

How do bees help plants to produce seed?

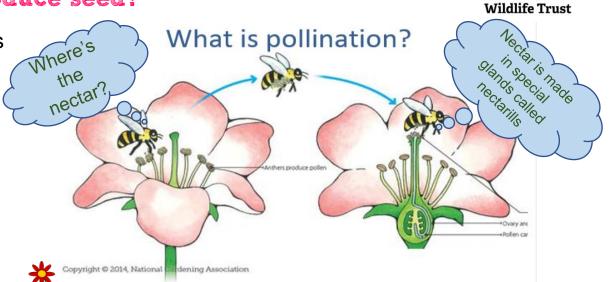
Pollination is the way that flowering plants make more plants. 80% of the world's flowering plants rely on insects to help them. The others rely on birds, bats and the wind.



The bright colours and smell of the flower tell the bee that there is sugary nectar inside. Adult bees love nectar and baby bees love pollen.

Bees are hairy and the pollen sticks to them. They also collect pollen in their pollen baskets at the end of their back legs.

To get the pollen to the baskets, bees clean themselves down using the tiny hairs, or combs, on their front & mid legs and carefully transfers the pollen to the baskets.



V A plant's view: The plant has just given the bee a good meal, here's what it's got in return. Pollen is produced on the male part of the flower; the **anthers.** Anthers are always placed so that a bee has to brush past them on its way to the nectar.

When the bee flies to another flower of the same species, some of the pollen that it didn't manage to clean off drops onto the **stigma** and travels down to the **ovary**; the female part of the flower. A seed can now start to grow.

How to play!

Here's a fun game to explain pollination. You will need to make your own bees, flowers & nest sites

Equipment

Bees: Make a bee for each player. In the picture one bee is made from a cotton bud & pipe cleaner, the other from a cocktail stick, bag tie and kitchen roll. Use whatever you have!

Flowers: Make several paper flowers. Place a bottle top in the centre & add ½ a teaspoon of a different coloured powder to each bottle top. This is your pollen. We have used cocoa powder & flour.

Nest sites: Build a nest using household items or draw a nest for each bee and put them around the playing area. Your chosen nest is your starting point.







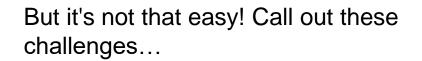
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Play:

- 1. Each player holds a bee.
- 2. Starting from your chosen nest, fly to each flower, buzzing as you go.
- 3. Dip your bee's nose into the 'pollen'.



It's night time!
Fly back to the nest

2. Blue tit!

You need to be avoid being eaten. Freeze and count to 10 before flying again.





3. Crab spider hiding in the flower! All the bees get eaten! End of game.



What should happen as we play the game?

As you move from flower to flower, the 'pollen' colours should mix; showing that pollen is being transferred between plants.

Photos: 2014 National Gardening Association Mary Bendall