

KNOWLEDGE ORGANISER

**PLANTS**

Y2

Plants have a clear life cycle that helps them to keep reproducing:

Seeds/bulbs – Plants begin life as seeds or bulbs. They need soil, air and water to grow.

Seedling – Plants grow into young plants. They now need light, temperature, water, space and time to keep growing.

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!

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| **What you should already know…** | |  | **Growth from Seeds/Bulbs into Mature Plants** | | | | |
| -Plants are a large group of living things that use sunlight to make their own food.  -There are many, many different kinds of plants, including trees, vines and grasses.  -Plants have lots of different parts, for example stems, leaves and roots.  -Some trees lose their leaves in the winter (deciduous). Some keep their leaves through the year (evergreen).  -Some plants are ‘flowering plants’ – they grow flowers on them. | |  |  |  | -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! |  | |
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| **What Plants Need to Grow** | |  |
| Water and Nutrients  Like animals and humans, plants need water and nutrients to survive.  -Plants are able to get water from the soil through their roots.  -They can also catch water on their leaves. | Light  Plants need lots of sunlight to help them grow.  -Plants do not eat food. They instead use sunlight to make their own food.  -Too little light will leave plants weak. |  |  |  |  |
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| Plant Life Cycle | | | | |
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| Temperature  -Plants need the temperature to be just right for them to grow properly.  -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. | Space and Time  -Plants need room for their roots and stems to be able to grow. Without enough room, they may not grow large enough.  -Plants also need time – it can take days, months or even years for them to grow. |  |  |  |  | |
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Taller Plants

Smaller Plants

Dandelion – about 25 centimetres

Dwarf Evergreen Shrub – about 1 metre

Sunflower – 1-3 metres

Titan Arum Flower – up to 3.5 metres

Spruce (Christmas Tree) – up to 30 metres

Giant Redwood Tree – 100 metres +