

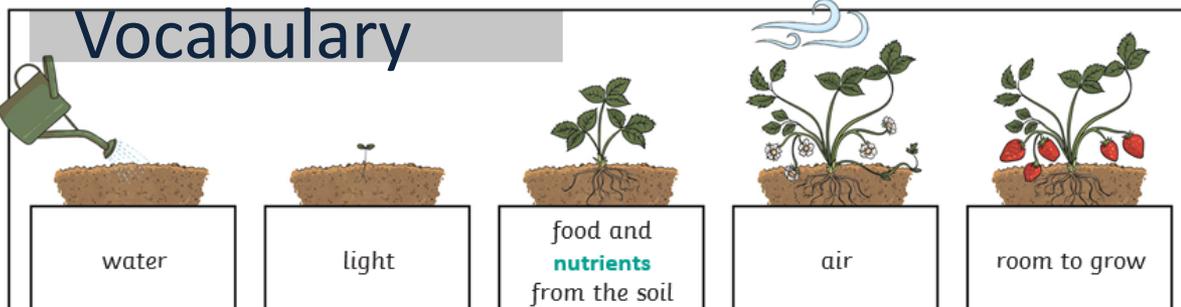
Science!

LI: I can explain what plants need for growth.

Success Criteria

- I can explain what plants need to survive and grow
- I can use scientific vocabulary
- I know some plants need varying amounts of these things to grow.

Vocabulary



The diagram illustrates the five essential factors for plant growth in a sequence of five pots. 1. A watering can pours water onto a pot of soil. 2. A small seedling grows in a pot of soil. 3. A seedling with roots and leaves grows in a pot of soil. 4. A seedling with roots, leaves, and flowers grows in a pot of soil. 5. A seedling with roots, leaves, and fruit grows in a pot of soil.

water	light	food and nutrients from the soil	air	room 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.



Activity 1

Answer these questions in your book

- 1) What do you think caused this plant to die?
- 2) What do you think plants need to survive and grow?





Plants like people are alive. We need to eat food and drink water to grow. Plants need water too, just like us. But plants don't eat anything. They *make* their own food.

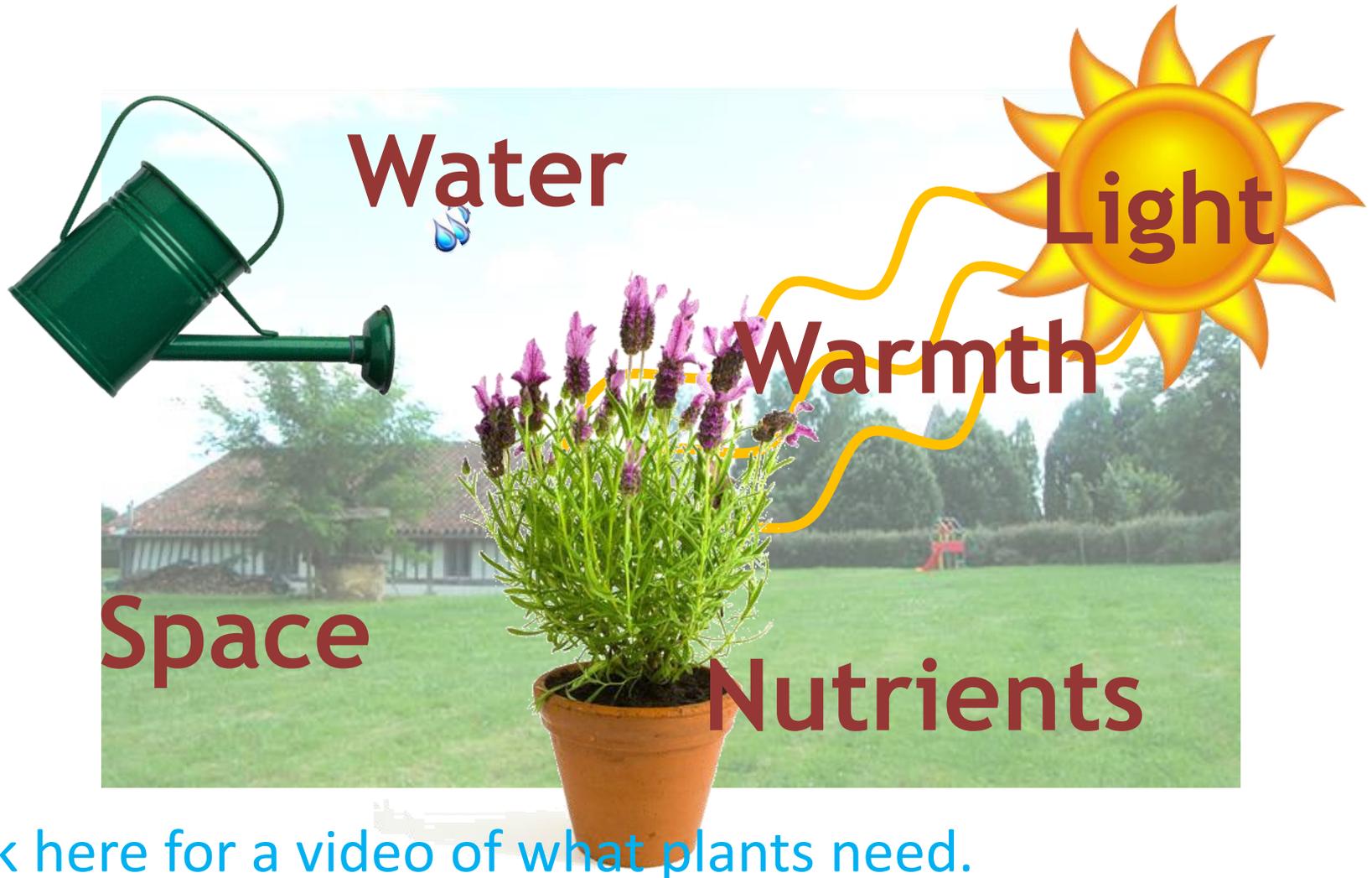
So why do plants need fertiliser?



Fertilisers have nutrients in them. Plants use the nutrients to *help* them make their food. Some of our parents, or maybe some of us, take supplements (extras) too, like vitamin tablets or cod liver oil.



This is what plants need.
Now let's find out why?



[Click here for a video of what plants need.](#)

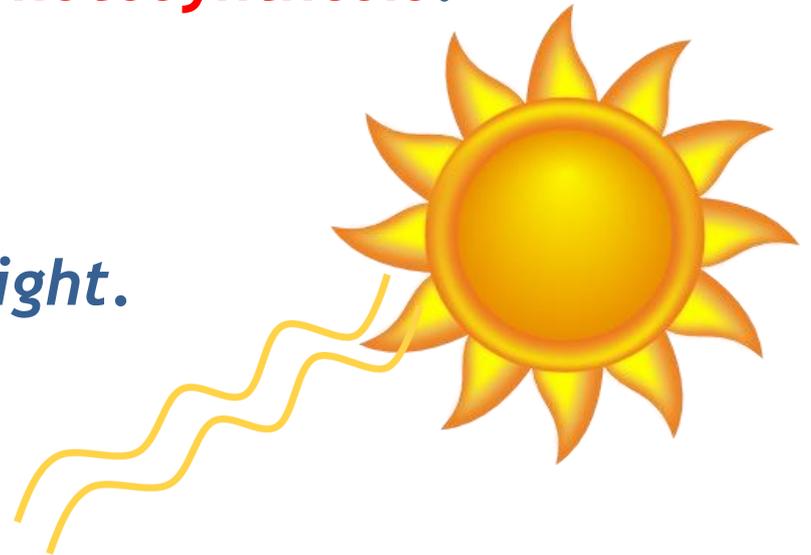
Light

Plants use light to make their own food. When plants make their food, this is called *photosynthesis*.

Photo means *light*.

Synthesis means *making*.

So, plants *make* food by using *light*.



Warmth

Plants will die if the temperature is too low (if it's too cold). Think about what happens to plants and trees in the winter season.



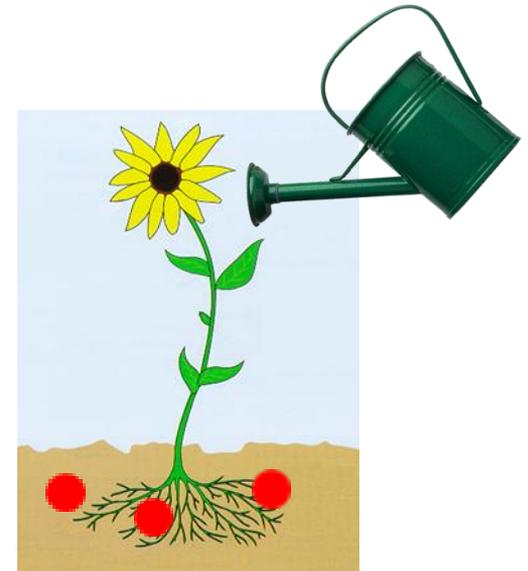
Nutrients

Plants use nutrients to *help* them make their food. Fertiliser contains a lot of nutrients. Different nutrients help the plant in different ways. Some help the roots grow. Some help the flowers grow.



Water

Plants need water for *photosynthesis*. The water also dissolves the nutrients so that they can be taken into the plant by the roots.



Space

Plants need space so that they have enough room to grow.

Can think of examples of times when you were in a crowded place?



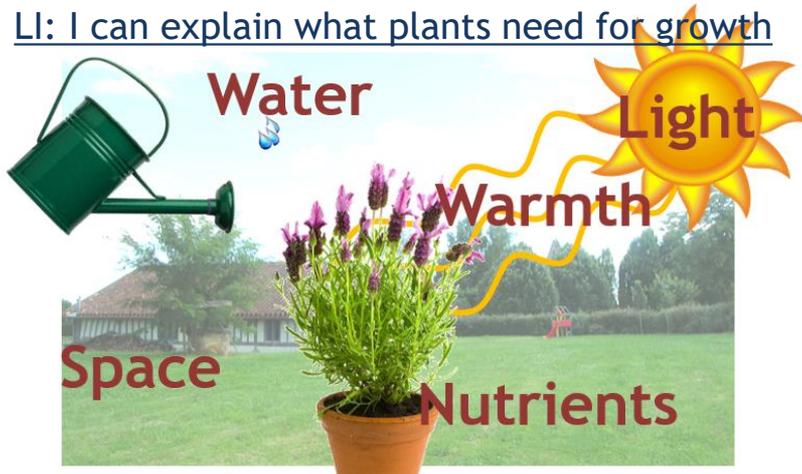
How did you feel?

Activity 2

Write an explanation of what plants need to survive. It could look like this. Remember to say what they use them for.

Challenge

Some plants need a varying amount of these things. Use the internet to find out which types of plants can survive with less water and which plants need more water. Add what you find out to your explanation.



To survive and grow plants need

Water

Plants need water for photosynthesis. This is when plants make their own food. The water also dissolves the nutrients so that they can be taken into the plant by the roots.

Sunlight

Warmth

Space

Nutrients

Some plants need very little water like.....

Go back to your first activity. Edit and improve it with what you have found out.



Quiz time

Question 1 of 5

The leaves of a plant use ____ to make food.

sunlight

water

soil

Question 2 of 5

What two things do the roots absorb that a plant needs?

water and soil

soil and worms

water and nutrients

Question 3 of 5

A plant needs ____ to spread out.

soil

space

other plants

Question 4 of 5

What does a plant grow from?

soil

a plant pot

a seed

Question 5 of 5

What will a healthy plant look like?

upright with green leaves

droopy with brown leaves

green

Answers

Answer 1

Well done! The leaves do use 'sunlight' to make food. This is called photosynthesis.

Answer 2

Well done! The roots absorb 'water and nutrients'.

Answer 3

Well done! A plant needs 'space' so its roots can spread in the soil and it can grow large leaves.

Answer 4

Well done! A plant does grow from 'a seed'. All the food and nutrients a plant needs to begin its life can be found inside a seed.

Answer 5

Well done! A healthy plant will be 'upright with green leaves' as it has everything it needs to live.

Optional activity to do with an adult. Plant a seed. You could use a tomato seed, simply dry out the seeds of a tomato then plant them.

Remember to water your pot regularly.