

Enviroschools  
Sustainable  
Communities  
through

# Kai



Empowering young people  
and local communities through  
the context of kai/food

A celebration and sharing of the collaborative learning, experiences and actions undertaken by young people and their local communities in Waikato and Auckland Enviroschools.



*Haumietiketike – uncultivated food  
e.g. fern root and shoots*



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# Contents

He mihi	4
The purpose and context of Enviroschools Sustainable Communities through Kai	6
The concepts of Sustainable Communities through Kai	8
A collaborative regional approach	10
Sustainable Communities through Kai - Benefits and considerations	11
Sustainable Communities through Kai - Enquiry questions	12
Resources and programmes that support Sustainable Communities through Kai	14
Building and maintaining the Sustainable Communities through Kai process	16
Enablers for schools/ centres	20
Sowing the seeds: What did different Enviroschools do to get started?	23
Top tips and ideas for teachers at each phase of the Action Learning Cycle	24
Actions undertaken by different schools and centres involved in Sustainable Communities through Kai	26
Key outcomes and reflections from Enviroschools on their explorations of Sustainable Communities through Kai	28
Case studies	33
Beachlands School	34
Grey Lynn Kindergarten	40
Hukanui School	44
Tauwhare School	50
Rhode Street School	54
Paeroa Central School	56



## He mihi

Mauriora ki te rangi  
Mauriora ki te papa  
Mauriora ki nga kaiora  
Mauriora ki te tangata.



We are pleased to share with you the Sustainable Communities through Kai project, piloted in Waikato and Auckland regions through the Enviroschools programme, supported by Toimata Foundation (formerly The Enviroschools Foundation).

The Sustainable Communities through Kai project was made possible by the generous support of the Tindall Foundation. Over a four-year period, their support has enabled in-depth work in Enviroschools to explore questions about what it takes to build sustainable communities.

The Sustainable Communities through Kai project started out as a trial of the regional cluster approach in the Waikato region, overseen by an external coordinator. Early support in scoping this project came from WWF. In 2014 the Auckland region was the first to take on the learning from the trial phase and implement the project independently. So far in total 22 schools and 15 facilitators, involving approximately 4,500 students and 140 teachers have explored some aspect of Sustainable Communities through Kai.

We mihi to Faye Wilson-Hill for her insightful leadership, dedication, and enthusiasm for this project. We are also deeply appreciative for the work and energy of the Waikato Enviroschools team – in particular Robyn Irving, the Waikato Enviroschools that participated in the 2012-13 trial, and the Auckland team and their Enviroschools who built on the ideas and learning. We acknowledge the enthusiasm of the teachers who participated and the Enviroschools communities they worked alongside.



*Rhode Street School students in Waikato working in their hydroponic unit.*



We also mihi to the tamariki, students and whānau involved. It is the collective wisdom and energy of all these people, and the different groups they connected with, that we share and celebrate in this resource.

**Waikato Regional Team** – Andrea Soanes, Robyn Irving, Becca Dove, Paul Murray, Adrienne Grant

#### **Waikato Enviroschools**

- Goodwood School – Marsha Copping
- Hamilton East School– Anna Gerritsen, Hine Blair
- Hillcrest Normal School– Gail Blackwell, Dawn Morgan
- Hukanui Primary School – Michelle White
- Maeroa Intermediate School – Trish Scoble
- Ngutunui School – Michelle Thurlow
- Paeroa Central School – Janet Jones, Karen Short, Tanya Simpson
- Rhode Street School– Shane Ngatai, Erika Keyser, Alastair Kerr
- Tauwhare School – Linda Cook
- Whitiora School – Rachel Corban
- Woodstock School – Kym Lenihan, Nicola Hooper, Lisa Rapana



**Auckland Regional Team** – Sandy Bell-Jameson, Nicky Elmore, Finn Mackesy, Katie Higgins, Cate Jessep, Bridget Glasgow, Beryl Oppert, Morag Vasilaki, Haley Lowe, Sarah Sheeran, Richard Carter

#### **Auckland Enviroschools**

- Blockhouse Bay Intermediate School – Colin Andrews, Tonya Wyatt, Donna Lougher
- Royal Road School – Wayne Leighton, Bronwyn Reid, Rebekah Phillips, Kandice Andrietz
- Bayswater School – Lindsay Child, Dianne Cluett, Noula Couldry
- St Dominic’s Catholic College – Elizabeth Jones, Marie Cheeseman
- Henderson Valley School – Trudy Calder, Maree Stavart, Annabelle McCusker, Chelsea Wills
- Windy Ridge School – Brenda MacPherson, Inge Millard, Melody Harris
- Manurewa Intermediate School – Iain Taylor, Tom Peyton, Rhonda Walker
- Beachlands School – Brian Gower, Laureen McLeod, Kathleen Cullen, Barb Dinnison
- Elm Park School – Trish Plowright, Monica Meikle, Mehernaz Darukhanawalla, Catherine Holdom, Karen Allen
- Mauku School – Angela Smith, Kylie Laxton-Blinkhorn
- Buckland’s Beach Primary School – Dorothy Bodley, Kerri Riach
- Grey Lynn Kindergarten – Shelley Jolly, Elaine Smith

Tēnā rawa atu koutou. Thank you for the many gifts you have given to the programme, bringing to life the key purposes of the project.

Many people contributed to the on-going development and deepening of the project, their experience is brought together in this celebration booklet, which:

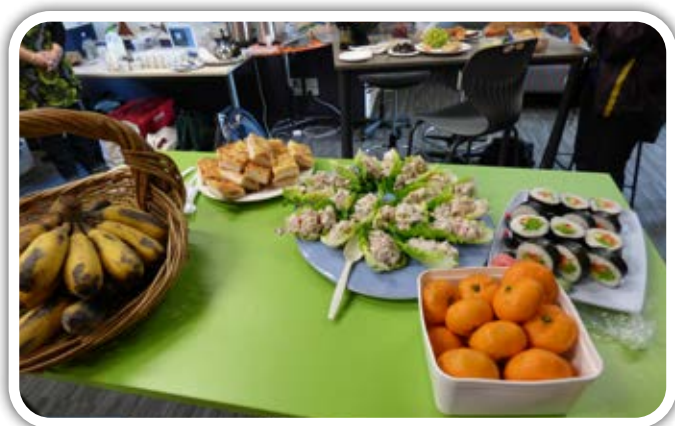
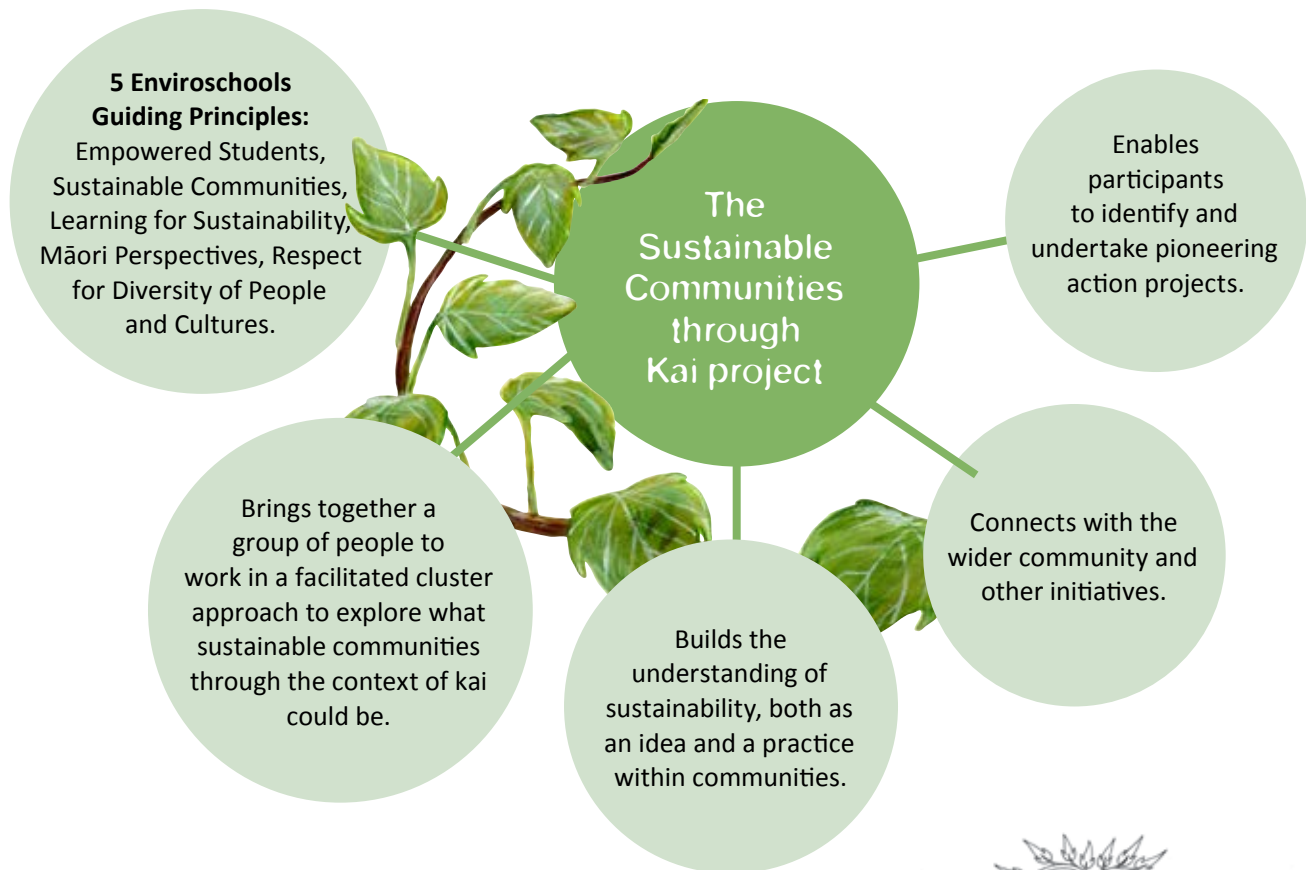
- Honours and celebrates the achievements of all those involved in Sustainable Communities through Kai, and shares their stories as an inspiration to others;
- Shows how working together in a cluster approach across school communities has created an environment that deepens learning and practice for everyone involved;
- Offers a process for working collaboratively to continue to build sustainable communities within any context.

The booklet is not intended as a series of hard and fast steps to be followed, but something that might provide inspiration and ideas for other regions considering this sort of project.

# The purpose and context of Enviroschools Sustainable Communities through Kai

## Empowering young people and local communities through the context of kai

Sustainable Communities through Kai weaves the kaupapa and five Guiding Principles of Enviroschools together and connects strongly with the theme areas, particularly Living Landscapes. It looks at strengthening connections with the land that nurtures us, and the people that collectively contribute to food supply and security. By connecting communities through kai, our living landscapes can meet our physical and social needs, and enhance our resilience, self-reliance and health.



*Rongomātāne – Garden crops, qualities of peacefulness and order, provision, cultivation.*



## The context of the project

The Sustainable Communities through Kai (SCTK) project grew out of discussions, reflections and inquiry into the implementation of the Enviroschools kaupapa of creating a healthy peaceful, sustainable world through people teaching and learning together. In this facilitated project there was a focus on bringing groups of people together to explore what sustainable communities through the context of kai could be, and begin to take collective action.

This project was brought about as a result of a number of investigations through the Enviroschools network into ways that kai gardening was happening in schools, and wondering at the possibility of Enviroschool gardens being a catalyst for regenerating locally grown and sourced food. Surveys of Enviroschools showed that gardens were flourishing and a range of food was being produced. However, questions remained about long-term sustainable food supply and what this might look like across communities when developed following the Enviroschools Action Learning Cycle through a number of cycles. This project sought to push beyond the confines of the school/ ECE gate to understand what it takes to enable or enhance sustainable communities.

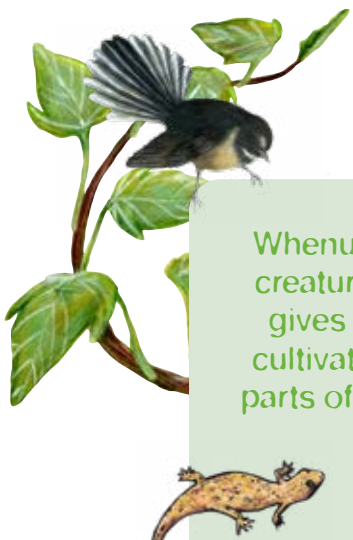
Many factors contributed to the desire to challenge the current situation. The Christchurch earthquakes were a devastating natural disaster that highlighted the insecurity of food supplies during the aftermath in that community. At the same time there was a plethora of news items about children who were coming to school hungry. And again, in other communities children seemed to have little concept of where their food was sourced and how it was produced.

Many Enviroschools had already created vegetable gardens, orchards and were producing kai within their grounds. A goal of this project was to connect with and take action in their wider communities.



Whenua is the land that nurtures us, and provides a home for so many other creatures as well. This is the web of life that forms our local ecosystems and gives our place its unique identity. We can produce and share kai from our cultivated spaces, while we leave space for wild creatures in the uncultivated parts of our landscape. We can learn how to enhance those habitats to ensure all the children of Tane and Haumie can thrive...

Living Landscapes Theme Area



# The concepts of Sustainable Communities through Kai

The Enviroschools Guiding Principle of Sustainable Communities encompasses learning across a range of interconnected ideas and concepts. In the context of kai, the concepts this project explored were:

- **Food security and resilience** – food mapping, food systems and supply
- **Food equity and access** – food production systems, delivery systems, excess produce, sharing, generosity
- **Kai is a precious taonga** – meeting needs and wants, excess supply, food wastage, growth cycles, respect for Papatūānuku, understanding kaitiakitanga and toha kai
- **Consumption choices** – locally grown, organic producers, purchasing, farmers' markets, reducing food carbon footprints, needs versus wants
- **Enterprise in kai** – food cooperatives, time banks, community gardens, farmers' markets, boxed food supplies, seed selling, equipment banks, school cafes, meals on wheels, Oooby (Out of our own backyards), garden starter kits, food markets
- **Food production cycles** for year-round supply including growing, harvesting, processing, preserving, foraging, Oooby's, using the maramataka, organics, food forests, orchards, permaculture
- **Food for health and wellbeing** – people (body, mind and soul), Papatūānuku and the planet
- **Cultural kai** – types of food, kai for celebrations, festivals, food markets

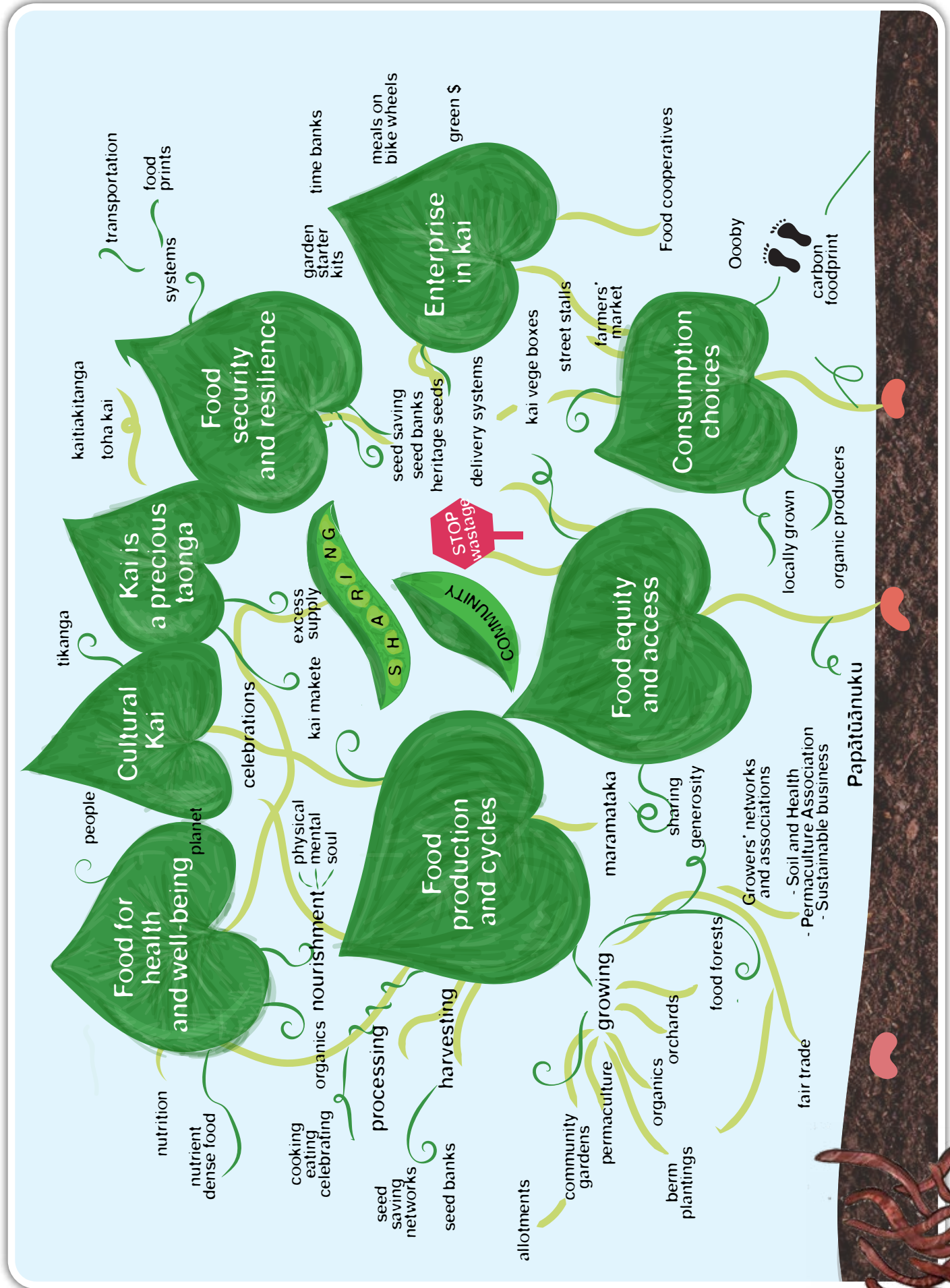
Enviroschools students investigated **food security and resilience** by looking at where food could be found in their communities and developed skills for having an on-going supply of kai. Most Enviroschools developed some aspect of **food equity and access to healthy kai** by creating a space for excess produce to be shared. This was often linked to the idea that **kai is a precious taonga** and should not be wasted. In creating opportunities for sharing resources, sometimes students were challenging whānau and their community to be critical in their food and **consumption choices** by encouraging buying locally. Students learned that local supply generally ensured fresher kai, produced in more ecologically balanced ways.

Students saw that there were many opportunities for **enterprise in kai**, which in the end all came back to **food cycles** for year-round supply. In many cases they found that kai, at its heart, is about people coming together to share and celebrate. Thus there was also a large component of Sustainable Communities through Kai being about **cultural kai**; the types of kai different groups of people like to gather around and the protocols that surround these occasions.



*Thriving community gardens provided inspiration and learning - Tauwhare School, Waikato.*





## A collaborative regional approach

A collaborative regional approach bringing together a range of people and organisations from within the region significantly contributed to the success of this project. It harnessed the power of partnerships and allowed expertise, resources and support to be pooled. A range of individuals and organisations came together to participate and contribute their knowledge and understanding at professional development days, workshops, cluster meetings and student sharing days. This shared process provided fertile ground for empowerment of facilitators, teachers, students and community members. A forum was created with a shared vision. The network of teachers was guided by purposeful facilitation, seeking innovative approaches towards Sustainable Communities through Kai. Those leading the process set milestones and regular check-in times so that progress and successes were tracked, and challenges overcome. Strong communication was facilitated to keep everyone informed and ensure timely responses.



*Project coordinator Faye Wilson-Hill discusses progress with Rhode Street School students*



*SCtK workshop participants explore alternatives while Faye Wilson-Hill and EnviroSchools National Manager at the time, Jan Cox, check in about the plan.*



*Faye Wilson-Hill listens to Woodstock students explain their vegetable garden*



*Participants at a Waikato cluster event share progress*

# Sustainable Communities through Kai

## Benefits and considerations



<b>Enviroschools regional team</b> (Regional Coordinator and Facilitators)	<b>Enviroschool (Principal / teachers / students / whānau / caretaker / BOT...)</b>	<b>Community groups, individuals and organisations</b>
<p><b>Benefits:</b></p> <ul style="list-style-type: none"> <li>Aligns to regional and district/city strategies and plans and contributes to healthy community goals</li> <li>Develops partnerships through a locally relevant context</li> <li>Strengthens community engagement</li> <li>Empowers a range of people</li> <li>Challenges people who are courageous enough to look beyond the easy or obvious</li> <li>Increases the depth and breadth of the Enviroschools Programme</li> </ul>	<p><b>Benefits:</b></p> <ul style="list-style-type: none"> <li>Making connections with where food comes from, the people and processes involved</li> <li>Expanding ideas about food projects and involving students in actions that have benefits for them and their community</li> <li>Empowered students and adults through intergenerational sharing and development of skills, knowledge, attitudes and values</li> <li>Partnerships developed through a locally relevant context</li> <li>Increased involvement in local community actions</li> <li>Leadership development for both teachers and students</li> <li>Supporting the Enviroschools vision towards a sustainable community</li> <li>Pushing the boundaries and being supported to try something beyond what had been done before</li> <li>Taking a new step and direction in the Enviroschools programme</li> </ul>	<p><b>Benefits:</b></p> <ul style="list-style-type: none"> <li>Partnerships developed with local young people and the wider community</li> <li>Coordinated, collaborative approach to local food supply</li> <li>A greater engagement with local community gardens, businesses and producers of kai</li> <li>Intergenerational learning</li> <li>Builds local interest and future capacity</li> </ul>
<p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>Who could be involved?</li> <li>What resources are available or need to be developed?</li> <li>This is a facilitated approach with events management, partnership building and teacher support required</li> <li>Budget and personnel allocation appropriate to above will be needed</li> </ul>	<p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>What's your vision towards a sustainable community?</li> <li>What stage are you at on your Enviroschools journey? How does Sustainable Communities through Kai align with this, or is this a new direction?</li> <li>Nominate a key teacher for communication</li> <li>This is a facilitated collaborative approach with expectations of teacher and student engagement in key events and processes</li> </ul>	<p><b>Considerations:</b></p> <ul style="list-style-type: none"> <li>What's your vision?</li> <li>What stage are you at in your journey?... at the beginning?... Are you part of an existing group? Do you have a shared vision?</li> <li>What capacity do you have to engage in this project and share your knowledge, support and learn from others?</li> <li>Requires a long-term commitment</li> <li>We are all learners in Sustainable Communities through Kai</li> </ul>

**For everyone:** Sustainable Communities through Kai requires a long-term commitment

# Sustainable Communities through Kai

## Enquiry questions

	Regional Coordinators	Facilitators (to explore with their schools/ centres)	Schools/ Centres
Identify the Current Situation	<p>What are we wondering about?</p> <p>What do we need to do next with our schools/ centres?</p> <p>Where have we come from?</p> <p>How did it get to be this way?</p> <p>Who needs to be engaged with this?</p> <p>How will we keep evolving the Enviroschools kaupapa and principles in our region?</p>	<p>How relevant is your vision for a sustainable school/ centre community to your current students/ tamariki?</p> <p>What are the connections with your vision and Sustainable Communities through Kai?</p> <p>What active practices and action projects have connections with kai?</p> <p>What is going well? What is not going well?</p> <p>What do you know about sustainable communities through kai? Where can you find food in your community? Who's involved?</p> <p>What issues seem to be arising about Sustainable Communities through Kai?</p> <p>Who else in your school community can add to describing what the current situation is?</p> <p>What Enviroschools kit activities will be useful to model at network clusters and staff meetings?</p>	<p>Where have we come from and what do we now know?</p> <p>What can we observe?</p> <p>What can we learn?</p> <p>How did it get to be this way?</p> <p>What different cultural perspectives are there?</p> <p>What do others think and feel?</p> <p>How can we influence things?</p> <p>What can we measure?</p> <p>What would we change if we could?</p>
Explore Alternatives	<p>What possibilities could we share with each other?</p> <p>Who are local people we could connect with?</p> <p>What have others done and how can we find out about this to share?</p> <p>How can we hear from a range of perspectives and approaches?</p> <p>What events can we facilitate to enable knowledge sharing?</p> <p>How will we continue to work collaboratively?</p> <p>What issues and ideas are being discussed elsewhere?</p> <p>What is important for here?</p> <p>In what ways could we continue to communicate with our key people and groups?</p>	<p>What are the possibilities for Sustainable Communities through Kai in your school?</p> <p>What sparked your interest from the current situation?</p> <p>What places and people can you visitor connect with to learn more?</p> <p>What kind of foods do different families in your community eat?</p> <p>What happens in other communities that we can learn from (past and present)?</p> <p>What options could there be for healthy affordable kai in your community?</p> <p>What is realistic for here?</p> <p>How will the views of others be considered?</p> <p>What will you decide?</p> <p>What actions and practices best address your vision?</p>	<p>How else could it be?</p> <p>What experiences will help build student/ tamariki knowledge and understanding?</p> <p>How might change happen?</p> <p>What have others done (now and in the past)?</p> <p>What are all the actions we could take?</p> <p>What are our priorities for change?</p> <p>How will we decide?</p> <p>How will we take into consideration the views of others?</p> <p>What course of action best aligns with the Enviroschools Guiding Principles and our values?</p>

	Regional Coordinators	Facilitators (to explore with their schools/ centres)	Schools/ Centres
Take Action	<p>What actions are our schools/ centres taking?</p> <p>How do these connect to the project vision and goals of Sustainable Communities through Kai?</p> <p>How is the process in each school/ centre being recorded?</p> <p>How will we continue to support collaborative learning?</p> <p>How will others be kept informed and who else do we need to involve?</p> <p>Are there barriers or issues to resolve, and what are some alternative responses?</p>	<p>Which action(s) will enable a sustainable community through kai?</p> <p>Will the chosen action(s) contribute to:</p> <ul style="list-style-type: none"> <li>- Students and others from the community working together to achieve a goal?</li> <li>- Meeting needs in the community such as: healthy and affordable food? creating local employment? learning from or regenerating past food practices? celebrating diversity of cultures?</li> </ul> <p>What are the possibilities for putting your ideas into action?</p> <p>What are the 'mini-steps' needed to achieve the goal?</p> <p>Who will be involved in this project?</p> <p>How can you best work with them?</p> <p>What systems and/ or designs will need to be trialled to meet your needs?</p>	<p>What actions will bring about the changes that we want?</p> <p>What designs will work best?</p> <p>What do we need to do to take action?</p> <p>Who will do what and when?</p> <p>Who else do we need to involve?</p> <p>What seasonal/ maramataka cycles do we need to consider?</p>
Reflect on Change	<p>What did we learn about a regional cluster approach?</p> <p>How will we share this with others?</p> <p>What do we know about Sustainable Communities through Kai now?</p> <p>How will we celebrate with our participants?</p> <p>How will this influence our future direction/ approaches?</p> <p>What is next?</p>	<p>In what ways has your action enabled a sustainable community through kai?</p> <p>What values, relationships, connections and ideas have come to the fore and are now part of who you are and what you do?</p> <p>What new ideas did you learn and how can they be shared with others?</p> <p>Did you make the change you wanted to?</p> <p>What were some of the challenges?</p> <p>How will you celebrate your achievements?</p> <p>What is next?</p>	<p>What did we achieve?</p> <p>How did the project go?</p> <p>What went well?</p> <p>What didn't go so well?</p> <p>What changes and benefits have come about because of our actions?</p> <p>How can we monitor and record the changes?</p> <p>How will we celebrate our achievements?</p> <p>Where to from here?</p>



# Resources and programmes that support Sustainable Communities through Kai

## Enviroschools tools and resources:

### Action Learning Cycle

The Action Learning Cycle (ALC) is the main Enviroschools tool for facilitating a sustainability journey. It is at the centre of the Enviroschools Programme, encouraging a student-directed process of exploration, decision-making, action and reflection.

In Sustainable Communities through Kai all of the concepts provide for learning and action. Using the ALC is important for empowering students and other learners to understand why the collective learning and action makes a difference and contributes to the vision of a health and sustainable school community.



### The Enviroschools Kit and Living Landscapes Theme Area

These resources provide tools and activities to help identify and understand the current situation, offer powerful learning experiences and encourage students and community to build a Pool of Knowledge/Puna Mātauranga that tracks collective learning. This will help to inform decisions in taking action via Sustainable Communities through Kai!

#### The key concepts in Me in My Environment are:

- Everything is connected – Inter-relatedness, Whanaungatanga, Whakapapa
- Natural systems sustain life in a dynamic balance
- We have a past and a future – our choices and actions make a difference
- Kaitiakitanga – Respecting all that is around us
- We are part of a community
- Sustainable designs harmonise with nature

#### The key concepts in the Living Landscapes Theme Area are:

- Habitats are places to live: Living Landscapes have spaces for all the children of Ranginui and Papatūānuku
- Our Enviroschool is part of an ecosystem
- Whenua is the land that nourishes life
- People value and change landscapes in different ways
- Co-creating and caring for Living Landscapes

Through this research project, a number of activities were developed to complement or expand the existing Enviroschools activities. These can be found on the Enviroschools website in the Members Area.





## Other programmes and resources:

Supporting sustainable communities are groups of people who hold similar values and ideas. Relationships formed through this project are part of creating a fairer and healthier food system in New Zealand: the community gardeners, environment centres, farmers' markets and their producers are key people. Nationally, growers associations, and organisations like Organic New Zealand, the Permaculture Association and the Sustainable Business Network are useful contacts for exploring alternatives.

As concern for the health and resilience of our communities and the need for food security grows, we are seeing an increasing number of resources being made available to engage schools. These include the Garden to Table Programme, Avis Leeson Fruit Tree Trust and local council community education and iwi initiatives.

There is a richness in learning and action that comes from engaging with like-minded people and organisations – seek out active groups and individuals in your community.



The sunflower became one of the images through the project, representing bright ideas, growth, and iterative cycles of learning and action.

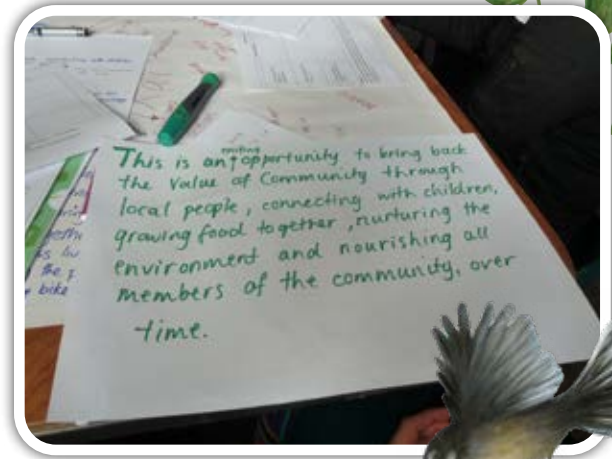
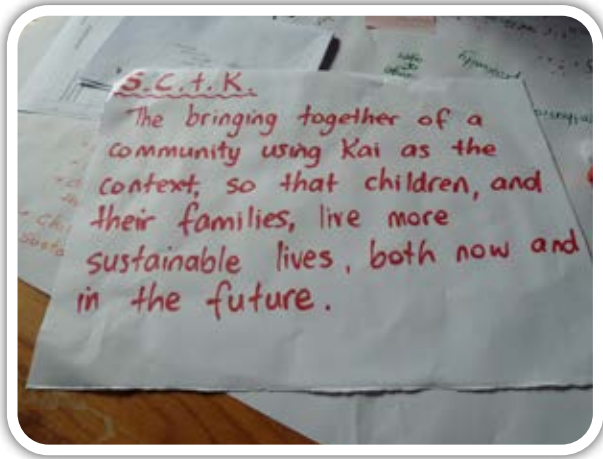


# Building and maintaining the Sustainable Communities through Kai process

The following actions are important in supporting everyone who is participating in the regional cluster approach. Many of these are facilitated by the Enviroschools regional team. This is not necessarily a linear process. Those leading the process will gauge the need and availability of resources for support, professional development and networking. Building relationships is on-going, as is recording and sharing the journey and reflecting on progress. Over time other groups may play integral roles, contributing to the success and resilience of the project, long term.

<b>Enviroschools team hui</b>	The regional Enviroschools team discusses benefits and possibilities for a project focusing on kai in the region, or parts of it, and develops a shared vision. The team considers resources needed to commit to a regional cluster approach of this nature.
<b>Scoping engagement</b>	Regional Coordinators and facilitators approach or seek interest from key teachers and principals to share benefits of the project, gauge interest, build relationships and commitment and create a vision. Each party signs a Memorandum of Understanding to clarify the project and roles and responsibilities.
<b>Teacher leadership group</b>	A group is formed to champion the project, work with the regional facilitation team, foster positive relationships, collate resources, try things out and record experiences as a pool of knowledge / puna mātauranga for future participants.
<b>Partnerships</b>	Regional Coordinator, facilitators and lead teachers talk to community partners, organisations, iwi and individuals that have some stake or interest and/ or may be able to help. This partnership building is a critical aspect for the project.
<b>Regional hui</b>	Interested teachers, principals, BoTs, caretakers and community members attend a regional professional development workshop hosted by the Enviroschools regional team. Before engaging students in the project, adults are empowered through building their own knowledge and skills of Sustainable Communities through Kai and experiential teaching approaches. This is the launch of the cluster approach and allows opportunities for networking and establishing clear roles and responsibilities and a shared vision. It is a combination of an overview and benefits of the project as well as sharing the current situation and modelling some tikanga and manaakitanga, experiential learning, and goal setting.
<b>Teachers and facilitators work together</b>	Teachers work with their Enviroschools facilitator to identify the current situation at their place and plan a teaching and learning programme unit for students/ tamariki to find out what the issues are for SCTk in their area and how the project could make a difference.
<b>In school/ centre mahi</b>	Teachers engage students/ tamariki, following the Action Learning Cycle, to build knowledge and skills and to co-construct their learning path. They talk to community members, hear from experts, and carry out activities and trips to explore alternatives. This initial teaching and learning investigation helps students/ tamariki and staff consider possibilities and decide on the SCTk concepts to explore further.
<b>Linking up Enviroschools with community</b>	The Enviroschools team supports schools to link up with community partners who can help them on their Sustainable Community through Kai journey. Individuals and groups work alongside students and teachers to explore alternatives and build knowledge and skills to be able to take action. Key teachers and the Enviroschools facilitator continue clear communication.





**Connecting with key resources**

The Enviroschools Kit and Me in My Environment, Action Learning Cycle, Handbook (especially Guiding Principles) and Enviroschools Theme areas, (in particular Living Landscapes), are all useful resources. They can be unpacked and aspects modelled with adults and students.

**Facilitated cluster meetings**

Anyone who is interested is invited to attend regional cluster meetings to share successes and challenges and set goals. Facilitators continue face to face, email and phone support for schools/ centres.

**Action taken**

An effective teaching and learning programme is implemented on the chosen school/ centre and community focuses. Practical skills are learnt, and projects are started by schools and the wider community. Daily practices and seasonal actions are developed and understood by all.

**Record keeping**

Documentation is ongoing and includes lesson plans, student/ tamariki work perspectives and community views. Photos help record change over time.

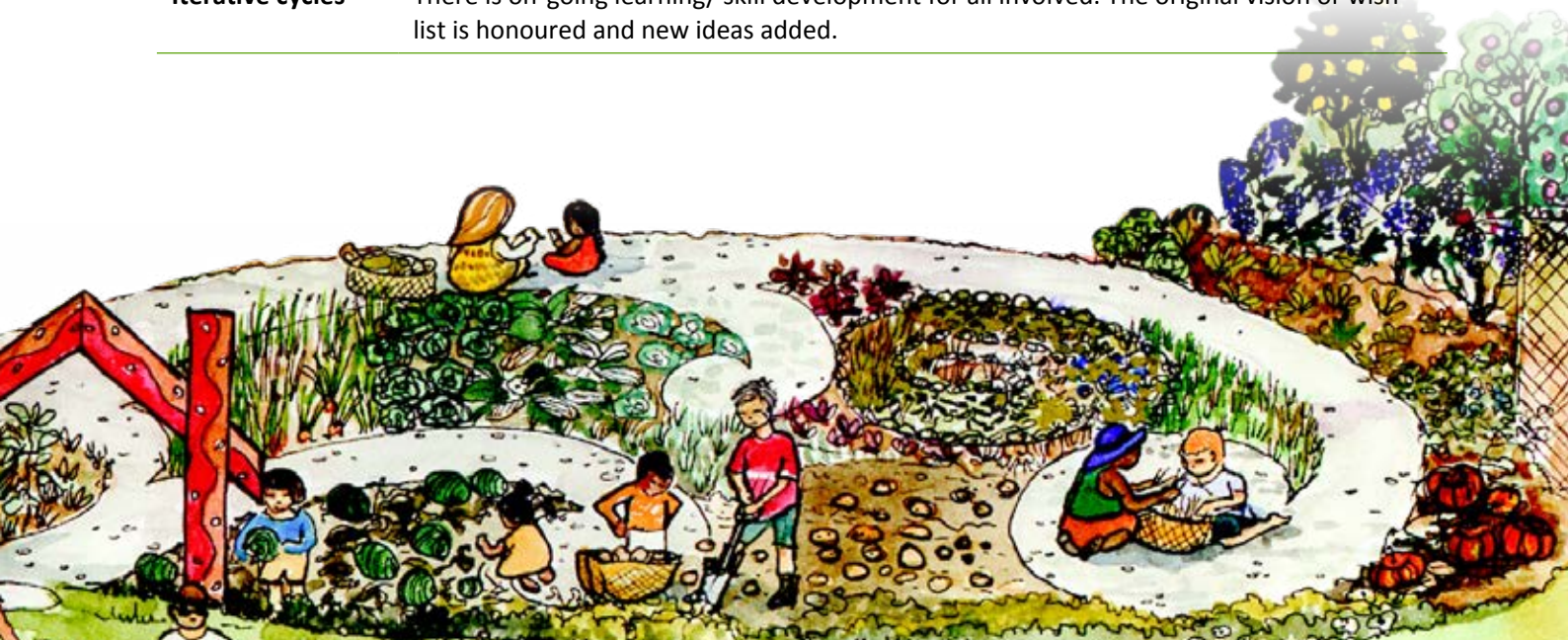
**Reflection**

Regional cluster hui are held to reflect on successes and challenges, and the effectiveness of the project in relation to the vision and aims. Stories are shared through the media, school and community newsletters, websites and social media pages. Local councillors are invited to celebrations in school communities around the region where progress, benefits and partnerships are shared. Next steps and plans are developed using an annual calendar of events with clear roles and responsibilities. More school communities are engaged in Sustainable Communities through Kai process.



**Iterative cycles**

There is on-going learning/ skill development for all involved. The original vision or wish list is honoured and new ideas added.





## Regional events



Rhode Street School hosted one of the cluster meetings. One aspect of these events was to model manaakitanga and share kai together.



Regional professional development hui helped explore alternatives.

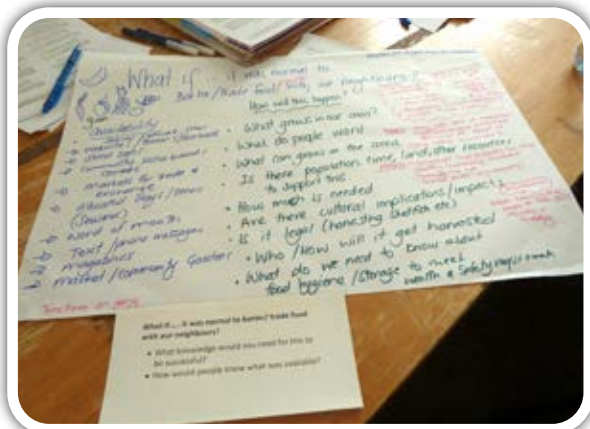


*“Professional development and support for the facilitators separately and alongside the teachers and principals was critical. It meant that everyone was talking the same language and understanding the joys and challenges”.*

Robyn Irving, Facilitator



Inspiration came from holding hui in local places that modelled sustainable practices.



The What if... cards helped expand thinking around what Sustainable Communities through Kai could be.



*“One practice which contributes to maintaining the balance between people and resources is toha kai. This is the sharing of an abundant harvest or catch, so that all will be eaten and none will be wasted. For instance, if someone drags a net and then shares what they catch, those who receive fish will not have to go fishing themselves. This practice also ensures that older, younger and less mobile people in the community are looked after.”*

**Enviroschools Kit pg 56.**

*“We had a matariki lunch and we made pizza for juniors and we’re doing soup and fruit kebabs for the seniors. We had to think about it– it was yum. Everyone brought something, hot food and cold food and yummy food, but no fat food. The only fat food was boil up fat from the boil up or like cheese or something on the pizza.”*  
Student – Year 5.

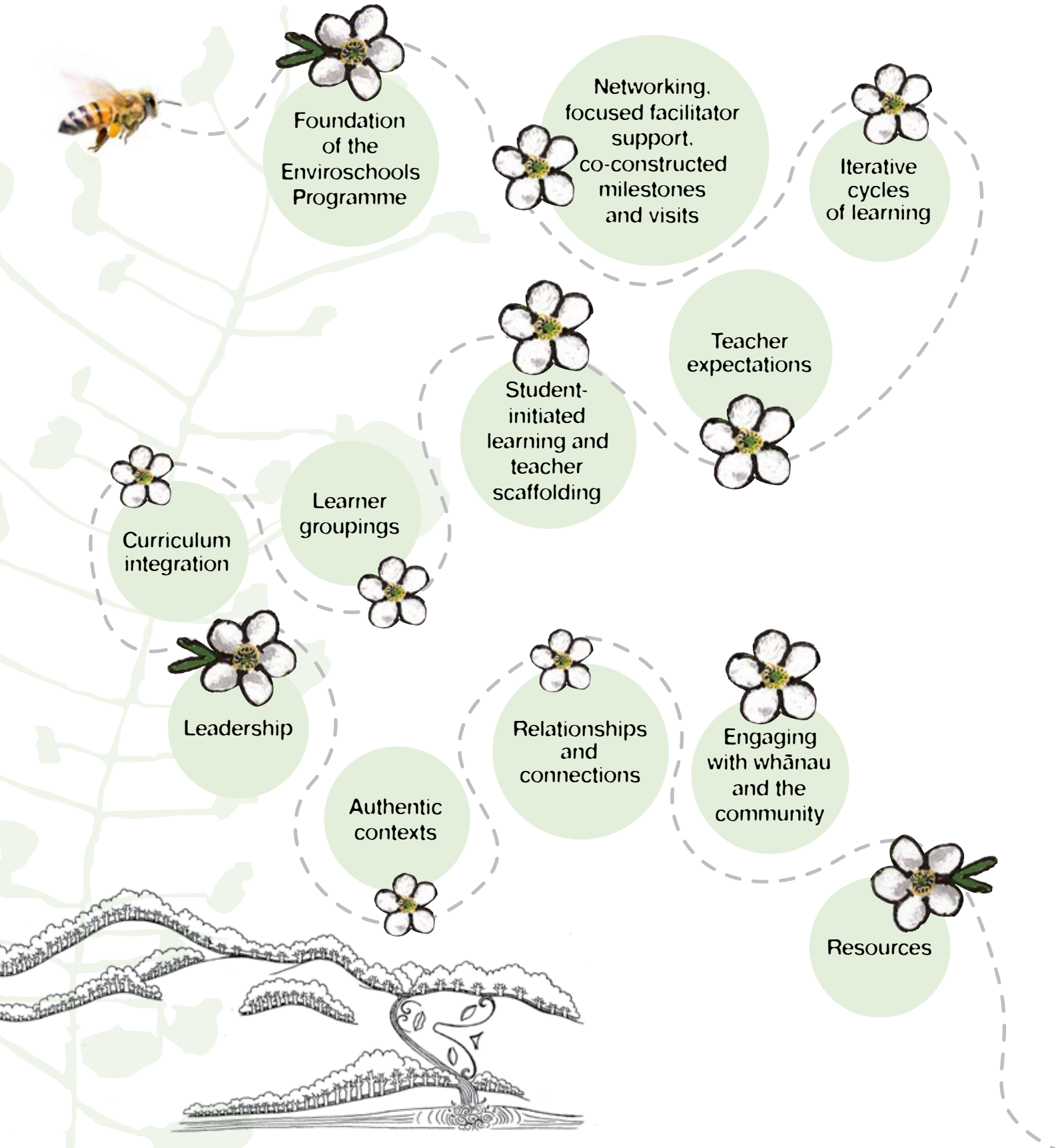
*“Sustainability is all about leadership - leading the drive to be sustainable. If the leaders are not on board with the kaupapa of the school’s direction in creating a sustainable model that will work, it will never happen. Principals need to understand that their role as a leader of learning is critical to the success of any school-wide programme of learning. They are integral in linking the school’s vision to the programme and resourcing it appropriately. Without **the school’s leadership on board with the whole of school approach** to sustainable learning, you are doomed to fail. **Principals have a moral and ethical responsibility to support the vision of the school’s community to support and lead sustainable practice without prejudice nor bias.**”*

Shane Ngatai, Principal, Rhode Street School

*“Becoming a sustainable community through kai has raised the awareness on how to become a community and kai has been the vehicle through which to do this. We celebrated Matariki and we had a big hākari – families brought kai to share, classes made dishes to share and it was all ‘home made’ kai. No packets of chippies, or packaged food, we had a wonderful celebration and this was a real first for our community. The sharing of healthy, home produced food.”* Principal

# Enablers for schools/ centres

The following enablers emerged from the pilot project for this kaupapa:





Having a firm **foundation of the Enviroschools Programme** was an enabler. When we approached schools and centres about their interest in engaging in this mahi we talked to them about their current depth and breadth of practice, embracing the Enviroschools kaupapa and Guiding Principles. We were embarking on new territory and wanted to be sure that schools/ centres were ready to be challenged and consider other ways of doing and being. There was an expectation that this would be transformative.

Another important enabler was the intrinsic value and professional learning that comes from being part of a regional cluster approach including regular **networking, focused facilitator support, co-constructed milestones and visits**.

**Iterative cycles of learning** – using the Action Learning Cycle and its reflective questions leads to enabling action. It includes Exploring Alternatives of what others have done in the past, and currently, in other cultures and groups close to us. Exploring these gives us a springboard for our own creativity.

**Teacher expectations** – a key enabler was the expectation of action from the start of the project by the lead teachers. This pre-supposition helped set the scene and focus learning and action towards a vision.

**Student-initiated learning and teacher scaffolding** – this is not simply about students having to choose what it is they are going to do. The enabler is the skillful way that the teacher scaffolds the knowledge-building and action-taking process with the students so that their ideas can be achieved. The teachers in this project supported students to create action plans with specific, time-bound achievable tasks.

**Learner groupings** – students that chose to participate in the SCK groups had high levels of engagement and motivation for environmental education. In some settings tuakana-teina groupings were used, and commented on by teachers as an enabler.

**Curriculum integration** – this is important for education for sustainability, as nothing happens in isolation. Working across a range of learning areas supports connections and deepens understandings.

**Leadership** – having overt support from the school/ ECE leadership was a strength. This included appropriate timetabling for teaching and learning, and for professional development and sharing. The Enviroschools facilitator was also identified as an important leader.

**Authentic contexts** – some of those who participated in the pilot commented strongly on the value of the authentic learning that arose through the project. Examples were the connection to understand diversity through working with a local migrant group, and the implementation of school tikanga for gifting of produce.

Other enablers included establishing **relationships and connections** with people such as ‘experts’ (mostly from within the known school community), and **engaging with whānau and the community** (for example sharing of kai at events, parents supporting Envirogroups and spending time in the garden with students).

Some teachers identified **resources** such as having access to gardens, cooking facilities and funding as enablers.



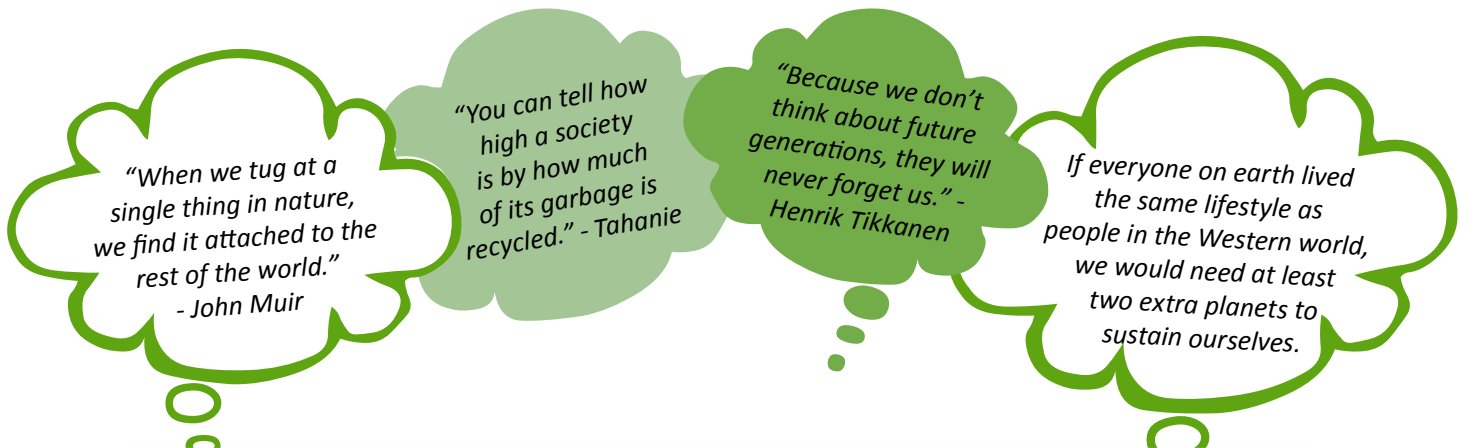


## Overcoming challenges

A large number of participants commented initially feeling unsure about, and lacking confidence in what the project was about and getting started. They also found they were becoming 'stuck' along the way. Developing a shared understanding of sustainability helped overcome these challenges. There are a number of definitions available of sustainability and sustainable communities both in the EnviroSchools Kit (Me in My Environment background text) and EnviroSchools Handbook. You can also access definitions from other sources such as Ministry of Education: Te Kete Ipurangi.

On page 23 of this resource there are some ways of getting started and on pages 12–13 some questions following the Action Learning Cycle to consider when keeping momentum. Your EnviroSchool facilitator is also an enabling resource.

Helping parents/ whānau to recognise that they had something to offer in this kaupapa became important, as did 'holding parents back' from coming in and answering all the students' wondering questions! A final issue for one teacher was that sustainability is never-ending – the students will always be coming up with new ideas!



### PERSPECTIVES ON SUSTAINABILITY EXPLORED

- The concept of living within our limits
- Understanding the interconnections among economies, society, and the environment
- Providing equitable distribution of resources and opportunities
- Thinking about what you need rather than taking what you want
- One thing leads to another, then another. Let's make the chain good
- Every person can make a difference to the future of the planet
- How we choose to act can have a positive impact on the global community.

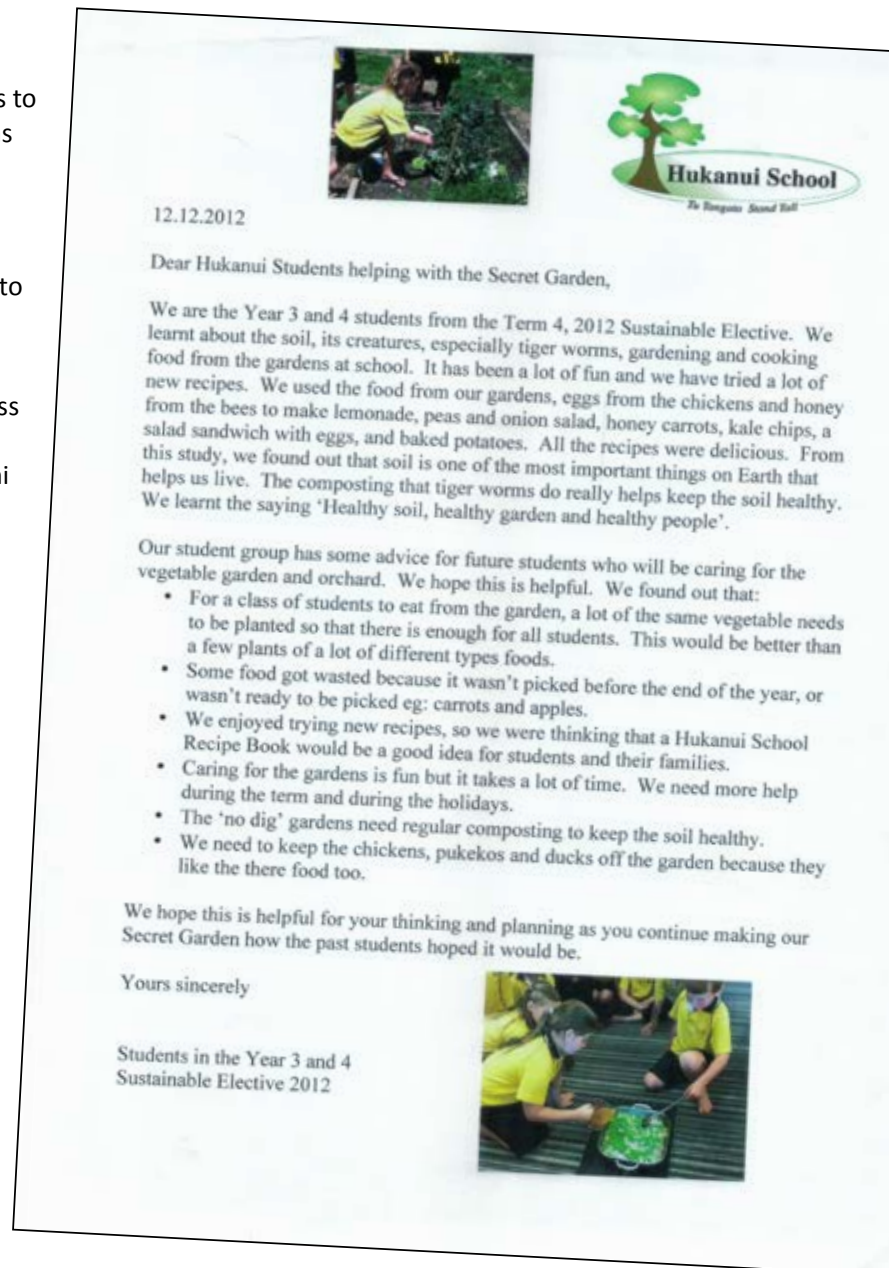
### KAITIAKITANGA - RESPECTING ALL THAT IS AROUND US

"The root of the word kaitiakitanga is tiaki, which means to look after, preserve or keep. A kaitiaki looks after something or someone, and kaitiakitanga is the practice of looking after something or someone".

EnviroSchools Kit. p55

# Sowing the seeds: What did different Enviroschools do to get started?

- Took a tour through the school gardens to see what kai was available and who was eating it and using it
- Read a letter to the class from the previous class about what they have done with/for kai and how it connects to the whole school vision
- Created a map of the local community and all the places where students access kai e.g. dairy, lemon tree at home, community stall, farmers' market, sushi shop, fruit trees in backyards, parks and street berms, supermarket, food cooperatives, the butchers
- Explored: What is sustainability? What is kaitiakitanga? Used examples from the school environment e.g. how do we sustain the school garden? Looked at the cycles of growing, harvesting, processing and eating
- Explored a 'What if' scenario – what if we got cut off in a natural disaster. Where would our food come from? What would it look like to be resilient?
- Measured how much food eaten in a week and how much is wasted
- Explored cultural heritages representative of students in the class, and the iconic foods that come from that tradition
- Responded to an issue raised by students in the school about produce from the orchard 'going to waste'
- Surveyed the families in the class to see how many have gardens and what they produce
- Started with a staple food like bread and experienced making it, eating it and then finding out about where the ingredients come from
- Made some kai using produce from the garden, ate it and shared it. Then considered if we could feed ourselves every day, once a week, once a month, and what this would take
- Reflected on their previous growing season to identify the needs for the coming season related to our annual kai festival



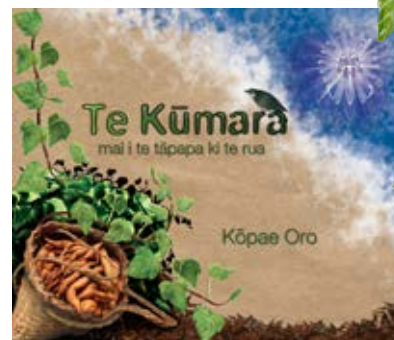
# Top tips and ideas for teachers at each phase of the Action Learning Cycle

## Identify the Current Situation

- The Action Learning Cycle helped teachers to consider what issues, ideas or questions raised by students sparked interest and motivation to take action.
- The EnviroSchools Kit and other resources and places in the community brought the concepts and ideas to life.
- Definitions, mapping, measuring, surveying all helped to identify what is currently happening.

## Explore Alternatives

- Using the EnviroSchools Kit and other resources and places in the community brought the concepts and ideas to life.
- Keep a record – writing about experiences, recording events on class blogs and photo journals were great ways for making experiences available over and over again for discussion and learning.
- Visit community gardens and talk to the people about why they think a community garden is important for resilience, equitable access and locally produced kai.
- Learn from the past – research what has happened in other times and places to ensure resiliency and sustainability. For example, read the story of kūmara on [http://www.teara.govt.nz/en/kumara?source=rel\\_link](http://www.teara.govt.nz/en/kumara?source=rel_link). Find the whakapapa genealogy link for kūmara on <http://www.teara.govt.nz/en/whakapapa-genealogy/page-2>. Watch Te Kūmara mai i te tāpapa ki te rua – available for purchase from the EnviroSchools website. the EnviroSchools website.
- Visit seed saving groups to find out how they work.
- Visit a local kai producing business and find out how they got started and what their motivations are.
- Visit family gardens in the community (e.g. grandparents) to ask how they manage their gardens all year round.
- Learn about processing kai from different seasons and how this might contribute to year-round supply.
- Continue to map seasonally-available foods from the school and local community.
- Use online resources to see how other people in other places have been self-sufficient and resilient .
- Search in TED talks under some of the concepts – food systems, sustainability. For some links to get started go to [enviroschools.org.nz](http://enviroschools.org.nz)





## Take Action

- Enviroschools teachers found using the decision-making matrices an effective way for students to choose actions they were excited about that would make a difference. Using the action planners to organise the projects and ideas stepped the students through what was required for taking action.
- Having a version of the action planner that everybody can see and regularly refer to is important in supporting effective action.
- Co-constructing timelines for steps helps students see they are making progress and celebrates successes of all sizes.
- Creating a 'sharing and communication plan' is a great way to keep everyone up-to-date, including the rest of the school, whānau and other supporters involved. The school radio station, assembly presentations, storyboards and timelines, reports for the newsletter and local news media are great for updates. This can help with mobilising involvement and support.
- Be sure to capture progress as you go with photographs and stories.



*Hukanui School bee-keeping*



*Glenorchy School soup garden*

## Reflect on Change

- The questions on the Action Learning Cycle are a great place to start when it's time to reflect. Use the project outcomes for learning and action as prompts, and return to your original current situation and vision maps/ wishlist/ ideas/ brainstorm and concept maps.
- Collate photographs and videos in a timeline collectively as a regional cluster and as individual schools. Include student journals and reflections on what they think they have learned and achieved.
- Include your facilitator and others involved as part of your reflection process.
- Participate in a regional cluster reflection.
- Celebrate with students by modelling Sustainable Communities through Kai! Consider what sort of kai event would be suitable and who should be involved.
- Consider the processes within and across the school for how different projects will be maintained. (A letter from students involved to the next potential group of students is one way to share across school groupings).
- Write articles for the local paper and school/ community newsletters.
- Create a presentation for assembly and/ or to supporters such as council and funders

L I V E  
E A R N



## Actions undertaken by different schools and centres involved in Sustainable Communities through Kai

Action	Concept, outcome link	Possible next step
Setting up a seed bank for the community to access	Food security and resilience	Networking with other seed banks for increased resilience
Providing a garden starter kit (equipment) to help people get started in kai gardening	Consumption choices and food production cycles Food for health and well-being	Pass-it-on examples in the community include Hand Over a Hundy
Reviewing the major annual Kai Festival to include more kai grown from within the school and looking to measure the carbon footprint	Kai is a precious taonga Enterprise in kai Food production cycles	Running kai-growing workshops with the community to encourage local supply of kai
Establishing a hāngi pit and the tikanga around its set up and use	Cultural kai	Learning more about the maramataka and working with other whānau groups
Measuring food wastage in school and homes and encouraging whānau to reflect on choices, particularly related to reducing waste with kai in homes	Consumption choices Kai is a precious taonga	Reviewing kai that is available locally and encouraging ways of making this accessible to the community
Providing a loan to establish affordable, healthy kai for students to buy for lunch	Enterprise in kai Food equity and access	Pay it back and pass it on – in what areas of community could this family now provide a loan to someone else?
Sharing excess produce through koha tables. Produce might come from the school gardens or from family gardens	Food equity and access Kai production cycles	Maintain and support a local business and/or street to set up their own koha stall
Sharing by gifting planter boxes and kai in a bucket to different groups in the community Students sharing their skills and energy and making gardens for whānau, and in one case supporting the local marae to re-invigorate their garden	Food equity and access	Encourage passing it on, so once a garden has been established or planter box gifted, provide support for the receiver to become a giver



*Hukanui students' actions included developing food gardens next to their Ecological Building, the Living Room and sharing produce with the community. School families were encouraged to contribute surplus from home to the school sharing table.*

Action	Concept, outcome link	Possible next step
Selling seeds to the community to encourage local kai production	Consumption choices Enterprise in kai	Create a seed saving network
Students inquiring into a wide range of issues connected to the sourcing and production of kai in their community, and starting conversations with their families about the changes they could make to eat locally and think globally	Consumption choices Kai is a precious taonga	Connect and/ or start a local farmers' network, Oooby, food cooperative
Using plants from the gardens students looked at different ways they nourish them. Trialling different 'sleep sachets' made from dehydrated rose petals, citrus peel and lavender, and sharing these with their whānau.	Kai for health and wellbeing Consumption choices	Making the sachets as gifts Exploring nutrient dense kai models and seed saving for connections with our ancestors
Senior students from three secondary schools collaborating to create a community garden that would also be a living classroom	Food equity and access Food production and cycles Food for health and wellbeing – working together	Aspects of the outdoor classroom continue to be developed across learning areas Enterprise in connecting with the Auckland Oooby network
Making connections in the community Linking with local café to share excess herbs Linking with local greengrocer to obtain kai scraps for the school poaka Herb garden, kai garden and chickens directly providing for the food technology class	Enterprise in kai Food production and cycles	Going on to look at consumption choices, how can groups within the community work together to meet some of their kai needs?

# Key outcomes and reflections from Enviroschools on their explorations of Sustainable Communities through Kai

The work in the schools resulted in many different actions contributing to Sustainable Communities through Kai including:

## Actions leading to outcomes

Koha/sharing tables for excess produce, seed banks, gifting planter boxes, making gardens for whānau, garden starter packs, having a year-round supply of something to eat from local places, having kai and harvest festivals using produce grown by students, creating hāngi spaces and establishing tikanga, enabling a local couple to start an on-site cafeteria to provide healthy affordable kai, creating a living classroom community garden

Teachers also saw students develop life attitudes and values that resonate with the development of sustainable, healthy, peaceful and equitable communities. Students were quick to see that excess supply of resources (kai) should be shared in a way that it is acceptable for anyone who needs the resource to take it. This simple action, in turn, demonstrated to students that practising generosity through giving without expectation of anything in return is its own reward.

As the students started to live out these values, they found out about some cultural norms in our communities that had to be questioned. Adults often found it difficult to take from the sharing tables without paying in some way. Students had to explain the tikanga of their sharing/ koha tables as it being okay to take something without immediate payment and that maybe another time there would be an opportunity for them to contribute with a gift, talent, skill or produce. The notion of being able to connect with people who have conflicting opinions and ideas, and question how things are, and how things could be is an important underpinning characteristic of taking action. In this project students were steadily and carefully, learning these ways with the sensitive support of their teachers.

As Marsha Copping, one of our teachers, gracefully worded it:

*“Taking action is a very large part of our inquiry process for teaching and learning... often for us it is an enduring understanding and sustainability is an enduring understanding, a lifelong understanding. We hope to plant a seed (no pun intended but it works) for an idea that will grow for life”.*

And clearly the seed landed on fertile ground:

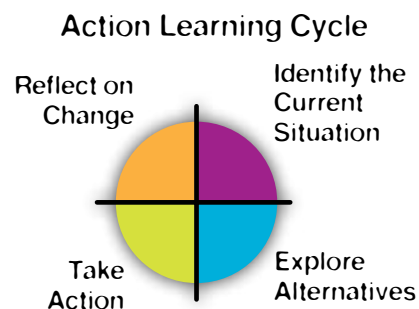
*“I’ve learnt many things that if you work together you can make a difference we have made a difference by sharing what used to be waste and giving and taking is what the community table is all about. You give your fruit to help and there was a cause for why they took it – it could be a lemon to make a drink for your sick sister for your dinner, or just a cup of juice for your hard-working Dad all sorts of reasons when you are helping and donating. When you take from the table it is free giving but not expecting anything in return, it is helping you and you are helping the environment in return you can help by taking from or receiving from the community table. It is for the community so in this is about thinking, thinking, thinking about the world as a whole”.*

Year 5 Student

*“Because of this study, I now do more things freely without getting something in return and I care for my own garden. I help my neighbours and give them our lemons if they want them. These are the most significant changes for me. I loved being in this elective it helped me have a different way of thinking about sustainability, community and kai”.*

Year 5 Student

Another outcome was affirming that using the Action Learning Cycle is an effective tool and process for identifying, exploring and taking action on authentic issues (Enviroschools Foundation, 2008). In this setting as a cluster based approach, it proved to be effective for each participant in the Enviroschools programme from Regional Coordinators through to students. Start with the simple question **What do we know now and what do we want to find out?**



**Students (Year 3-5) said:**

*We think the sustainable community through kai project is about building a sustainable community by growing our own food, not using too much petrol, recycling and by getting the community involved to create a bigger and better community. Everyone needs to be included with the food to cut down their food prices and it's about being able to be sustainable, so your community is ready if anything happens. If everyone is included, then everyone has a chance at doing and being able to be involved.*

*We started with looking at an example like in the earthquakes and how in Lyttelton the people had help from the army to feed them and it was a catalyst for us to talk about what would be possible here at our place and why is was important. We brainstormed ideas about what is happening here already, and we decided that doing a survey to find out more would be good.*

*It all started when we got letters from Room 23 about apples going to waste. We took action straight away. We got into our groups and put our ideas down on a piece of paper. We decided to make a community table for fruit that people couldn't eat. You can donate fruit or take some fruit like I do. I donate oranges every week, so they don't go to waste.*



*“The Tauwhare Trading stall has continued to flourish. This is a deeply satisfying stall for the children involved. They really enjoy people bringing along excess food and sharing what they have with others. The children routinely check the stall and make sure they keep it topped up from our school garden. The rhubarb certainly was well used”*

– Linda, lead teacher  
Tauwhare School



By connecting communities through kai, our Living Landscape can meet our physical and social needs, and enhance our resilience, self-reliance and health.

Living Landscapes Theme Area





*Tānemahuta*  
*The forest and all that dwells in it*







# Case studies



*Hamilton East School kitchen garden continues to develop as a place of learning and action, helping to build awareness and skills as well as nourishing bodies.*

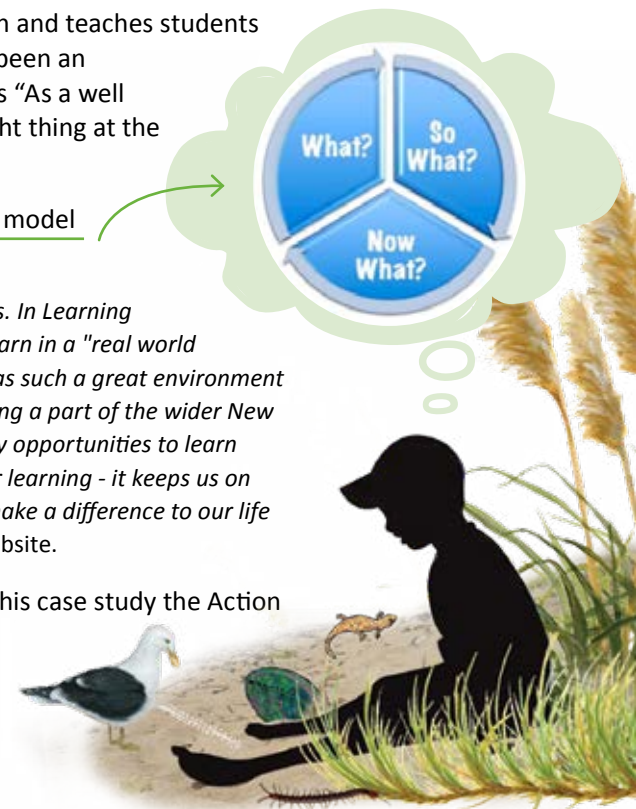
# Beachlands School

Beachlands School is on the south eastern coast of the Auckland region and teaches students from Year 1 through to 8. The roll is slightly over 500 pupils and it has been an Enviroschool for a number of years. Nicky Elmore (their facilitator) says “As a well established Green-Gold Enviroschool, the SCK project was just the right thing at the right time for Beachlands School”.

An important aspect of learning at Beachlands is their inquiry learning model  
**Learning Pathways:**

*As Beachlands Learners we like to use our learning skills in a range of ways. In Learning Pathways we have authentic learning opportunities that means that we learn in a "real world way" out in the real world. We are lucky to be part of a community that has such a great environment for us to learn in – from learning about how to protect our coastline to being a part of the wider New Zealand community and participating in the Kids Election we have so many opportunities to learn about how the world around us works. We use a model to help us with our learning - it keeps us on track and makes sure that we keep thinking about how our learning can make a difference to our life or to the lives of others. We call the model - dynamic learning! - School website.*

This model fits nicely into the Enviroschools Action Learning Cycle. In this case study the Action Learning Cycle can be seen for different groups of people at different stages of the cycle. It also shows how the Action Learning Cycle is enabling student action.



## Part One - Action Learning Cycle for the lead team

### Identify the Current Situation

At Beachlands a leadership team came together for this project including Nicky Elmore the Enviroschools facilitator, the Principal Brian Gower, DP Barbara Dinnissen, Laureen McLeod and Kathleen Cullen. For this group of people **Identifying the current situation** (looking at what’s happening?) started with two teachers attending the first regional cluster SCK teacher workshop. This gave them the “time out from school” to develop their own understanding of sustainability and community, and begin to think about what a sustainable community might look like. It was also instrumental in creating enthusiasm and excitement about the project. Nicky worked alongside the school at the workshop, creating a shared understanding of the different aspects of SCK. The workshop was quickly followed up the next week with a meeting of the leadership team. These three elements created success, and the lead team were engaged and on board from the very beginning. Brian Gower says “Beachlands was looking for a way of embracing their community and giving something back” and the SCK project was seen as a valuable opportunity.

This first leadership team meeting continued the process of **Identifying the current situation** by brainstorming onto a concentric circle chart what’s happening in school, community, and outside agencies. The school was at the centre and then the brainstorm worked its way out to include the community and other agencies.



Current situation brainstorm



From here a wish list of possible developments in this project was created. This list created a starting point for **exploring alternatives**.



Possible future development brainstorm

### Facilitator Tip from Nicky:

**“Always photograph the brainstorms and work you do with teachers, sometimes the hard copy goes missing and very often you as the facilitator are the only person with any evidence”.**

This also acted as a bonus, because of the distance to Beachlands School, work could easily be emailed. Phone conferences became a low environmental impact way of communicating without having to travel the 66km round trip. This initial work was also used at the second teacher workshop, enabling all the work done by key teachers and the facilitator to be cumulative.

## Explore alternatives - Goals for this project

Two members of the leadership team attended the second regional cluster workshop. Schools from the Waikato experience came and shared what they had done, and Cissy Rock from Auckland Council shared her work around creating edible cities. For these teachers the hui was a light-bulb moment:

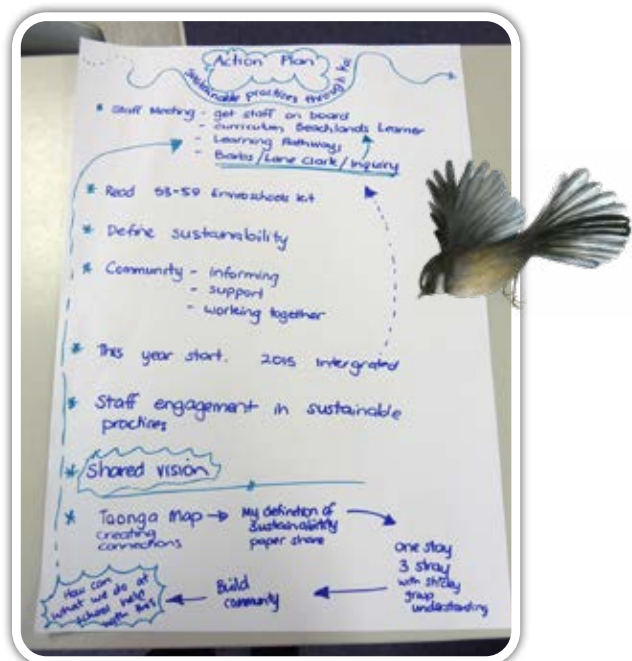
Nicky seized on this moment also and talked with the teachers about the bigger picture of Enviroschools being to embody the *kaupapa of creating a healthy peaceful community with people teaching and learning together*, so they would continue to be encouraged by the possibilities of the project.

“SCTK is so much more than kai, it has shown us what’s happening and what’s possible. With a goal and planning and making connections, allowing people to share their strengths – an organic local food supply and sustainable community is possible!”

## Take Action - What we did

The **taking action** phase for the leadership group was about creating an action plan for how to engage and motivate the rest of the staff to be involved.

This started with planning two staff meetings. The first was to introduce the concept of SCTK to the rest of the staff and allow them time to think about what SCTK could be for them. Having experienced the regional cluster hui, the leadership team felt empowered to run their own hui to engage staff and get them started. Having the resources available via email and a Facebook page for the SCTK regional cluster of schools made this easy, and Nicky provided support through email and phone conversations.



Key teacher action plan to engage staff



Staff meeting mapping community resources



Exploring community what if cards

The second staff meeting held at the end of the year was to include SCTk into their *Learning Pathways* model across the whole school. The leadership team, facilitator and Regional Coordinator participated in running this staff meeting. It was fun and interactive, and gave teachers tools for their SCTk teaching.

Nicky reflects on this first part of the Beachlands story and credits the cluster process of starting with the workshops, having time for the leadership team to pull together a plan, and the initiative and motivation of the lead teachers as setting the ground work for success. They also have excellent communication processes as part of their relationship, using email and telephone to enable on-going conversations between the face to face visits.

## Part Two Action Learning Cycle for the staff and students

### Identify the Current Situation

Identify the current situation for all the staff started with the staff meetings held in term 3 and 4 of 2014. Following the term 4 staff meeting the whole staff were on board and felt supported with resources for the coming year. Beachlands School then set out to engage the students in SCTk through Learning Pathways across the curriculum. They framed the project around the theme of Our Back Yard.

***“This is quite big and the opportunities are huge”***

– Key Teacher



Term 1 was about students defining and understanding *sustainability, community, OUR Community, OUR COMMUNITY'S NEEDS*. They used a range of resources and for the senior students a series of task cards were developed to help **identify the current situation** and build an understanding of community.



## Explore Alternatives - Goals for this project

Following this initial investigation, the leadership team were motivated and had the staff behind them. Students had started collating a picture of their community, and so moving forward as a school they were ready to **explore alternatives**. The planning overview reviewed what they had identified and started considering some possibilities such as kai festivals and markets, koha tables, seed sharing, a local recipe book, community gardens and a hāngi.

As the school continues to explore these ideas, actions from within the different teams are emerging.

The whole school is working towards engaging their community to become more sustainable around kai. Koru Team are connecting with the pre-school and looking into a Kai Makete. Rimu Team are working towards Kai Makete, a community herb garden and trading koha table. The Intermediate Team are sharing kai through their recipe book and looking at ways to

become financially sustainable with the projects that they embark on at school.



Overview



Broad idea expansion



## Take Action - What we did

Following one area of inquiry focus, a community need identified by Year 7 and 8 students was funding for school camp. With their knowledge of resources and kai in their community they wanted to engage the community to help them be financially sustainable and to meet a community need. The authentic task they are working on is to make a recipe book as a fundraiser. Each class has taken a different chapter of the book to share their learning. Areas of interest have evolved, based on the resources within the school and community and people's interests. Currently there are four chapters – vegetables, hāngi, fruit and herbs.

- **Vegetables:** based around the Kaiawa Gardens, a school community garden which is well established but was shut away at the end of the previous year due to a building project. Silverbeet and radish self-seeded, providing lots of seedlings and the concept of "seed saving" was born.



- **Hāngi:** based around connections made with the local marae on cockle counting day. Cockle counting day is an initiative with Auckland Council to monitor cockle numbers and has been on-going for many years. For the first time this year, people attended from the local marae. It is hoped that the hāngi chapter of the book will include the tikanga around hāngi with support from the marae, and be instructive for future classes and people in the community. Of course it would not be complete without creating a hāngi and leaving behind the hāngi pit for future kai.
- **Fruit:** utilising fruit identified in the community and from the Kaiawa gardens, which sometime goes to waste – everyone loves to celebrate with a little dessert!
- **Herbs:** many families drop their kids at school as they rush off to work. The community is changing as housing development expands, topsoil has been scraped off and some families don't yet have gardens of their own. A picking garden at the school gate with recipes in the book of how to utilise the herbs could be supportive for a healthy community.

Student action was authentic for them. This has led to a strong sense of community. It is **in** their community, **about** their community and **for** their community. It is possible to pick herbs from the garden when you drop your kids off at school. You may find yourself eating a fraction sandwich during class, made by the students themselves from garden produce or planting kai into your reused sushi container.

## Reflect on Change - Reflections



This has led to a strong sense of community. The Kaiawa garden is an integral part of the school, grandparents have been engaged through a “Grandparent’s Day” to experience school life and share their skills with students. After the beach clean up recently, parents stayed behind and helped work in the gardens. Through the shellfish monitoring project a parent from the marae did a karakia before monitoring started for the day and shared stories with the children about the area they were monitoring. This was the beginning of connecting with the marae, understanding their history and building tikanga around hāngi and kapa haka. The school is part of a vibrant sustainable community, there is reciprocity of skill sharing and experience, and SCK has been a catalyst to realise this.

Nicky’s reflections on the process:

*Engaging key teachers with well-resourced workshops, which challenged their own thinking about sustainability and community, was key to giving them a deeper understanding of SCK. They were then able to upskill their staff confidently. Through this the staff were able to work as a whole school and engage their students. Linking the EnviroSchools Action Learning Cycle to the school inquiry model supported the whole school in a structure of teaching and learning that they are familiar with which will bring about some authentic action. For students SCK is real for them. It’s their community, they have identified real needs, interests and alternatives within their community that they feel empowered to do something about.*

This case study gives us a fantastic insight into the different layers of the Action Learning Cycle and how effective it is in enabling teaching and learning together. Just as the project team for SCK has been working through the cycle, here the leadership team at Beachlands were engaged in the cycle and their progress can be traced by seeing how the teachers and students took on their learning to then also engage in the cycle. As the cycles of teaching, learning and action continue, there will be much more to come from the Beachlands sustainable community and kai initiatives.

## Identify the Current Situation

Grey Lynn eagerly joined the Sustainable Communities through Kai project, seeing this as a kaupapa that their children are very interested and connected to. The kindergarten has well established gardens that are used frequently as part of the programme, but due to their size does not produce large amounts of kai for eating. The use of food is varied from fresh to dehydrated. This project offered the scope of challenging thinking over what is kai. Looking at what was already happening, the teachers felt it would be important to extend what they were already doing. One possibility seemed to be to look at ways to use what was available to nourish and promote wellbeing, given that in young children sleep, colds and skin conditions are daily issues.

...look at ways to use what was available to nourish and promote wellbeing, given that in young children sleep, colds and skin conditions are daily issues.

## Explore Alternatives - Goals for this project

- To involve the children in growing and harvesting of plants for trialling ideas to nourish and promote well-being
- Engaging with a topic that staff are personally interested in – exploring the properties of plants and their uses
- To continue our gardening practices to align with Māori customs
- To explore with the children other ways food/ kai supports healthy living
- To work with and utilise community knowledge and expertise

The ideas they started with were:

- Sleep sachets for children e.g. trialling lavender and other plants for children
- Sachets for colds – smelling and inhalations
- Herbal tea for children
- Cream for skin

The staff invited the kindergarten community to contribute their ideas and comments via their Sustainable Communities through Kai information board.







## Take Action - What we did

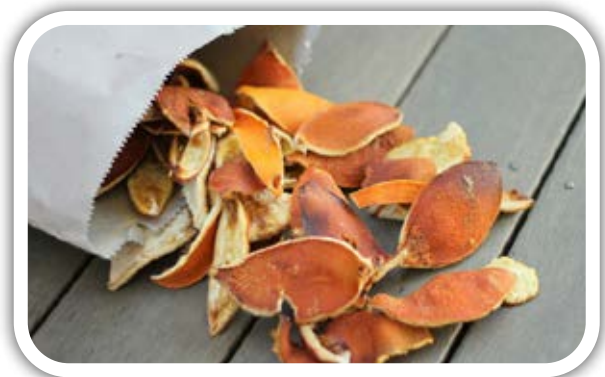


- 1 We set up our Sustainable Communities through Kai information board so that whānau could contribute their ideas and thoughts.
- 2 We invited whānau to work with their child to investigate one of the plants growing in the kindergarten. We wanted them to find out about the healthy and unhealthy aspects of the plants and possible ways we could use them. We had a list on our display wall and families ticked off the list as they choose one to investigate and then share with the rest of the kindergarten.
- 3 From this activity we found that there were heaps of great plants in our garden that could nourish us. In particular we were really interested in the different plants that might help us to sleep.
- 4 We decided to make sleep pouches out of citrus peel, lavender and rose petals. We then set up a survey to trial which ones help us to sleep.
- 5 We had to harvest lavender, rose petals and citrus peel from our garden and then dehydrate them to go into the sleep pouches.
- 6 We talked about the different flavours and smells, which led us to discuss “what is food?”

### Katie Higgins the facilitator for Grey Lynn Kindergarten says:

*On Tuesday the children were putting together their own sleeping pouches with kai grown at the kindergarten and dehydrated at the kindergarten – lavender, citrus and rose petals. The children were then taking the pouches home with information sheets for whānau to trial them out for sleep purposes.*

*It was really awesome to observe how the teachers checked the children’s knowledge around the use of kai and the sleep pouches. Shelley Jolly (the head teacher) facilitated a puppet show and invited children to share their knowledge – a great way of involving a range of children, and they were truly captivated.*



### Results of the Sleep Pouch Survey

52 Surveys sent out

29 Surveys returned

All children participated but not all families returned. Several children had left for school. There were Citrus, Lavender and Rose.

Citrus 21 pouches

Lavender 23 pouches

Rose Petals 9 pouches

#### Best Sleep Results

Lavender 11

Citrus 9

Rose 4

Both 4

#### Comments

1 child developed asthma (parent not sure if connected)

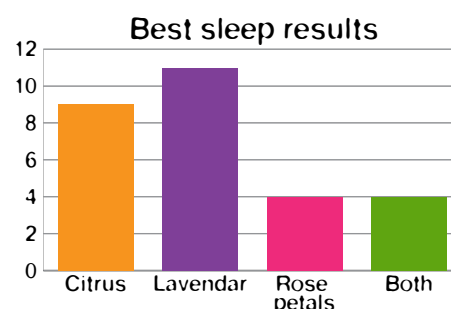
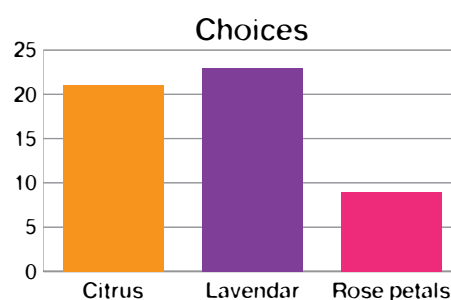
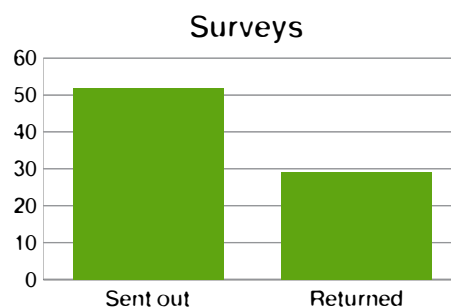
1 child had predetermined lavender would be the best (Though parent said it was actually citrus!).

Good sleepers liked both.

Siblings also joined in.

- 7 Whānau were given two sleep pouches and a survey form, and asked to try it out.

- 8 This was really exciting and the children loved being able to share their ideas at home. We sent out 52 surveys and 29 were returned. This gave us great information about how the different plants and kai in our garden could nourish us.
- 9 We found that 11 people slept best with the lavender pouch, 9 the citrus and 4 with the rose petals. There were 4 children who slept well with either of the pouches that they trialled.
- 10 All of our findings and information were shared with the children and included on our board.
- 11 We had some leftover dehydrated plants from our garden and decided we could use them to make potpourri bags for Christmas.
- 12 We had learned a lot about how all the parts of our garden interacted and what can 'feed us'. While we might not eat our sleep pouches, the plants provided another form of nourishment. Without a good sleep our brains and bodies do not get a proper chance to relax from our busy days at kindergarten and re-charge for the coming day. We think that plants that nourish our bodies in this way are just as important as the plants we can eat from our garden.



## Reflect on Change - Reflections

The learning by connecting young children to the cycles of growth, harvest and using all parts of plants to nourish us was a tremendous extension of their learning. The children were active participants choosing a plant to investigate, harvesting the appropriate part of the plant, drying it and then taking the survey home and explaining what needed to be done.

### Shelley the lead teacher reflects:

*From a teacher's perspective, there are several areas of impact for ourselves and the children. The process was seamless as the use of the dehydrator is an everyday occurrence. The children are involved in growing, harvesting and drying and this project extended this to experimenting with flavours and discussion on what is food.*

*Families were involved along the way and for our young children there was a certain amount of power in taking home these pouches and 'allowing' siblings to be involved. They were the leaders and brought their learning into the home.*

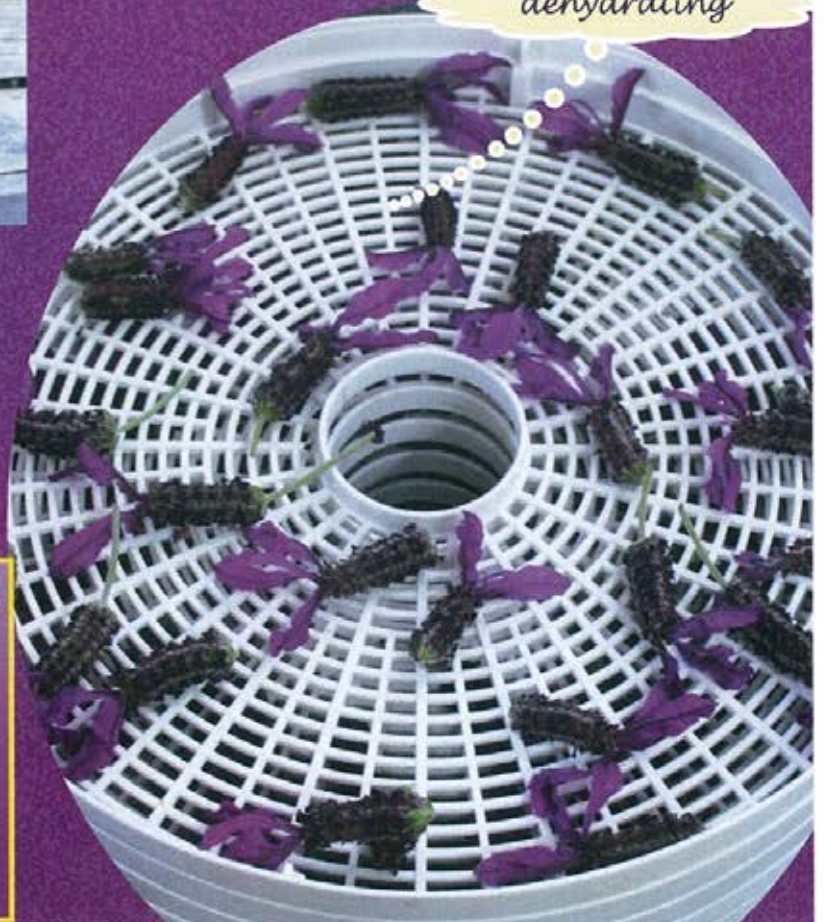
*The teachers had to consider the garden in its entirety and how it functioned to feed us, and visiting creatures, plus lift the spirit. This was important for the planning of project 2 – the teabags. We researched the best plants/herbs to have as stock in autumn. Discussion continues on the effect of smells etc for sleep and well being.*

# PROJECT ONE

HARVESTING



dehydrating



WE ARE BEGINNING OUR PROJECT FOR SCTK. WE ARE INVESTIGATING THE USE OF FOOD FOR MEDICINAL PURPOSES. ALSO WHAT IS FOOD? WE ARE LOOKING AT WHAT WE GROW AND USING NON TRADITIONAL PLANTS FOR FOOD-EG LAVENDER, ROSES. LAVENDER IS AN INGREDIENT FOR TESTING OUT OUR SLEEP POUCHES. TEAM WORK HARVESTING AND DRYING. SHELLEY 23/0/14

## Identify the Current Situation

Hukanui school has education for sustainability (EFS) as an elective where students opt into the EFS 'class' for a day per week for ten weeks (one term). Some students choose to return to this elective for the coming ten weeks. The school has a well organised vision for creating a sustainable future as part of the teaching and learning programmes. In 2012 they established an edible garden to add to the beehive established in 2010, and in 2011 a chicken tractor was included that is now an integral part of the edible garden. One aspect of teacher Michelle White's practice that enables a flow of learning and understanding across each elective is 'the letter'. As part of the **Reflect on Change**, cycle students write a letter to the incoming students that shares what they have learned and what their 'advice' is for them as they **Identify the Current Situation**.

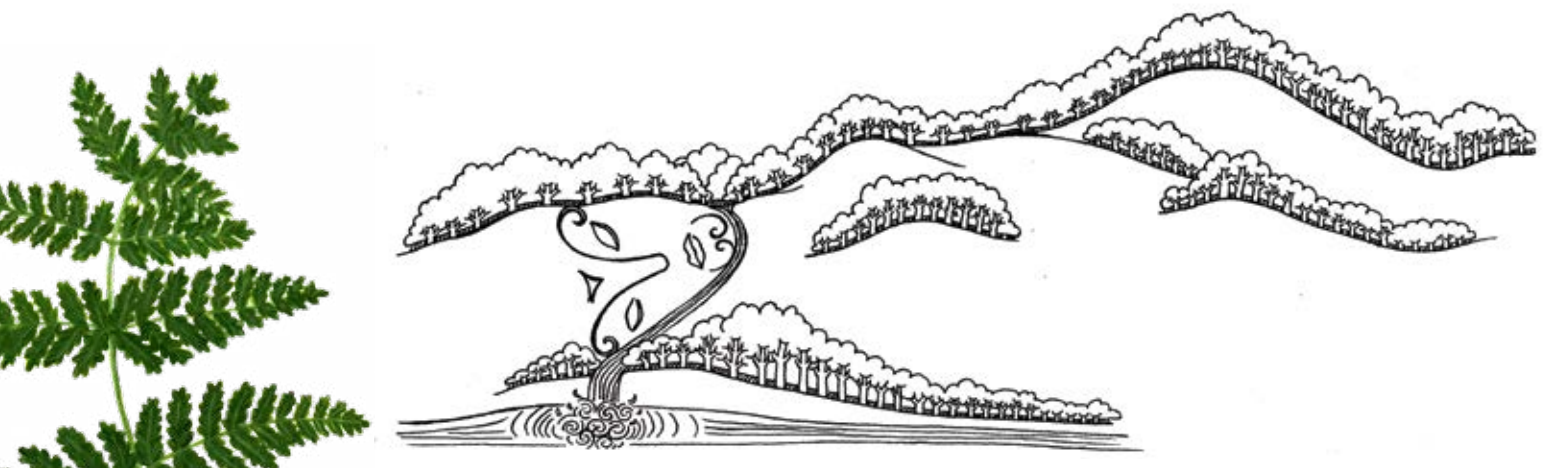
## Explore Alternatives - Goals for this project

Michelle White as the EFS teacher worked closely with her students to decide on a big question for this project – What if we worked with our community to provide food? Underpinning this was teaching and learning on sustainability through tikanga. Michelle articulated this as practices that are culturally accepted and understood to be appropriate in helping us live with interconnectedness in our community with the world around us as we learn from each other. Communities flourish when nature and people are nurtured.

### Student learning outcomes:

Michelle had a range of specific learning outcomes from across the curriculum that developed throughout the ten-week period. At the conclusion of the unit it was envisaged that students would be able to:

- Recognise and be inspired to be a part of the decision makers in our school and community environmental action planning.
- Share their knowledge and skills with our students and community in a purposeful context.
- Reflect on their permaculture practices using the Enviroschools Action Planning model.
- Recognise the importance of Māori Tikanga in planning and undertaking our gardening.
- Increase the everyday use of Te Reo Māori in context.
- Research, experiment and record gathered information.
- Write journal entries using accurate paragraphs.
- Develop a greater understanding of inter-relatedness.
- Acknowledge and explain how they built on the previous elective's actions.



## Take Action - What we did



1. Students in the EfS elective with Mrs White always start by identifying the current situation, and we needed to learn about the *Living Room Journey*<sup>1</sup> to date. We were taken on tours, discussed the past elective projects and we looked at why previous students called it the *Never Ending Project*. We learned about the 'wish list' which are many different student ideas for the Living Room.
2. The previous elective had written a letter to us and we read that and thought about their advice.
3. We explored *tikanga* and thought about doing what is right and correct for us at home, school, in our community and with our culture. We considered the *tikanga* of our place in light of learning about how Māori ancestors developed *tikanga* for their practices over many generations based on experience and knowledge gained from the natural world. We started talking about what our *tikanga* would be as part of the Living Room and the Never Ending Project.
4. We explored *sustainability* and what it might mean and the different ways it is practised in our school. For example we have a no-dig garden that uses permaculture practices. This means that every part of the garden has more than one use.
5. Mrs White got us to start thinking about what it would take to produce lots of kai from our gardens, we had to draw a garden that could give everyone in our school at least two carrots (we have nearly 700 students and 300 families in our school). We found this quite hard!
6. We did spend quite a bit of time trying different vegetables from the garden, sometimes eating them raw and sometimes cooking them. Some of us were a bit surprised that we ate them (so were our Mums).
7. We considered community too. First we looked at our school as a community, what it is made up of and wondered if all communities have some things in common as well as being unique.
8. Each week Mrs White would have us reflect on our learning. We used journals to practise writing paragraphs accurately using a question or sentence starter such as *Students can use tikanga to change Hukanui School by...*, *Can reflecting on the past students' ideas encourage change? What is your new understanding of sustainability?*



<sup>1</sup> The Living Room is a purpose built ecological building planned and designed by students at Hukanui School. It is a living laboratory that supports learning about the built environment in conjunction with sustainability principles.

9. At about this stage of our project Mrs White put these questions to us: How could our gardens meet the needs of our school community in the future? What if our gardens were not just cared for by the student and teachers, what could that look like? What if our school community worked together to provide food for each other? What if our community families shared their gardens with us at school? What would we want to share/provide food for each other?
10. During our learning, a problem in our gardens was brought to our attention by students from another class. They noticed that the fruit from the apple trees was falling on the ground and being wasted. This spurred us into thinking some more about our tikanga around kai from our gardens and how this connected with sustainability and community.
11. We wondered what other people were doing to encourage families and communities to develop their own healthy gardens (and not waste kai). We visited the Grandview Community gardens and looked at their allotment gardens and we also went to one of our neighbours as he had been growing healthy vegies for many years. He grows so many that he gives them to his friends and grandchildren.
12. We brainstormed ideas both for making sure we didn't waste any of our kai and also the ideas of community that we had explored.
13. We chose to make a Free Community Fruit, Vegetable and Herb Table. This is a place for us to give away excess produce for free and if people wanted to they could donate their excess produce for us to give away.
14. We created a list of 28 things that we had to decide on to get the table up and running.
15. Once we had worked our way through these we had 'things to do'. We worked in teams to:
  - Write a letter to the Principal asking for permission to set up the community table
  - Write a letter to the Board of Trustees to ask for permission
  - Find the best position for the table
  - Decide on the best day of the week to operate the table
  - Set up a roster for receiving goods, running the table and managing 'left-overs'
  - Advertise and tell the community about the table and its intentions including a logo and sign
  - Continuing to maintain the backyard and secret gardens.



#### Journal Entry 9/5/13 By Maia

*My logo is in the form of an apple. It shows kai and sustainability because we grow fruit and vegetables. The apple skin is patterned like the Earth and the Earth is our whole community. If we all used sustainability, we could reduce our carbon footprint. The apple has a bite out of it because I choose to use sustainability. The motto of my logo is - Never had a taste of sustainability? Take a bite!*

16. This was all quite a lot to do but we got there and we did it! Our community table has been running every Thursday morning from 8.30am until all the food is gone since the middle of 2013. We plan to keep it going forever.
17. We learned quite a lot through this elective – lots of knowledge about sustainability, community and tikanga at our place. We also learned heaps about working together and making collective decisions and how we can all have a say in something but that doesn't necessarily mean that every idea each one of us has will happen. We used lots of voting to select and choose the ideas and then we would all get in behind making that idea happen.
18. A new thing for us was being okay with people putting something on the table but that you don't have to get something back if you give something. We wanted people to be able to have good healthy food and for good healthy food not to be wasted. We wanted for people to feel that it is okay for them to take the food without needing to put something on the table first.



23 May 2013

Dear Mr Mossop and Board of Trustees.

We have been thinking about the rotting apples and lemons behind the Living Room in the orchard. We believe it would be good if we set up a stall. Our topic has been Sustainable Communities and Kai. We would like to help the community by giving free fruit and vegetables from our gardens. It would be out once a week and we would put apples, feijoas, potatoes, lemons and all the extra things we pull out of the garden into the stall. The stall would be a big helping hand with our Never Ending Project. We would like to give to others.

Can we please set up this stall and help warm the hearts of others?

Yours sincerely Blake , Cameron and Trey



## Reflect on Change - Reflections

Michelle talked about the students developing a greater sense of connectedness to their community through the table, by learning to give without expecting anything in return, and being empowered knowing you are helping other people and the environment. She also saw the students develop an understanding of the connections across the projects in school, the gardens, the worm farms, chicken tractors and the bees, and how all of these aspects have a role to play in sustainability of the Living Room and the Never Ending Project. The feedback from parents suggest that the students' actions were also having a ripple effect into their community:

*Thanks to this study, my son now wants to grow healthy food for our family and also give to the Community Table.*



*I like how this project is linked to the real world.*

*I noticed the slogan – 'You can give to us and we can give to others, it's for a sustainable cause'.*

*I was really impressed with the work the kids have done. I especially enjoyed the stall idea and the concept of giving healthy food without expecting anything in return.*

*Michelle's approach to reflection has let us see the growing understanding the students have of sustainability and their own ability to take action on issues that motivate them and that they believe will make a difference.*

### Reflections during the project

*Sustainability is when you never lose hope in the future world. You believe that you can protect the environment for the people of the next generation. The environment is included in your every day life.*

*My understanding of sustainability is 'sustainability is not just caring for the environment, it's making it last forever and ever'.*

*Sustainability is not only looking after the environment it is trying to encourage change and tikanga and it is stuff like this that make a difference.*

### Reflections at the conclusion of the project

*It all started when we got letters from Room 23 about apples going to waste. We took action straight away. We got into our groups and put our ideas down on a piece of paper. We decided to make a community table for fruit that people couldn't eat. You can donate fruit or take some fruit like I do. I donate oranges every week so they don't go to waste. This gives people the opportunity to try new healthy fruit. Joshua*

*Sustainable Communities and Kai was my first environmental elective. It was very different than other electives because it was all of our own ideas. With other electives, as soon as we start, we know what we are working towards. With this elective, we decided the aim ourselves. We also weren't just working towards an aim that will help us, but an aim that will help others. Instead of trying to stop things from going to waste by eating them ourselves, we found a way of giving them to people who need them. Maia*



The most significant changes that this elective has made are that the community table is providing happiness, success and is stopping wastage of fruit, herbs, veggies and other food that people don't need or want. Another great thing is that the community table has brought us all together and we have made some great friends. With these new friends, we have shared cherishing moments. Now at home I have brought together all my knowledge from my friends and my handy teacher Mrs White. I enjoyed learning about sustainability and becoming better with nature. I also thought that it was really cool how we got to make our own decisions for everything, such as the sign for the community table. Well done Logan! Isabelle

Some of the significance of looking back on our study is seeing the change along the way. Our topic was on change, making differences for our community, family and maybe the world. We showed this by developing a Living Room and the Community Table. Harry

The most significant change for me is at home, we are growing our own mint and vegetables instead of buying it. The project has changed me because now I have the responsibility of helping to run the fruit table every few weeks. The table is a big hit with parents and children alike. Parents have complimented us on what a good idea it is. Lots of people have benefited from this. Mitchell



### Community Table - Our solution to an environmental problem



## Identify the Current Situation

Tauwhare School is a six classroom rural school. At the time of the project they had a well-established vegetable garden with all classes participating in the cycles of planting, growing, harvesting, cooking and eating from the garden throughout the year.

The lead teacher Linda Cook works with the Envirogroup of 25-30 students once a week for an afternoon session. She also has education for sustainability class once a week with all classes participating on a five-week rotation. With this project Linda was very focused on the sustainable community aspect and how this could look. The school is located between two marae, and with the students have previously taken all the vegetables to cater for the evening meal as part of a school visit to one of the marae, or the Pā as it is known locally.



## Explore Alternatives - Goals for this project

### To find out:

How we can encourage our community to grow their own food

- What if we could provide fruit for our school year round? And then to our wider community in sharing excess produce?
- Could we develop a communal vege and fruit exchange with our community?
- Can we learn to preserve excess food?
- In what ways can we continue to develop our relationship with the Pā connected to kai?

### Student learning outcomes:

- Explore a big idea using the Action Learning Cycle
- Lead a range of possible ways to bring our community together through kai
- Work with the local Pā on kai and grow vegetables to share with them
- Learn what sustainable community is for us in our community



## Take Action - What we did

- Mrs Cook met with other teachers in the Sustainable Communities through Kai project and talked with Paul our facilitator about possibilities such as growing food for fruit break, preserving excess harvest for students to eat in the winter, and somehow connecting with the Pā to support their kai growing.
- We looked at the 'What if' cards activity and Mrs Cook got us to brainstorm what if we needed to look after ourselves as a community like the people in Lyttelton had to in the Christchurch earthquakes? Would we be able to survive and have enough resources in our community?

- Some of our initial ideas from this brainstorm to help us become a resilient, sustainable community were to get people to have vegetable gardens, to help make a community garden, and to have a sharing table for people to bring their surplus food so that others could take it if they needed it. We also thought we could have a 'garden starter kit/tools for hire' for people who didn't have a vege garden to help them get started, and we wondered about creating a seed bank so that there would always be some seeds available. The other idea was to increase the food we were growing at school, so that people could eat something for fruit break from the school grounds year round.
- These were all good ideas but we needed to find out what was already happening in our community, so we created a community survey using survey monkey to find out how much 'food' was already being grown by people. This was great as we learned how to do a survey and that lots of people in our community already grew kai and preserved excess. There were a few people who didn't have space or expertise for a garden.
- We decided that most of our ideas would be good to follow up on and so we split into four groups. One to look at extending the fruit and nuts at school so that students could access fruit break kai. This became known as the Orchard group. Another group was the Seed Bank and they looked at harvesting and storing seeds. The third group were interested in creating a Garden Starter Kit and the fourth group were the Trading Stall. They were keen to get people sharing excess food and plants from their gardens.
- Each week in Envirogroup time we would work through our list of mini-actions that would help us achieve our goals. For example, the Orchard group had to find out what sort of trees would be good to have in our school and what it would cost to buy these. They needed to write to the Board of Trustees and the Principal asking permission to purchase and plant the trees based on the research they had done for the best planting sites, costs and hopefully the harvest. We had to convince these people that it was good to have the kai trees around the classrooms and not at the back end of the

playing field, if we were going to be able 'eat from the trees'.

- We had a great parent help as well who worked with Mrs Cook, to make sure we were meeting our deadlines and keeping on track.
- The first group to achieve their goal was the Trading Stall – they got it up and running beside the school vegetable garden. It was a great sense of achievement to get it up and going.

*The things for the trading stall come from the excess fruits and vegetables at home and in the school garden. Today we have some rhubarb a big box of lemons and aloe vera plants (that we grew). We put notices in the two local papers and the school newsletter to let people know what we are doing and so that hopefully they will be part of it. We decided on some rules so that it will run smoothly – they are simple though: give as well as take; respect the area; and wash all items.*



- The Seed Bank group wrote to Kings seeds and were really inspired and motivated when they sent us some packets of seeds to get started.

*We've set up our store – we have a drawer and we put them in alphabetical order. We have also researched and found out quite a bit about how to harvest different seeds for example zucchini you have to leave on the vine until it is just about rotten and then cut it open and pick out the seeds with your hands. Other plants you have to soak them in the pulp for separation and let the seeds rise to the top. In our group we have students in year 3 and 5 who are learning to do this because some of us won't be here next year. We are going to use the seeds in our own garden and at our local marae as we've been asked if we can be involved with helping them set up a garden.*

- The Garden Starter Kit group learned a few things on the way as well...

*Our idea was to support the survey group by inviting those people that haven't got a garden yet to use us to help them and then we could do another survey to see if things have improved. We had to research what you need for a starter kit like tools and then we had to find out how much they would cost. We thought initially that we might be able to hire them out and we started making lots of rules about how to do this. Then we realised that our goal was to get people to have gardens and if we had lots of rules would this help people? We are thinking now that people should just be able to use the equipment and maybe even we'll help them make their gardens.*



- Our teacher Mrs Cook was also talking with people from the marae and some of our classes have helped to re-establish the vege gardens down there so that they have kai for the events that go on there. The students involved say:

*For us it has been EXCITING – all the cooking and digging up the sheep manure. It's been helpful and useful to them [the marae]. It will be saving money at the marae they could just walk outside and get food. They would save petrol. We're looking forward to being part of it.*

- In summary...

*We've had lots of people helping and we've helped ourselves, we've worked through problems and we've worked hard on this. We're looking forward to becoming more of a sustainable community and seeing all our plans really happen!*



## Reflect on Change - Reflections

Linda was initially overwhelmed by the scale and possibilities of the project. She knew there was a real opportunity with the burgeoning relationship with the two marae, as well as the ideas that the students would raise – but where to start? The use of the ‘What if’ scenario was the turning point in getting started, and from there the rest of the project flowed using the framework of the Action Learning Cycle. Linda has high expectations of action and making things happen with her students.

*It is about having an expectation for things to happen. There is no point if there is no purpose, it lacks purpose and authenticity for the children. To make it authentic you have to have action, if it has no purpose you might as well not do it. The children learn that there is this expectation and that you make it happen. We make little goals along the way and have deadlines.*

This combination of students’ ideas, expectations from Linda and her ability to scaffold the students through the process of taking authentic action has led to a longer term connection with their community.

Hi Faye,

Yes we certainly learnt a lot from participating in the project. Yesterday we were invited down to the Waimakariri Pā for a powhiri, blessing of the vegetable garden and to plant their first crop according to the best day of the moon for planting. We were thrilled and plan on being very involved next year as they develop their garden and orchard. The students have loved the project and have felt empowered by it. They have a clear vision about what being a sustainable community looks like (see their idea below). They see it as an ongoing process to build on and to develop further.

Kind Regards

Linda Cook

Assistant Principal

26 Scotsman Valley Road

RD7 Hamilton 3287

New Zealand



### Tauwhare students talk about sustainable community...

*We think the sustainable community through kai project is about building a sustainable community by growing our own food, not using too much petrol, recycling and by getting the community involved to create a bigger and better community. Everyone needs to be included with the food to cut down their food prices and it's about being able to be sustainable so your community is ready if anything happens. If everyone is included then everyone has a chance at doing and being able to be involved.*



## Identify the Current Situation

This school currently grows and cooks a large amount of food. They have a commercial kitchen which has a fortnightly menu that provides a healthy and nourishing lunch for students to purchase. Produce from the garden and orchard is used as it is available. They also have a hydroponics unit that is overseen by the grounds manager and after school care students, which also contributes to the Kai Time Café. In the last two years they have instigated an annual food festival with each class taking responsibility for a 'dish' that is then sold to the 4000 or so visitors that come to the Festival. Each class has a garden plot that can be used to produce food for their chosen dish.



## Explore Alternatives - Goals for this project

- For this project the two teachers involved are working with all the staff (11 classrooms) to facilitate a focus on growing or accessing as many of the ingredients for the Festival Foods as locally as possible.
- They also have an 'ecological island' project underway and one idea they are investigating is the possibility of creating a 'river' that will 'farm' eels/tuna as a possible food source for their community.



## Take Action - What we did

- 1 We had to start almost a year out from the Festival date so that we could follow the growing season.
- 2 As a staff we had to make some decisions about what could be possible with our students' needs and abilities, and also across the school so that we didn't end up with 10 dishes the same. Some of our decisions were a little self-made based on what had traditionally been growing in our class plots.
- 3 In order to do this we had a brainstorm about what to make. We looked at the garden to see what was available and from that we learnt when a blueberry is ready for picking. It should be a deep purple colour, not blue at all.



- 4 We visited a berry farm and looked at how they made ice cream, we found a recipe for berry ice cream and apple crumble and we listed out all the things we would need like flour and bowls and spoons for measuring.
- 5 We had to work out what sizes to make our ice creams and how much to charge for them and the apple crumble. Then we made a Smart Board flyer to advertise the Kai Festival and a big sign to tell people what we were selling and what was in it, like apples from our garden and berries from our garden.
- 6 On the day of the Festival we made our crumble and we put little cardboard sleeves on the ice cream cones ready for the ice cream to go into them when people bought them.

## Reflect on Change - Reflections

" Sustainability is all about leadership leading the drive to be sustainable. If the leaders are not on board with the kaupapa of the school's direction in creating a sustainable model that will work, it will never happen. Principals need to understand that their role as a leader of learning is critical to the success of any school-wide programme of learning. They are integral in linking the school's vision to the sustainable programme and resourcing it appropriately. Without the school's leadership on board with the whole of school approach to sustainable learning, you are doomed to fail. Principals have a moral and ethical responsibility to support the vision of the school's community to support and lead sustainable practice without prejudice nor bias."

Shane Ngatai  
Principal and proud of it



## Identify the Current Situation

Paeroa Central School is located in the town of Paeroa, and caters for students in Years 1 to 8. The roll is around 100, of which just over 90 percent identify as Māori. The other ethnicities are European and Tongan. In 2013 during the project there were established vegetable gardens – one for each class. The kaupapa for their gardens was ‘children growing kai for their whānau’. They have an orchard of 60 trees. In 2012 they built a student kitchen as part of a programme promoting healthy eating supported by the Waikato District Health Board.

## Explore Alternatives - Goals for this project

- To learn about kai in our community
- To be involved in hands-on learning – doing things to support us with kai
- To review and refresh our garden, waste and processes to align with producing kai for our whānau
- To use our electives programme (whānau grouping of students) to implement our hands-on learning

### Student learning outcomes:

- Grow some of our own food from seeds through to harvesting
- Learn to cook whole school shared lunches (using produce from the garden when available)
- Share some ideas about ‘Kai in the community’
- Explain and carry out good composting and waste systems
- Share about beneficial plants to attract insects to the garden and orchard
- Share about Māori medicinal plants
- Know how to plant a range of trees and shrubs, including natives and fruit and nuts





## Take Action - What we did

- 1 Term 1 we started a whole school inquiry on Kai in the Community (each class doing their own inquiry).
- 2 We planned the Term 2 electives with support from 'other experts' to lead groups so that the numbers in each group would be smaller. These included a seeds, cooking, garden/ orchard/ planting, waste, rongoā, sustainable community through kai, art and beneficial plants groups. The elective groups were whānau based from year 1 through to 8.
- 3 Our Principal applied for funding from contestable funding sources and received \$3500. This enabled each 'elective group' a putea of \$500. A local family were also given a start-up loan to set up a school canteen to provide affordable kai.
- 4 Our Enviroschools facilitator Beccy Dove supported by leading an inquiry session using the 'Global Families and Food' resource off TKI and the 'What if' questions to initiate some more thinking from the kids. She also helped us heaps in the planning and discussing stages.
- 5 The sustainable community in kai elective continued to explore possibilities – they made some planter boxes to show how easy it is to grow salad type kai and gave these to the local Police, the kindergarten next door and the Opportunity Shop (because they often give things to the school). The planter boxes were wheeled down town on trolleys and delivered to these groups.
- 6 They asked the Council if they could plant fruit trees in the local skate park area to give some ownership to that space and look to curb some of the vandalism. This is still a work in progress.
- 7 The students wrote a letter on behalf of the elective, asking the two local marae if they would be interested in working together with the students to create a sheet-mulch garden or have fruit trees planted with the help of the children.
- 8 They made mosaic pots for planting herbs in.
- 9 They reviewed what they had achieved in Term 2 and participated in the Matariki school-wide celebration. All families contributed some kai to the hākari and this is what the children said about it: *"Everyone brought something, hot food and cold food and yummy food, but no fat food. The only fat food was boil up fat from the boil up or like cheese or something on the pizza."* This is what the teachers said about it: *"We celebrated Matariki and we had a big hākari – families brought kai to share, classes made dishes to share and it was all 'home made' kai. No packets of chippies, or packaged food, we had a wonderful celebration and this was a real first for our community. The sharing of healthy, home produced food."*
- 10 In Term 3 the students changed elective groups and the new students coming to sustainable community through kai were very motivated to continue to share their enthusiasm for growing, cooking and eating locally. They supported a local family to set up their own vegetable garden – 'starter gardens'.
- 11 The other electives continued to develop their kaupapa, even though often the weather and time of the year made some of the choices and 'hands-on learning' challenging.
- 12 Each elective shared with the school via their weekly assemblies as a way of embedding the practices and behaviours across the school.
- 13 Electives were held once a week for 2 hours in the afternoons.



## Reflect on Change - Reflections



Staff found the idea of electives having pre-determined projects quite hard to leave space for new ideas. However, they did provide lots of opportunity for learning to be connected across the different projects and ideas. For example the children saw seeds being grown, planted in the garden and then the produce used in the different shared lunches that the cooking group created, which they got to eat.

### Students say:

*We're getting better now at knowing how to plant, use the plants in our cooking and having shared lunches. Having the food from our school is innovative, planting healthier food and eating healthier food and looking after our community is good.*



Doing something pre-determined also enabled teaching and learning to focus on some of the strategies students need to learn to take action. Once up and running there was an impetus to consider other possibilities and to build on ideas that had already been started. A key development from their reflections was for students to be given some choice over which group they participated in for future electives.

The kaupapa drew in people to the school that had not previously been involved with school activities and this had multiple benefits as well:

- Children learning from other people in the community
- Community expertise being willingly shared and developed
- A new sense of openness from the school to the community
- Innovations such as the loan to support a local family to develop a small business

### Beccy Dove their facilitator says:

*Part of my role was to co-ordinate things between community people particularly with the 'starter gardens' and being on hand to help in some of these practical sessions. I feel that this physical support, with networking between the different people and help with the sessions was important for the projects sustainability. The school has moved on now with Janet Jones the Principal gaining funding to provide starter gardens for more parents, and recently in the electives they worked independently of me with some families to get these going. I notice for this school the student empowerment in the kai initiatives happens not so much through inquiry in class but through the doing (action in electives) and then what arises during those sessions where there are smaller numbers of children physically working with the teacher and conversations are happening.*





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