



# ALBANY JUNIOR HIGH

Opened in 2005, Albany Junior High School on Auckland's North Shore was the first purpose-built junior high in NZ. The school caters for years 7-10, with over a thousand students.



This year Albany Junior High School started a new class for Year 10 Environmental Science. Their teacher Mr Coleman found information on the monarch butterfly tagging project and decided that this would be an amazing project for the class to be a part of.

"We started by learning all about the life cycle and stages of the monarch butterfly. We learnt lots of incredible facts like how the monarch caterpillar will eat almost 3000 times its own birth weight and how the monarch butterfly has six legs but the first two are so small that they are hard to see.

"We also wanted to be able to rear our own butterflies to get hands on experience of the life cycle of this special creature. So many of us had seen monarchs around the school but didn't know much about them. Every period we would count the number of eggs, measure the length of the caterpillars and record the height of the plant. This proved to be difficult once the caterpillars started moving

and there was much debate over which caterpillar was from which plant. In the end, we managed to rear 14 butterflies using monarch butterfly tents to protect the caterpillars: we moved many of the caterpillars inside also once they got bigger."

The first chrysalis formed on the ceiling of Mr Coleman's classroom, directly above his desk. There was a one week period where every morning there was a new butterfly in the classroom. One of Mr Coleman's Year 10 classes was very lucky to see the amazing change as the caterpillar dropped its skin and turned into a bright green chrysalis.

A Year 7 class had the opportunity to see the first chrysalis above Mr Coleman's desk eclose and the butterfly appear with its crumpled wings. They were amazed how the butterfly was able to fit into a chrysalis that seems so small. Naturally they were inquisitive and had lots and lots of questions about monarch butterflies and caterpillars. Ms Southon, their teacher, asked if they would like

to learn more about the butterflies. The Year 10 Environmental Science class decided to plan a lesson to teach them all they had been learning in class about the monarch species.

The Year 7 class wrote a list of questions they had about the butterflies and Mr Coleman's class went ahead to answer all their questions. We spent a lesson outside in beautiful sunny weather where a pair of Year 10 students taught a small group of Year 7 students using large whiteboards and model butterflies, the knowledge of the life cycle, male and female butterfly identification and how to tag. The students first got to practise using the paper butterflies and then spent half a period catching butterflies and letting some of the keen students tag them. The Year 7 students really enjoyed the experience and are eager to do tagging next season as a class.

"A great learning opportunity for all!"

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# MAKAURI SCHOOL ROOM 3



Children at Makauri School Room 3 love their butterfly garden. Nanaka Yamada (below), a year 4 ESOL student, has been involved in the monarch butterfly project for her second year and is very passionate about the butterflies.

**M**akauri School is situated on the outskirts of Gisborne, 10 minutes from the city centre. It began as a single classroom in 1886 and is one of the oldest schools in the region. The school has 170 students in eight classrooms and enjoys the best of being a rural school close to town and the facilities Gisborne has to offer.

Let Karen Peake, teacher in Room 3, tell their butterfly story:

In 2017 Room 3 children at the school inherited a small garden outside their classroom. There was much excitement about what we were going to do with our new acquisition. We decided to have a vote as to what we would plant. The option to fill it with swan plants for monarch butterflies won by a landslide.

We bought six swan plants, and grew 30 of our own from seeds. We kept ten, and the children took the rest home to plant in their own gardens.

We soon observed the absence of butterflies, and thought that perhaps our garden was not enticing enough for our elusive friends. Consequently, we planted different flowers: cosmos, lavender, and other flowering and winter flowering herbs alongside the swan plants. This proved effective, and over the next few months, we noticed that in addition to attracting more butterflies, we also had more bees.

There were celebrations when the first egg appeared on one of the plants. To our delight, we soon noticed several eggs. The children would inspect the plants closely, monitor the number of eggs and take note of when they were laid. The first one to hatch only took a few days and then ten others hatched over the next week. We watched them closely and were astounded at the rate they grew.

Then disaster hit and all of our caterpillars disappeared overnight. The children were devastated; we had no idea what had happened to them.

Patience, we waited and watched for

more eggs to hatch. Eventually they did, and we kept a protective watch over them.

Then it happened again—all of the larger caterpillars just disappeared.

After a lot of research, we decided that wasps must be the culprits. Sure enough, one day during the lunch hour, a group of vigilant watchers witnessed an attack. We could not do anything; the poor caterpillar had no defence. It was as though the wasp sucked the life right out of it.

From that point we kept a vigil, guarding our caterpillars from destruction. We killed any wasp that we found. We tried to make our own wasp traps, trying out different types of bait. Nothing seemed to work. Even the wasp traps we had purchased were not particularly useful.

We started to bring the caterpillars inside onto potted swan plants to let them reach maturity within our classroom. This worked well—not only were we able to see the magical act of metamorphosis, but they were safe.

We managed to save several caterpillars and watch them emerge as butterflies. The children were ecstatic; many had not witnessed this remarkable transformation before.

Butterflies that we bred in captivity were tagged, which was another exciting part of our journey. However, it was soon evident that we needed to do something a little more sustainable, because during the weekends we were not always there to tag and release the butterflies.

We decided to erect a new fenced garden area. More swan plants were purchased and covered with shade cloth so that the wasps were not able to enter. Instead of bringing the caterpillars inside, they were able to live outside safely.



We kept our original garden so that new monarchs could still lay their eggs there. This new system appears to be working well, apart from the occasional aphid infestation.

Room 3 children have now managed to tag in excess of 25 butterflies and we are so passionate about this project and our involvement with it. We have gained so much from this experience—not only have we learnt about monarchs, we now know so much more about ladybugs, aphids, wasps, ants, and bees. We have also incorporated a worm farm so that we can feed our plants and keep them healthy.

The excitement that this process has brought to the classroom has been overwhelming, and was so easy to achieve.