CUMBERNAULD LIVING LANDSCAPE

Wild Ways Well is BeeRilliant

This week's Wild Ways Well task is to go for a walk in your local greenspace and look out for Bees! Remember to always abide by the rules on Social Distancing and take your walk in your local area.

You'll **Be Active** by carefully walking outdoors keeping your mind busy and occupying your time looking for these stripy little insects. Bees are fascinating and this is a great time to see them as the Queens set up their nests and the first workers are appearing.

We can **Connect** with the outdoors simply by looking out of a window, or using the internet to access a huge variety of options for interacting with wildlife all over the world. Whilst we must not meet people physically at the moment, this doesn't mean we cannot connect with them in other ways. We can comment on social media – or even say a friendly (if distant) hello to those we pass as we take our daily exercise.

We can **Keep Learning,** there are thousands of web pages devoted to the outdoors and an equal number of books and television programmes. This week we are looking at bees in our local space, why not look online and find out more once you're back indoors? We'll provide links to help at the end of this pack.

Bees are all around us and are vital for both the wider ecosystem and the way we live our lives– but we rarely **Take Notice** and look very closely at them. It's amazing how much we miss out in nature when we just walk through without paying attention to what is around us.

We can **Give** by giving ourselves a break from the drama of the current events and focusing on the little things around us that give us pleasure and by sharing these with others, in person or online. You can also give back to the bees by helping to conserve them and by advocating them to your friends and policymakers.

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Wild Ways Well

BE ACTIVE – Take part in health walks and practical outdoor activities. Explore your local paths, woods and greenspaces.

CONNECT – Meet new people. Connect with the people, the wildlife and the nature that's all around us.

GIVE – Your time to be in nature. Give something back by sharing experiences and undertaking conservation tasks.

TAKE NOTICE – Note the changing cycles of life. Use your senses. Listen to birds, smell the flowers, live in the moment.

LEARN – Identify plants and wildlife, try new crafts, learn new skills. Discover things about nature and about yourself.

Spending time outdoors, amongst nature, makes people feel better about their lives.

The Wild Ways Well project encourages people suffering from, or at risk of, poor mental health to get outside for some daily exercise.

Whilst out amongst the trees, parks and reserves you have a chance to slow down, relax and take your attention away from current events.

This guide will help you to try out some environmental and conservation related activities designed to fit in with the internationally recognised Five Ways to Wellbeing mental health framework.

Remember always follow the government guidelines on Social Distancing, take your walk in your local area and wash your hands before and afterwards.

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The Humble Bumble

Bumblebees are some of our most colourful and charismatic insects. They have round bodies covered in soft hair like setae giving them a 'fuzzy' appearance.
Bumblebees (except cuckoo species) form colonies of 50 -250 individuals made up of a single queen and lots of non-breeding female workers. These use smooth patches on their hind legs, called pollen baskets, to collect pollen which they then bring back to feed the colony.

Only female bumblebees can sting – and they don't die when they do so – but most bumblebees are totally non-aggressive unless severely provoked. Their colouring is aposematic—designed to warn other animals that they are dangerous.
Only queens survive the winter, often hibernating underground. They emerge in Spring already fertilised after mating the previous year. They choose a nest site and raise a generation of workers before retreating into the nest to lay more worker eggs. Later they produce male and queen eggs. Once these hatch they disperse and mate, only the newly fertilised queens will survive the winter.
Males don't contribute to the colony and their arrival is usually the signal for the colony to begin dying off as it cannot support the extra mouths. The bees people see 'swarming' around nests are usually males, waiting on a queen to appear. Male bees have hairy legs, without the smooth pollen baskets of the females.

As recently as the 19th century they were commonly referred to as 'humble-bees' even Charles Darwin calls them this in *On the Origin of Species*.

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Identify and Colour a Bumblebee

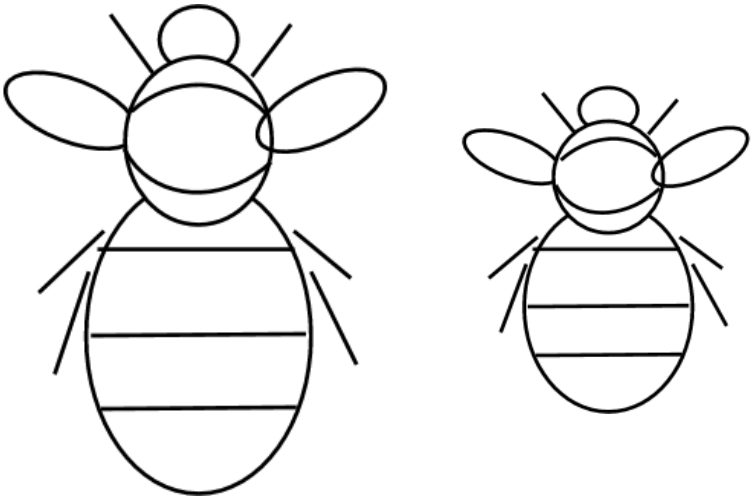
There are lots of different species of bee that visit our gardens and greenspaces and with a bit of practice anyone can learn to identify at least the most common types

There are 19 species of bumblebee found in Scotland but 7 of these are especially common and are likely to be found in almost any garden or green space.

The best way to tell these species apart is to look for the pattern of stripes on their bodies – paying especially close attention to the colour of their tail stripe.

We've drawn and coloured some pictures on the next few pages showing the patterns to look for – and we've given you some blank templates for you to fill in with the colours of the bumblebees you find! We've also included the Blaeberry Bumblebee which is a bit less common but may be seen in Cumbernauld

We've shown the Queen and the Worker for each species. Queens are the large bumblebees you often see in early Spring, workers are generally smaller and seen all summer. The Males do not appear until late summer and are usually slightly different again.



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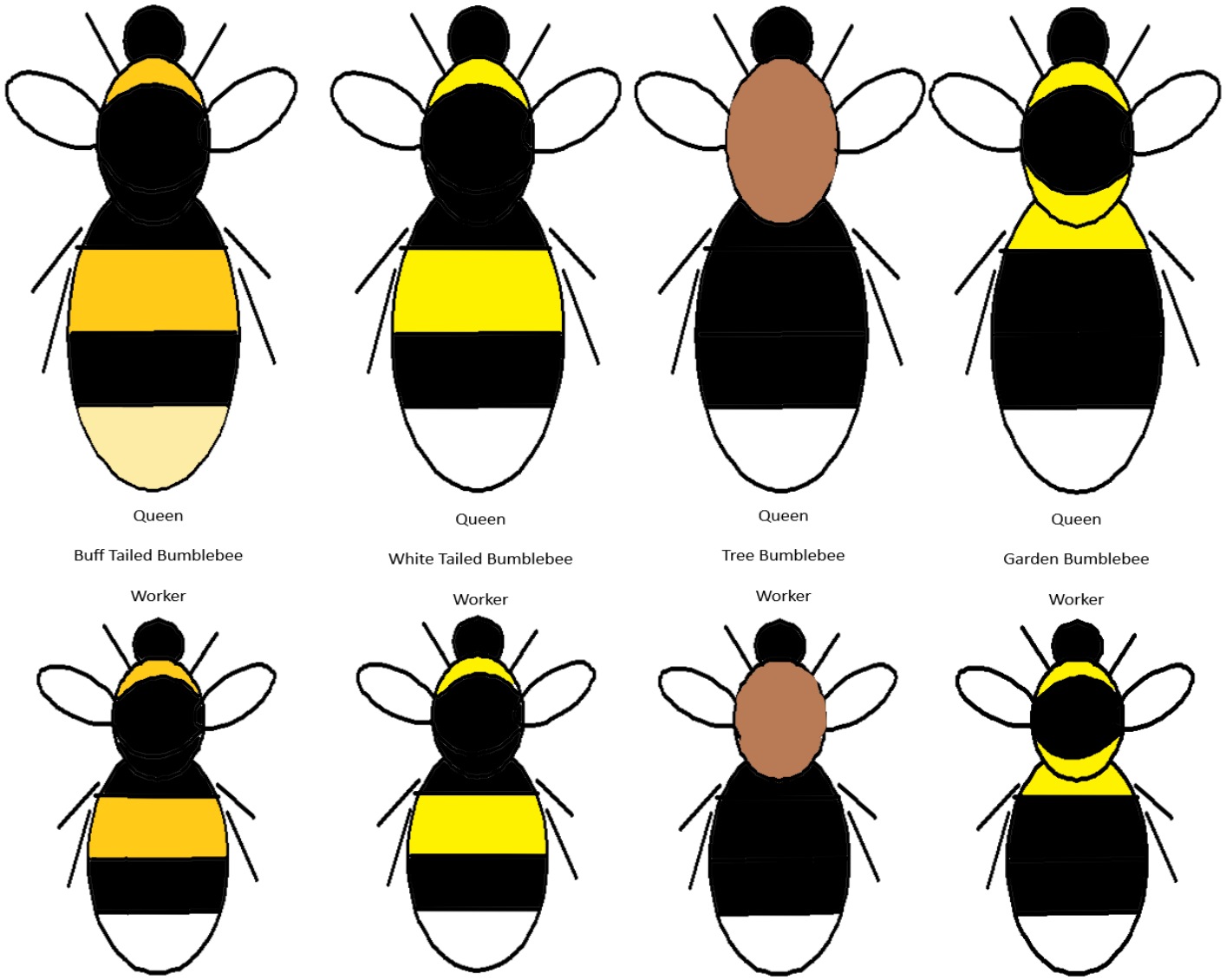

Queen

Buff Tailed Bumblebee

Worker

Queen

White Tailed Bumblebee

Worker

Queen

Tree Bumblebee

Worker

Queen

Garden Bumblebee

Worker

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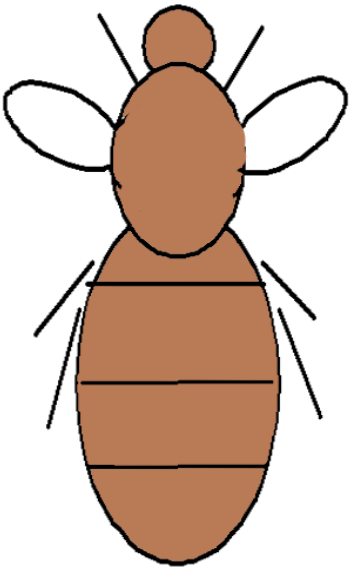
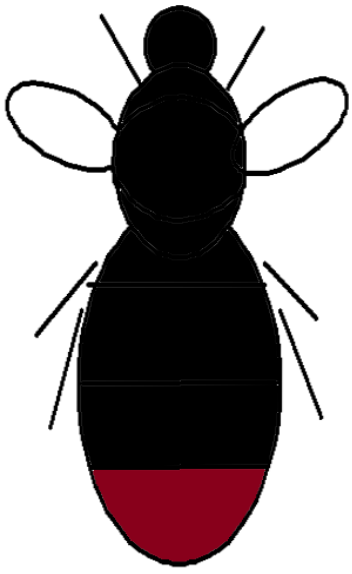


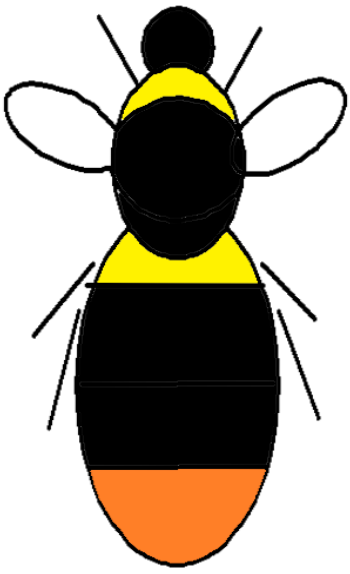
Queen

Common Carder Bumblebee



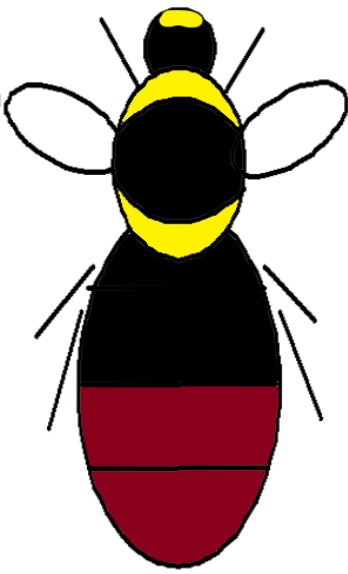
Queen

Red Tailed Bumblebee



Queen

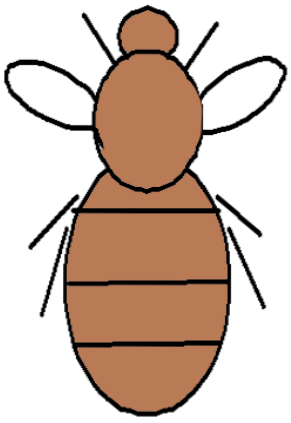
Early Bumblebee



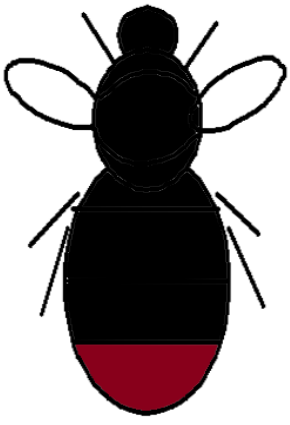
Queen

Blaeberry Bumblebee

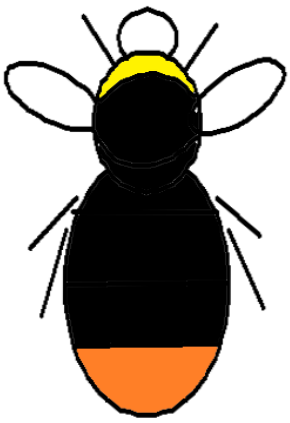
Worker



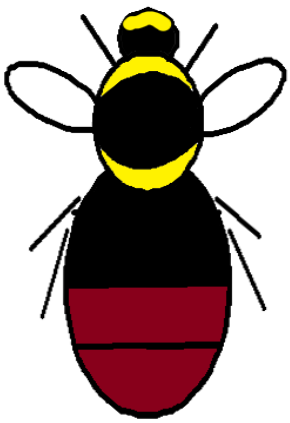
Worker



Worker



Worker



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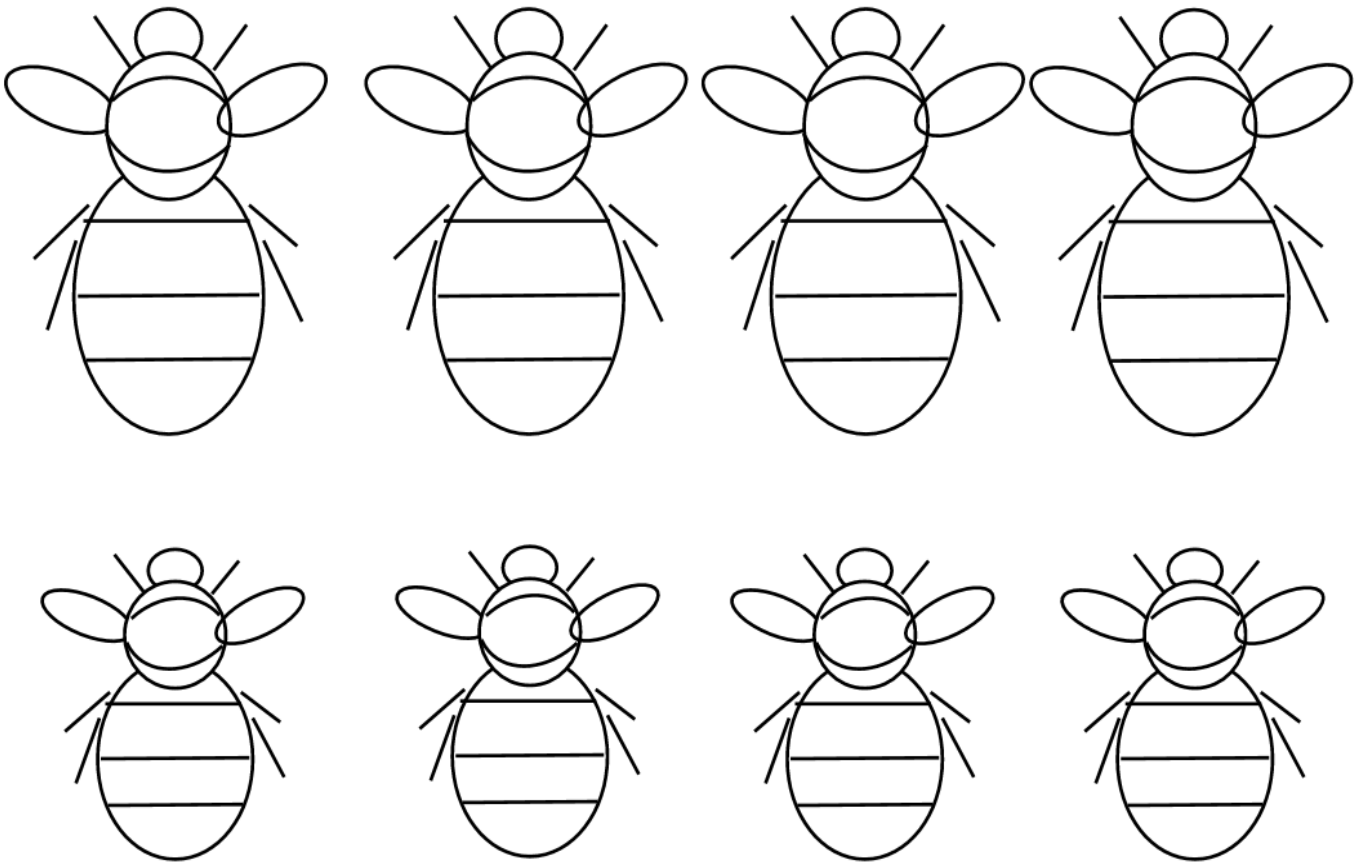

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Honey Bees

Honey bees are found on every continent on earth except Antarctica. Like all bees they have two sets of wings, two antenna, three segmented body parts and six legs.

Bumblebees and honeybees have quite different lifestyles. Although both species live in colonies, honeybee colonies can contain up to 50,000 individuals rather than the few dozen or hundred of bumblebees.

Honeybees make a lot more honey than bumblebees, they gather enough nectar and pollen in the summer to make honey which will last the hive all winter, this means they do not need to hibernate to survive.

A queen can live up to 7 years and lay 1500 eggs a day during that time. Workers live about 45 days and literally work themselves to death, males live a bit longer but will die as soon as they mate with a queen.

Only female honeybees sting, but the barbed tip to their stinger means they will die if they do – so they'd rather not!

Honeybees probably aren't native to the UK (there's some debate about this!) the honeybees flying around our local areas are really kind of livestock, almost every one you see will belong to someone! They don't do that well in the wild here and beekeepers import millions into the UK every year

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Solitary Bees

There are more than 250 species of bee in the UK and 90% are not social bees, they're solitary bees, so called because they live alone rather than in colonies like Bumblebees or Honey Bees.

Mining bees are a type of solitary bee which live in underground burrows – you can sometimes see their distinctive 'mini-molehills' in lawns or flower beds.

Mason bees use mud or other construction materials to build their nests in naturally occurring crevices. These are the bees which are most likely to nest in solitary bee homes that people often have in their gardens.

These species don't have worker bees, all the females are fertile and make their own nest. Often the nests are composed of compartments, each with a single egg within. The female excavates the cavity, lays an egg and leaves a small store of pollen and then caps the chamber off with clay or mud. She'll keep doing this until she fills the cavity, laying a male egg in the last compartment and then moving off to find a new nest. The males hatch first and wait for the females to appear, once they have mated the males will die and the females will begin the cycle anew.

Some species are very well adapted to the cold and even need freezing temperatures to complete their lifecycles. Their stingers tend to be small and un-barbed.

They are fantastic pollinators, it is estimated that one mason bee can be worth up to 150 honeybees in terms of the pollination they provide

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Make a Home for Solitary Bees

Bee houses are fun and easy to make. Your bee house will be ideal for solitary bees which do not live in hives but make their own individual nests for their larvae.

To make your bee house you will need: A container; Bamboo Canes; Sticks; String

Step 1: Make a container – you could use a wooden box without a lid, cut the top off a plastic bottle, or use an old plant pot!

Step 2: Cut the bamboo cane to the same length as the depth of your container. Using different widths of bamboo is ideal, as bees can then choose between the sizes. Alternatively, you can drill deep holes 2-10mm wide into blocks of wood that fit into your container. Make sure the holes are clean and splinter-free, as bees won't use untidy holes.

Step 3: Pack the bamboo or blocks of wood tightly into the container with the holes facing outward. Make sure the bamboo doesn't stick out of the container – the bees won't like it being wet! Fill any gaps with small sticks so the bamboo or wood doesn't fall out.

Step 4: Use the string to hang your container somewhere sunny – ideally facing south. You could also prop it up on a fence or attach it to a shed. Try to raise it at least a metre off the ground. You could angle the entrance downwards to make sure no rain gets in to the holes.
Now simply watch and wait!

Over winter you could carefully move your bee home somewhere sheltered but remember to move it back to the sun in Spring

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Make a Home for Bumblebees

Bumblebees like to live in colonies of a few dozen or hundred bees, all living and working together to make a home.

In Spring the Queen bumblebees emerge from hibernation and go looking for a place to build their colony – one of their favourite places to do so is a hole in the ground, sometimes they even take over the holes that mice build!

You can help them along by making a nest spot for them.

Use an old plant pot – terracotta ideally – with one hole in the bottom. If yours has more than one hole you could try plugging some of them.

Dig a small hole somewhere shady and undisturbed – under a tree or a bush would be ideal. You want the nest to be not too hot, and not too cold. Somewhere that gets sun half of the day would be good.

Place some dry grass or moss at the bottom of the hole and then place your plant pot upside down (with the wide end facing down) on top.

Bury your plant pot so that only the top half is sticking out of the ground – the bees will come and go from the hole in the top.

Now watch and wait. If you're very lucky a bumblebee family will soon be calling your plant pot home!

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Look Out For Bees

Bumblebees are some of our most colourful and charismatic insects. Watching them can be very rewarding, and monitoring their numbers is incredibly important. Bees are amongst the most important pollinators, without them we would be unable to grow many of our most valued food crops and our most loved flowers.

• A Bumblebee with a white tail	☐	1pt
• A Bumblebee with no stripes	☐	2pts
• A Bumblebee with a red tail	☐	5pts
• A Bumblebee gathering pollen	☐	1pts
• A Honey Bee gathering pollen	☐	2pts
• A Solitary Bee gathering pollen	☐	5pts
• A Mining Bee's 'Mini Molehill'	☐	10pts
• A Solitary Bee chewing wood to make a nest	☐	10pts
• A Bumblebee coming out of a hole	☐	10pts
• An insect which has disguised itself as a bee	☐	20pts
• A Bumblebee with full pollen baskets	☐	5pts
• A bee with its tongue sticking out	☐	10pts

Total _____

Award yourself an extra point for each multiple you get

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Links

Go further with your Wild Ways Well activity by trying these links once you come home

Cumbernauld Living Landscape

www.cumbernauldlivinglandscape.org.uk

Wild Ways Well

www.cumbernauldlivinglandscape.org.uk/project/wild-ways-well

Activities

www.cumbernauldlivinglandscape.org.uk/get-involved/activities/

Facebook

www.facebook.com/CumbernauldLivingLandscape

Twitter

https://twitter.com/wildcumbernauld

SamH

www.samh.org.uk

Bumblebee Conservation Trust
www.bumblebeeconservation.org

Bee Wasps and Ants Recording Society (BWARS)
www.bwars.com/home

How to identify Bees from BBC Discover Wildlife Magazine
www.discoverwildlife.com/how-to/identify-wildlife/how-to-identify-spring-bees