

All living things have the potential to carry out all of the following processes at some stage in their life:

respiration, reproduction, feeding, excretion, movement, reaction to stimuli, growth and development.

The most common form of plants reproduction is sexual reproduction: Pollen is transferred from the anthers (male reproductive organ) of one flower to the stigma (female reproductive organ) of another flower. This is called pollination and can occur through wind, insects, birds, or other animals.

Once the pollen lands on the stigma, it travels to the ovary and fertilises the ovule, forming seeds. These seeds will grow into new plants.

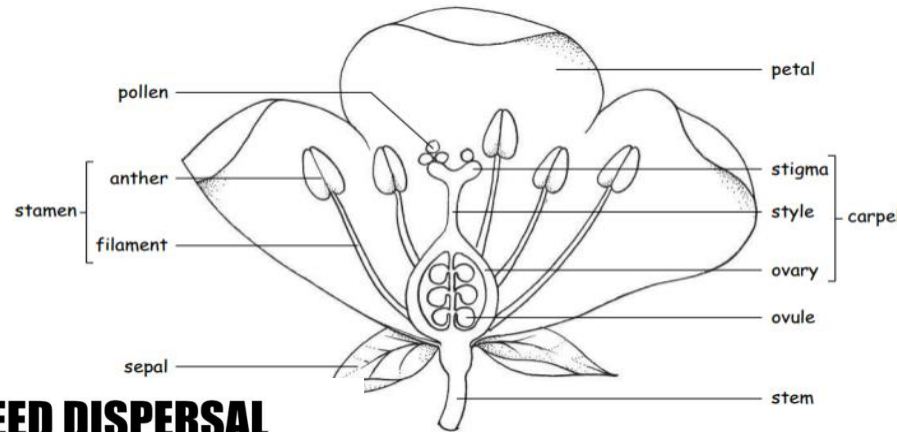
Many plants are also able to reproduce asexually which means that they only need one parent plant to reproduce.

Unlike animals, plants make their own food by **photosynthesis**. This process takes place in the green parts of a plant, mainly the leaves, and requires carbon dioxide, water and light.

Seeds are dispersed in 5 ways; **by wind, by animals, by humans, by water and by bursting**. If plants are not efficient at seed dispersal they could die out and face extinction.



Year Five Science Plants



SEED DISPERSAL

EXPLOSIONS



WIND DISPERSAL



ANIMAL DISPERSAL-HOARDING



ANIMAL DISPERSAL-INGESTION



ANIMAL DISPERSAL-HOOKS



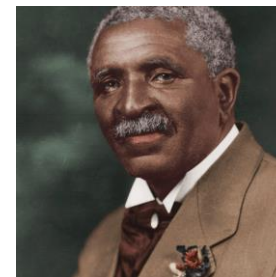
WATER



Significant person:

George Washington Carver

Was a prominent scientist in the early 1900s. He helped farmers to grow healthy crops and because of his research peanuts and sweet potatoes became the biggest selling crops in the South of the USA.



Key vocabulary

pollination	For a new plant to grow, a seed needs to be made. All plants produce their own seeds but they must be fertilised before they can grow.
petal	A petal is one coloured part of the flower. Large, bright, scented petals attract insects.
flower	All the petals together are called the flower. The flower is made up from male and female parts.
stamen	Stamen are the male part of the flower and produce the pollen.
carpel	The female parts of the flower
seed	When fertilised, the seed will grow in the flowers' ovary. When it is ready, the seed can be planted and a new plant will grow.
roots	Roots act like straws, absorbing water and minerals from the soil. Roots also help to anchor the plant in the soil so it does not fall over.
leaves	Most plants' food is made in their leaves. Leaves are designed to capture sunlight which the plant uses to make food through a process called photosynthesis

Definitions (which can be used to explain words to the children)

carpel	<i>the female parts of a flower</i>
dispersal	<i>the spreading of seeds from a plant</i>
fertilisation	<i>joining of the male and female cells</i>
flower	<i>part of the plant where seeds are made</i>
fruit	<i>the part of the plant that contains the seeds</i>
germination	<i>when the seed starts to grow</i>
leaf	<i>usually green; the part where the plant makes its food</i>
ovary	<i>the part of the carpel that contains the ovules</i>
ovule	<i>found in the ovary and develops into a seed after fertilisation</i>
petal	<i>often brightly coloured and attracts insects and helps to protect the rest of the flower</i>
pollen	<i>dust-like powder made in the stamen</i>
pollination	<i>the transfer of pollen from the stamen to a stigma</i>
root	<i>takes up water and in many plants anchors or holds the plant in the soil</i>
seed	<i>develops from the ovule after fertilisation and may grow into a new plant</i>
sepal	<i>often green; protects the rest of the flower</i>
stamen	<i>the male part of the flower where pollen is made</i>
stem	<i>the part of the plant that the leaves and flowers are joined to</i>
stigma	<i>part of the carpel that pollen grains become attached to during pollination</i>