

BEE A HERO

with the
UNBEEELIEVABLES™



How can
we help our
UNBEEELIEVABLE
friends?



FUN FACTS AND GAMES INSIDE!

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WELCOME TO THE WORLD OF THE UNBEELEEVABLES!

The UNBEELEEVABLES may be small in size but these incredible insects have a big impact on the planet and everything that lives here, including us. Bees are brilliant at collecting nectar and pollen – which is the sweet treats produced by flowering plants. As the bees fly from flower to flower, they carry pollen grains with them, which helps to pollinate the plants and continue their life cycle. More than 2,000 types of food we eat rely on visits from bees and other insects. Bees have developed some super senses and amazing adaptations to help them gather nectar and pollen, and make honey to feed their nest mates – but they also face some big threats along the way.

Jersey In total, 149 species of native wild bees have been recorded in Jersey
11 bumblebees • 137 solitary bees • 1 honey bee

Guernsey In total 117 species of native wild bees have been recorded in Guernsey
11 bumblebees • 105 solitary bees • 1 honey bee

MEET THE UNBEELEEVABLES

QUEENYBEEZ



The founder of the hive and the most important honeybee around, wise **Queeny** will do anything to protect her brood.
Personality: Homebody

UnBEElievable power
 Laying eggs (this supermum produces around 2,000 of them every day) as well as raising a swarm

Queen honeybee

UnBEElievable power
 Amazing dance moves that show her fellow worker bees exactly where to find flowers

BEEBEEZ

Worker honeybee

The hardest-working honeybee of all, **Beebeez** visits around 2,000 flowers a day and can often be spotted carrying pollen baskets back to the hive.
Personality: Helpful



RUBEE



Red-tail bumblebee

UnBEElievable power
 Enough thrust in her wings to hover higher than the world's tallest mountain, Mount Everest! (But she prefers it less chilly)

High-flying bumblebee **Rubee** is in training for the Beelympics. When she wants to fly super high, she beats her wings extra-wide to power through the air.
Personality: Ambitious



SWARMZEE

Heartthrob of the hive **Swarmzee** thinks he's the bee's knees – but knows the honeybee workers will throw him out if he gets too lazy!
Personality: Cool



Male honeybee (drone)

UnBEElievable power
 Flaps his wings around 240 times a second to cool down the hive

BEEP

BeeP is a real livewire of a bumblebee who uses his super senses to locate nectar-rich flowers. He even has a small positive charge that helps pollen stick to him.
Personality: Positive

UnBEElievable power
 Electroreception – BeeP can sense the invisible electric charge in the air around flowers!



Garden bumblebee



BUMBULEEZ

This super-strong bee loves taking younger members of the bumblebee nest under her wing and passing on her stories and pollen-gathering tips.
Personality: Gentle

UnBEElievable power
 Heavy lifting – Bumbuleez can carry half her own body weight in pollen



Buff-tailed bumblebee



BUMBLEBEES AND SOLITARY BEES



The **UnBEElievables** may be a pretty amazing bunch - but the **solitary bees** and **bumblebees** living right under your nose are just as incredible!

UnBEElievable fact
As their names suggest solitary bees do not live in colonies. Each female makes her own nest but they can nest close together in large numbers.

SOLITARY BEES

- These bees are smaller than the more famous bumblebee.
- Solitary bees do not serve a queen bee or make honey.
- They are not aggressive or territorial.
- Solitary bees are the best pollinators of all our plants, flowers and trees.
- The bees make homes for their young in underground holes, tunnels and burrows, whether in soil, sand or clay.



BUMBLEBEES

- Plump, furry-looking bodies
- Build their nests in a variety of wild places including underground cavities, trees and clumps of grass
- Often live in small colonies of between 50 to 400 bees
- May store small amounts of nectar and pollen to feed their nestmates, but don't build honeycombs
- 250 different species worldwide



As we buzz about drinking nectar or collecting pollen, we transfer pollen grains from the **anthers** (pollen-producing parts) of flowers to the **stigma** (pollen-collecting part). This **pollinates** the plant and it goes on to produce seeds.

THE POWER OF POLLINATION



Each day, I visit **2,000 flowers** to collect the **nectar** (sugar water) or **pollen** they produce. I eat a little bit myself, and carry the rest home for other workers to turn into delicious honey or pollen bread for the whole hive.

Pollen is made up of tiny, often yellow, grains that get stuck to bees as they fly about



Nectar is a sweet, sugary liquid that many plants produce to attract pollinators such as bees



FOOD AND POLLINATION



Many **delicious foods** would not grow without bees or other insects around to pollinate their plants! Here are just a few of them...



Carrots



Tomatoes



Onions



Apples



Pears



Plums

OUR SUPERMARKETS WOULD LOOK VERY DIFFERENT IF BEES WERE TO DISAPPEAR



SUPERMARKET TODAY



SUPERMARKET WITHOUT BEES

BEES AT RISK



There are less of us bees than there used to be! In fact, one in 10 wild bees in Europe are at risk of disappearing for good. Here are some of the threats we face.

New houses and roads create barriers between green spaces, which means many bees have longer journeys to reach food.

The growth of human towns and cities means there's less space than ever for bees to nest and feed in peace.

Bees love wildflower meadows, grasslands and hedgerows - but modern farms don't always include these bee-friendly features.

As well as facing lots of big threats in the wild, bees also have to contend with everyday trouble like the wasp! Pesky wasps and hornets are known to attack bees and hives.

Chemicals that people use on the land, such as pesticides and weedkillers, can be harmful to bees and the plants they visit.

Climate change might affect when and where flowering plants bloom, meaning that some bees could be left with nothing to eat.

Want to help us bees? There are plenty of things you can do to make the world a more bee-friendly place! In the following pages, the UnBEElievables will show you how...



HOW TO HELP BEES



Planting bee-friendly flowers in your garden or windowbox will provide a food source for insects throughout the year.



Leaving a wild corner in your garden or an untrimmed patch of lawn creates space for flowering weeds to grow and ground-nesting bees to live.

BEElieve it or not! Blue, purple and yellow flowers are particularly popular with bees, but they don't notice red flowers so much



Planting trees, creating nature reserves and supporting local parks will help countless species, including bees. Why not ask your school if they can help?

Did you know not all bees live in big social nests such as honeybee hives. Many bees lead more solitary lives, and nest on their own. **BEElieve** it or not! More than half of the world's bees are solitary bees - species where every female builds her own nest. You can help by providing a safe place for the solitary bees to nest.

BUILD YOUR OWN BEE HOTEL AND WATERING HOLE



If you have some outdoor space with plenty of flowers nearby, and would like to create your very own **bee hotel** to shelter solitary bees, here's how!

MAKE A BEE HOTEL



1

1. It's easy to make a simple bee hotel out of everyday rubbish! You will need: an empty plastic drinks bottle, some leftover brown paper or card, and strong twine - plus scissors, sticky tape, and a pencil to help you assemble everything.



2

2. Rinse out an empty drinks bottle and leave it to dry. Remove the label and carefully cut off the drinking end at an angle, as shown above, so that you create a porch to protect your bee hotel. Get a grown-up to help you with this.

TIP Instead of paper tubes to make your bee tunnels, you could also use paper drinking straws!



3

3. Next, make some tunnels for solitary bees to nest in! Take some brown paper or card, and carefully roll it up around a pencil. Secure the rolled-up paper with sticky tape and slide out the pencil, so you're left with a hollow tube. Fold over one end of the tube and tape it closed. Your tubes should be at least 2cm shorter than your plastic bottle, for shelter.



4

4. Fill your bottle with the hollow tubes (with the open end facing out) until they're packed tight. Then if you attach the bottle to something stable in a sunny, sheltered spot in the garden.

TIP Hang up your bee hotel in spring, when many solitary bees are looking for nesting sites

MAKE A WATERING HOLE



A watering hole would be a great help in the hot summer!

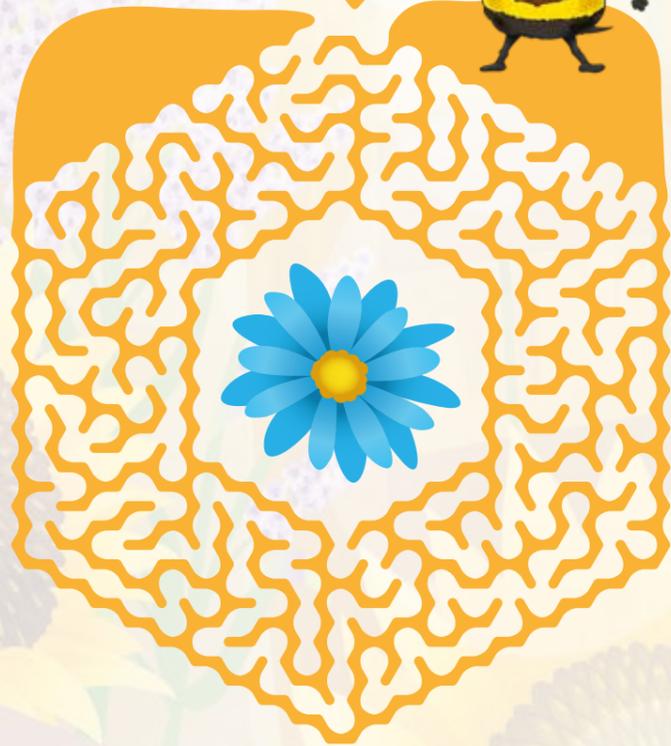
Fill a shallow bowl with some loose stones. Add water to the bowl, making sure the tops of the stones are above the water surface, so there's a dry place for the bees to land. Place the bowl close to your most bee-friendly flowers.



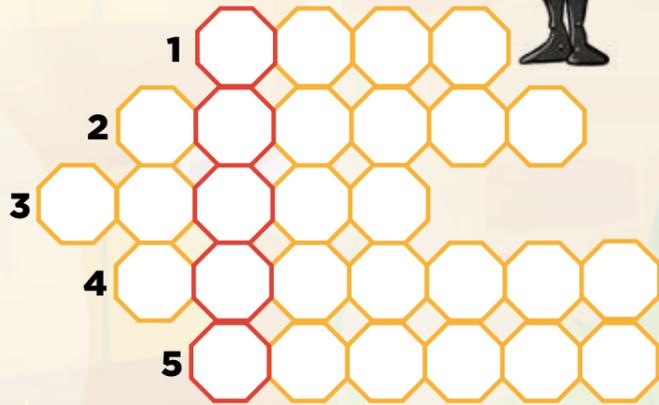
Hey there, bee friends! Can you fill in the missing word in each row, using the clues below, to reveal the name of a much-loved bee product in the shaded column?



FIND THE FLOWER!



BUZZ WORDS



1. The name of a home for honeybees.
2. This yellow, powdery substance is produced by plants and collected by worker bees.
3. Bees can flap these up to 230 times a second.
4. The six-sided shape of honeycomb cells.
5. _____ Jacket is a type of wasp that is known to attack bees and hives.

WAGGLE YOUR WAY



Can you show me the right route to reach the flower?



ANSWERS
(turn the page upside down to read them)

WAGGLE YOUR WAY E
BUZZ WORDS 1) Hive 2) Pollen 3) Wings 4) Hexagon 5) Yellow

