

Lower KS2 English Pack

Bee Aware

Bee Amazed

Bee Smart!



Sources:

<https://www.countrysideclassroom.org.uk/storage/resource/downloads/85d62cb2-ad17-4251-a634-f6d8b53d2be2/original/low-res-understanding-bees-education-pack-england-1.pdf>

<https://www.woodlandtrust.org.uk/blog/2019/05/types-of-bee-in-the-uk/>

Bee Prepared to Learn!

Activating prior knowledge is an important part of learning. It is when we think about what we already know about something which will be the foundation for new learning.



Make yourself a KWL grid (**K** – stands for what you **already know or think you already know**; **W** – stands for what you **want to know** and **L**- stands for what you have **learnt**)

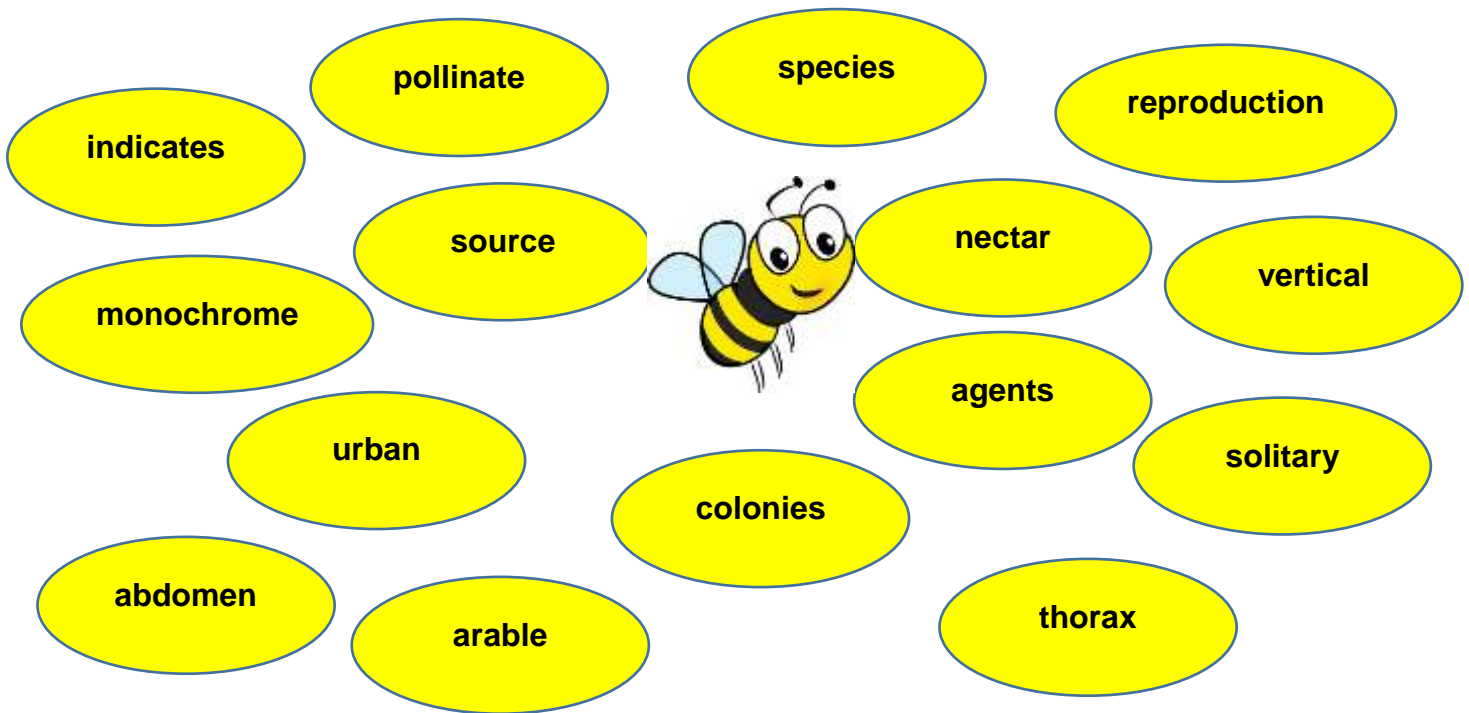
What do you know about bees and pollination?

- Parts of a flower
- Different types of bees
- Why bees are important
- How to help bees

K	W	L

Bee Word Aware 1

Here are some words which may **bee** new to you



Create a Glossary

1. Copy the words into your book in alphabetical order, leaving 2 lines between each word
2. Find the correct meanings from the table below and copy next to the word

To take pollen from one plant to another	To point at something or to point something out	The place where something comes from	Straight up and down	The sweet liquid that flowers make to attract insects and birds
A type or kind of something	The mid-section of an insect (between the head and the abdomen)	Things or people that do a job	Making new plants or the babies of a species	The third section of an insect's body (after the thorax)
Black and white	To do with farming and growing crops	A group of the same thing living closely together	Something that lives on its own or is by itself	To do with towns and cities

Rainbow Reading



- Read the text looking out for these words
- When you find them, underline them using the following code
 - **Green** – if you now understand the word
 - **Yellow** – if you are starting to understand it
 - **Red** – if you find it difficult to understand

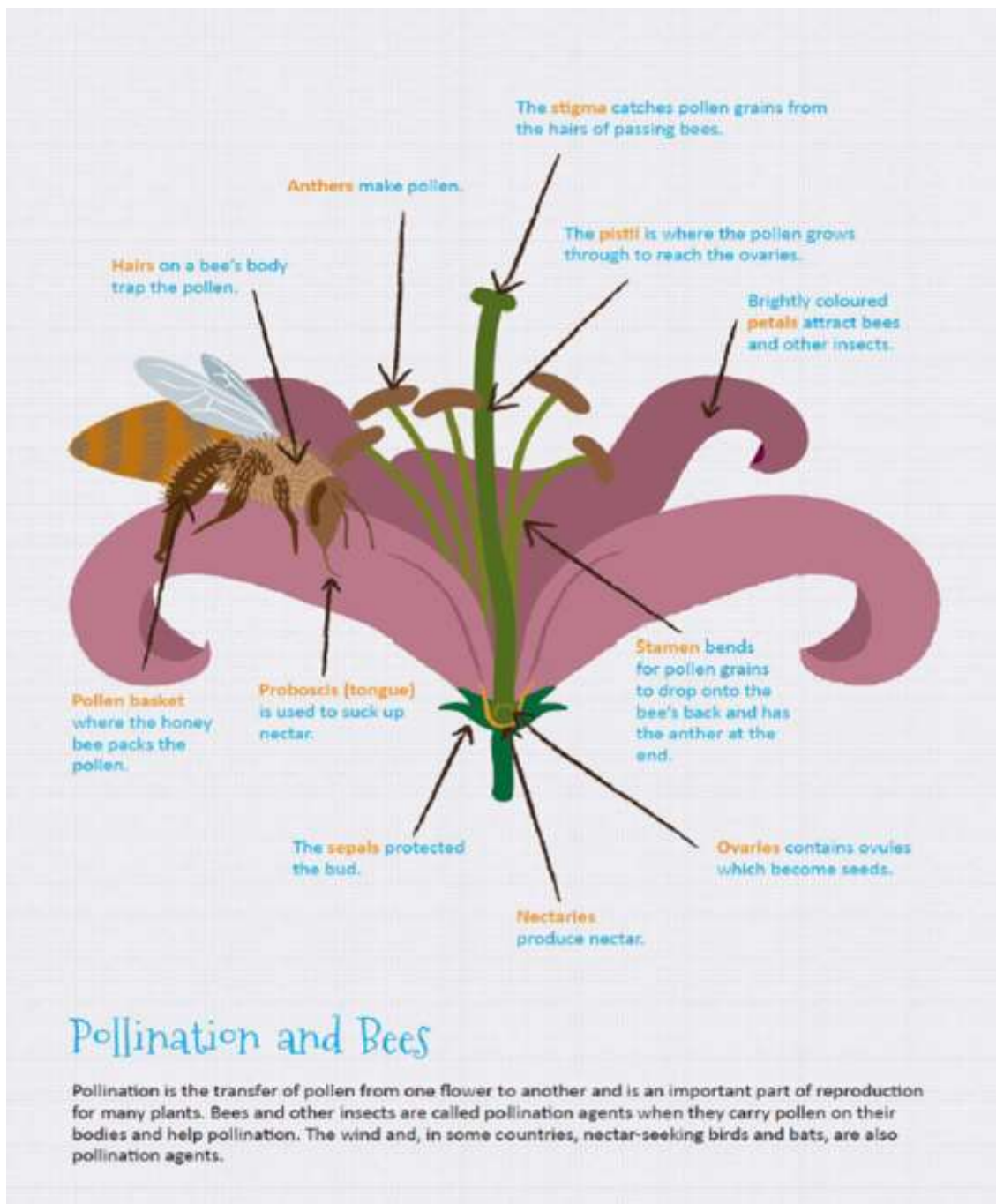
If it is yellow or red, go back to the glossary and use this to help you with your understanding. If you still do not understand it, try and find the word in a dictionary or online (you could use WordHippo -<https://www.wordhippo.com/>).

Also, read around the word and try and use the text to help you understand it better.

Bee Amazed!

Did you know that some people consider bees to be one of the most important creatures on the planet? They help to feed us. Not because we eat bees, or even honey, but because they help our crops to grow. If we did not have bees pollinating plants then we would not have apples, beans, strawberries, cucumbers, cauliflower, lettuce, melons, lemons, raspberries ...the list goes on. In fact three quarters of the world's flowering plants depend on bees to help them grow.

Look at the diagram to help you understand how bees pollinate the flowers of these crops.



The Waggle Dance

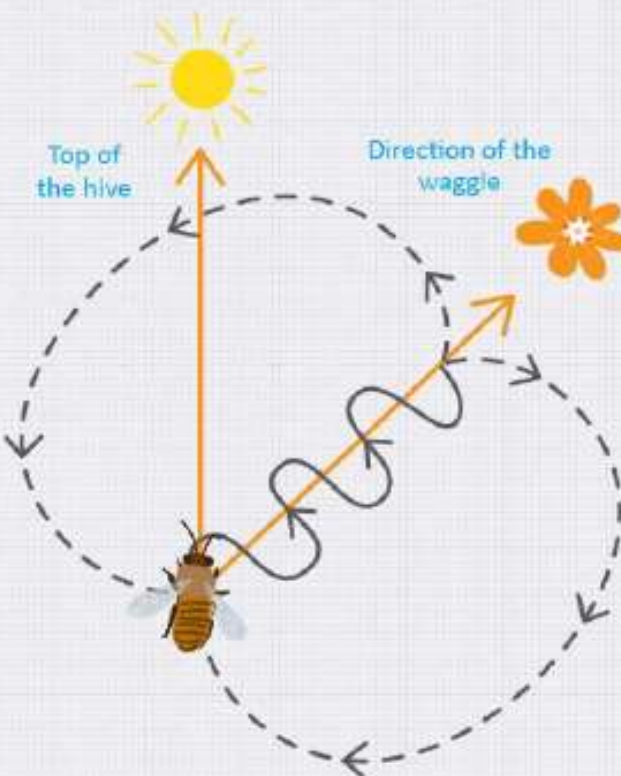
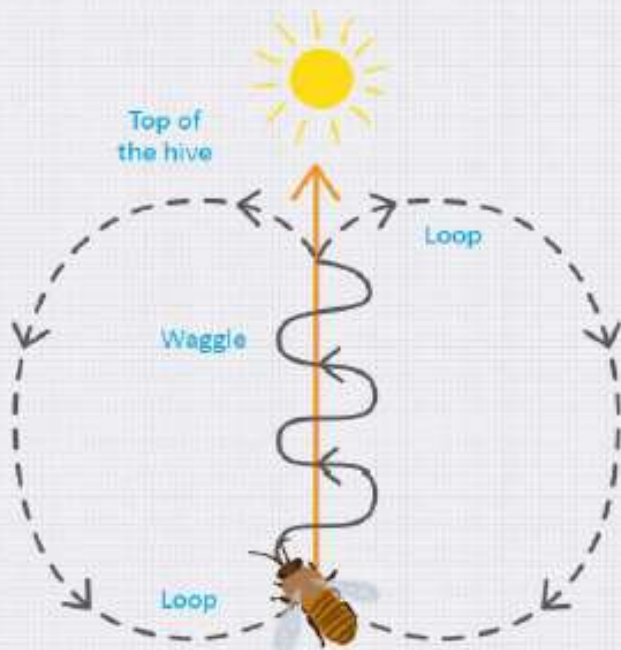
When a honey bee finds flowers with lots of nectar it will often return to the nest or hive and perform a dance to show other bees how to find the food source.

This amazing 'waggle dance' usually takes place on a vertical surface within the hive. If the food source is in the direction of the sun the bee dances in a straight line upwards towards the top of the hive, wagging its tail as it does so. It will then turn to the right and loop back to the start and repeat the dance. Then it will turn to the left to loop back to the start and keep repeating this sequence.

If the flowers are to the right of the sun, then the bee will do its waggle dance at the precise angle to the right of vertical.

As the bee performs the waggle dance, the surrounding bees also smell the pollen on it so they not only know the direction to go but also the type of flowers to look for. The number of times the bee repeats the dance indicates how far away the flowers are.

Sometimes more than one bee will join in with the dance and if it is repeated many times then it suggests there is a lot of good nectar and pollen to be found on the flowers. As the nectar and pollen start to run out in that area then fewer bees will do the dance.



Bumblebees –

<https://www.woodlandtrust.org.uk/blog/2019/05/types-of-bee-in-the-uk/>

There are 24 species of bumblebee in the UK, and personally, I don't think there is a better sight than these clumsy balls of fluff zooming from flower to flower on a sunny day. They are a social species, nesting in colonies ranging from a few dozen to several hundred bees. Here are four of our most common.

Tree bumblebee (*Bombus hypnorum*)

Easily identified by their ginger thorax, black abdomen and white tail, tree bumblebees are one of our most common species. They are also the species most likely to colonise nest boxes, and are found in habitats ranging from woodland to gardens. Some of their favourite flowers include rhododendrons, brambles and comfrey.



Tree bumblebees sometimes nest in bird boxes.
Image: Woodland Trust

Red-tailed bumblebee

Female red-tailed bumblebees are jet black with a bright red or red-orange tail, while males have a yellow-haired head and collar, and a weak yellow midriff-band. These bees do well in a variety of habitats including woodland, urban sites, gardens and wildflower-rich grassland; anywhere they can find thistles, bird's-foot trefoil, buddleia and the rest of their favourite flowers.



Red-tailed bumblebees are one of the UK's most widespread bee species.
Image: Woodland Trust

White-tailed bumblebee

White-tailed bumblebees have a bright yellow collar, a yellow abdomen band and a bright white tail. They look very similar to buff-tailed bumblebees (which have a browner collar and an orange-tinted tail), and early bumblebees (much smaller, with a bright orange or yellow-orange tail).

White-tailed bumblebees can be found almost anywhere, feeding on flowers ranging from thistles and buddleia to brambles and scabious.



White-tailed bumblebees are the third most common species.
Image: Woodland Trust

Common carder bee

These beautiful little bees are the only UK species with all-brown colouring and no white tail. They range from ginger to a pale, sandy brown, depending on how sun-bleached they are.

Common carder bees are very common and are found everywhere from arable land to urban gardens. Gorse is a favourite food plant alongside things like dandelions, bluebells, dead-nettles, comfrey, selfheal and foxgloves.



Bumblebees are a good source of nectar for common carder bees.
Image: Woodland Trust

Mason bees

If you have ever noticed clouds of bees buzzing about in front of brick walls, they were likely mason bees; a solitary species that nests in cavities in wood, hollow stems and walls. Mason bees look a little similar to some mining bee species, but you can tell them apart by their boxy heads and large powerful jaws.

Red mason bee

The mason bee you are most likely to see is the red mason bee. Look out for a black head, brown thorax and orange abdomen, and in females, a lot of fluff! You are likely to see red mason bees in built-up environments with plenty of gardens, churchyards and urban green space, and they are the bee most likely to be tucked up in your bee hotel. Their food plants include willows, fruit trees and oil-seed rape.



Red mason bee (Osmia erythrogastra) on a brick wall. Photo: © David Potts

Mining bees

Spotted a hole in your lawn surrounded by a volcano of excavated earth? It is the work of a mining bee. This solitary species nests in the ground and is part of a 67-strong group of diverse bees ranging from 5-7mm long. There are two species you are most likely to see.

Tawny mining bee

There is no mistaking the tawny mining bee: a honeybee-sized ginger species with a thick orange coat and a black face. They feast on shrubs ranging from willow, [hawthorn](#) and [blackthorn](#) to fruit trees and maples, and love gorging on dandelions.

Tawny mining bees are found in a wide variety of habitats. From gardens to parks, if there is an area of light soil or a bare bank, you are likely to spot one.



Tawny mining bee (Andrena fucifera) on a flower. Photo: © David Potts

Ashy mining bee

A stunning bee, the ashy mining bee is a distinctive little species with monochrome colouring. Its ability to adapt to different habitats is impressive; the ashy mining bee can be found in heathland, moorland edges, open woodland, coastal grassland, cliffs and quarries.

Some of the ashy mining bees' favourite food plants include willow, blackthorn, gorse, buttercups and fruit trees.



Ashy mining bee (Andrena cineraria) on a rock. Photo: © David Potts

Honey bees

There is just one species of honeybee in the UK, identified by its slim, sandy thorax and black abdomen with golden-amber bands. Honeybees have been domesticated for centuries and it is rare to find a truly wild colony. Our honeybees now mostly live in hives of up to 20,000 individuals, and are commonly found feeding on open flowers they can easily reach with their short tongues. Keep your eyes peeled around willows, orchard trees, oil-seed rape, raspberry flowers and other trees, herbs and shrubs.

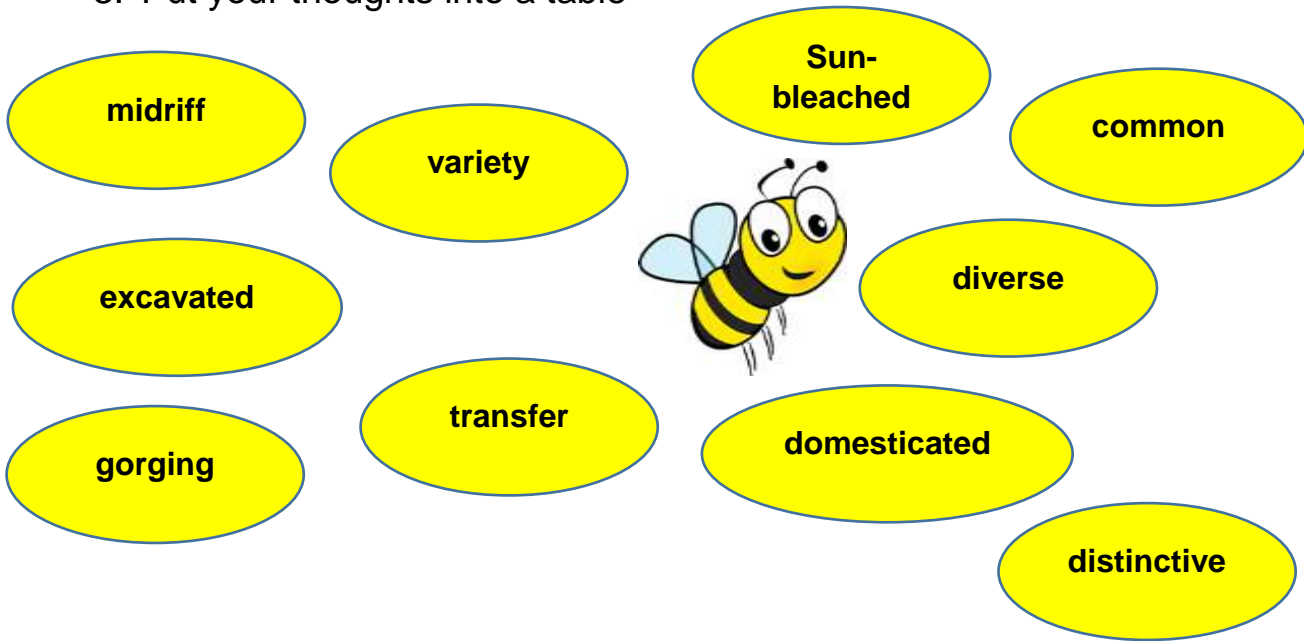


Honey bees have been domesticated for centuries and it is rare to find a truly wild colony.
Credit: iStock.com / Ragib

Bee Word Aware 2

Sometimes we have to work out the meaning of words for ourselves.

1. **Scan** the text (read quickly just looking for key words, numbers, phrases etc) to find the following words
2. Use the headings below to help you try and work out the meanings of these words
3. Put your thoughts into a table

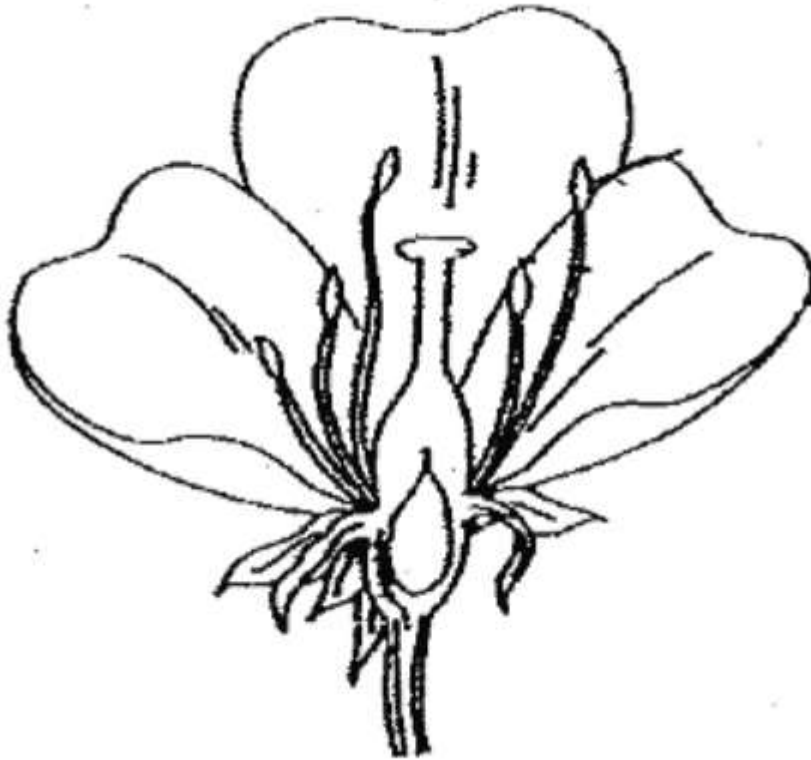


The first one has been done for you

Word	Heard Before?	Read around the word – what do you think it might mean	Any related words?
variety	My mum sometimes buys a variety pack of biscuits	A number or range of different things	Various Vary Varying Varied

Pollinating Plants

- Copy the diagram below into your book
- Name the different parts of the plant and explain why it is there



Bee Smart!

Now draw your own diagram of a bee and label the following



Wings	Hairs	Proboscis
Pollen basket	Thorax	abdomen

Bee a Detective




- Read the clues below
- Copy into your book
- Fill in the name of the bee
- Draw a picture of that bee
- Challenge: make a list of plants and flowers that bee particularly likes

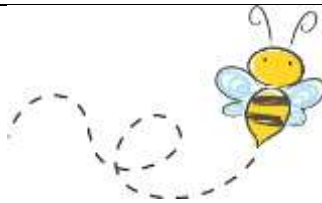


<ul style="list-style-type: none"> • Solitary bees • Often found in urban environments • Like to live in hollow stems and cavities in walls and trees 	<ul style="list-style-type: none"> • Smaller bees • One colour • Found in the countryside and in towns and cities • One of their favourite food sources is gorse
<ul style="list-style-type: none"> • The female bees are black with a red or red/orange tail • The mail bees have a yellow head and collar and a weak-yellow midriff band • They can be found in a variety of places 	<ul style="list-style-type: none"> • One of the most common species • Often found nesting in bird boxes • Ginger thorax • Black abdomen • White tail

Bee a Star Reader

- See how many stars you can collect
- The one star questions are easier to get your brain warmed up and the three star questions are the challenges!
- If you did the star challenge in the previous unit, can you beat the number of stars you got then?

		
Which part of the plant makes pollen?	Which parts of the plant are directly linked to pollen?	Explain how bees pollinate flowers
Name four different types of bees	How do plants attract bees and other pollinators?	Why are bees so important to our planet? Explain your answer as fully as possible
What special job do bees have?	Which bees are most likely to be found in town gardens? How do you know?	What do you think people can do to help bees survive?
How many different types of bumble bees are there?	Which bee do you find the most interesting and why?	What is the most surprising bee fact you have learnt? Explain your answer
Which bee is most likely to use a 'bee hotel'?	Which is your favourite bee and why?	Go back to your KWL grid and fill in the 'L' section on everything you have learnt about bees



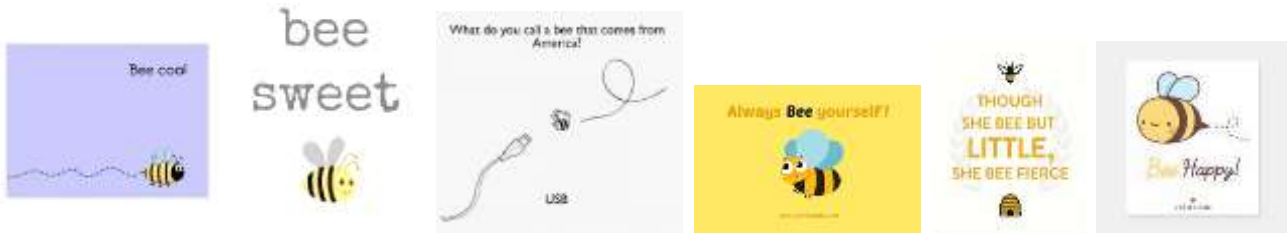
Beeautiful Puns!



A **pun** is a joke that makes a play on words. It usually does this by using words that sound similar but have different meanings. Sometimes they use words that sound the same but have different spellings like 'be' and 'bee'. It can also use different meanings of the same word to make the saying funny. Speakers and authors use puns to make the audience or readers smile, or groan!

'Bee' is a great word for a pun as we often use the word 'be' in the English language and it makes up parts of words like *beautiful*, *behave*, *because*, *unbelievable* etc.

- There are several 'bee' puns in this pack – how many can you find? Make a list
- How many words can you think of that have 'be' in them that could be turned into a bee pun?
- If you can get online to research information about bees – you will probably find a lot of bee puns out there – make a list



Bee Sentence Smart!

Complex Sentences

Can you remember what a complex sentence is?

To understand complex sentences you need to know the following:

- A **main clause** is like a simple sentence – it makes sense on its own
- A **subordinate clause** gives us 'extra' information and does not make sense on its own but relies on the main clause for it to make sense
- Remember, a clause always has a verb (action word) in it

Eg.

White-tailed bumblebees can be found almost anywhere, feeding on flowers ranging from thistles to scabious.

White-tailed bumblebees can be found almost anywhere – this part of the sentence could make a sentence on its own. It is a **main clause**.

feeding on flowers ranging from thistles to scabious – this part of the sentence does NOT make sense on its own, but gives us extra information linked to the main clause. It is a **subordinate clause**.

Clause Spotter!



Read the sentences below and use two colours (or a straight line and a wiggly line) to show the main clause and the subordinate clause.

Bees are called pollination agents when they carry pollen from one plant to another.

Honeybees do a waggle dance in order to show other bees where the flowers are.

Here are some amazing bee facts which are going to amaze you.

There are 24 species of bumblebee in the UK which can be found buzzing around our gardens.

They are a social species, nesting in colonies ranging from a few dozen to several hundred bees.

Adding Clauses

We use subordination to add in extra information for the reader. You will often find commas separating main clauses from subordinate clauses – especially when the sentence starts with a subordinate clause.

These sentences all start with a subordinate clause – see how many different ways you could finish each sentence by adding in a main clause.

When bees pollinate a flower,

In order to let other bees know where the flowers are,

Often found in nesting boxes,

Because carder bees are very common,

Bee Informed!

Do your family and friends know as much about bees as you do now? Make a fun information leaflet that they will want to read but which gets across the important facts. You could include the following:

Attractive eye-catching design	Introductory paragraph	Bee puns	Complex sentences
Rhetorical questions to make the reader think	Bullet points	Fact boxes	Headings and sub-headings
Paragraphs to organise the writing	Persuasive language	Labelled illustrations	Closing paragraph

