







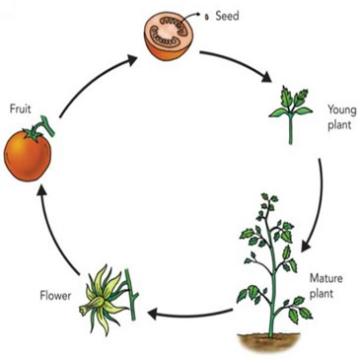
Knowledge Organiser

Science—Plants Year 2

What Plants Need to Grow

 <p>Water and Nutrients</p> <p>Like animals and humans, plants need water and nutrients to survive.</p> <ul style="list-style-type: none"> -Plants are able to get water from the soil through their roots. -They can also catch water on their leaves. 	 <p>Light</p> <p>Plants need lots of sunlight to help them grow.</p> <ul style="list-style-type: none"> -Plants do not eat food. They instead use sunlight to make their own food. -Too little light will leave plants weak.
 <p>Temperature</p> <p>-Plants need the temperature to be just right for them to grow properly.</p> <p>-If it is too hot, they may burn and wilt. If it is too cold, they may freeze and die. This is why there are less plants at the poles and the deserts.</p>	 <p>Space and Time</p> <p>-Plants need room for their roots and stems to be able to grow. Without enough room, they may not grow large enough.</p> <p>-Plants also need time - it can take days, months or even years for them to grow.</p>

Plant Life Cycle

	<p>Plants have a clear life cycle that helps them to keep reproducing:</p> <p>Seeds/bulbs - Plants begin life as seeds or bulbs. They need soil, air and water to grow.</p> <p>Seedling - Plants grow into young plants. They now need light, temperature, water, space and time to keep growing.</p> <p>Flowering/Fruit - Plants grow flowers and fruits. These produce seeds. When the plant dies or is pollinated, the seeds find their way to the soil. The process starts again!</p>
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Growth from Seeds/Bulbs into Mature Plants

Germination is the name for when a plant starts to grow. A plant is germinating when its seed begins to sprout.

Inside a seed/bulb is the baby plant (an embryo). Seeds have a tough layer on the outside to protect the plant (the seed coat).

Seeds and bulbs do not need sunlight in order to grow. They already have their own food store inside them!

However, they do need the right conditions to grow. Normally, they need water, air and the right temperature. This can often be found in well-watered soil!

Key Vocabulary

Growth	An increase in size
Germinate	When the conditions are right, the seed soaks up water and swells, and the tiny new plant bursts out of its shell. This is
Sunlight	All plants need light from the sun to grow well. Some plants need lots of sunlight. Some plants only need a little sunlight.
Temperature	How warm or cold something or somewhere is. Some plants like cooler temperatures and some like warmer temperatures
Reproduce	When an animal or plant produces one or more individuals.
Lifecycle	The journey of a living thing from beginning to end.

What I can do at home

Investigate	<p>Get some seeds of your own and find out what seeds need to germinate?</p> <p>Some people say they talk to their plants to help them grow. Complete your own plant based experiment to find out if different sounds (music, sounds) affect plant growth?</p>
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Communicate

Talk to an adult at home about the things below. You don't need to record this.

I wonder what plants need to grow?

Can seeds grow in anything other than soil?