



Teacher Notes: UnBEElievables PowerPoint Presentation with The Channel Islands Co-operative Society

Firstly, we would like to take this opportunity to say thank you for downloading the UnBEElievables PowerPoint Presentation which accompanies our UnBEElievables campaign.

Although a fun campaign, we believe the UnBEElievables campaign contains within it an important conservational message about the vulnerability of our bee population. We hope that the UnBEElievables will help get your students talking and engaging about bees, pollinators, and our local environment.

This document is to provide an overview of the PowerPoint presentation which is available to download from our website: <u>www.channelislands.coop/unbeelievables/bee-a-hero</u>.

Please note: The PowerPoint presentation is intended for guidance purposes only. It is created with the aim of being used as classroom aid or as ideas for activities which can help to engage your students with the topic of pollinators and the environment. Please do feel free to use this as supplementary materials in addition to your own lesson plans and curriculum.

- Overview of slides

o Opening slide

- Slide 2 This is an opportunity to ask what your group/class already understand about bees and the importance to our ecosystem and environment.
 Using the children's ideas, create a mind map showing their starting knowledge of bees. It could include:
 - What do bees look like?
 - How many different types of bee are there?
 - Why do we need bees?
 - What would happen if there weren't any bees?

Encourage your group/class to contribute any ideas. It might even include 'bee expressions' they know, e.g. 'It's the bees' knees', 'None of your beeswax'

- Slide 3 Provides a simplistic overview of the anatomy of a bee. This is to provide a basis for understanding later in the presentation how they have evolved to best do their role as pollinators.
- Slides 4 & 5 Introduce the UnBEElievables and their 'powers' which are traits inspired by various of species of bee.
- Slides 6– Connecting the 'powers' of the UnBEElievables to the characteristics of actual bees.





- Slide 7 Varieties of bees in particular, solitary, bumble and honeybees.
- Slide 8 13 Facts about bees.
- Slide 14 A short video explaining the form of communication by bees, the 'waggle dance'.
- Slide 15 A fun exercise designed to get your class/group thinking about the importance of communication. It allows bees to signal for potential food source or danger.

Exercise: Get class into small groups.

- Let them choose a message (or allocate each group a message) they want to share (e.g., new nest location, flower patch location etc)

- Allow them time to figure out how to perform the message without making a sound.
- Go around each group and see if class can guess the message.
- Slide 16 Introduction into how important bees and pollination are for the many food and general items we enjoy on our planet.
 Before showing slide 17, ask the class which fruits and vegetables they think are pollinated by bees.
- Slide 17 One out of every three things we eat needs a bee to pollinate a plant, even meat, since farm animals eat plants too.
- Slide 18 Introducing the importance of pollination.
 Another exercise to do with your class/group to understand how pollinations works and how bees play a vital role.

Exercise: In this activity the class will be acting as "pollen-eaters", searching for food (nectar and pollen) and consequently carrying pollen to the other plants of the same crop, causing fruit and seeds to grow.

You will need:

-Small post-it notes or pieces of paper in 2 different colours (about 20 of each colour for pollen)

- -40 small bits of paper with word 'nectar' written on side
- -20 beads (or small pieces of paper with word 'seed')
- -Drawing or picture of an apple
- -Drawing or picture of blueberries
- -Drawing or picture of an orange
- -Drawing or picture of cherries

Instructions:

- Divide the class into four groups.





- Choose four students to represent the plants in the corners of the room. -Each group needs one drawing/picture of food, 10 post-it notes of one colour (e.g., green post- for apple, pink for cherries and so forth), 10 nectar notes and 10 beads or seed notes.

Each group will take the role of a bee colony. Their mission is to gather nectar from each of the plants and bring it back to the colony. As they collect nectar they inadvertently collect and carry the sticky pollen. The coloured sticky notes represent the pollen.
At each crop, the 'bees' are to take one nectar note from the 'plant' in exchange for the 'plant' sticking one pollen note to the 'bee'.

As they move around the room, the 'bees' can transfer that sticky note to the next 'plant' which receives it. Each plant must receive the same colour sticky note in order to make a seed. If the bees reach a different plant, they can collect the pollen from that one and then move on.

Students as 'bees' circulate the room and pollinate as many of the different plants as they can by sticking the coloured post-it notes to the students representing plants, collecting, and holding onto nectar as they go until a seed has grown at each plant.

Once a plant has ten pieces of pollen around it, a new seed can grow. This can be represented by beads. The teacher can distribute a bead to the 'plant' once it has ten pieces of pollen on it.

- Slide 19 Cements the ideas about pollination as explored on slides 17 and 18. Many delicious foods would not grow without bees or other insects around to pollinate their plants.
- Slide 20 We now investigate the decline in bee population, why we should be concerned about numbers of bees decreasing and what is causing it.

Start this section by again inviting ideas from your class/group about what they think might be the biggest dangers and threats to bees? You may wish to write these on a whiteboard or mind map the responses.

- Slide 21 Looks at risks to the bee population. How many did your class/group highlight correctly? Are there any examples shown that they did not expect or understand?
- Slide 22 Explores the consequences of a world without bees. Feel free to discuss and add further ideas to this list as generated from your class/group.
- Slide 23 Exercise: Open the question out to the class/group: what ways could we counter the risks shown in the last slide? What can we do to encourage more bees?





- Slide 24 Following on from the last slide, slide 24 looks at activities that could help support bees in our local environment. Are there any activities or projects which your school or group do to help bees?
- Slide 25 How about making a bee hotel together? You may wish to reinforce the importance of a bee hotel, not for bumble or honeybees, but for solitary bees. They too need somewhere to nest and raise young and help the survival of bees and pollinators.
- Slide 26 A summary of the learnings from this PowerPoint. You may want to expand these points by adding suggestions from your class/group on what they will take away from this discussion.

We hope that you will share the activities and learnings that take place in your group or classroom with the UnBEElievables by tagging us on social media (Facebook: @cicoop Twitter: @ci_coop Instagram: @cicoop) to help encourage other schools and groups to discuss the topic of bees and nature.

We would love to see your homemade bee hotels, pollinator patches and science and nature projects about bees thanks to the UnBEElievables.

Thank you once again for supporting our UnBEElievables campaign and in helping us educate young islanders about our brilliant bees. If you should wish to share any comments or feedback on this campaign, please feel free to do so at <u>customer.relations@channelislands.coop</u>.