Living things

1. **Humans** are living things.

Living things need **air** to breathe.

Living things need **water** to drink.

Living things need **food** to stay alive.

2. **Plants** are living things.

There are different types of plants. Can you name examples of plants? Think about what might be growing in the garden at home or at school.

Trees	Flowering plants	Grass

3. **Animals** are living things.

What type of animals are you likely to come across at Blenheim? Can you name examples of animals? Think about the different habitats.

Fish	Amphibians	Reptiles	Birds	Mammals

4. **Insects** are animals.

What sorts of insects are you likely to see around the Walled Garden?

Food chains

1. Living things must **eat** to stay alive.

Living things that eat plants are called **herbivores**.

Living things that eat animals are called **carnivores**.

Living things that eat plants and animals are called **omnivores**.

2. All living things are part of the food chain. **Food** gives **energy** to grow, survive and live. There are **producers**, **consumers**, and **predators** in food chains.

Producers

- Plants are producers. Plants make their own food with natural energy from the sun.
- Plants are the start of the food chain.
- Plants need light, air and water to make food.

Consumers

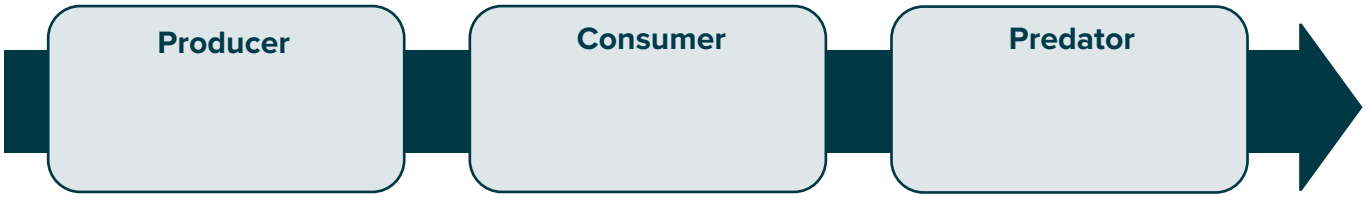
- Animals eat plants.
- Animals eat other animals.
- There are primary consumers, secondary consumers and tertiary consumers.

Predators and Prey

- Animals that **eat other animals** are **predators**.
- Animals that are **eaten by other animals** are **prey**.

Create your own food chains.

Example A



Example B



Example C



Remember. Plants make their own food. Humans and animals cannot make their own food like plants do.

Plant growth

1. Most plants will grow from seeds. Other plants will grow from bulbs.

Find out which plants grow from seeds or bulbs.

Seeds	
Bulbs	

2. Most plants will grow in soil, but many will grow in water.

Find out which plants grow in soil and in water.

Soil	
Water	

3. All plants need air, light and water to grow. Different plants will require different levels of light and water.

Find out about which plants require less light and less water than most.

Less light	
Less water	

4. Sun provides light and warmth. Some plants will require cooler temperatures or will simply fare well in cold temperatures.

Find out which plants grow well in cooler or cold temperatures.

Cooler temperature	
Cold temperature	

5. Some vegetables grow underground, others grow above ground.

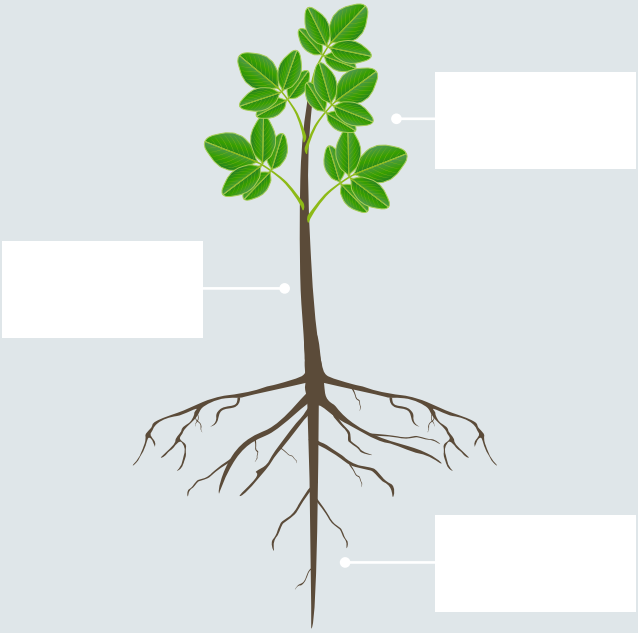
Can you name a few examples of underground and above ground vegetables?

Underground	
Above ground	

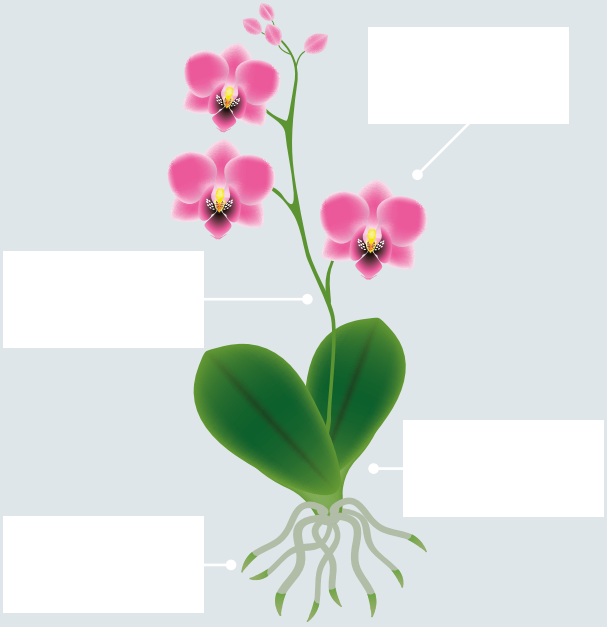
Plant structure

Identify the different parts of plants and describe their functions.

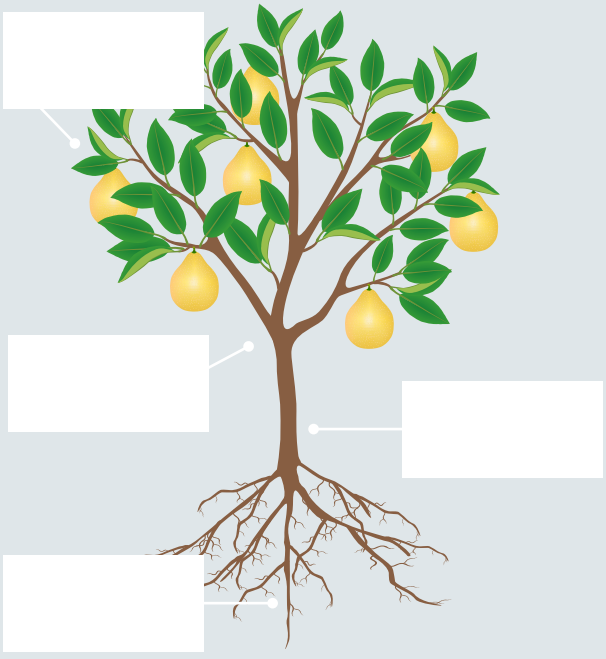
Basic structure of a plant



A flower is a plant



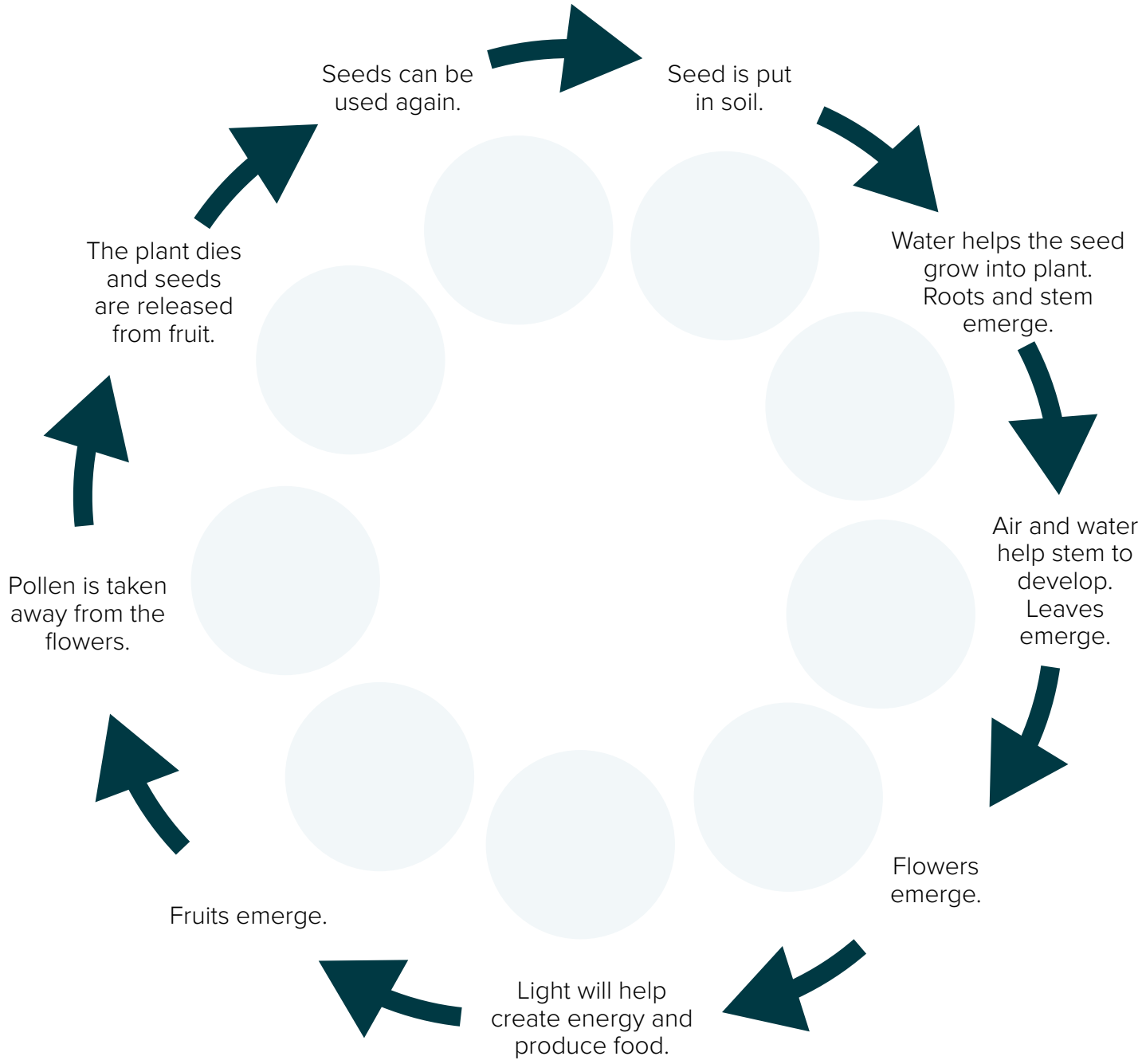
A tree is a plant



Plant lifecycle

Identify each phase of a plant lifecycle.

Pollination	Photosynthesis	Young plant
Seedling	Seed creation	Germination
Seed dispersal	Sowing	Mature plant



Water cycle

1. All living things need water to live and to stay alive.

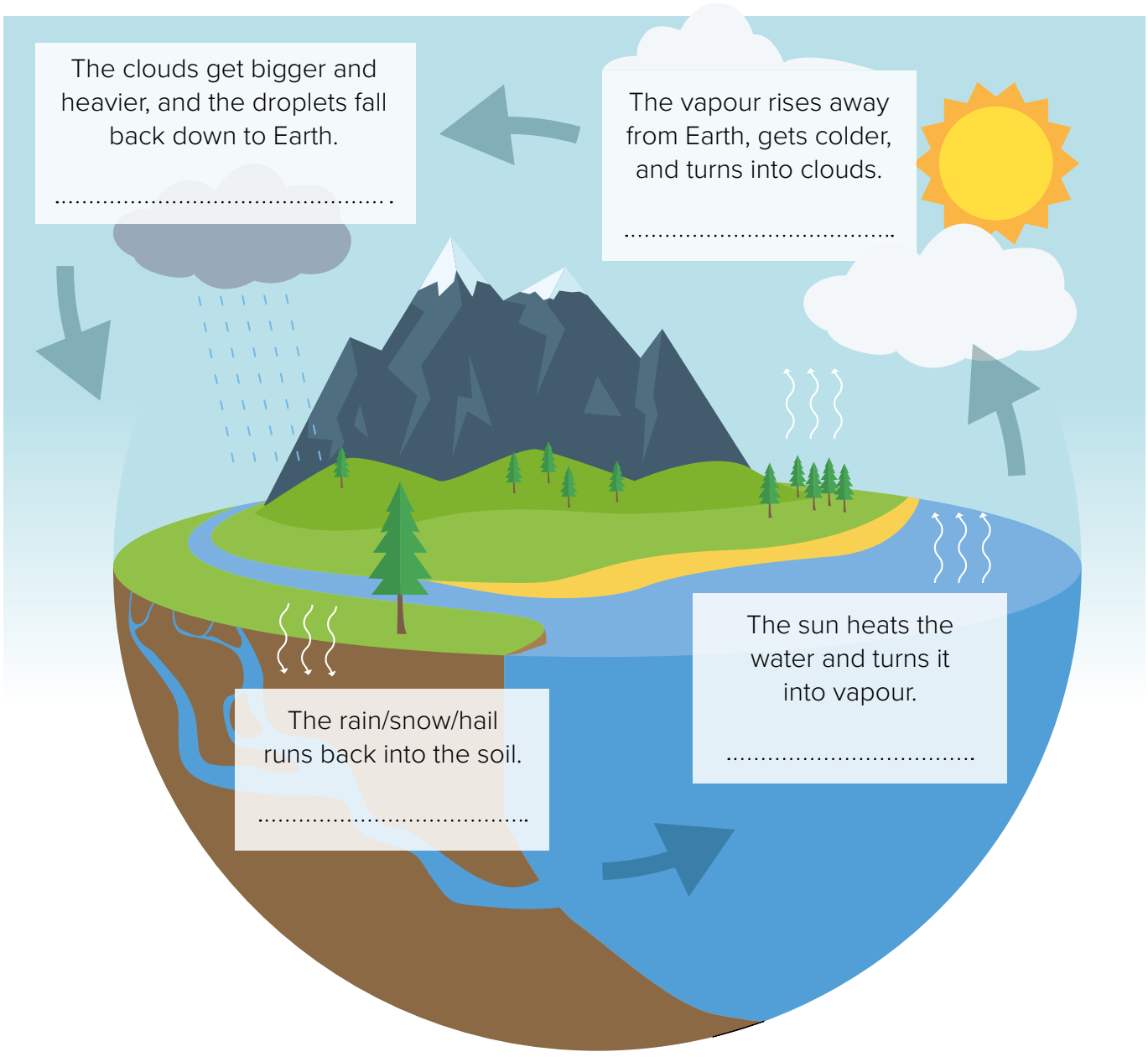
Water covers 70% of the Earth.
What percentage of the Earth is **land**? .....

97% of water on Earth is found in the oceans.
What percentage of water on Earth is **fresh water?** .....

86% of all the water in the UK is polluted.
What percentage of **non-polluted water** is there in the UK? .....

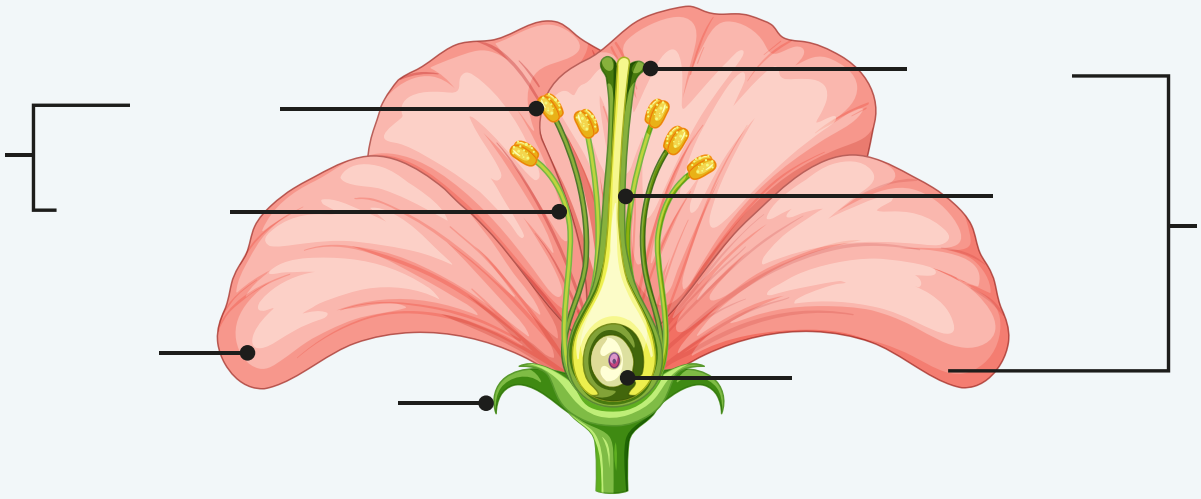
2. Identify and illustrate each phase of the water cycle.

Condensation Infiltration Evaporation Precipitation



Reproduction

1. Identify the different parts of a flowering plant.



Petals Stamen Filament Anther Pistil Style Stigma Ovary

image: Freepik.com

2. Describe the pollination process.

Pollination Stigmas Dispersal Nectar Formation Anthers Pollen

- Insects will visit the flowers to drink the sweet liquid called _____. When insects finish drinking, they take the _____ away with them. It's the dust-like elements in flowers.
- While the insects are feeding, pollen from _____ (male part) will rub off onto them.
- Insects will visit other flowers for more food. While feeding, pollen from insects will be deposited onto _____ (female part). The process is called _____.
- Once a flower has been pollinated, it will die and produce seeds. This process is called seed _____.
- Seeds can be blown by the wind or transported by water. This process is called seed _____.

3. Describe the reproduction process.

Filament Stigma Pistil Ovule Stamen Style Ovary Anther

- The male part of a flower is called [redacted]. Pollen sits on the [redacted], which is supported by a [redacted].
- The female part of a flower is called [redacted]. Pollen is deposited on the [redacted], which is supported by a [redacted].
- Pollen travels down the style of the flower into the [redacted]. Fertilization takes place.
- Each [redacted] in the ovary will turn into a seed.

Bees are essential to the people and the planet because they are amongst the best pollinators. There are different types of bees.

How would you describe each of them?

Honey Bee



Bumble Bee



Wasp



Hornet



Evolution and Inheritance

1. All living things adapt to their environment. Adaptation leads to evolution.

Find out about native British bees. Find out about the ecotype found at Blenheim. Explain how they **adapted** to the environment in the woodlands at Blenheim.

Native British honeybees	Blenheim honeybees

Native British honeybees: https://www.wildlifetrusts.org/
Blenheim honeybees: https://oxnatbees.wordpress.com/2021/07/23/onbg-meeting-july-2021-blenheim-wild-bees/

2. When living things reproduce, the offspring inherit some of their parents' characteristics.

Find out about Cavalier King Charles Spaniels. Find out about the Blenheim Spaniels. Explain how **similar** they are.

Cavalier King Charles Spaniel	Blenheim Spaniels

Cavalier King Charles Spaniel: https://www.thekennelclub.org.uk/search/breeds-a-to-z/breeds/toy/king-charles-spaniel/
Blenheim Spaniels: https://www.akc.org/expert-advice/dog-breeds/cavalier-king-charles-spaniel-history-behind-the-breed/

3. When living things reproduce, the offspring are not identical to their parents. There is variation in the characteristics: that is variation.

Find out about apples and orchids. Find out about the Blenheim Orange Apple (Malus domestica) and the Duke of Marlborough Orchid (Cattleya Mendelli). Explain how they **differ**.

Apple

Blenheim Orange Apple

Orchid

Duke of Marlborough Orchid

Blenheim Orange Apple: https://www.keepers-nursery.co.uk/fruit-trees/apple/late-season-eating-apple/blenheim-orange

Duke of Marlborough Orchid: https://digitalcollections.nypl.org/items/510d47dc-50c8-a3d9-e040-e00a18064a99