
- 15: Old Pinetum
- 16: British Wild Plants
- 17: Cory Lawn
- 18: Dry Garden

- 19: Fen Display
- 20: Rose Garden
- 21: Grass Maze
- 22: Understanding Plants
- 23: Dry Meadow
- 24: Garden Research Plots

- 25: Autumn Garden
- 26: Winter Garden
- 27: Chronological Bed
- 28: Scented Garden
- 29: The Dell
- 30: Herbaceous Beds

