



the **B I G** **B U Z Z** Festival

EDUCATIONAL PROJECT BIG BUZZ

*Mā te whakaaro nui e hanga te whare; mā te mātauranga e whakaū
Big ideas create the house; knowledge maintains it*



*“Korero noaiho, ka wareware whakaatu mai ka maumahara mahi ngatahi ka marema”
Tell me and I'll forget, show me and I may remember, involve me and I'll understand.*



Introduction

Our vision is for young people to develop in their school years, knowledge to secure a sustainable environmental future for Aotearoa and competencies that will enable them to be actively connected to the living world. Our hope is to create a pollinator community where children can be purposefully engaged. Children who participate and contribute to community projects gain a sense of belonging and inclusion and more importantly become competent thinkers and problem solvers who seek, use and create knowledge.

The following project takes into account The Living World Strand of the New Zealand Curriculum which aims to link how living things interact with each other and the environment. Students will develop an understanding of the importance of pollinators and the impact of humans on all forms of life. As a result, they will be able to make more informed decisions about significant environmental issues, including the sustainability of New Zealand's unique fauna, flora and distinctive ecosystems. Years 2020/21 2021/22 2022/23 data collection from schools involved will focus on Honey Bees - Bumble Bees - Native Bees - Butterflies - Wasps.

The project will involve generating and testing ideas, gathering evidence, making observations, carrying out investigations, communicating, debating and systematic collection of data. The project is to be undertaken by all schools involved and then presented at the Big Buzz Festival. Data collected will assist in increasing awareness of the effects of climate change and agricultural practices on the health of bee populations; as set out in the core purposes of the NZ Honey and Bee Festival Trust Deed (see below)



Schools Involved in educational Project Big Buzz

Ahuroa Primary School
 Wainui Primary School
 Matakana Primary
 Leigh Primary School
 Pakiri Primary School

Michelle Nell
 Gillian Bray
 Darrel Goosen
 Kerrin Jamieson
 Kelly Norton

Mahurangi College

to be confirmed

Project

- Source and build a Pollinator Observation - Living Classroom and sow with bee friendly flowers/plants/vegetables/herbs. (Flowers / Veggies Provided)
- Visit intended site prior to planting - Complete pollinator observation requirements /data methods on site.
- Track number of pollinators over a 12 month period - i.e. count of bees/wasps/butterflies/bumblebees for a 20 minute time slot on a specific day each week. Track separately bees & wasps & butterflies.
- Connect to * Native Bees - For the Love of Beesⁱ
- Connect to * Monarch Butterfliesⁱⁱ
- Take part in wasp identification lessons (provided by Beetopia NZ LTD) schools to create wasp identification charts.
- Plant trees - connect to * Trees for Beesⁱⁱⁱ, * Trees for Survival^{iv}
- Monitor bee/pollinator numbers on a quarterly basis.
- Repeat observations in Year 1, 2 and 3.

Time Commitment

Initial Set up	Follow Up	Additional
1 x 1hr session to verify site and complete pollinator observation requirements	1 x 1hr session once per term	<ul style="list-style-type: none"> - Hands on sessions available on request @ Beetopia NZ Ltd - One beehive per school donated by Beetopia NZ (school to request) - Beehive set up and training available on request (incurs minimum training costs) - Site specific/hive specific training (may incur some costs due to equipment needs)
3 x 1hr sessions – in class on the importance of pollinators and wasp identification		Joining a local Beekeepers Club highly recommended – small cost involved

Warkworth Beekeepers Society

<https://www.facebook.com/wwBeekeepers/>
wwbeekeepersoc@gmail.com
021 02649674

Rodney Beekeepers Club

<https://rodneybeekeepersclub.co.nz/>
beeks@email.com
027 4726021

Beetopia NZ LTD

157 Omaha Flats Road
Matakana
(Beekeeping Supplies - Education - Training Apiary - Hands-on-learning - NZ Honey Tasting Shed - Bees)
www.nzhoneytasting.co.nz
btopianz@gmail.com



Ideas

Ideas to broaden PROJECT BIG BUZZ - create interest in pollinators

- ✓ **What are pollinators in NZ ?**
- ✓ **How does pollination work for each native species of pollinators?**
- ✓ **How many species of native bees are there in NZ?**
- ✓ **How many introduced species of bees are there in NZ?**
- ✓ **Which fruit/vegetables need bees for pollination?**
- ✓ **Which fruit/vegetables do not need bees for pollination?**
- ✓ **Is it true that every 2 mouthfuls of food we eat is thanks to bees?**
- ✓ **Would native NZ plants/trees/flowers disappear without pollinators?**
- ✓ **What do pollinators do/need/get from and for the environment?**
- ✓ **What is a healthy ecosystem for pollinators ?**
- ✓ **What role does agriculture play in decreasing/weakening pollinator species?**
- ✓ **How can agriculture improve native pollinator health?**
- ✓ **Are neonicotinoids a threat to pollinators?**
- ✓ **Which agricultural practises are a threat to pollinators?**
- ✓ **Are all wasps a threat to NZ pollinators ?**
- ✓ **How can we survive without pollinators ?**
- ✓ **How many types of native honey varietals are there in NZ ?**
- ✓ **Is honey good for you ?**

Activities

Extra activities to be included in the PROJECT BIG BUZZ

September Bee Awareness Month	During School Term	At the Festival
Everyone wears yellow and black/ or a bee themed bonnet/outfit for one day (Photos taken at School and used at Festival and on Festival website)	All children create cardboard hexagons with pollinators facts written on front & back – hexagons to form an installation at the Festival – hexagon template to be supplied	Each school creates a large sustainable installation/art form to be displayed at the Big Buzz Festival (toilet rolls/cardboard/paper)
Drone aerial shot of all children with their hexagons to be organised on each schools' sport field during the month of September	Students, teachers, parents caregivers from each school to contact beekeeper or a beekeeping family from within the community and request a donation of 30gr of honey (jars provided)	Create a World Record of the most pots of honey from throughout New Zealand on display at the Festival
Children make cardboard butterflies/bees/flowers to adorn September month		

Competitions with prizes for schools and children

- **Best practices for promoting a healthy environment for pollinators**
- **Best drawn native bee/native pollinator colouring competition**
- **Best short bee song/animation/rhyme**
- **Best Bee Motto - Advice To a bee**
- **Best Bee Hive Decoration (Each school will receive a beehive to paint/decorate)**
- **Best short poem to honour a bee / honour pollinators**
- **Best Baking with honey competition (Cakes - cookies - Jams - Marmalades)**
- **Best pollinator/bug hotel**
- **Best advice for politicians regarding climate change**
- **Best practise for New Zealanders regarding climate change**





NZ HONEY & BEE FESTIVAL TRUST PURPOSES & VISION

The vision of the Big Buzz Trust is to:

- *provide educational opportunities in relation to apiculture, bee products and conservation of sensitive natural, social and cultural environments;*
- *promote research and scientific work that supports sustainable apiculture in New Zealand.*

The Trust is established to advance education and conservation by:

- *organising and running a festival focused on bees and bee products with the objectives of:*
 - (i) advancing the public's understanding of the importance of bees to a healthy eco-system;*
 - (ii) increasing awareness of the effects of climate change and agricultural practices on the health of bee populations;*
 - (iii) educating the public on the benefits of honey and bee products to health and well-being;*
 - (iv) connecting local and regional bee enthusiasts, conservationists, environmentalists, ecologists, health practitioners, sustainable gardeners and plant specialists and all environmentally conscious members of the public to foster collaboration to support and promote practices that support healthy bee populations;*
- *promoting research and scientific work in connection with apiculture, environmental issues impacting bee populations and bee products and all matters concerned with or relating thereto.*

ⁱ For the Love of Bees creates tools for communities to use which teach the inextricable link between pollinator health and soil health. There are plenty of free educational resources to enable communities to turn their spaces into Biological Pollinator Sanctuaries - which support all life.

<https://www.fortheloveofbees.co.nz/native-bees>

ⁱⁱ Monarch Butterflies NZ Trust provides a wealth of resources regarding NZ butterflies with educational resources to understand how caterpillars feed only on specific types of host plants, so female adult butterflies deposit their eggs only on those plants their offspring will eat. By including host plants in your garden, you could witness the entire life cycle of the butterfly. Host plants for Monarchs are Asclepias species and Gomphocarpus species. Hosts for Coppers and Boulders are Muehlenbeckia, while both Admirals need stinging nettle.

<https://www.monarch.org.nz/>

<https://www.sciencelearn.org.nz/resources/2820-look-out-for-monarchs>

ⁱⁱⁱ Trees for Bees provides excellent resources and planting guides for pollinators and includes a definitive list of plants that are important to bees. There are also regional guides on trees to plant

that will provide pollen and nectar plus Bee Plant Flowering Times in New Zealand . The One Billion Trees project outlines the funding available for planting trees through the Forestry NZ programme to help increase New Zealand's number of trees to one billion over the next decade

<https://www.treesforbees.co.nz/>

^{iv} Trees for Survival is an environmental education programme which involves young people growing and planting native trees to restore natural habitats by helping landowners revegetate erosion prone land, improve stream flow and water quality and increase biodiversity. The Trees for Survival programme creates community partnerships by engaging schools, their community, local businesses and Councils all working together to restore our natural heritage.

<https://www.tfsnz.org.nz/>

<https://www.tfsnz.org.nz/the-team/>

