



Drink like a bee experiment



Find out how bee tongues are adapted to different flowers.

What you need

- 5 cups or bowls of different shapes and sizes e.g. tall and thin/flat and open. Label the containers 1-5. These will be your 'flowers'
- Drinking straws. These will be your 'bee tongues'
- Scissors
- A jug of fruit juice, squash or water
- Piece of paper & pen to draw a table



*5 different containers and
5 different length straws*

What to do

- Fill the containers halfway with your preferred liquid. Fruit juice & squash are sugary like nectar but water works fine.
- Cut the straws into 5 different lengths.
- Draw out a table like the one below onto a piece of paper to record your results.
- Now try and drink some of the liquid from each container using the different length straws. If you can drink from a container with a straw write 'Yes' in the table, if not write 'No'.

	Container 1	Container 2	Container 3	Container 4	Container 5
Straw 1					
Straw 2					
Straw 3					
Straw 4					
Straw 5					



Hopefully, you'll end up with something like this:

	Container 1	Container 2	Container 3	Container 4	Container 5
Straw 1	Yes	No	Yes	No	No
Straw 2	No	Yes	Yes	Yes	No
Straw 3	No	No	Yes	No	No
Straw 4	Yes	Yes	Yes	No	No
Straw 5	Yes	Yes	Yes	Yes	Yes

1. In your own table, which container had the most 'Yes' answers?

This container ('flower') is the most 'generalised' because you can drink from it with most straw lengths ('tongues'). Both the *Red-Tailed Bumblebee* and the *Garden Bumblebee* can drink from this flower.

2. In your own table which container had the most 'No' answers?

This container ('flower') is the most 'specialised' because you can only drink from it with a small number of straws lengths ('tongues'). Only the *Garden Bumblebee* with it's long tongue can reach into this flower.

3. What do you think is the bonus for the Garden Bumblebee, who doesn't have to share the nectar with so many other bees?
