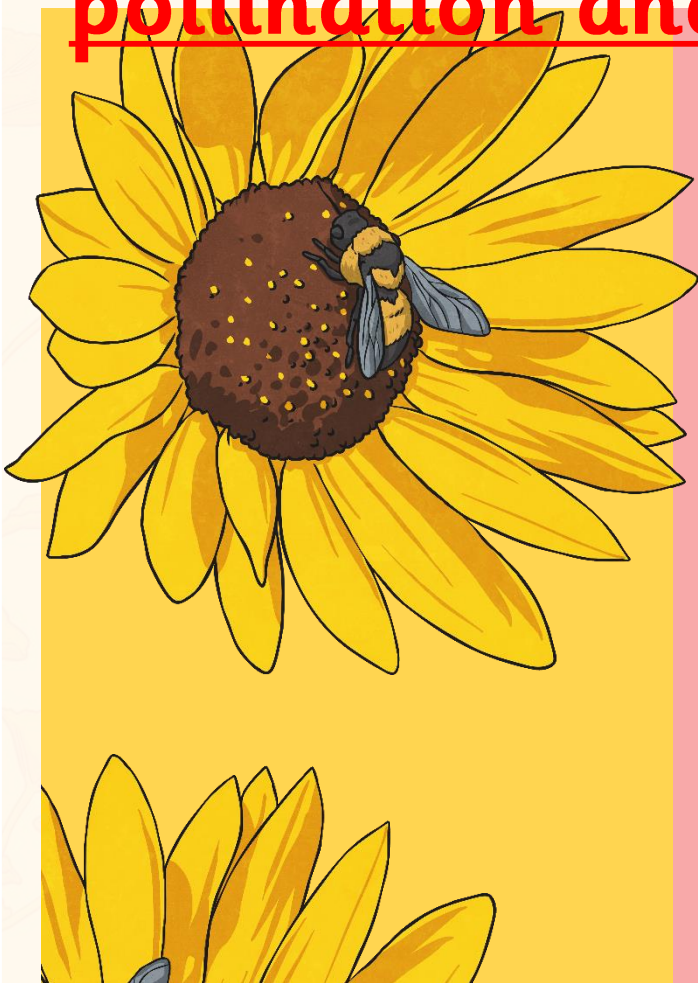


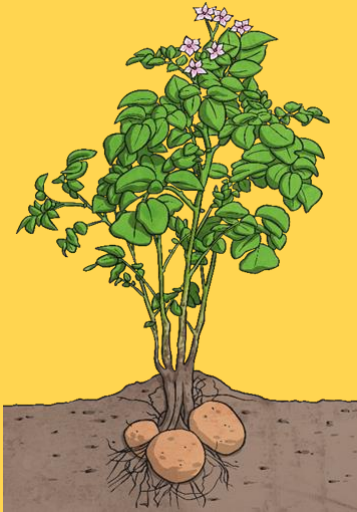
Watch this Espresso clip to recap on pollination and sexual reproduction



If the link doesn't work go to **Discovery Education- Espresso – Log in – KS2 - Science –Plant lifecycles- videos - pollination**

Some plants use sexual reproduction to make seeds, which grow to make new plants. These plants need pollen (containing the male gamete or sex cell) from one flower to fuse with the ovule (the female gamete) of another flower, which makes a seed.

Asexual reproduction



However, some plants use asexual reproduction to make new plants.

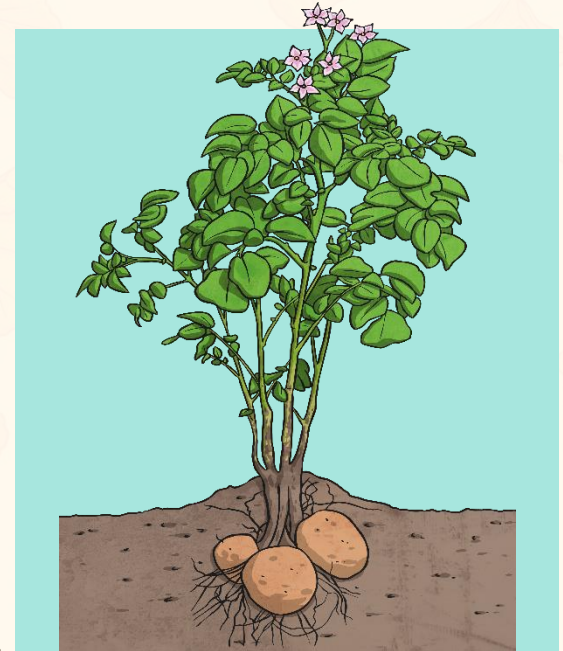
Unlike sexual reproduction, asexual reproduction only needs **ONE** parent plant to make new plants.

Because there is only one parent plant, there is no fusion of gametes, and no mixing of genetic information. The new plants are identical to the parent plant. They are clones.

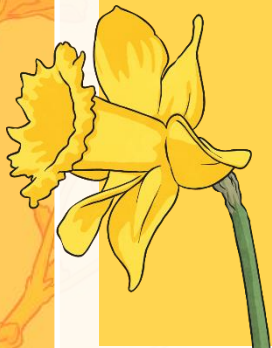
Plants That Use Asexual Reproduction

Other plants produce side branches or **runners** with new plantlets on. The roots of each plantlet grow down into the soil, and the plantlets will grow to form new plants identical to the parent.

Spider plants and strawberries are examples of plants that reproduce this way.



Potato plants grow **tubers** underground during the spring and summer. These tubers will grow into new plants the following spring if they are left undisturbed.



Daffodil bulbs store energy underground. Once the daffodil plant has died back, the **bulb** develops side shoots that will grow into new daffodils for next year.



Plants That Use Asexual Reproduction

Some plants develop **bulbs or tubers** underground. These bulbs or tubers will develop into new plants for the following year. The new plants will be genetically identical to the parent plant.

Daffodils and potatoes are examples of plants that reproduce this way.



Spider plants send out branches with **baby plantlets** on. Each plantlet will grow into a new plant.



Strawberry plants send out **runners** with small plantlets on. These will each grow into a new strawberry plant.

Advantages and Disadvantages



Sunflower – sexual reproduction



Spider plant - asexual

There are advantages and disadvantages to plants using sexual or asexual reproduction.

Have a look at the statements on the next slides. Can you match each statement to show whether it is an advantage or disadvantage of each type of reproduction?

Read each statement and decide whether it is an advantage (a good thing) or a disadvantage (a bad thing)

Sexual Reproduction

Advantage OR Disadvantage? What do you think?

- Time and energy are needed to wait for another parent plant to reproduce with.
- Diseases will not affect all the individuals in a habitat because they will all be different.
- The species can change over time to adapt to new environments and habitats.
- Reproduction is not possible for an isolated plant.



Click on the next slide for the answers.

Sexual Reproduction

Advantage

OR

Disadvantage?

- Time and energy are needed to wait for another parent plant to reproduce with. **Disadvantage**
 - Diseases will not affect all the individuals in a habitat because they will all be different. **Advantage**
 - The species can change over time to adapt to new environments and habitats. **Advantage**
 - Reproduction is not possible for an isolated plant. **Disadvantage**
- Were you correct?



Read each statement and decide whether it is an advantage (a good thing) or a disadvantage (a bad thing)

Asexual Reproduction

Advantages

- Only one parent plant is needed so new plants can be made even if there are no other plants nearby.
- There is no variation or difference in new plants, so the species is less resilient to diseases or changes in climate.
- The population can be increased quickly.
- Good features of the parent plant will always be passed on.

Click on the next slide for the answers.

Disadvantages



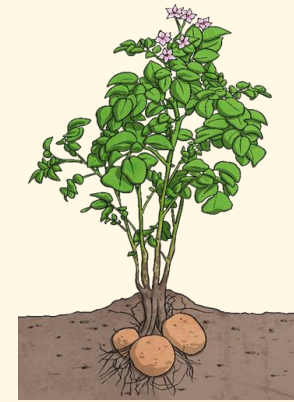
Read each statement and decide whether it is an advantage (a good thing) or a disadvantage (a bad thing)

Asexual Reproduction

Advantages

- Only one parent plant is needed so new plants can be made even if there are no other plants nearby. **Advantage**
- There is no variation or difference in new plants, so the species is less resilient to diseases or changes in climate. **Disadvantage**
- The population can be increased quickly. **Advantage**
- Good features of the parent plant will always be passed on. **Advantage**

Disadvantages



Your task is to draw 2 simple diagrams

1) draw a spider plant OR a strawberry plant and explain how it reproduces.

2) draw a daffodil plant OR a potato plant and explain how it reproduces.

Key vocab – asexual, bulbs, tubers, runners,

