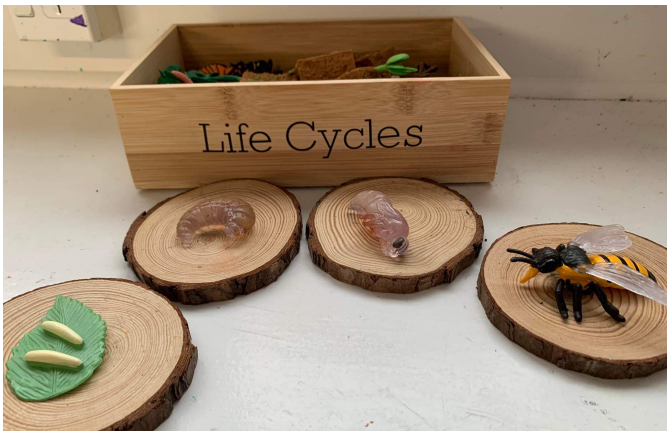
CREATING A SCIENCE SPACE IN THE CLASSROOM

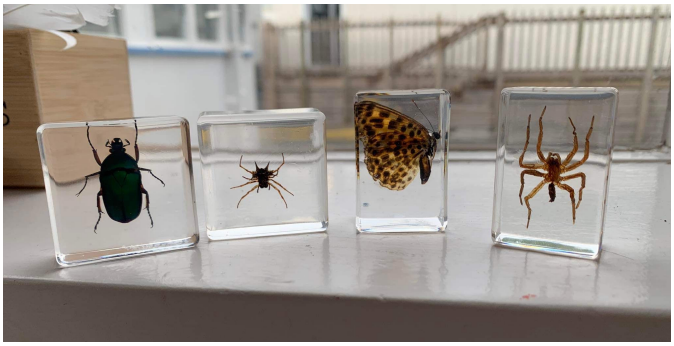
Photo from Rosie Bohling from Marlborough Primary School

The awesome thing about science is that students are innately curious about the world around them and how things work. A science space might be something you think of in ECE, but it is an opportunity to give students hands-on experiences, engage learners and extend learning. Creating a science space in the classroom is a way to give Science presence in a busy curriculum with so many pressures on teaching time. ***NZASE science communicator Heather Goodey*** *talks with teachers from Y1-6 who have incorporated science spaces in their classroom. They share their goals, approach and advice for educators interested in how they might include science spaces in their teaching programmes.*

Science spaces can be used as a provocation, a way to spark student interest and curiosity. They can be set up on tables, shelves, removable trays, trolleys or even windowsills. Try to create the space with thought how students will use the space, label items, provide containers and boxes for tidying up. To ensure the learning intentions are supported by the science space, incorporate vocabulary cards, visual aids, posters, images, and books. Create a culture of respecting the items and space for exploration. Consider how the science space might contribute to the science capabilities.

Inquiry topic - the living world





Insects in resin, Marlborough primary school | Courtesy: Rosie Bohling

Rosie Bohling from Marlborough primary school Auckland has been trialling science spaces with her year 5-6 class as part of a school-wide focus to promote student-driven learning. She notes that with the recent extra emphasis on reading, writing and math she was excited for the class to have the opportunity to "sink their teeth" into science. She has set up a space in the classroom to support the terms inquiry topic the living world. Students have free access to the space, and she often observes the students exploring the items before school.

Currently there are resin-encased insects, fossils, a microscope and slide set, magnifying glasses, relevant books, X-rays of animals, life cycle toys. Not

everything needs to cost money they also have leaves and seeds, seedlings, dead insects, and feathers. "One of the teachers brought in dead bees and honeycomb, so once the class had explored these as a lesson, I left them on the table for further exploration." Rosie has been slowly adding and changing the items as she finds new things. Although her students enjoying re-exploring items, they are always excited by new items.

For Rosie and her class, the science space has been a success. In Rosies opinion, this has provided her city students the best learning experiences, they can touch, experience, and explore the items for themselves which has then translated into high student engagement. “The best learning encourages action’” she says, “one student went home and built an impressive bug hotel.”

Rosies advice is that she will use this again when the right inquiry topic comes around but if she had a younger year group, she would have something set up all the time.

Play-based science space

Hands on exploration at Addington Te Kura Taumatua | Courtesy: Sharon Rodgers

Sharon Rodgers at Addington Te Kura Taumatua in Christchurch has a year 1-2 class. She incorporated a science space into her classroom as part of a play-based curriculum for term one but kept it because the students enjoyed it so much. She refreshes the items or theme around three times in the term and it is available to students to interact with during play-based learning times.

The science space is a mixture of ‘bit and pieces’ kaiako have added and the school’s science kits. Delicate items are kept in sealed see-through containers and large fossils are only out under supervision for safety reasons.

Sharon’s advice to other kaiako is to “just get stuck in.” It is a fantastic way to cultivate curiosity, broaden students’ perspective on nature and engage students in play based and sensory learning, as well as an opportunity for language development. She is looking forward to getting a microscope to add to the selection in the future.

Other ways to use Science Spaces

Science spaces are not just about the living world. They can easily be used for all the science strands. For example, in the Physical world they could explore magnetism, light or sound. In the material world properties of materials like mass, volume, and density as well as changes of state. Planet earth and beyond could include rocks, the rock cycle, and fossils. A range of resources and ideas can be found on the New Zealand Primary Science educators’ website and shared resource folder.

A provocation could be a starting point to entice reluctant readers to engage in further exploration especially for the older year groups. Team up the science space with an article from the connected series and school journals.

NZASE would like to acknowledge all the Kaiako that contributed their ideas and experience towards this article. Nga mihi nui.

Science concept	Journal	Title	Links
Magnets	Junior Journal 61 Level 2, 2020	Magnets	Link here
Sound	Connected 2016 Level 4 – Getting the Message	Can you hear that?	Link here
Sound	Connected 2018 Level 3 - Cracking the Code	South pacific beats	Link here
Material world	School Journal Level 2 November 2019	Our blue planet	Link here