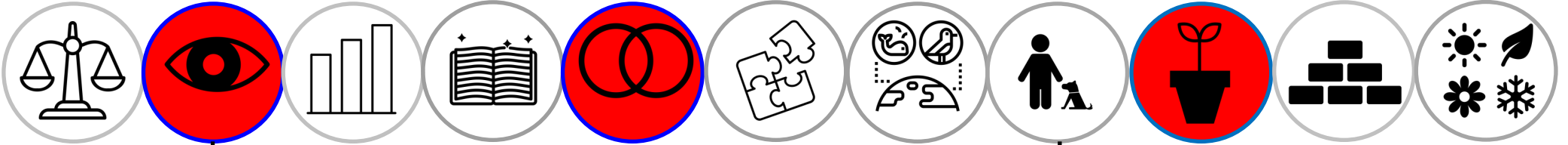


Year 1: Plants

SCIENCE CONTEXT: Biology



KEY VOCABULARY:

Leaves	A leaf is a part of a plant attached to a stem resembling a flat structure
Flower	A flower is the part of a plant that blossoms.
Petals	One of the often brightly colored modified leaves that make up the a flower.
Fruit	A fruit is the part of a flowering plant that contains the seeds.
Root	A root is a part of a plant that is usually hidden underground.
Deciduous tree	A tree that sheds its leaves annually.
Seed	Seeds are the small parts produced by plants from which new plants grow.
Trunk	The main woody stem of a tree
Branches	A woody part of a tree or bush that grows out from the trunk.
Stem	The stem is the main structure that supports leaves and flowers.

As Scientists we will...

Pupils should be taught to:

- identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
- identify and describe the basic structure of a variety of common flowering plants, including trees

Working scientifically:

- Observe closely using simple equipment,
- Identify and classify.

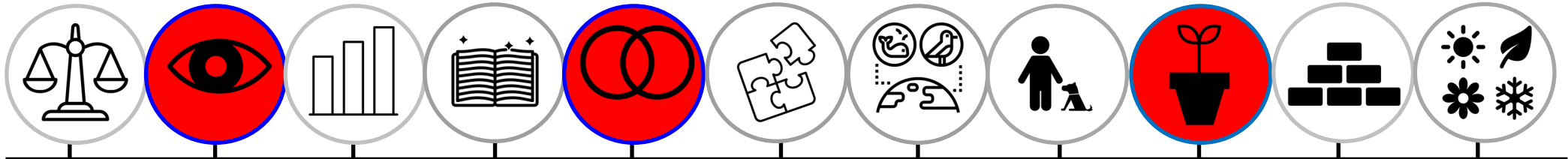
Notable scientist: David Bellamy

Key Questions

- 1) Can you name some wild and some garden plants?
- 2) Can you name some trees?
- 3) Can you draw and label the basic structure of a flowering plant?
- 4) Can you draw and label the basic structure of a tree?

Year 1: Plants

SCIENCE CONTEXT: Biology



What I need to know:

Growing locally, there will be a vast array of plants which all have specific names. These can be identified by looking at the key characteristics of the plant. Plants have common parts, but they vary between the different types of plants. Some trees keep their leaves all year while other trees drop their leaves during autumn and grow them again during spring.

Opportunities for science capital:

Invite someone in whose job relies on knowledge of plants– such as a florist, or landscaper- to talk to the class about how they rely on their scientific knowledge of plants to help them with their job.

Alternatively, visit a local garden centre or go for a walk in our local area spotting and naming different flowering plants and trees.

Part of science capital includes scientific media consumption- documentaries, reports etc. So, I have added a couple of links which give daily science news for children. Checking in on these every now and then would be beneficial to help children see science in the wider world.

<https://www.sciencenewsforstudents.org/>

<https://www.sciencejournalforkids.org/>

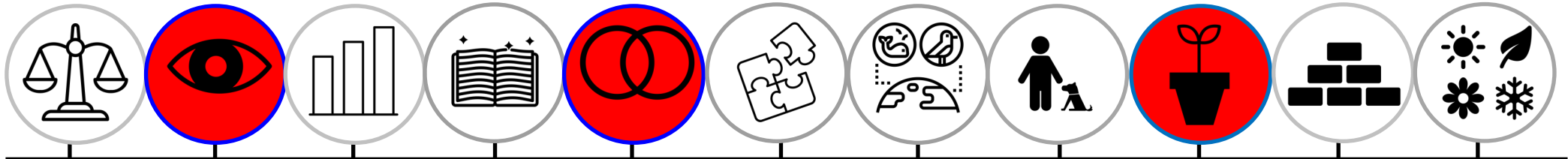
Assessment:

By the end of this unit of work, pupils should be able to: identify and name a variety of common wild and garden plants, including deciduous and ever-green tree and identify and describe the basic structure of a variety of common flowering plants, including trees.

When working scientifically, pupils should be able to: observe closely using simple equipment, and identify and classify.

Year 1: Plants

SCIENCE CONTEXT: Biology



Theme 1: Wild and garden plants

Starter:

KWL grid

Recap learning about seasons with autumn leaves odd one out: <https://explorify.uk/en/activities/odd-one-out/autumn-leaves>

Plant some quick growing seeds (in resource room) so children can observe growth over the coming lessons and can be used to observe plant structure in the final lesson. Plant in a clear pot, so roots can be observed.

Main:

Substantive knowledge:

Work through videos and activities BBC Bitesize to introduce different flowering plants. Activity 3 is an odd one out deeper thinking opportunity, so this should be recorded.

Plenary/assessment:

Disciplinary knowledge

Working scientifically objective: identifying and classifying.

Provide children with photos of wild plants and garden plants.

E.g wild: brambles, buttercups, daisy, dandelion, nettles, ivy, clover.

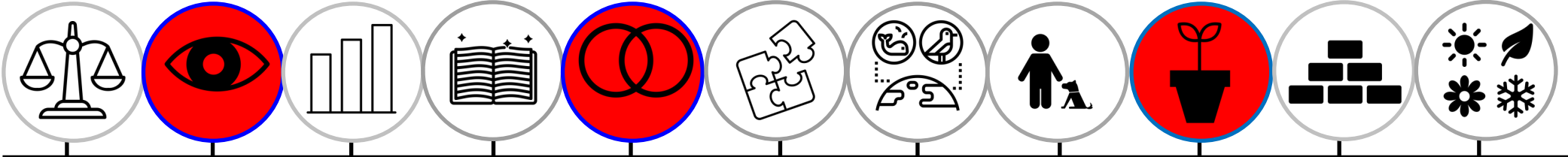
Garden plants: sunflowers, lavender, hydrangea, tulips, roses.

Create a plant hunt sheet with photos of plants and their names. Go on a hunt around school where children independently identify plants in our local area.

Once back in class, give pupils photos of plants (with names) and ask them to classify them using sorting circles– one for wild plants, the other for garden plants).

Year 1: Plants

SCIENCE CONTEXT: Biology



Theme 2: Evergreen and deciduous trees

Starter:

Recap: recall names of a variety of garden and wild flower plants

Disciplinary knowledge **Working scientifically objective: Observe closely using simple equipment**

Give children magnifying glasses and allow them to observe the plants they planted last week. Ask: how have they changed? What has started to grow? Record their observations on post-it-notes and add to floorbook with photos.

Main:

Substantive knowledge:

Introduce key vocabulary and meaning:

Deciduous tree: a tree that sheds its leaves annually.

Evergreen tree: a tree that keeps its green leaves all year round.

Share photos and names of a variety of evergreen trees and deciduous trees. Have they ever seen any?

How can you tell the difference when you are looking at them?

Explain to children the differences in leaves:

Evergreen leaves are: thick, shiny, waxy, smooth, and can have needles and cones.

Deciduous leaves are: thin, have bumpy or raised veins, are wide and flat, often have flowers.

Show photos of different leaves to demonstrate the difference.

Plenary/assessment:

Disciplinary knowledge

Working scientifically objective: identifying and classifying.

Go on a hunt around school for different leaves. Whilst out, you could use an identification sheet to help name the type of tree the leaf came from.

Display the quality of the leaves on the board. Give pupils magnifying glasses and ask them to observe the leaves closely. What do they notice? What kind of tree is this leaf from? How do they know?

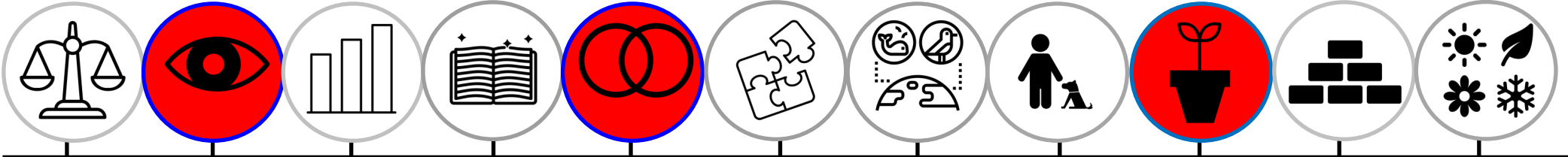
Ask them to classify the leaves using sorting circles– one for evergreen the other for deciduous).

You could push high ability to compare the leaves.

You can get some useful resources for this lesson from: <https://godinton.kent.sch.uk/media/2692/year-1-science-helpsheet.pdf>

Year 1: Plants

SCIENCE CONTEXT: Biology



Theme 3: Plant structure

Starter:

Recap: what's going on? Focus on learning from previous lesson, that deciduous tree lose their leaves <https://explorify.uk/en/activities/whats-going-on/seasons>

Starter activity from Tigtag

Junior: [https://](https://www.tigtagjunior.com/mindmap/#/lessons/CLASS00587/activities/starter)

[www.tigtagjunior.com/mindmap/#/lessons/](https://www.tigtagjunior.com/mindmap/#/lessons/CLASS00587/activities/starter)

[CLASS00587/activities/starter](https://www.tigtagjunior.com/mindmap/#/lessons/CLASS00587/activities/starter)

Main:

Substantive knowledge:

Work through videos and activity 1 & 2 on BBC Bitesize to introduce main parts of flowers and trees.

<https://www.bbc.co.uk/bitesize/topics/zpxnyrd/articles/z2vhxbk>

Plenary/assessment:

Disciplinary knowledge

Working scientifically objective: Observe closely using simple equipment

Today we are botanists.

Children could go on a 'Weedy Welly Walk' to dig up weeds (including roots).

Provide different types of real plants and pictures e.g. flower/vegetable/weed and pictures of sapling/trees. Children to explore the plants and pictures using magnifying glasses, rulers. Using post-it notes ask the children to write labels to identify the basic structure of a plant.

Question the children (this could be a small group activity) to explain what they know about each part of the plant (see questions on full plan).

Record comments that the children make and/or photograph the labelled plant.

NB. Only dig up wild plants which are not protected species (e.g. bluebells cannot be dug up).

H & S – Ensure children wash their hands after touching plants.

Find full plan at: [file:///rdc2166/staff\\$/sarah.brogden/Downloads/Overview-of-FA-plans-w-topic-colours-Apr23.pdf](file:///rdc2166/staff$/sarah.brogden/Downloads/Overview-of-FA-plans-w-topic-colours-Apr23.pdf)

