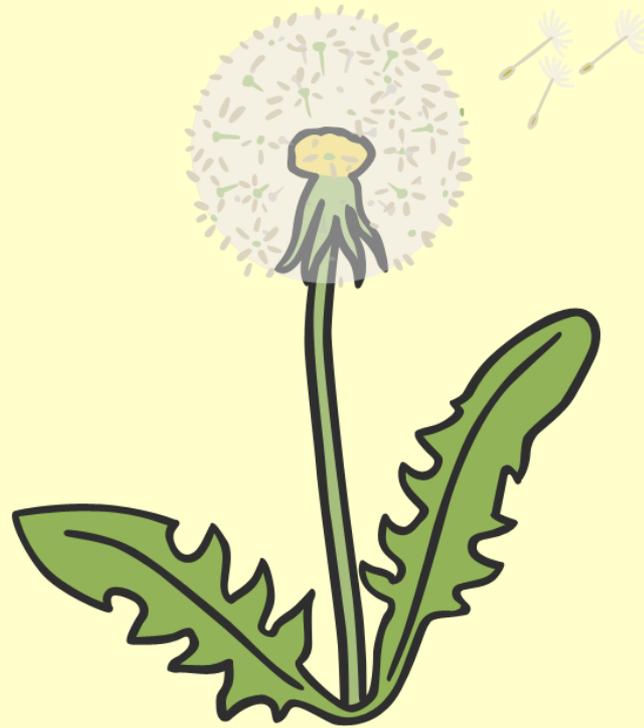


Seed Dispersal



A task setting Powerpoint Pack about the seed dispersal process



• **LO:** To know that seeds can be dispersed in a variety of ways.

- There are different types of seeds that fall into different categories.
- Plants disperse their seeds to ensure their survival.



After pollination has taken place, the flower of a plant will be full of seeds. Its next step is to spread these seeds to ensure its survival. In order to get the best chance of survival for future plants, the seeds must be dispersed.

What do you think 'seed dispersal' means?

Why do you think the seeds need to be dispersed?



Plants are rooted to the ground so they need a way to disperse their seeds away from themselves. In other words, they want their seeds to grow new plants in as many different places as possible to ensure that the species of plant will survive.



Seed dispersal is vital for survival because if a plant can only drop its seeds around where it's growing and a threat arrives, then the new plants might not survive.



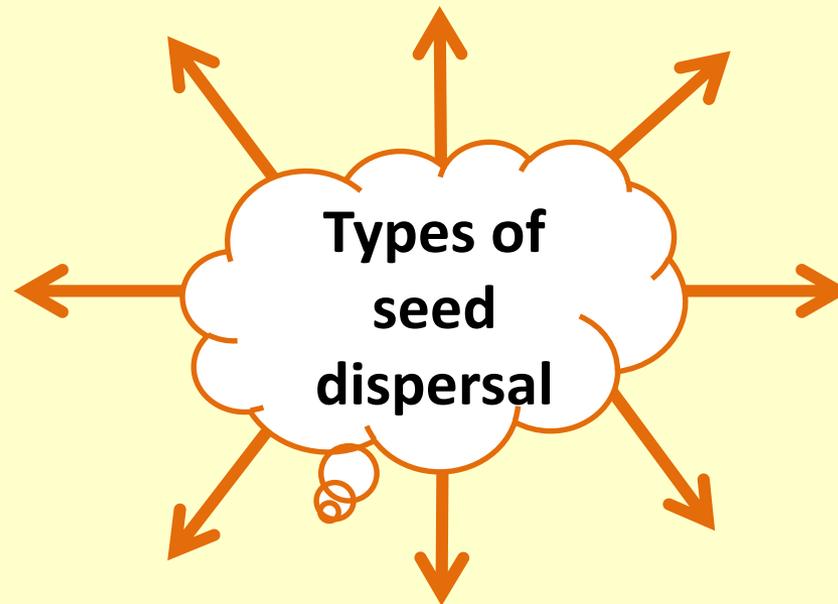
Seed dispersal also makes sure that one area doesn't become overcrowded.



Almost all seeds are made inside fruits. These fruits provide protection and nutrients to the seeds while they are developing.

Think about the types of environments that plants live in, including the elements (the weather) and other factors (like animals).

How do you think seeds can be dispersed?



Wind



Can you think of any seeds that travel by wind?

*Hint: Think of flying machines and telling the time

Sycamore 'helicopters' and dandelion 'clocks' both have fruits which have adapted to use the wind to carry the seeds away when the seeds are ready.



Sycamore seeds falling



Dandelion seeds being
blown by the wind

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Bursting

Some plants have pods full of seeds which will burst, showering the ground with seeds, like the Himalayan Balsam seed. Peas are another example of bursting open to disperse its seeds.



Shakers

Some plants rely on being shaken to disperse their seeds. When poppies have produced their seeds and have finished flowering all that is left is a long stem with a dried seed pod. These pods have small holes at the top and rely on wind to shake them to scatter the seeds. This method doesn't send the seeds very far. *Yucca Campestris* seeds also need to be shaken.



Yucca Campestris seeds



Poppy seeds

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Water

Some plants rely on water and to disperse their fruits. These will either grow on the water or by the side of water.

Water lilies live on the water so they use the water to disperse their seeds. They make very light seeds which will float away on the water for a while, then sink to the bottom of a pond to grow a new lily.



Lily seeds



Water lily

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Palm tree seeds are very light which helps them float and grow another palm tree elsewhere. Palm trees that grow by the oceans drop their seeds which can be swept great distances by the ocean's currents. Coconuts are well known travellers.



Palm tree seeds

Willow
tree
seeds



Willow and silver birch trees often grow near water. Their seeds are very light which enables them to float away on water (the silver birch seed is also fluffy which helps them to be dispersed by the wind too).

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Catching a ride

Some plants such as cockleburs have developed to grow tiny hooks on their fruits which hook on to animals (or people) that pass by the plant. Eventually they will drop off on to the ground.



This dog has been covered in burrs.



Burdock seeds

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Seeds as food

Some plants make tasty fruits. This is to encourage animals (and people!) to eat the fruits. The seeds then pass through the animal unharmed and out the other end with a ready supply of fertiliser (not tasty in the slightest...quite the opposite). This method ensures the seed is given nutrients to help it grow.

What types of fruits can you think of that are eaten by animals and people with seeds inside?



Drop and roll!

Some fruits such as horse chestnuts have a casing round them which cracks open when it hits the ground. The fruit inside then rolls away from the tree. You can tell which horse chestnuts in the trees are ripe because their casings have already begun to split open before they drop.



How can these seeds be grouped?



Use Seed Dispersal worksheet

Plenary

Why do plants disperse their seeds?

∨
List the ways in which the seeds are dispersed.



