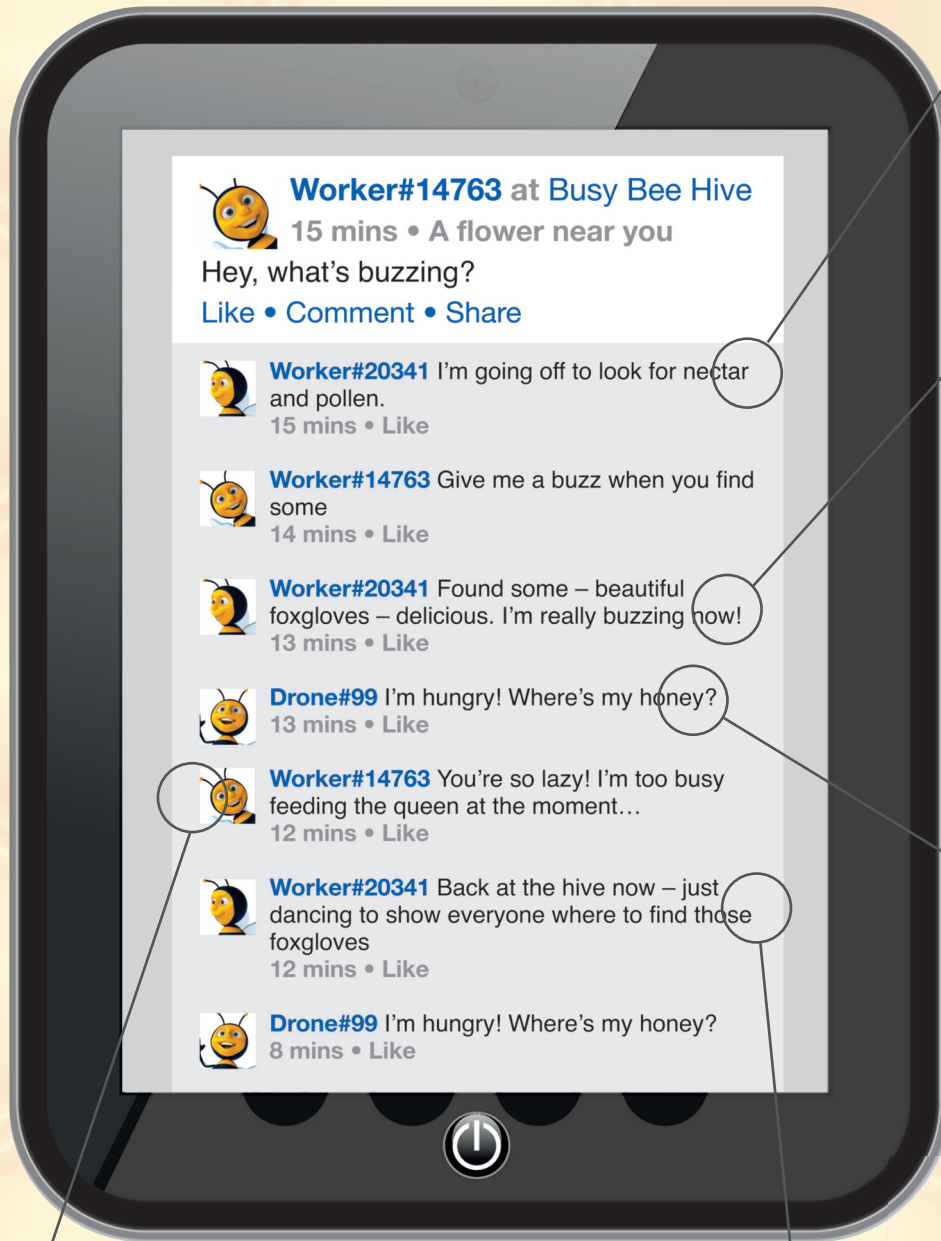




What's the buzz?



Worker Bees

Worker bees typically start to forage away from the hive at 22 days old. They are seeking sources of nectar, which they will convert into honey, and pollen, which they will use to feed their young.

Drinking the Nectar

Flowers such as foxgloves seek to attract bees and other insects through their bright colours, pattern and scent. The bees drink the nectar using their long 'proboscis' (tongue), and store pollen in so called 'pollen baskets' behind their legs. The flower gets something out of the deal too – in return for the nectar and pollen, the bee will transfer some pollen to the next flowers it visits, meaning the plants are 'pollinated', and able to reproduce.

Drones

Drones are male bees. They do not forage for nectar, or help with any of the tasks performed by worker bees in the hive. Their only purpose is to be ready to help the queen fertilise her eggs. Unsurprisingly, when food is short at the end of the season, the worker bees will push drones out of the nest!

Egg-laying machine

Until they are 22 days old, worker bees perform tasks within the hive. One of these is feeding and clearing up after the queen, (who is not 'in charge' of the nest, but is simply an egg-laying machine, who can't look after herself!).

Waggle dance

Bees make movements known as the 'waggle dance', in order to direct other bees to good sources of nectar. It is thought that the dance signifies the direction in which to fly, and the distance from the hive.





What's the buzz?



Nurses to the larvae and young drones

Between days 3 and 11 of its life, worker bees act as nurses to the larvae and young drones. They feed them on royal jelly, which they secrete from a gland beneath their mouths, topped up with honey and pollen.

Hexagonal cells

Bees mix nectar with chemicals in their stomach to form honey, which they store in the hexagonal cells of the honeycomb.

Bees Wax

Bees make wax using glands on the sides of their bodies. It is used to build the honeycomb, and to seal off cells of the comb once filled with honey.



Foxgloves

Foxgloves, also known as Digitalis, are a type of flowering plant found in many gardens. Its brightly coloured, tube-shaped flowers with patterned interiors are designed to attract bees and other insects. Foxgloves are highly poisonous to humans and animals, and can cause nausea, vomiting and death.



A swarm of bees

When a bee colony starts to become over-populated or crowded, some or all of the bees will leave with the queen in search of a new nest. This is called a swarm. Any remaining bees, or bees leaving in a separate swarm, will raise a new queen.

Did you get the buzz? - QUESTIONS

LESSON ACTIVITY PLANS Age group: 7 - 11 years



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1. What sort of tasks do worker bees perform, and how do these vary during their lifetime?

2. Why do bees settle on flowers?

3. Why do flowers want bees to settle on them?

4. How do bees carry nectar and pollen?

5. Why do the worker bees put up with lazy drones?

6. What is royal jelly, and what is it for?

7. What is the waggle dance, and why does a bee perform it?

8. What does a bee mix with nectar to make honey, and where does it mix it?

9. How and why do bees make wax?

10. Why do bees swarm?

Did you get the buzz? - ANSWERS

LESSON ACTIVITY PLANS Age group: 7 - 11 years



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1. Young bees act as nurses to babies. When they are slightly older, they perform other tasks such as feeding the drones and looking after the queen. Once they are 22 days old, they start to forage outside the hive.
2. They are seeking nectar, which they will convert into honey, and pollen, which they will use for food.
3. As they take the nectar from a flower, a bee will also pick up pollen. When it flies to another flower, some of that pollen is transferred from flower to flower. This is the process called 'pollination', which helps the plant create seeds and fruit, and thereby reproduce and create more plants!
4. Bees carry nectar in their stomachs, and pollen in 'baskets' (attachments behind their legs).
5. Drones are male bees, and without them the queen would not be able to lay eggs. So the worker bees look after the drones as well as the queen.
6. Royal jelly is a substance that comes from glands below a bee's mouth. It is used to feed bee larvae, (babies).
7. A bee performs the waggle dance to show to other bees where to find food. It is thought that the dance signifies the direction to fly in, and how far to fly.
8. The nectar is mixed with chemicals from a bee's stomach – and the bee does the mixing inside its stomach.
9. Bees make wax using glands on the sides of their bodies. They use the wax to build the honeycomb, and to 'cap' the cells of the comb once honey has been placed in them.
10. A swarm happens when bees need to find a new place to nest – perhaps because their current nest is becoming overcrowded.

