

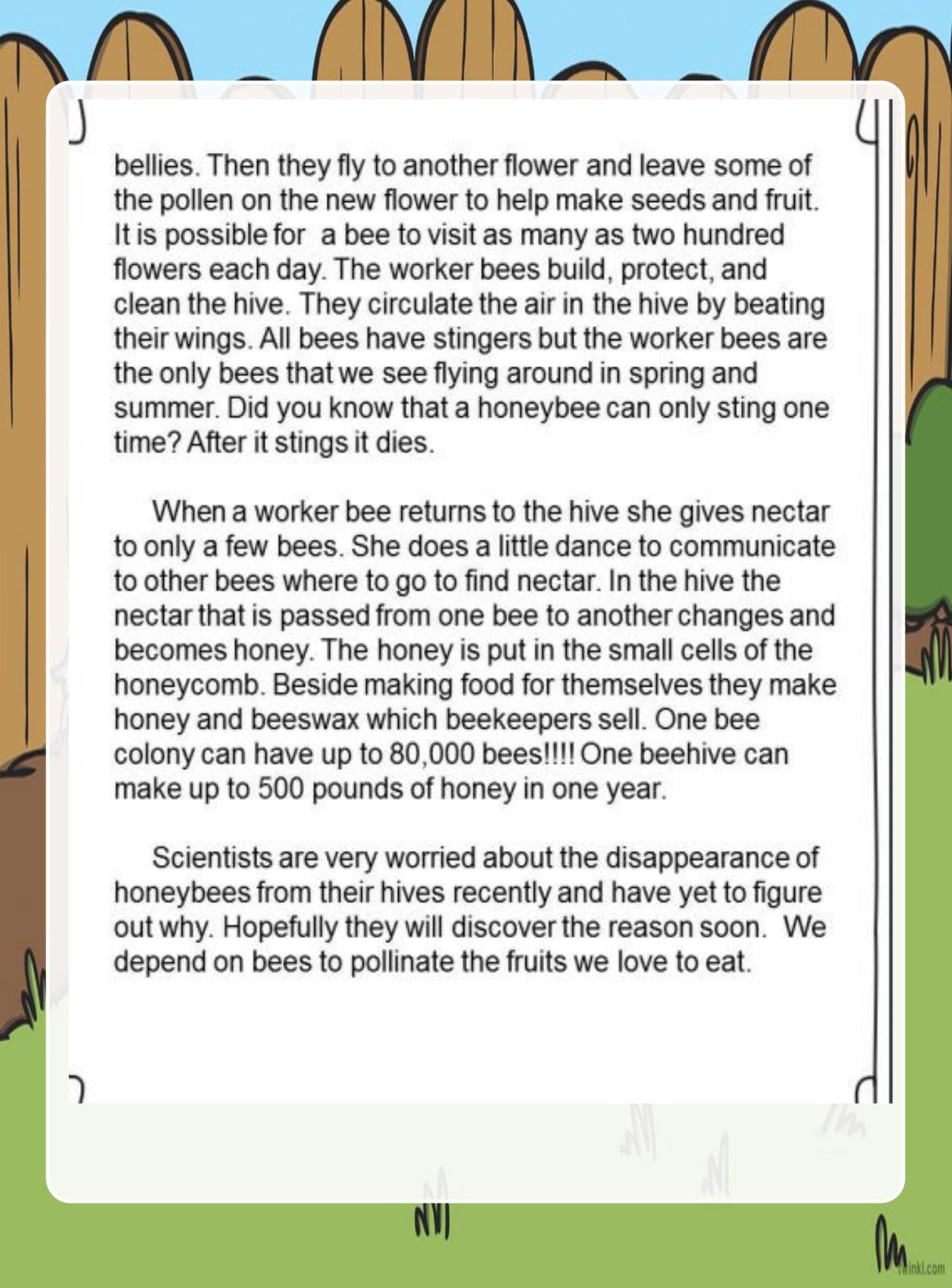
Busy Bees

Bees are very social insects. They live all over the world except Antarctica. They are very well organized and clean. They are hard workers and have many jobs to do in the hive. Without bees there wouldn't be any fruit or new plants. The beehive is like a small city with about 50,000 bees living inside. There are three kinds of bees; the Queen, the drones and the workers. They all have special jobs to do.

The Queen, who lives in the middle of the hive, has only one job. She lays eggs. She lays about 1,500 eggs each day. There is usually only one queen in the hive. The queen can live for four or five years producing up to as many as two million eggs during her lifetime. All the bees in the hive come from the eggs that the Queen has laid.

The drones are the males whose only job is to mate with the Queen. This is done in spring when the hive comes alive. They don't work at all. Every day they congregate outside the hive. When a queen flies by, they all chase her and try to mate with her. There are several hundred drones that live in the hive during the spring and summer but leave during the winter.

The worker bees are the females and have many jobs. The worker bees go find food to bring back to the hive. They land on flowers not only to drink the nectar which they use for making honey, but they also pick up pollen on their



bellies. Then they fly to another flower and leave some of the pollen on the new flower to help make seeds and fruit. It is possible for a bee to visit as many as two hundred flowers each day. The worker bees build, protect, and clean the hive. They circulate the air in the hive by beating their wings. All bees have stingers but the worker bees are the only bees that we see flying around in spring and summer. Did you know that a honeybee can only sting one time? After it stings it dies.

When a worker bee returns to the hive she gives nectar to only a few bees. She does a little dance to communicate to other bees where to go to find nectar. In the hive the nectar that is passed from one bee to another changes and becomes honey. The honey is put in the small cells of the honeycomb. Beside making food for themselves they make honey and beeswax which beekeepers sell. One bee colony can have up to 80,000 bees!!!! One beehive can make up to 500 pounds of honey in one year.

Scientists are very worried about the disappearance of honeybees from their hives recently and have yet to figure out why. Hopefully they will discover the reason soon. We depend on bees to pollinate the fruits we love to eat.

Beekeepers

A beekeeper is a person who takes care of one or more bee hives. Some beekeepers do it as a hobby but others make a career of keeping bees. Beekeepers need to wear special kinds of clothes to keep from getting stung. They wear a bee veil that fits under a plastic helmet. It hangs down around their necks. This is important because when bees get angry they try to sting as close to the eyes as possible. They also need to wear special clothing called bee suits. Beekeepers also need to buy special equipment to raise them. Most of all they need to know a lot about bees before they begin.

A beekeeper's job is to raise the bees so they can get the nectar and pollen from the hive. Then they can pollinate crops for fruit growers. Honeybees pollinate over 90 different crops. Bees are also the only source of honey we have. They usually start a new hive in spring when apple trees are in bloom. Sometimes a colony doesn't survive the cold winter so the beekeeper will try again next spring. Beekeepers sell the honey from what they have collected from the hive. The wax from the bees is used to make lipsticks, candles, and even medicine.



Making a Bee Hotel

Would you like to own a hotel? Well you can, but first you will have to build it.

You will host special guests that are very important for pollinating plants.

Let's learn how to make your very own bee hotel!



Making a Bee Hotel

You will need:

- Bamboo stems with hollows
- Fennel stems
- Twigs and tree branches
- Rocks
- Bark
- Leaves
- Bricks
- Empty plastic bottles (with the tops cut off), tin cans
- Scissors or secateurs
- Planks of wood for shelving (optional)
- Fruit crate (optional)
- Logs with drilled holes (optional)



Making a Bee Hotel

Before you make your hotel, you need to find the perfect place for it.

- It should be 1 metre to 1.5 metres off the ground in a warm, sunny place.
- Your bees will need water and food nearby. Make sure you have some plants with flowers that bees really like.
- Try to find somewhere with some protection from the wind and rain. For example, fix it to a sun-facing fence.



Making a Bee Hotel

Once you have found the perfect spot, it is time to build the main structure of the hotel.

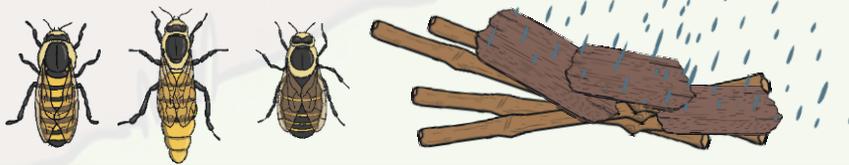
- If you have a crate, then tip it on its' side and stack your bricks inside. Don't forget to leave some gaps for the bottles and pots you will be adding in later.
- If you don't have a crate, use the bricks to create the main structure. You can add in shelves using planks of wood.



Making a Bee Hotel

After you have made the main structure, you can add in the tunnels and holes, so that the bees have somewhere to stay.

- Get your bamboo and fennel stems.
- Ask an adult to help you trim the stems so that they fit tightly inside the cans, bottles or pots.
- Bees like a place to land and holes which are easy to get into. Use the rest of the resources to build areas where the bees would like to stay.
- Put leaves, bark and twigs on the roof of your hotel to help protect it from rain and wind.



Handy Hint – Bees can be 2mm-10mm, so try to have different sized holes or tunnels.

Guests You Might See

There are more than 1,500 kinds of native bees in Australia. Your bee hotel might attract the...

Carpenter Bee

The carpenter bee builds nests in dead stems. These bees would like the bamboo or fennel stems.

Leafcutter Bee

The leafcutter bee likes to bore or dig holes. These bees would like the drilled holes in logs.

Reed Bees

Reed bees are small black bees that are about 8mm long. They like to nest inside dry, thick twigs in plants like raspberries, blackberries or in dead fronds of tree ferns.

Masked Bees

These bees got their name because they have markings on their faces. They like to nest in thick stems or holes in wood.

Did You Know...?

- In 1851, Lorenzo Langstroth invented the beehive that we still use today. He helped make hives with moveable frames. These frames let the beekeeper take out honeycomb and honey without destroying the hive.
- Cedar and Stuart Anderson invented the Flow Beehive. This is a special beehive that makes collecting honey much easier – beekeepers don't even have to open the beehive!

