## Key Vocabulary

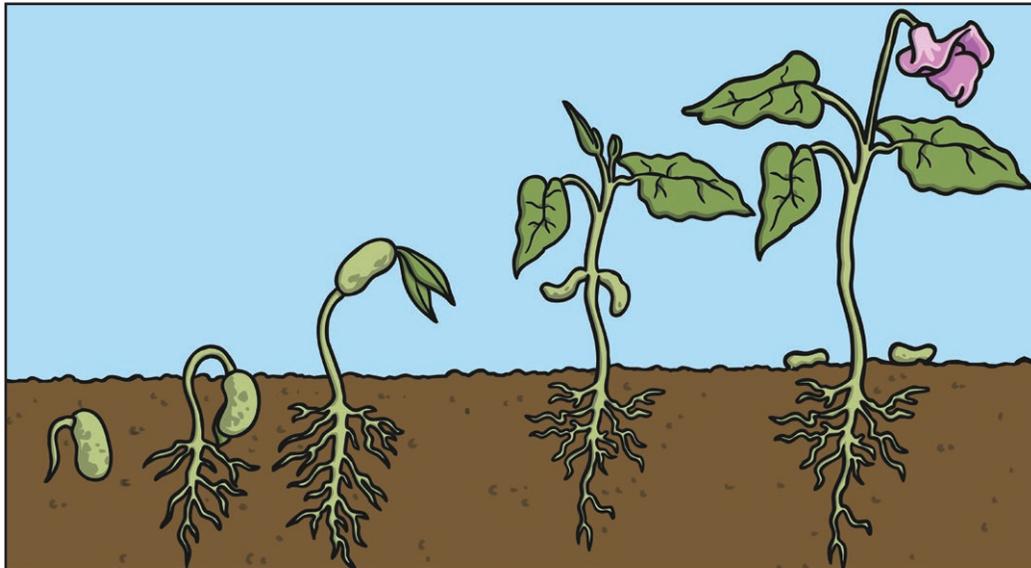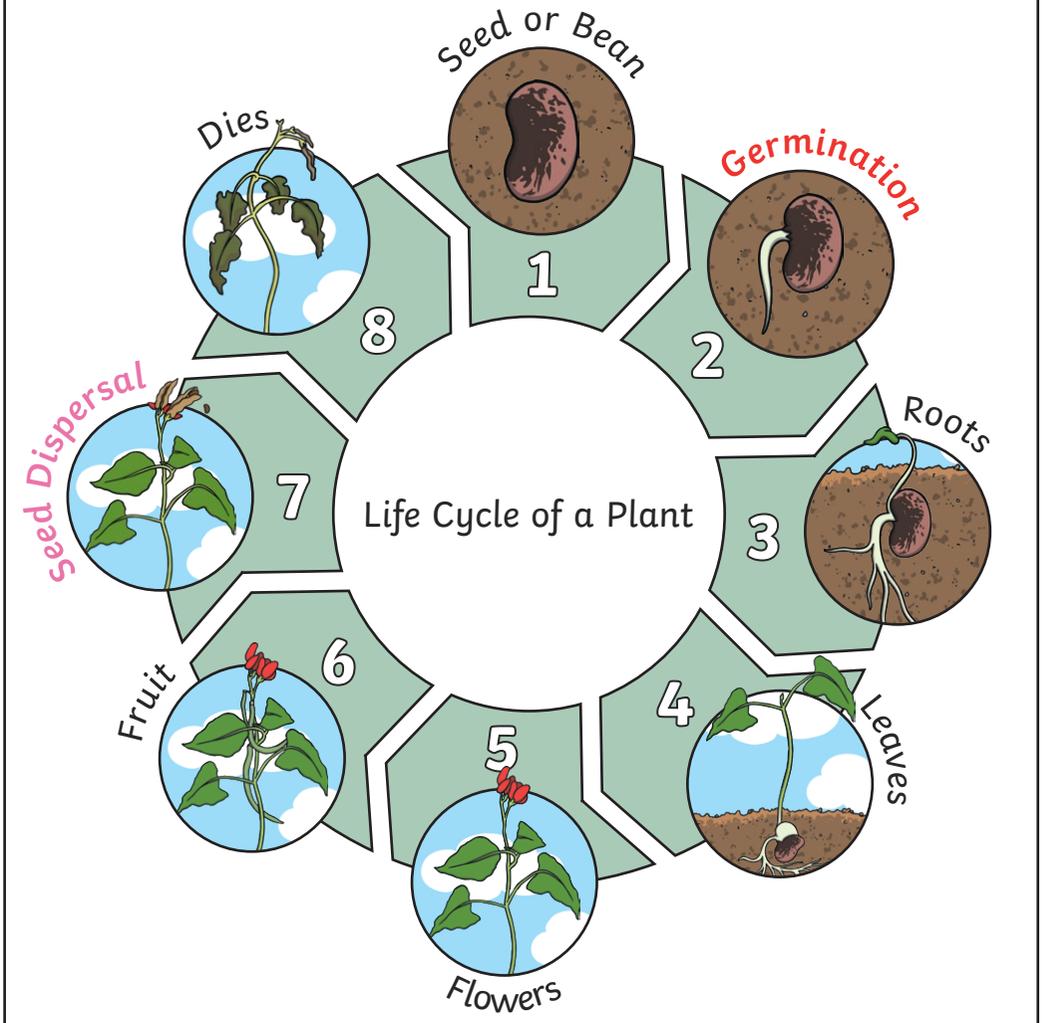| | |
|---|---|
| **germination** | When the conditions are right, the seed soaks up water and swells, and the tiny new plant bursts out of its shell. This is called germination. |
| **sprout** | When a plant sprouts, it grows new shoots. |
| **shoot** | A shoot grows upwards from the seed or plant to find sunlight. |
| **seed dispersal** | Seed dispersal is when the seeds move away from the parent plant. They can be moved by the wind or animals. |

## Key Knowledge

Life Cycle of a Plant

Seed or Bean
Germination
Roots
Leaves
Flowers
Fruit
Seed Dispersal
Dies

1
2
3
4
5
6
7
8

To look at all the planning resources linked to the Plants unit, click here.

## Key Vocabulary

### What do plants need to grow well?

| | |
|---|---|
| **sunlight** | All plants need light from the sun to grow well. Some plants need lots of **sunlight**. Some plants only need a little **sunlight**. |
| **water** | All plants need **water** to grow. Without **water**, seeds and bulbs will not **germinate**. |
| **temperature** | **Temperature** is how warm or cold something or somewhere is. Some plants like cooler **temperatures** and some like warmer **temperatures**. |
| **nutrition** | Food or nourishment. Plants make their own food in their leaves using **sunlight**. |

## Key Knowledge
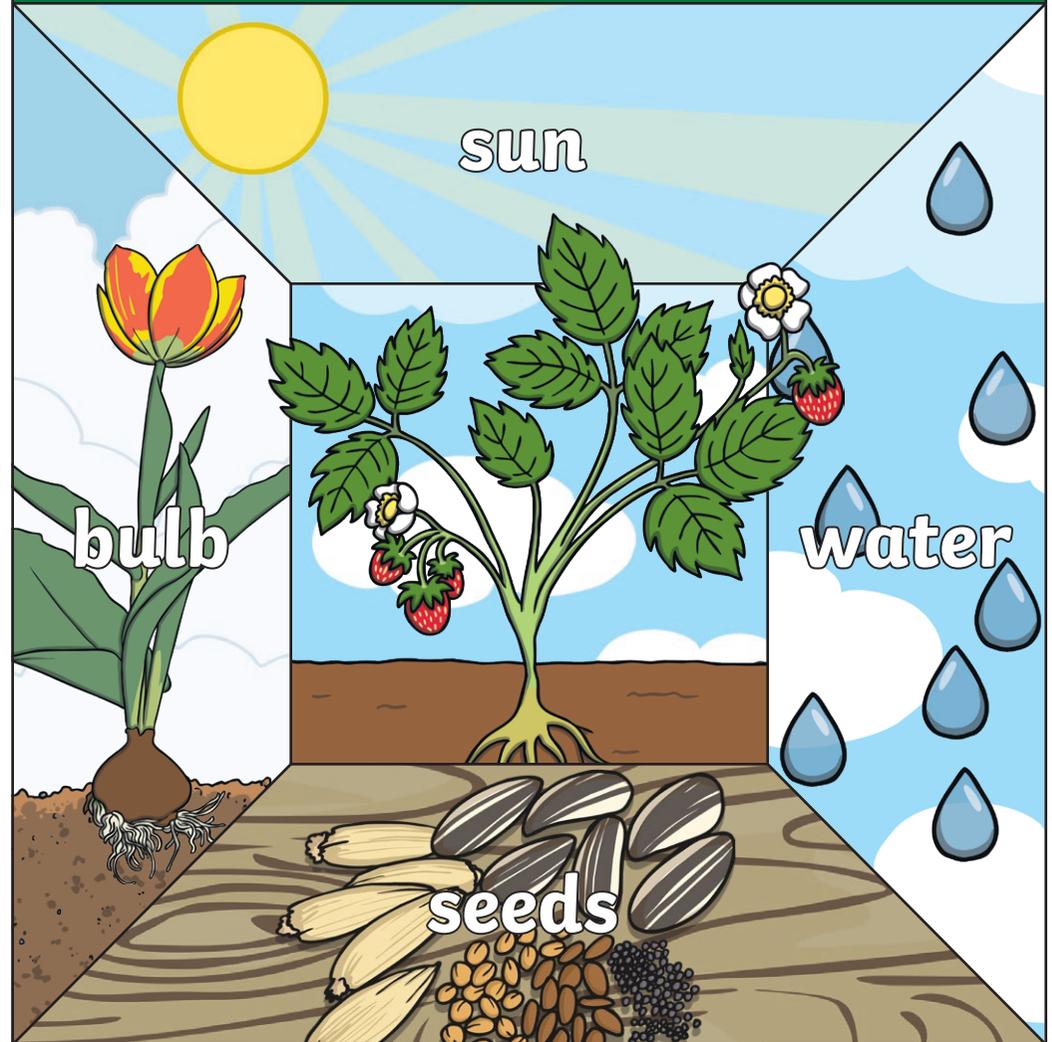
## Key Vocabulary

| | |
|---|---|
| **materials** | **Materials** are what objects are made from. |
| **suitability** | **Suitability** means having the **properties** which are right for a specific purpose. |
| **properties** | This is what a **material** is like and how it behaves (soft, stretchy, waterproof). |

**Squash** an object by pushing both hands together.
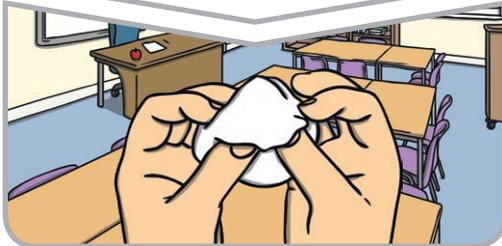


**Bend** an object by grabbing both ends of the object and bringing the ends inwards together.
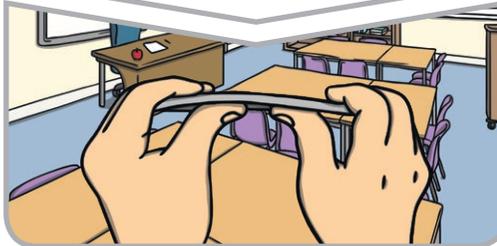


**Twist** an object by turning your hands in opposite directions.
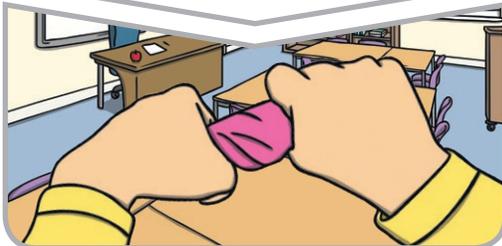


**Stretch** an object by pulling your hands slowly and gently apart.



## Key Knowledge

### Properties of Materials



**wood:** hard, stiff, strong, opaque, can be carved into any shape.



**glass:** waterproof, transparent, hard, smooth.



**plastic:** waterproof, strong, can be made to be flexible or stiff, smooth or rough.



**metal:** strong, hard, easy to wash.



**paper:** lightweight, flexible.



**cardboard:** strong, light, stiff.



**fabric:** soft, flexible, hard-wearing, can be stretchy, warm, absorbent.



**rubber:** hard-wearing, elastic, flexible, strong.

## Key Knowledge

| | |
|---|---|
| **John McAdam** | **John McAdam** was a Scottish engineer who experimented with using new **materials** to build roads, inventing a new process called '**macadamisation**'. |
| **John Dunlop** | **John Dunlop** was a Scottish inventor who invented the air-filled rubber tyre. It was originally invented in 1887 to use with bicycles, and then became very useful when automobiles were developed. |
| **Charles Macintosh** | **Charles Macintosh** was a Scottish inventor and chemist who invented waterproof fabrics in 1818. The Mackintosh raincoat was introduced in 1824. |
| **Macadamisation** | **Macadamisation** was the name given to **John McAdam's** construction process of building roads. The name tarmac means a road made like this using tar. |

To look at all the planning resources linked to the Uses of Everyday Materials unit, click here.
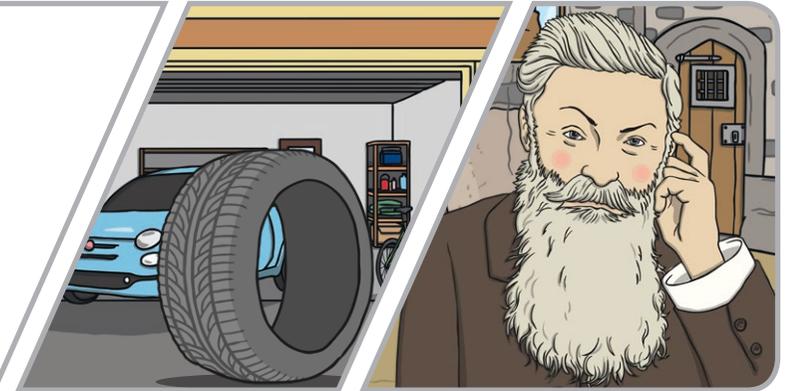
**People who developed new materials:**

**John McAdam's** process was so successful that roads were built in this way right across the world.



**John Dunlop** originally used rubber to make tyres for his son's tricycle.



**Charles Macintosh** invented the first waterproof fabric by painting a dissolved rubber solution onto cloth.

## Key Vocabulary

| | |
|---|---|
| **adult** | A fully grown animal or plant. |
| **develop** | To grow and become stronger. |
| **life cycle** | The changes living things go through to become an adult. |
| **offspring** | The child of an animal. |
| **reproduce** | When living things make a new living thing of the same kind. |
| **young** | Offspring that has not reached adulthood. |
| **live young** | Offspring that has not hatched from an egg. |

All living things **reproduce** and have **offspring**.

Some animals give birth to **live young**. Their offspring normally look like them when they are born.

Some animals lay eggs which hatch into live young. This **young** then develops into an **adult**.
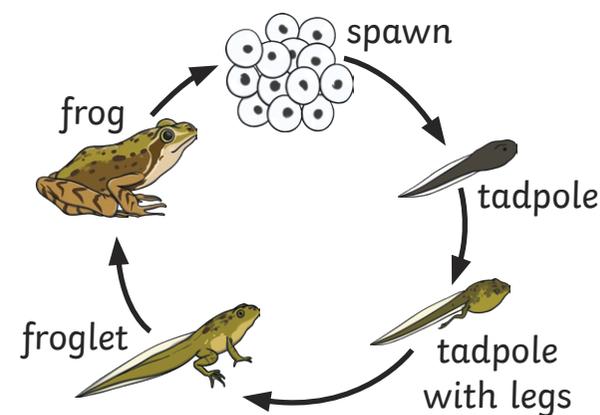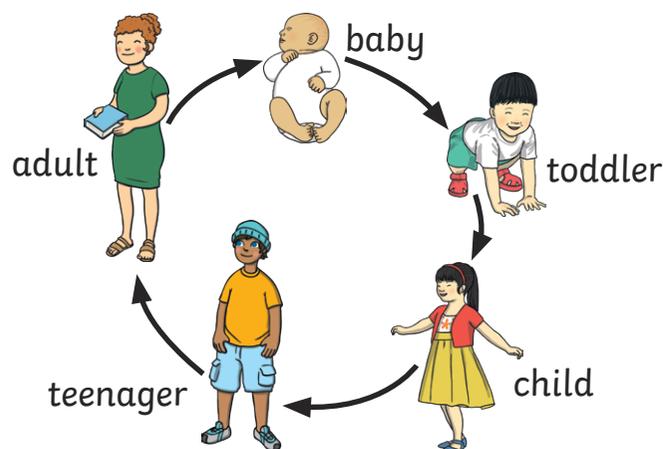
When these eggs hatch, some animals look like their adult, e.g. birds and reptiles.
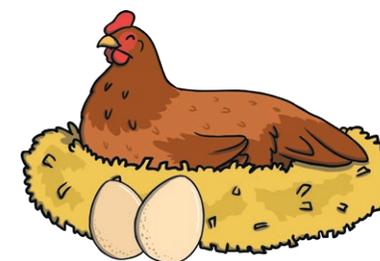
Other animals have offspring which do not look like them, e.g. fish and amphibians.

All young animals change at different stages as they grow into adults.

adult → baby → toddler → child → teenager → adult

frog → spawn → tadpole → tadpole with legs → froglet → frog

## Key Vocabulary

| | |
|---|---|
| **dehydrate** | To lose water (dry out). |
| **diet** | The food and water that an animal needs. |
| **disease** | Illness or sickness. |
| **energy** | The power needed to carry out a task. |
| **exercise** | A physical activity to keep your body fit. |
| **germs** | Bugs that cause disease and illness. |
| **heart rate** | The number of times a heart beats in one minute. |
| **hygiene** | How clean something is (to stay healthy and stop disease and illness spreading). |
| **nutrition** | Food needed to live. |
| **pulse** | The beating of the heart that can be felt in your neck and wrist. |

To look at all the planning resources linked to the Animals Including Humans unit, click here.

To stay alive, all animals have 3 basic needs:

air      water      food
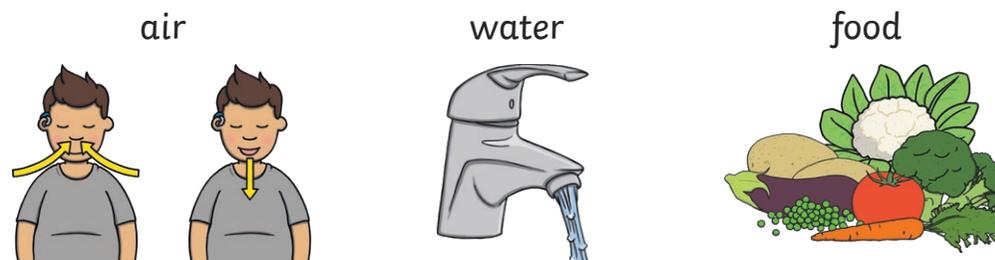
To grow into a healthy adult, we must eat the right types of food in the right amount and **exercise**.

**Eatwell Guide**

fruit and vegetables

carbohydrates

dairy and alternatives

proteins

**oils and spreads**
Choose unsaturated oils and use in small amounts.

Water, lower fat milk, sugar-free drinks including tea and coffee all count.

6-8 a day

Eat less often and in small amounts.

To stop illness and infections spreading, we must be hygienic and keep ourselves clean.

## Key Vocabulary

| | |
|---|---|
| **life processes** | These are the things that all **living** things do. They move, breathe, sense, grow, make babies, get rid of waste and get their energy from food. |
| **living** | Things that are **living** have all the **life processes**. |
| **dead** | Things that are **dead** were once **living**. They did have all the **life processes** but don't now. |
| **never living** | Things made out of metal, plastic or rock were **never living**. They never had the **life processes**. |
| **food chain** | A **food chain** shows how each animal gets its food. **Food chains** are one of the ways that **living** things **depend** on each other to stay alive. |
| **food sources** | This is the place a **living** thing's food comes from. |

## Key Knowledge



living     dead     never living

**Food chains.** The arrows mean 'is eaten by'.
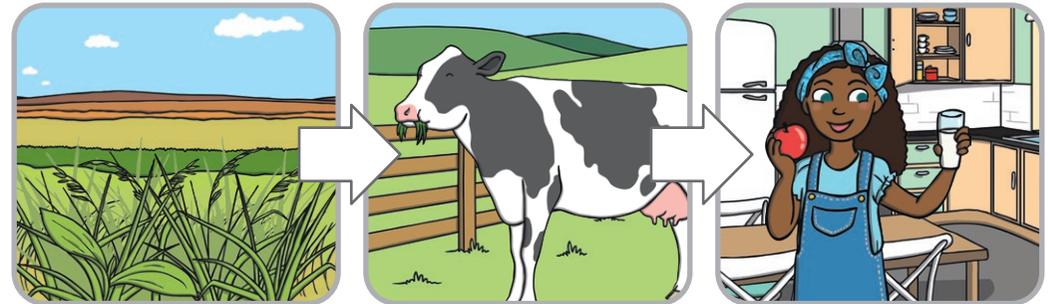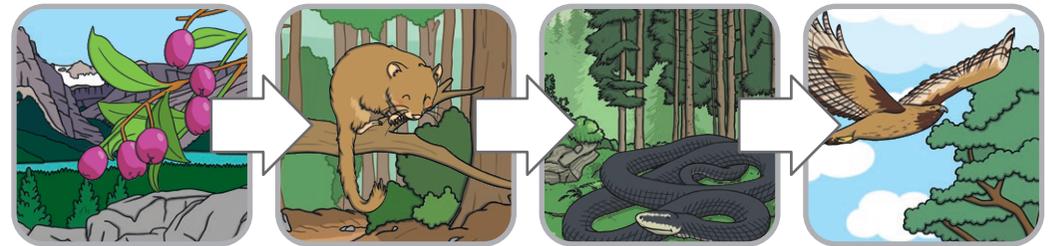




To look at all the planning resources linked to the Living Things and Their Habitats unit, click here.

## Key Vocabulary

| | |
|---|---|
| **habitat** | A habitat is the natural place something lives. A habitat provides living things with everything they need to survive such as food, shelter and water. |
| **microhabitat** | A microhabitat is a very small habitat in places like under a rock, under leaves or on a branch. Minibeasts live in microhabitats. The microhabitats have everything they need to survive. |
| **depend** | Many living things in a habitat depend on each other. This means they need each other for different things. |
| **survive** | This means to stay alive. |

## Key Knowledge

Examples of **habitats**:
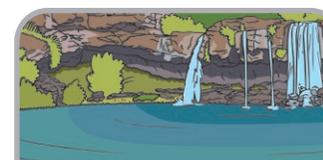
woodland

urban

coastal

rainforest

arctic

desert
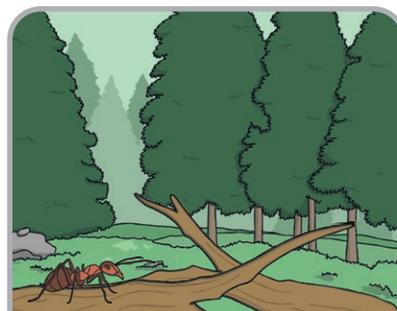
ocean

river

mountain

Examples of **microhabitats**:

short grass

flowers

inside rotting wood

under leaves

in and on soil