



## Asexual Reproduction: Let's Grow Strawberry Plants

There are two types of **reproduction** in the world of plants – **sexual reproduction** and **asexual reproduction**.

Sexual reproduction takes place between two parent plants. Together, the plants produce seeds that will grow into new plants.

### Parent 1

A lily flower that produces pollen on its anthers.

+

### Parent 2

A lily flower that receives the pollen on its stigma.

= seeds

### Parent 1

A male pine cone produces and releases pollen into the air.

+

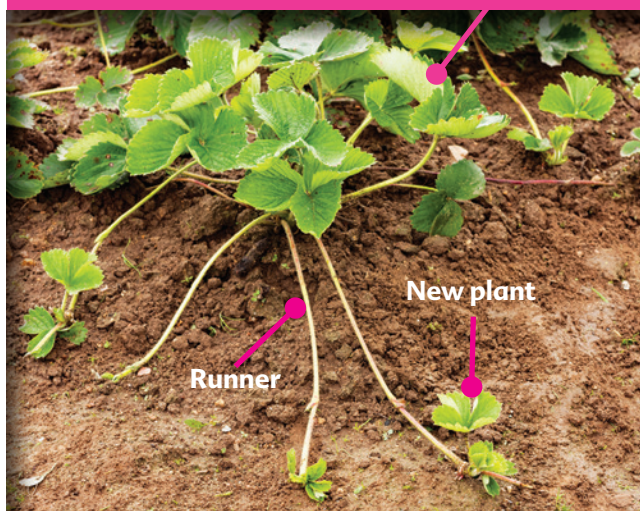
### Parent 2

A female pine cone receives the pollen on its scales.

= seeds

Some plants, such as strawberries, daffodils and potatoes are able to reproduce asexually. This means the parent plants can produce new plants all on their own.

Parent strawberry plant



Strawberry plants send out shoots called **runners**. At the end of each runner there are roots and small leaves. The roots grow down into the soil and the plant starts to grow. Once the new plant is growing strongly, the runner dies and rots away, leaving a brand new strawberry plant.



One advantage of asexual reproduction is that the young plants often grow much quicker than new plants which grow from seeds.

Can you  
see the runners  
and potential  
new plants on this  
spider plant?



Gardeners can actually create new plants asexually by taking **cuttings**.

This is done by carefully cutting away a fresh, new **shoot** from a plant (around 5 to 10 cm long) and then placing it in water or soil.

The cuttings then develop their own roots and grow into a new plant. Many house plants and woody outdoor plants can be successfully grown using this kind of asexual reproduction – and some human help!



Can you  
see how these  
rosemary plant  
cuttings have  
started to grow  
their own roots?





## Grow Your Own Strawberries

Why not have a go at growing your own strawberries! What might you need to consider before planning your garden project?

Follow these three steps to make a successful strawberry patch.

### Prepare

Choose an area that you would like to make into your strawberry patch. This could be a flowerbed in your garden or school or some pots on a patio or windowsill.

Dig over the soil to a depth of about 15 cm and remove weeds. Digging and turning over the soil will make it soft and crumbly and will help small plants to spread their roots and find water and nutrients.



If you are planting in pots, ensure they have holes in the bottom so that any excess water can drain through and won't make the soil too wet. Then fill the pots with potting soil.

Don't have any pots? Why not make your own planters by repurposing old items, such as boots, a basket or even a car tyre? Make sure you create drainage holes in your container.



Strawberry plants growing in old boots



## Plan

To grow four small strawberry plants (purchased from a garden centre) you will need a space about 60 cm x 60 cm. Consider how much room you have and how many plants you will need.

Make sure that you read the planting instructions carefully to learn how much sunlight and water each plant needs. Which area in your garden would be the best place for growing strawberries?

Now you know how strawberries reproduce – could you plant your strawberries in an area with room to allow future runners to spread easily?

## Plant

Plant your strawberry plants in spring and keep them well watered. In the summer, the plants will produce small white flowers. You will see strawberry fruits forming as the flowers die off.



Always ask an adult for permission before starting any garden project. Ensure you have discussed what you are allowed to buy online or from a garden centre.

Pick your strawberries when they are fat and red. Remember to wash them before eating.



Strawberry plant flower





When the strawberry plant grows runners, use a hairpin or U-shaped piece of wire to pin each runner to the ground. This will help each new shoot (or plant) on the runner to establish itself.

Once the new plant has taken root, take out the pins. Next summer, each tiny new plant will be ready to produce strawberries.

Ensure that you wash your hands thoroughly with soap and warm water after working in the garden, even if you have used gloves.

Be a tidy gardener. Always wash your tools and put them away after using them.

