

Weeds and Seeds

How come weeds grow everywhere in a garden? A lawn can be lovely and green when it's mowed but quickly becomes covered in dandelions! Well, it's all to do with the clever way that plants spread their seeds which then grow into more of the same type of plant. This is called reproduction.

Making the Seeds

Many plants grow flowers that have different parts, including stamen which produce a yellow powder called pollen. Insects and other animals are attracted to the bright, fragrant flowers to suck nectar. These animals are pollinators. They collect pollen when they are feeding on nectar and move it to different flowers. Sometimes, even the wind can help with moving the pollen around to the right places. Once the pollen touches another part of the flower, seeds can grow. When this happens to a dandelion, the yellow flower turns into what some people call a dandelion clock. The flower turns to dark-coloured seeds with feathery, white tops that look similar to umbrellas.

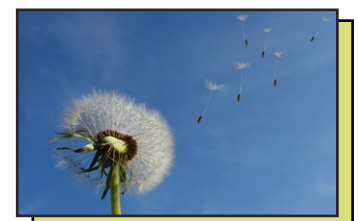


Did You Know...?

- Some people believe a yellow shadow forms when they hold a buttercup underneath their chin and this means they like butter.
- Nettles sting but they can be useful for making tea and medicines.
- Some people believe that finding a clover with four leaves is very lucky!
- One of the world's largest weeds is the giant hogweed, which can grow to over 3.5m tall.

Spreading the Seeds

Many plants make seeds with an umbrella shape like dandelions. This makes the seeds really good at floating and gliding through the air. All these seeds need is the wind to carry them off to another part of the garden or sometimes even further. Very quickly, there can be many seeds all over a lawn. These seeds are all ready to settle and grow into more dandelions. Other plants also make seeds that are good at floating, gliding or spinning through the air to be carried away by the wind. Plants have lots of other clever ways to spread their seeds. Some use animals to carry their seeds away, either inside fruits or with sticky or spiky seeds that attach to fur. Some produce seeds that float in water and some plants even have seeds that explode out of them and land far away.



Weeds and Seeds Questions

1. Which of these help to move pollen around? Tick **two**.

☐ flowers

☐ insects

☐ nectar

☐ wind

2. What is the name of one of the world's largest weeds? Tick one.

☐ clover

☐ nettle

☐ dandelion

☐ hogweed

3. Number the steps from 1-4 to show the order that they happen.

☐ Pollinators move to another.

☐ Seeds grow inside the flower.

☐ Pollinators land on a flower.

☐ Pollinators collect pollen.

4. Draw four lines and match each weed to its feature.

nettles

form yellow shadows

giant hogweed

can have four leaves

buttercup

sting

clover

grows very tall

5. Find and copy one word that means the same as 'going around and around'.

6. What part of an animal do sticky or spiky seeds attach themselves to?

7. What do you think might happen when people blow on a dandelion 'clock'?

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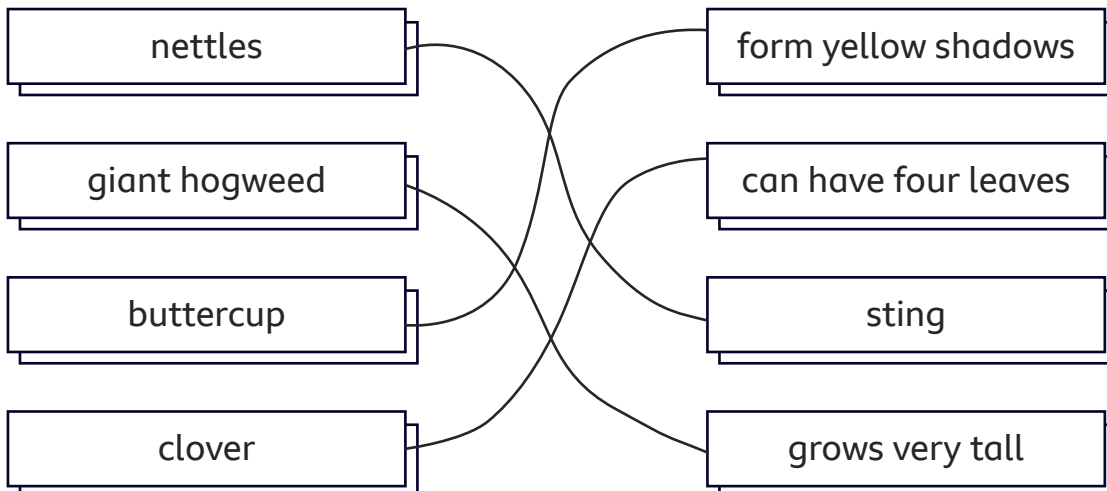
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4 Seeds grow inside the flower.

1 Pollinators land on a flower.

2 Pollinators collect pollen.

4. Draw four lines and match each weed to its feature.



5. Find and copy one word that means the same as 'going around and around'.

spinning

6. What part of an animal do sticky or spiky seeds attach themselves to?

fur

7. What do you think might happen when people blow on a dandelion 'clock'?

Pupils' own responses, such as: The dandelion seeds will be released and dispersed when people blow them. They will either continue to float and glide, carried by the wind, or they will fall and settle on the ground then grow into new dandelion plants.

Weeds and Seeds

How come weeds grow everywhere in a garden? A lawn can be lovely and green when it's mowed but quickly becomes covered in dandelions! Well, it's all to do with the clever way that plants reproduce by making and spreading seeds which then grow into more of the same species.

Making the Seeds

Many plants grow flowers that have different male and female reproductive parts. The male stamen produces a yellow powder called pollen. Insects and other animals are attracted to the bright, fragrant flowers to feed on nectar. While these pollinators are feeding, their bodies collect pollen, which is then moved around the flower or transported to different flowers. The pollen rubs off on the female part of a flower, which is called the carpel. This is called pollination. Sometimes, even the wind can help with pollination by blowing pollen around from one plant to another. Once a plant is pollinated, it can grow seeds. When this happens in a dandelion, the yellow flower turns into what some people sometimes call a dandelion clock. The flower turns to dark-coloured seeds with feathery, white tops that look similar to umbrellas.

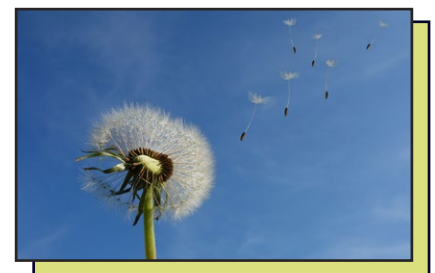


Did You Know...?

- Some people believe a yellow shadow forms when they hold a buttercup underneath their chin and that this means they like butter!
- Nettles sting but can be useful for making tea and herbal medicines.
- Some people believe that finding a clover with four leaves is very lucky!
- One of the world's largest weeds is the giant hogweed, which can grow to over 3.5m tall.

Spreading the Seeds

Many plants make seeds like dandelions with an umbrella shape. This makes the seeds really good at floating and gliding through the air. All these seeds need is the wind to carry them off to another part of the garden or sometimes even further. Very quickly, there can be many seeds all over



a garden. These seeds settle, germinate and grow into more dandelions. Other plants also make seeds that are good at floating, gliding or spinning through the air to be carried away by the wind. However, many plants have lots of other clever ways to spread their seeds. Some plants rely on animals to carry their seeds away. Many animals eat fruits containing seeds while some pass sticky or spiky seeds that attach to their fur. Other plants produce seeds that float in water courses, such as streams and rivers, and some plants even have seeds that explode out of them and land far away.



Weeds and Seeds Questions

1. Which of these help to pollinate flowers? Tick **two**.

- ☐ petals
- ☐ animals
- ☐ nectar
- ☐ wind

2. Which of these weeds grows largest? Tick one.

- ☐ clover
- ☐ nettle
- ☐ dandelion
- ☐ hogweed

3. Number the steps from 1-4 to show the order that they happen.

- ☐ Pollen is rubbed off on the female carpel.
- ☐ Seeds grow inside the flower.
- ☐ Pollinators are attracted to flowers.
- ☐ Pollinators collect pollen and transport it to other flowers.

4. Draw four lines and match each weed to its feature.

Nettles are useful
because...

Giant hogweed is special
because...

Buttercups are used to
show whether...

Clover is thought to be
lucky if...

someone likes butter.

it is found with four leaves.

they are used to make tea
and herbal medicine.

it is one of the tallest
weeds in the world.

5. Find and copy one word that means pollen is moved from the male part of a flower, the stamen, to the female part, the carpel.

6. List **two** ways animals help to transport seeds.

- ---
- ---

7. What do you think might happen when people blow on a dandelion clock?

8. Explain why seeds inside a fruit might be transported far away from the plant they grew on.

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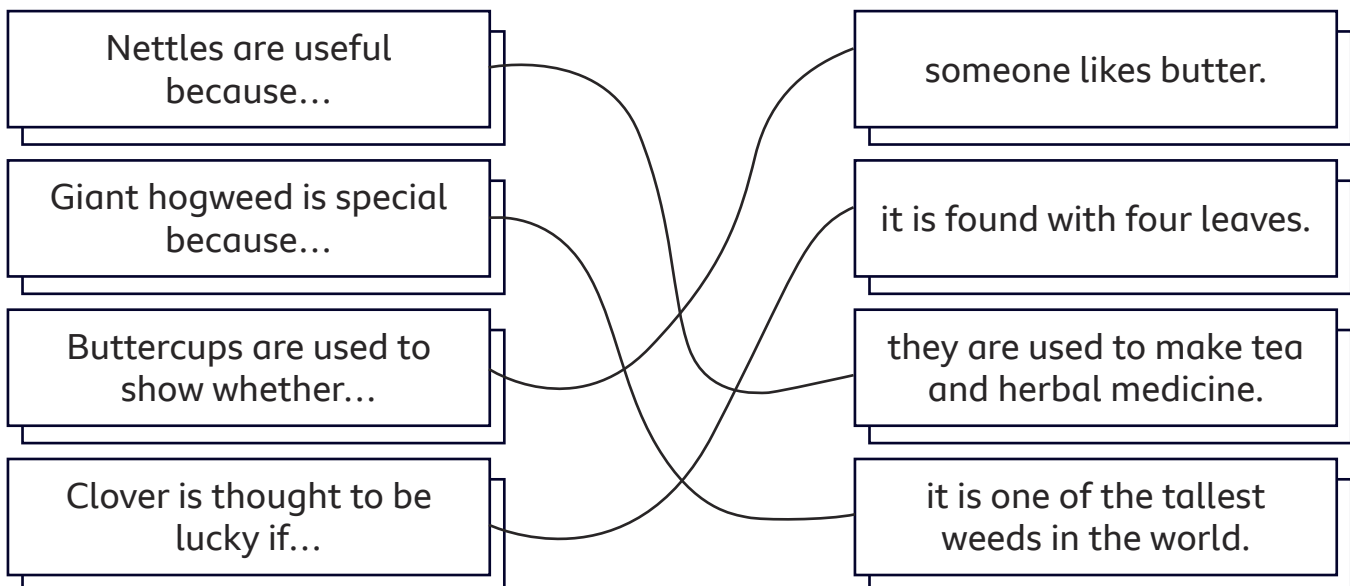
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5. Find and copy one word that means pollen is moved from the male part of a flower, the stamen, to the female part, the carpel.

pollination

6. List two ways animals help to transport seeds.

eating fruits containing seeds

passing sticky or spiky seeds that attach to their fur

7. What do you think might happen when people blow on a dandelion clock?

Pupils' own responses, such as: The dandelion seeds will be released and dispersed when people blow them and then they will either continue to float and glide, carried by the wind, or they will fall and settle on the ground then grow into new dandelion plants.

8. Explain why seeds inside a fruit might be transported far away from the plant they grew on.

Pupils' own responses, such as: Seeds inside a fruit might be transported far away from the plant they grew on if an animal eats the fruits containing seeds and then travels far away before they either drop the fruit from their mouth or produce poo containing the seeds from that fruit.

Weeds and Seeds

How come weeds grow abundantly almost anywhere? A lawn can have luscious, green grass one week but quickly becomes covered in dandelions! Well, it's all to do with an impressive method of plant reproduction, with a little help from some garden friends along the way, that ensures the continued growth of different plant species.

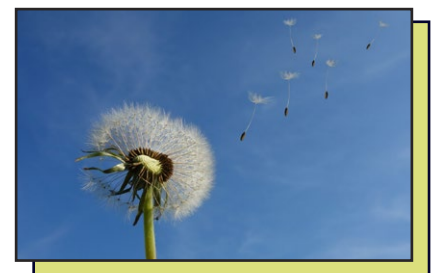
Pollination

Flowering plants generally have brightly coloured or patterned, fragrant flowers that attract insects and animals (known as pollinators) seeking out nectar as their main source of food. These flowers contain different male and female reproductive parts, which each play a different role in the reproduction process. The male stamen produces a fine, yellow powder called pollen. While pollinators are feeding, their bodies collect pollen, which is then moved around the same flower or transported to different flowers, and is deposited on the female part of a flower called the carpel. Pollen attaches to a sticky part of the carpel called the stigma. This process is called pollination. Sometimes, even the wind can help with pollination by blowing pollen around from one plant to another. Once a plant is pollinated, it can grow seeds. When this happens in a dandelion, the yellow flower turns into what some people sometimes call a dandelion clock. Over time, the flower becomes a series of dark-coloured seeds with feathery, white tops that resemble an umbrella.



Seed Dispersal

In order for a plant to reproduce, it needs to ensure its seeds are dispersed as far and wide as possible. This allows new plants sufficient light, air, water, nutrients and space to grow and thrive. Plants allow for this by creating seeds that can be dispersed in different ways.



Wind

Like dandelions, many plants form seeds shaped so as to allow them to move freely through the air by gliding and spinning. All these seeds need is the wind to carry them off to another part of the garden or sometimes even further. Depending on the wind speed and direction, many seeds can be dispersed very quickly within and beyond a garden or other green space. Settling quickly, these seeds germinate and new dandelions grow abundantly in a short period of time.

Water

For plants growing within or close to water sources, the shape and mass of the seeds ensures they can float so that seeds are transported away from the parent plant. Examples of this include coconut and mangrove seeds.

Fruit

Many plants grow seeds within fruit, which either falls from the plant and deposits its seeds in the ground as the fruit decomposes or is more often eaten by animals. As the fruit is digested by the animals, the seeds generally make it through to the other end so, as nature takes its course and the animal expels its waste, the seeds find their way back to the ground, often far from their plant source.



Fur

In order to take advantage of animals travelling from one place to another, some plants produce seeds that have a sticky surface or hook-shaped tip, which both easily attach to animal fur. These seeds are often deposited after the animal has transported them to another location, ensuring the growth of more plants of the same species in a different place to the original plant.

Exploding

While many plants rely on help from other sources to disperse their seeds, some have a special technique allowing them to expel their seeds in an exploding manner; poppies and peas are examples of this type of dispersal.

Weeds and Seeds Questions

1. What is the male reproductive part of a flower called? Tick one.

☐ stamen

☐ stigma

☐ carpel

☐ pollen

2. Number the steps from 1-5 to show the order that they occur.

☐ Pollen is deposited on the stigma of the female carpel.

☐ Seeds form inside the flower.

☐ Pollinators are attracted to bright, fragrant flowers to seek out nectar.

☐ Pollinators collect and transport pollen within and between flowers.

☐ Seeds are dispersed in different ways to continue growth of the species.

3. Find and copy one word that means a seed starts to sprout before it grows into a new plant.

4. Fill in the missing words.

In order for a plant to _____, it needs to ensure
its seeds are _____ as far and wide as possible.

5. List two methods of seed dispersal involving animals.

- _____
- _____

6. Why do you think some plants have brightly coloured, patterned or fragrant flowers?

7. Explain why seeds dispersed by the wind might travel to many different places from the parent plant on different days.

8. Summarise what you have learnt about plant reproduction in 25 words or fewer.

Weeds and Seeds Answers

1. What is the male reproductive part of a flower called? Tick one.

☒ stamen

☐ stigma

☐ carpel

☐ pollen

2. Number the steps from 1-5 to show the order that they occur.

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1 Pollinators are attracted to bright, fragrant flowers to seek out nectar.

2 Pollinators collect and transport pollen within and between flowers.

5 Seeds are dispersed in different ways to continue growth of the species.

3. Find and copy one word that means a seed starts to sprout before it grows into a new plant.

germinate

4. Fill in the missing words.

In order for a plant to reproduce, it needs to ensure

its seeds are dispersed as far and wide as possible.

5. List two methods of seed dispersal involving animals.

Animals eat fruit with seeds inside.

Seeds attach to animal's fur.

6. Why do you think some plants have brightly coloured, patterned or fragrant flowers?

Pupils' own responses, such as: Some plants rely on pollinators, such as bees and other insects, which land on their flowers in order for pollination to take place. Therefore, it is important that their flowers can attract pollinators.

7. Explain why seeds dispersed by the wind might travel to many different places from the parent plant on different days.

Pupils' own responses, such as: Wind speed and direction can vary so seeds might be dispersed far or near depending on wind speed. The direction of the wind will dictate where seeds may be dispersed.

8. Summarise what you have learnt about plant reproduction in 25 words or fewer.

Pupils' own responses, such as: Flowering plants reproduce through pollination, aided by pollinators, and seed dispersal, which allows parent plants to ensure they produce new plants where they can thrive.