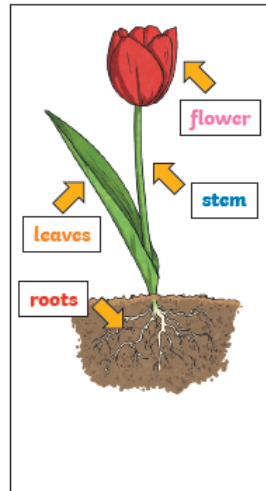


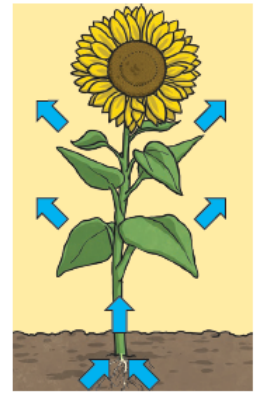
## Key Vocabulary

<b>roots</b>	These anchor the plant into the ground and absorb water and <b>nutrients</b> from the soil.
<b>stem</b>	This holds the plant up and carries water and <b>nutrients</b> from the soil to the <b>leaves</b> . A trunk is the <b>stem</b> of a tree.
<b>leaves</b>	These make food for the plant using sunlight and carbon dioxide from the air.
<b>flowers</b>	These make seeds to grow into new plants. Their <b>petals</b> attract <b>pollinators</b> to the plant.
<b>nutrients</b>	These substances are needed by living things to grow and survive. Plants get <b>nutrients</b> from the soil and also make their own food in their <b>leaves</b> .
<b>evaporation</b>	When a liquid turns into a gas.



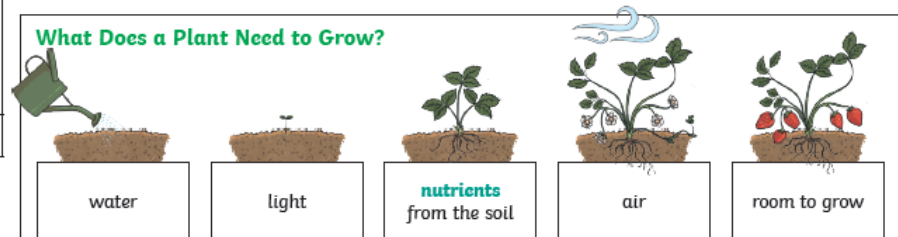
## How Water Moves through a Plant

1. The **roots** absorb water from the soil.
2. The **stem** transports water to the **leaves**.
3. Water **evaporates** from the **leaves**.
4. This **evaporation** causes more water to be sucked up the **stem**.



The water is sucked up the **stem** like water being sucked up through a straw.

## What Does a Plant Need to Grow?

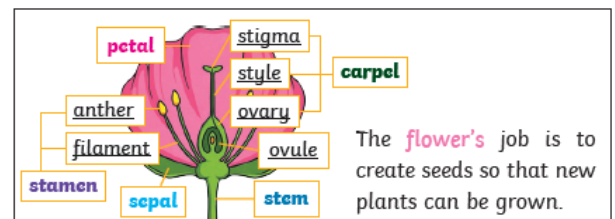


Different plants vary in how much of these things they need. For example, cacti can survive in areas with little water, whereas water lilies need to live in water.

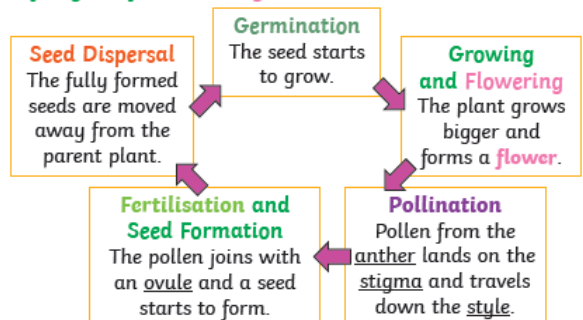
To look at all the planning resources linked to the Plants unit, [click here](#).

## Key Vocabulary

<b>fertilisation</b>	When the male and female parts of the <b>flower</b> have mixed in order to make seeds for new plants.
<b>petal</b>	The brightly coloured part of the <b>flower</b> that attracts insects to <b>pollinate</b> the plant.
<b>stamen</b>	The male parts of the <b>flower</b> . The <b>stamen</b> is made up of the anther and the filament. The filament's job is to hold up the anther. The job of the anther is to make the pollen.
<b>carpel (pistil)</b>	The female parts of the <b>flower</b> . Made up of the stigma, style and ovary. The job of the style is to hold up the stigma. The stigma collects the pollen when a <b>pollinator</b> brushes by it. The ovary contains the ovules, which are the part of the <b>flower</b> that gets fertilised and eventually becomes the new seed.
<b>sepal</b>	Leaf-like structures that protect the <b>flower</b> and <b>petals</b> before they open out.
<b>pollination</b>	When pollen (a fine powdery substance produced by a <b>flowering</b> plant) is moved from the male anther of a <b>flower</b> to the female stigma.
<b>pollinator</b>	Animals or insects which carry pollen between plants. Examples include birds, bees and bats.
<b>germination</b>	When a seed starts to grow.
<b>seed dispersal</b>	A method of moving the seeds away from the parent plant so that the seeds have the best chance of survival.

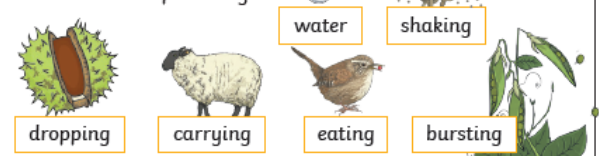


## Life Cycle of a Flowering Plant



## Seed Dispersal

Seeds can be dispersed by:



## Key Vocabulary

<b>climate</b>	The average <b>weather</b> conditions over a long period of time.
<b>deforestation</b>	The cutting down and clearing of forests.
<b>equator</b>	An imaginary circle running round the centre of the earth.
<b>humid</b>	Feeling very damp due to water vapour in the air.
<b>native tribes</b>	The original settlers of an area.
<b>species</b>	A group of similar animals or plants
<b>weather</b>	The specific condition on a given day.

## The Amazon Rainforest

- 5.5 million square km (previously covered a much larger area)
- Parts in Brazil, Peru, Colombia, Venezuela, Ecuador, Bolivia, Guyana, Suriname and French Guiana
- 2.5 million insect **species**
- 40 000+ plant **species**
- 3 000 edible fruits
- 2 000+ **species** of birds and mammals



- 2 million tourists per year
- 170 different languages spoken
- 250 000 **native tribes** currently live there

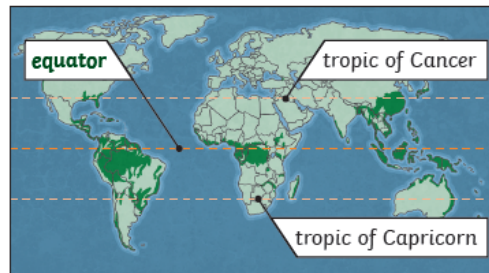


## Where in the World?

Rainforests are found near to the **equator** between the tropic of Cancer and the tropic of Capricorn.

They can be found in every continent except Antarctica.

They are located in countries such as Brazil, India, Peru, Mexico, Australia and Malaysia.



## Climate

The **climate** in the rainforest is the same all year round.

- Average rainfall of 6cm each month
- Usually rains every day
- Hot and **humid**

Emergent Layer	Canopy Layer	Understorey Layer	Forest Floor
Trees can be up to 60m tall	Trees form a roof over the plants below	Trees grow to less than 4m tall	Very few plants
Lots of sunlight	Lots of sunlight but also plenty of rain	Very little sunlight	Almost no sunlight
Cold and windy	Lots of food for animals	Warm and <b>humid</b>	Leaves and debris decompose quickly
Birds, bats, monkeys and butterflies	Snakes, toucans and tree frogs	Lots of insects	Gorillas, anteaters, leopards and tigers

## Deforestation

Trees are cut down:

- to create fields for farming cattle and growing crops,
- to produce timber and wood pulp to make furniture and paper,
- to create space for housing.

## Positive Impacts

- Jobs are created in logging and transporting timber and manufacturing products.
- Selling land raises money for local people.

## Negative Impacts

- People's homes are destroyed.
- Animals and plants may become extinct through habitat loss.
- Plants that may have been useful could be lost.

## What Can Be Done to Protect the Rainforest?

Use both sides of a piece of paper, and use pencils until they are stubs.	Use ebooks or a library rather than buying new books.
Turn off lights and electrical items when not in use.	Buy Fairtrade fruit, vegetables, chocolate and coffee.





## Key Vocabulary

<b>digital device</b>	Any piece of equipment that contains a computer or microcontroller, such as a smartphone, smartwatch or laptop.
<b>email</b>	Short for electronic mail. <b>Email</b> is a way to send and receive digital messages over the <b>Internet</b> using an <b>email address</b> .
<b>email address</b>	A unique name chosen by the account owner. It can contain letters, characters and numbers and includes the @ symbol followed by the <b>email</b> domain name.
<b>Internet</b>	The <b>Internet</b> is a large network of computers connected to each other all around the world.
<b>online</b>	When a user, computer or another PC device connects to the <b>Internet</b> , it is <b>online</b> .
<b>online communication</b>	A way in which we interact with other people using technology over the <b>Internet</b> .
<b>password</b>	A secret combination of letters, numbers and characters to confirm the user when logging in.
<b>privacy settings</b>	Settings on a website, app or PC device that allow you to choose how much information or data is shared with other people.
<b>social media</b>	<b>Online</b> communities that share content, such as chat, images, videos or music.
<b>website</b>	A collection of web pages grouped together.

## What Is a Digital Footprint?

A digital footprint is a trail of information you leave behind when using apps and **websites**. Every time you visit a **website**, download an app or play a game **online**, a tiny bit of information about you is saved. This makes up your digital footprint.



## Keeping Personal Information Safe

**Passwords** and **privacy settings** are both really, really good ways of keeping your information private and keeping you safe **online**.

**Passwords** stop people from getting into your account, but they also stop people from seeing any private information that might be in your account.

**Privacy settings** mean that you can control what people can see on your account.

## How Can I Tell If an Email Is Safe to Open?

It is important to remember that most **email** providers have age restrictions. Usually, you cannot have your own **email address** until you are thirteen years old.

You might also be able to have an **email address** on a closed network. Your school may set you up an **email address** which you can use to **email** other people in your school.

On a closed network, only authorised computers or **email addresses** would be able to connect. This means you would only be able to send or receive **emails** from the addresses that are part of the school network.

There are some basic rules to follow when deciding if an **email** is safe to open.

One or more of these things might mean an email is **safe** to open:

- You know the sender and the subject is something that seems normal.
- It is from **email address** that you recognise.
- It is an **email** you are expecting.



Warning Signs



One or more of these things might mean an **email** is **unsafe** to open:

- An unknown or strange-looking **email address**.
- An **email address** pretending to be something else (e.g. instead of teacher@twinkl.co.uk, the address might say twin.kl.teacher@net.uk)
- Spelling mistakes in the subject or a strange subject title.

## Cyberbullying

Cyberbullying (also known as **online** bullying) is any form of bullying that takes place **online** and causes harm or distress to a person or group of people.

Remember, if you see anything **online** that makes you feel upset or uncomfortable:

**Report** - Report via the **online** site that you experience it on, then tell a trusted adult about it and ask for help.

**Save** - Keep evidence; take screenshots.

**Block** - Block the person or group of people responsible.

## What Is Target Advertising?

This is when companies use your digital footprint to see what kind of things you might be interested in and then make sure that you see those adverts more often.