

## Identifying Plants

## Science Knowledge Organiser: Plants

### I already know...

- ...that **living things** need things to stay alive.
- ...that I can **sort** objects into groups.

### Vocabulary



- plant** – a living thing that grows.
- seed** – the part of a plant that can grow into a new plant.
- seedling** – a very young plant that has just started to grow.
- tree** – a type of plant that usually has a trunk and branches.
- deciduous** – a tree that loses its leaves in autumn and grows new leaves in spring.
- evergreen** – a tree that keeps its leaves all year.
- roots** – parts of a plant under the ground that help it stay in place and collect water.
- stem** – the part of a plant that holds it up.
- leaf/leaves** – parts of a plant that grow from the stem.
- petals** – the coloured parts of a flower.

### Key knowledge

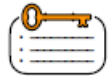
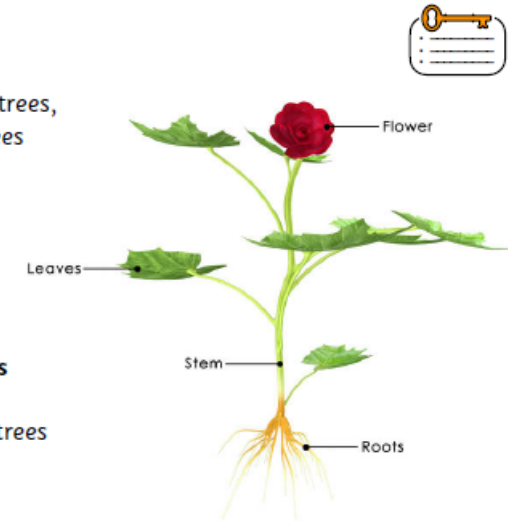
- Plants need **water, air** and **sunlight** to grow.
- Plants make **seeds**, and seeds can grow into new plants.
- **Trees** are plants too.
- Some trees are **deciduous** (they lose their leaves), and some are **evergreen** (they keep their leaves).
- Plants have different parts, including **roots, stem, leaves, flower** and **petals**.
- **Roots** are usually under the soil. They anchor the plant so it doesn't fall over, and help collect water.



**evergreen** trees, e.g. pine trees



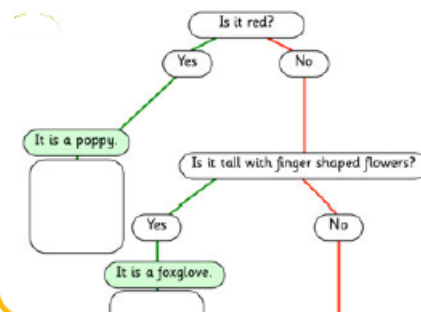
**deciduous** trees, e.g. sycamore trees



### Scientific enquiry



Use a **classification key** by answering "yes/no" questions to help us identify wild plants.



### Thinking questions



- Are all plants the **same**? How do you know?
- Where do **wild** plants come from if nobody planted them?
- Why might someone choose particular plants for their garden?
- How can you tell if a tree is **deciduous** or **evergreen**?
- What do you think would happen to a plant if it had **no roots**?

### I should now be able to...

- Explain what a plant is.
- Say what plants need to grow.
- Identify and name some garden plants
- Identify and name some wild plants.
- Use a classification key to help identify wild plants.
- Make observations about how a plant changes as it grows.

## Seasonal Changes

## Science Knowledge Organiser: Animals, including Humans

### I already know...

- ...that the weather can change from day to day.
- ...that I can **count** and record results with marks or pictures.

### Vocabulary



**season** – one part of the year with its own typical weather.

**weather** – what it is like outside (sun, rain, wind, clouds, snow).

**temperature** – how hot or cold something is.

**windy** – when moving air blows strongly.

**frost** – a thin layer of ice on the ground when it is very cold.

**freeze** – when water turns into ice because it is very cold.

**sunrise** – when the Sun comes up in the morning.

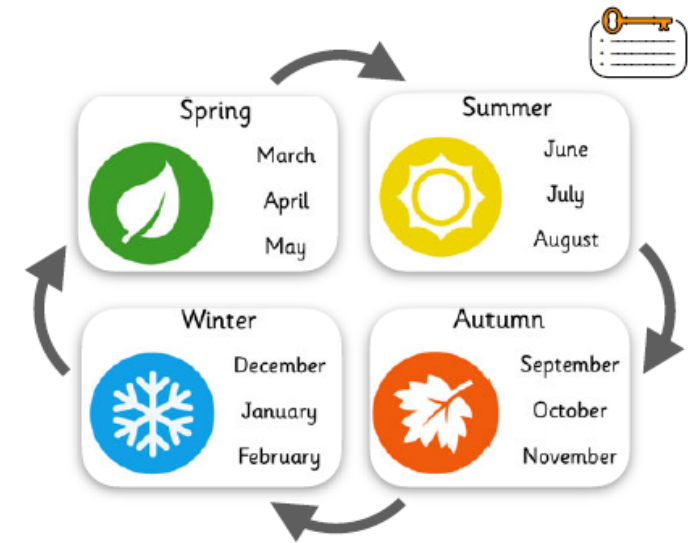
**sunset** – when the Sun goes down in the evening.

**adapt** – a scientific word meaning change to cope with the seasons.

**hibernate** – when some animals sleep for months in winter to save energy.

### Key knowledge

- There are **four seasons** in the UK: **spring, summer, autumn, winter**. They go around in a repeating cycle.
- Each season usually has **different weather**. Weather can also change within a season.
- **Animals can change what they do** in different seasons. For example, robins change where they live and how they find food.
- Some animals **hibernate** in winter when finding food and staying warm is hard (e.g., hedgehogs).
- **Humans adapt too**: we change our clothes, some foods we eat are seasonal, and we choose different activities for different weather.



### Scientific enquiry



We can **record** what we find using **tally marks**.

Autumn

What did you bring to school today?

		Tally	Total
	t-shirt		2
	shirt		18
	jumper		20

We can turn a **tally chart** into a **pictogram** to make the data easier to understand.

### Thinking questions



- What clues can you spot outside that tell you which season it is?
- Is it ever sunny in winter or snowy in spring? What does that tell us about weather?
- Why do some trees lose their leaves in autumn and winter?
- Which activities are safe in icy weather, and which are not? Why?

### I should now be able to...

- Name the **four seasons** in order.
- Say which **months** belong to each season.
- Describe the **weather** you might expect in each season (and know it can still change).
- Give examples of how **animals** are affected by seasons.
- Give examples of how **humans adapt**.
- Make a simple **pictogram** from a tally chart.