

Tipene St Stephen's School Proposed Education Model

Background

In August 2024, Edubased Solutions Ltd was contracted to carry out a pilot project with Tipene St Stephen's School (Tipene) with the objective being to develop an appropriate education model which would integrate project-based learning for Tipene students within the natural environment of the grounds, and in sync with the food and fibre industries. This first phase covered the curricula for Years 9 to 11 with later phases expected to address the following years in turn. Unfortunately, this project on top of the significant effort required of school staff to set up and deliver learning for Year 9 students, proved too much and the project was delayed to the point where it would not be possible to complete all of phase one before Food and Fibre CoVE's operations ceased at the end of 2025.

However, one key deliverable – the bespoke (Tipene) Education Model – was achieved. While this model was developed specifically with Tipene in mind, the principles behind it are considered applicable to any secondary school seeking to integrate industry-related learning, especially for Māori students, into its curricula.

The proposed Tipene Education Model and an Integrated Curriculum structure incorporating project-based delivery & contexts from Food and Fibre Systems Kete follows for secondary schools to use as they see fit.

Bespoke Education Model for Secondary School Vocational Pathway

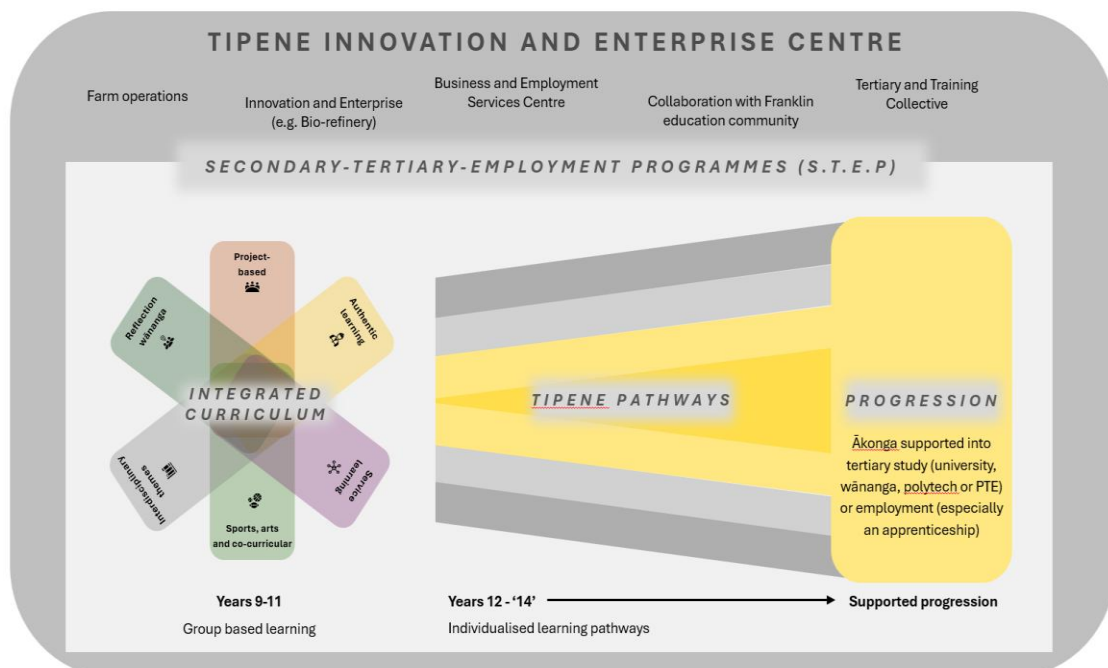
1. Te Kaupapa 'Leading educational change for boys'

Tipene will deliver a holistic and innovative education approach

It will drive positive disruption and significantly **shift the dial in food and fibre education** and training, and **revolutionise educational delivery for rangatahi Māori** to create future leaders who are:

- confident in how to 'be in the world' (their whānau, community and country),
- grounded in their tikanga, reo and mātauranga māori,
- connected into and committed to their iwi/hapū, and
- equipped to successfully progress to further tertiary study and or employment.

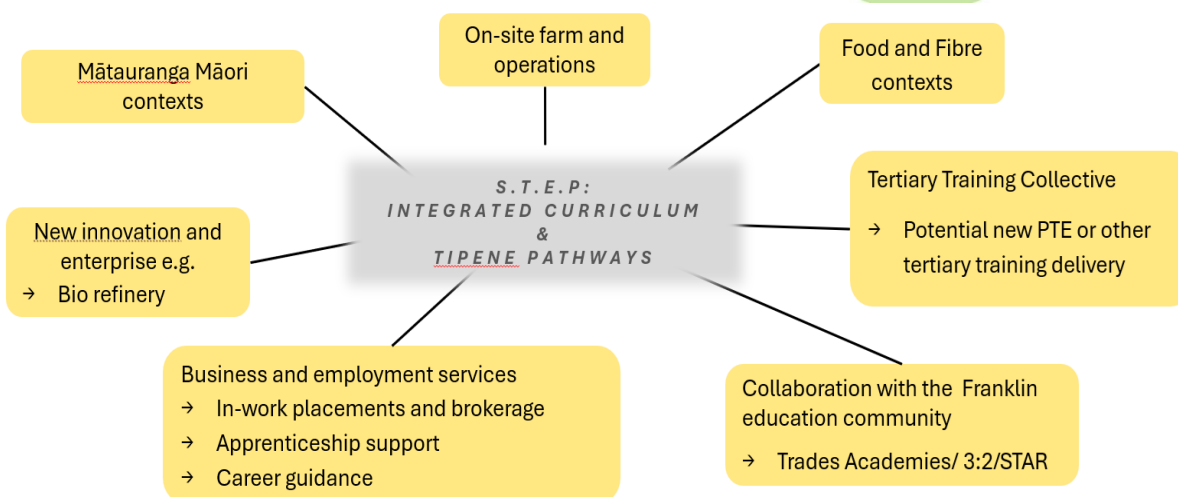
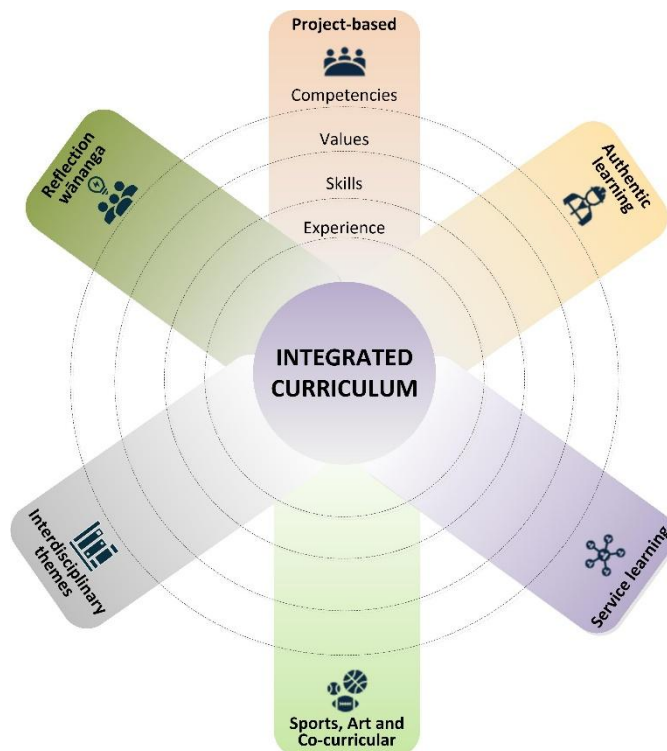
2. The Proposed Model



3. The Tipene Innovation and Enterprise Centre

The Tipene Innovation and Enterprise Centre:

- Is based in the unique Tipene setting and facilities
- Brings together educational experience and opportunity with real world enterprise and innovation
- Co-ordinates the delivery of Secondary-Tertiary-Employment Programmes (S.T.E.P.)
- Provides learning contexts connected to industry, the tertiary sector and community delivered within a food and fibre context – key for an integrated curriculum and the Tipene pathways



4. The Education Framework: The Foundation

In Years 9-11 learning is delivered through an integrated curriculum – a capability development approach that blends knowledge and skill acquisition with practical application. Learning:

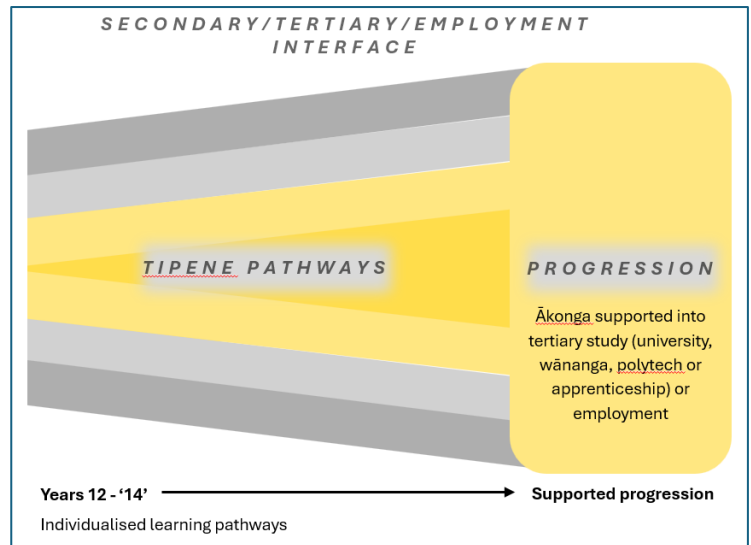
- is delivered in a group setting
- emphasises innovation and enterprise
- uses structured and self-directed approaches, face-to-face and online modes
- is primarily through authentic and experiential learning
- utilises Tipene’s special and unique setting, and
- is enriched by education, employer and community partners.

Ākonga capability development is acquired through a blend of competencies (applied knowledge, skills, and values), informed by mātauranga Māori, and delivered within primary industry settings.

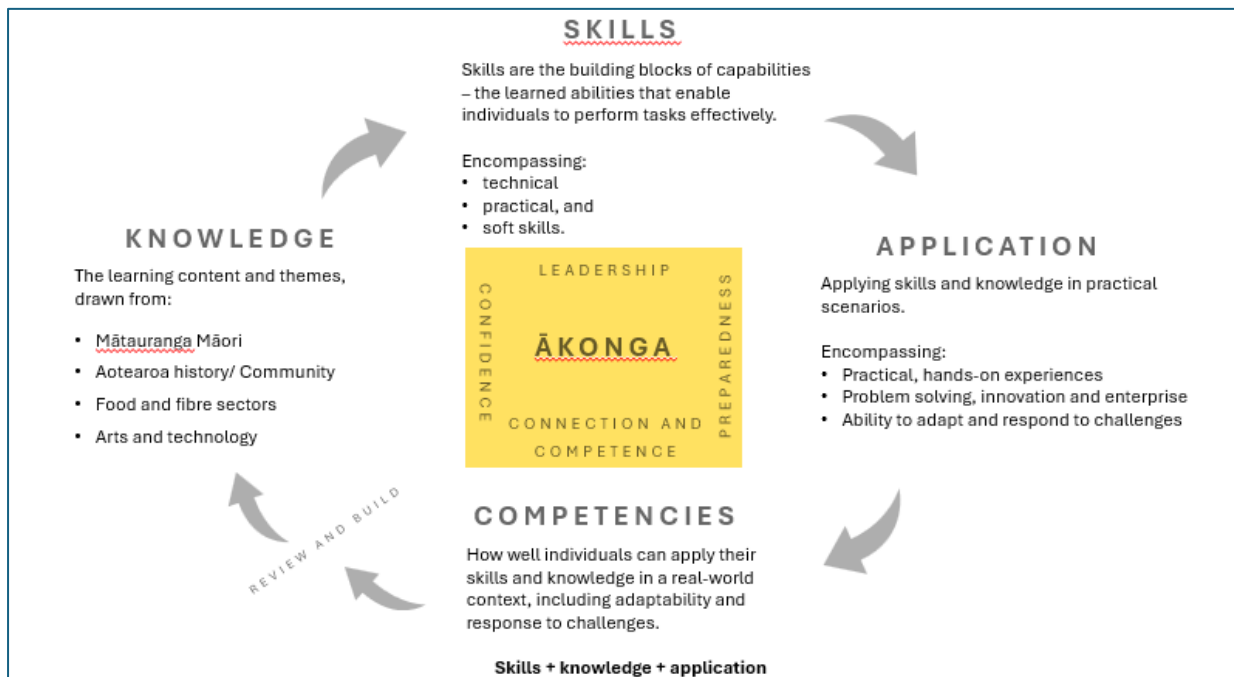
5. The Education Framework: Tipene Pathways

In Years 12 - '14' ākonga learning progression is through **Secondary-Tertiary-Employment Programmes (S.T.E.P.)** designed and developed for use in **Tipene pathways** and delivered:

- via individualised pathways and learning plans
- in a variety of settings onsite and offsite
- utilising the Tipene Innovation and Enterprise Centre facilities and education, employer and community partners, and
- using funding models such as:
 - Trades Academies
 - 3 plus 2 – tertiary or apprenticeship
 - Gateway, and
 - STAR.



S.T.E.P. builds on the capabilities and competencies established in their **integrated curriculum** learning phase.



6. Te Tukanga

Ākonga capability development is acquired through a blend of competencies (applied knowledge, skills, and values) using integrated curriculum strategies informed by mātauranga Māori, delivered within primary industry settings.

These include:



Project-based learning – interdisciplinary themed learning organised by kaiako delivered through ākonga groups alongside individual pathway.



Authentic learning – experience-based learning, hands-on practical experience to apply skills



Service learning – community-based projects/activities that provide relevant experience (less structured and more contribution focused rather than formal learning focused)



Feedback/reflection wānanga – reflect on learning experiences and for constructive feedback to occur



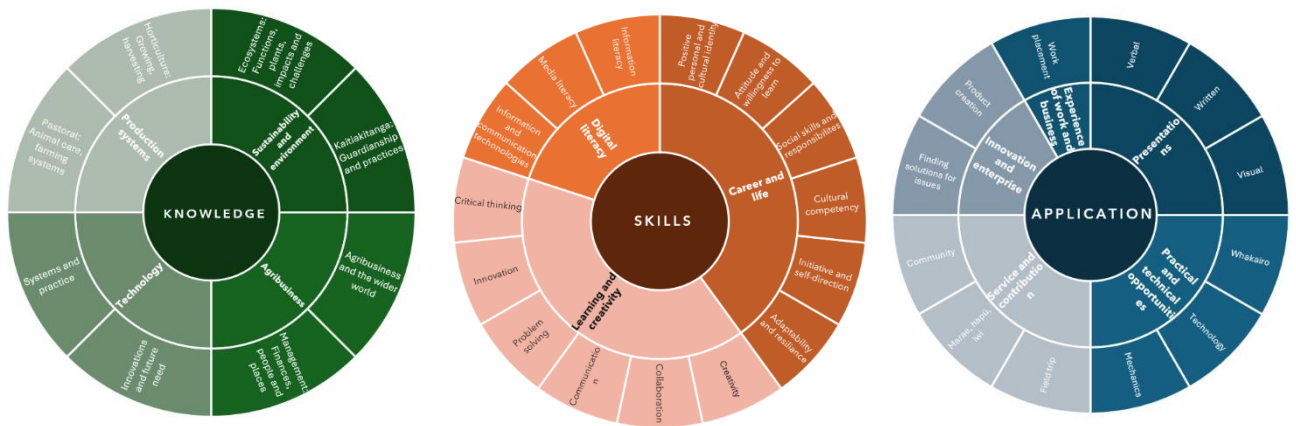
Sport, arts and co-curricular activities

7. Core Components for Teaching and Learning

Kaiako are encouraged to use the core components to build ākonga competencies by designing learning experiences and plans that develop knowledge acquisition and skill acquirement, and organising opportunities to apply these with enterprise and innovation.

The aim is to grow ākonga capabilities and prepare them to choose their journey to tertiary education or employment through a Tipene pathway.

Knowledge + Skill + Application = Competency



(See last page of this appendix for larger images)

8. Example Programme – Two projects over nine days

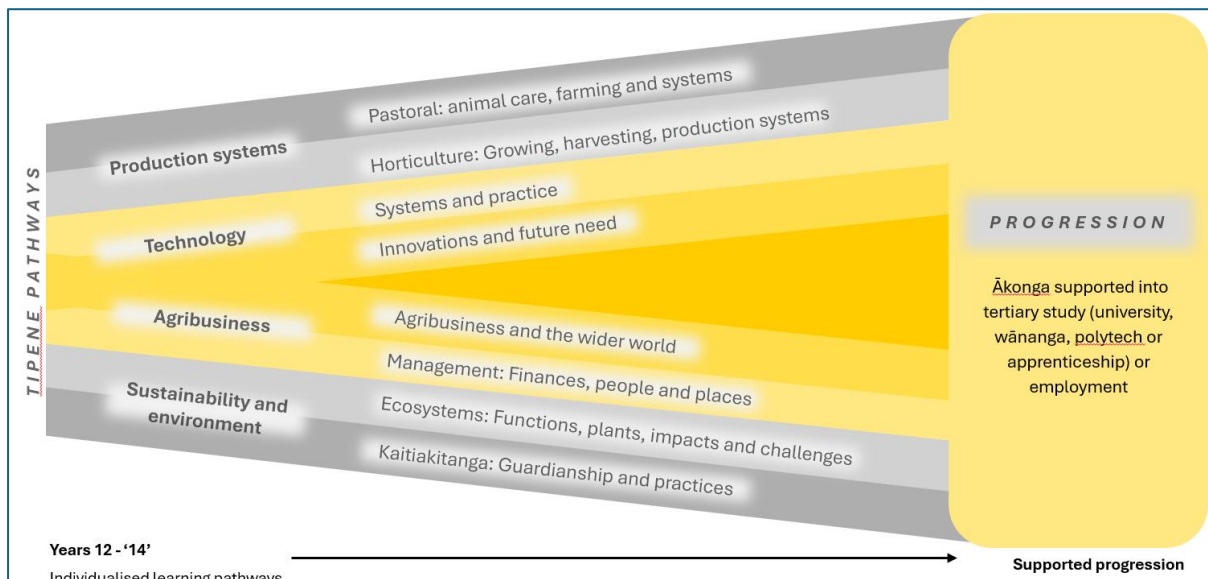
Time	Monday	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Wednesday	Thursday	Friday
6:45-9:00	Wake up Training Change for class Breakfast Morning briefing					Wake up Training Change for class Breakfast Morning briefing				
9:00	Literacy	Numeracy	Science	Technology	Te reo Māori	Literacy	Numeracy	Science	Technology	Te reo Māori
10:00-12:00	Project one: Wetlands and their role in the ecosystem <ul style="list-style-type: none"> <i>Knowledge:</i> Ecosystems – Biology, plant identification and systems <i>Skills:</i> Learning and creativity – Critical thinking, problem solving, communication <i>Application:</i> Service and contribution (field trip) and Presentation (written and verbal) 									Service and connection
12:00-13:00	Lunch Afternoon briefing					Lunch Afternoon briefing				
13:00-15:00	Project two: Onion production and waste materials <ul style="list-style-type: none"> <i>Knowledge:</i> Horticulture – Growing and harvesting; Technology – Innovation and future need <i>Skills:</i> Learning and creativity – Innovation, problem solving; Career and life – social skills and responsibilities <i>Application:</i> Innovation and enterprise – finding solutions for issues; Practical and technical opportunity – Technology, mechanics 									Reflection wānanga
15:00-17:00	Sports	Kapa Haka	Sports	Sports	Sports	Sports	Kapa Haka	Sports	Sports	Sports
17:00+	Dinner/Study/Reflection/Supper/Bed					Dinner/Study/Reflection/Supper/Bed				

9. Tipene Pathways

The objective of Tipene pathways is that each ākonga:

- Is well prepared for their life journey with their Tipene capabilities, and

- Has successfully progressed Te Pūkenga tertiary education and/or employment (e.g. apprenticeship)



10. What are the Tipene Pathways?

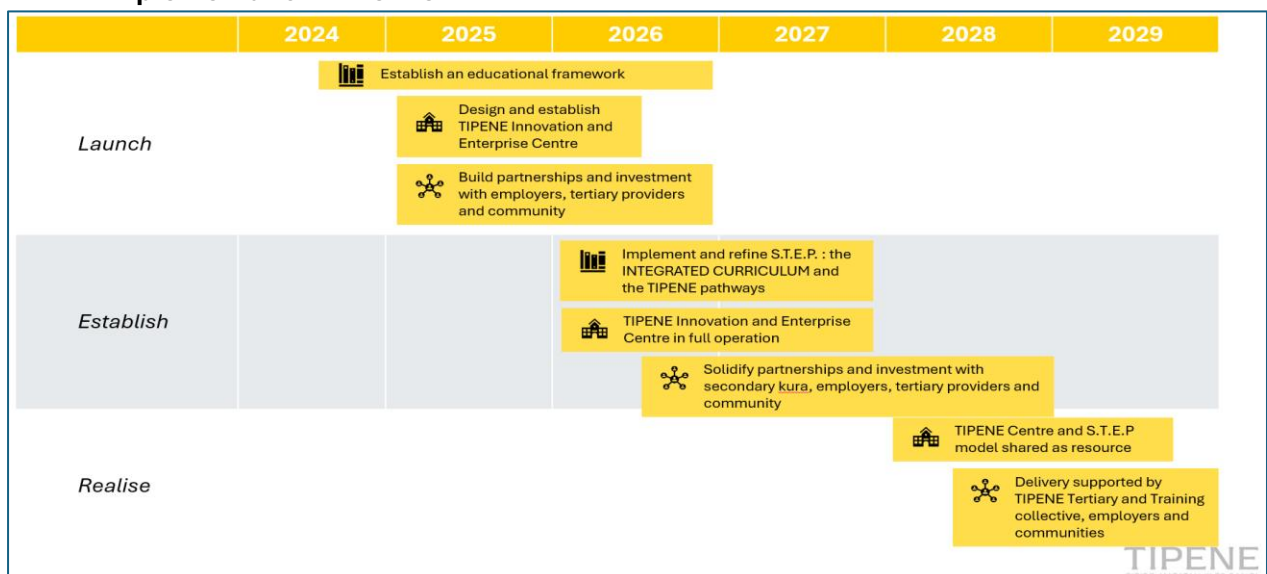
The Tipene pathways allow ākonga take up opportunities to learn via a variety of pathways, following an individualised learning plan. The pathways provide:

- personalised preparation and a head start for ākonga to take their next step(s) in tertiary education and/or employment (e.g. apprenticeship)
- a structured secondary-tertiary-employment interface via the S.T.E.P. model that utilise dual enrolment and funding options (e.g. Trades Academies, 3+2, Gateway, paid employment)
- opportunity to develop career awareness, aspirations and understandings, and
- a mix of curriculum and assessment aligned with a personalised pathway delivered via contextualised applied learning.

Tipene will deliver a well-rounded curriculum (including STEM opportunities) to ākonga through agri-education contexts. These opportunities allow for partnerships with other kura, tertiary providers and workplaces that support the pathway and career awareness.

Employability skills are an important focus ākonga skill development and learning experiences.

11. Implementation Timeline



12. Step One: Launch (Years 0 – 2)

- Establish an education framework
 - Pilot the INTEGRATED CURRICULUM, establish a continuous improvement process to refine
 - Design and develop the S.T.E.P. (Secondary-Tertiary-Employment Programmes) delivery model to support the INTEGRATED CURRICULUM and the Tīpene Pathways.
 - Plan for Year 11 as the bridging year to ‘round-off’ ākongā readiness for progression into a Tīpene Pathway programme - include STEP ‘taster” courses and ensure core competency progress (especially literacy and numeracy standards) are appropriate
- Design and establish Tīpene Innovation and Enterprise Centre
 - Build partnerships with mana whenua, hapori whānui, business and tertiary providers.
 - Secure first education and industry partners (e.g. onion bio-gas)
 - Identify and implement agri-education opportunities for the education framework
- Establish partnerships and investment with employers, tertiary providers and community
 - Identify and progress other industry/business opportunities for the Tīpene Centre
 - Identify and align education opportunities for the S.T.E.P. model in the Tīpene Centre

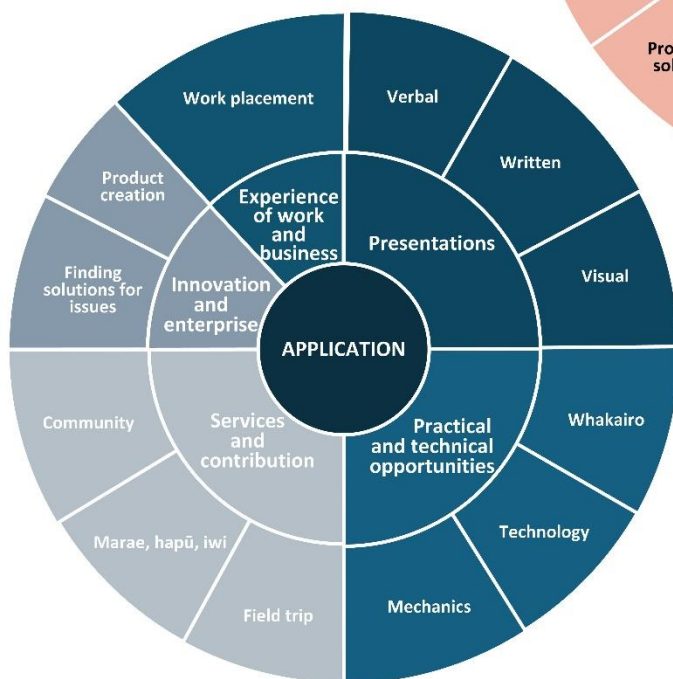
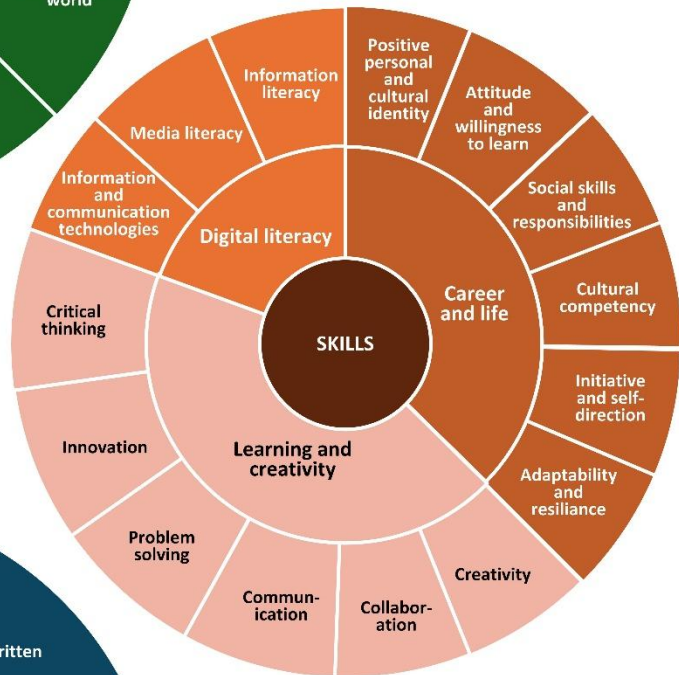
13. Step Two: Establishment (Years 1 – 4)

- Education Centre for Innovation and Enterprise at full operation
 - Partnerships in place
 - New enterprise(s) onsite that encourage innovation
 - Agri-education opportunities
- Implement and refine the education framework
 - Implement and refine the courses in the S.T.E.P. model
 - Secondary-Tertiary-Employment interface structure built around the S.T.E.P. model
 - Integrated curriculum implemented using a robust continuous improvement process
 - Internal systems and Kaiako capabilities ready to progress ākongā to individualised pathways
- Solidify partnerships and investment with employers, tertiary providers and community

14. Step Three: Realise (Year 5)

- Tīpene education framework is fully operational and able to be used as an innovative education model
 - Resources and exemplar shared with other schools, organisations and interested government agencies
 - Mātauranga Māori and Food and Fibre contexts are fully understood and being utilised
- Utilisation of the farm and it’s environment, facilities and business hub are fully integrated into the Tīpene Innovation and Enterprise Centre
 - Education model fully implemented and financially viable
 - S.T.E.P. are funded, financially viable and meet tertiary-style quality assurance requirements
- Delivery is underpinned by a Tīpene Tertiary and Training Collective
 - Brings together employer and tertiary provider partners (including a possible Tīpene Private Training Enterprise) with ākongā to fill out the Tīpene model and take to the next level.

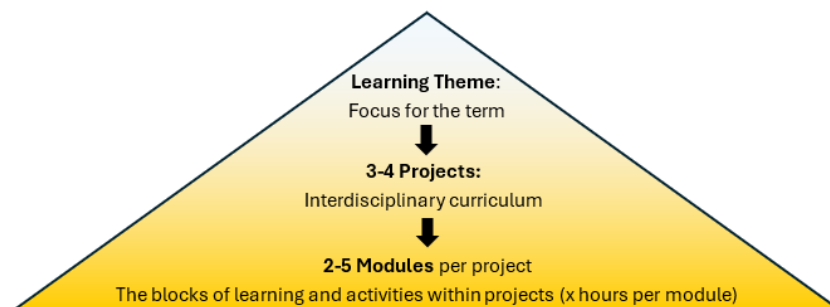
Expanded view of competency elements:



An Integrated Curriculum structure, project-based delivery model & contexts from Food and Fibre Systems Kete

Structure: Each term focuses on a **key learning theme**, with **three to four projects** providing the structure for delivery.

Each Project integrates learning areas from the National Curriculum, using **two to five modules** that are focused, discrete pieces of learning – centred around knowledge and skill acquisition alongside practical application and meet the learning objectives.



For example:

Learning themes	Term 2: Food, health and hauora				Term 3: Environment				Term 4: Technology and food			
	The importance of food and fibre products and food sovereignty to our well-being – economically, nationally and its impact on nutrition, hauora, fitness and sport science.				Understanding the physical world around us and our dependence on it				How we use Technology to help our food supply and quality			
Projects	Food sovereignty – Māra kai	Hauora, nutrition and sport	Food and fibre production in Aotearoa	Aotearoa's global impact through food & fibre	Our planet and climate	Growing spaces	The importance of water	Wetlands and their role in the ecosystem	Planting and growing	From farm to plate or garden to table	Food technology	Managing the impact of water excess or scarcity
Modules												

Notes:

1. The examples are for demonstration purposes. It is envisaged that kaiako will be fully involved in determining and designing project and module content, assessment and activity choices.
2. The number of hours required for each project and module will vary allowing timetable flexibility so as to not disrupt things like sport, tikanga or other onsite and offsite activities.

[Project Title: Description]

[Project introduction: What Is It About?]

[Short introduction about the project scope - what it will cover]

[The primary focus of the project.... is to grow knowledge and skills and use practical hands-on learning to reinforce these. Each project will finish with reflection on what has been learnt along with an understanding of careers/jobs in industry/sector's related to that learning.]

The project comprises [knowledge] + [skills] + [application] – in order to grow competency and confidence.

The project will draw on Mātauranga Māori and the NZ Curriculum learning areas and levels for guidance to create/design content and learning experiences.

The project learning is delivered via 5 modules throughout the term

Each of the five modules is devoted to a separate topic. Each module should include background information for kaiako and learning content, skills development and application activities for ākonga. The background information helps clarify understanding of the knowledge content and relationship to the New Zealand Curriculum for kaiako (e.g. science, maths, language and/or other learning areas).

The background information also includes a description of the materials and steps needed to prepare for the next module. In this way, the kaiako can anticipate upcoming needs and source required materials.

The modules will ensure that ākonga will be able to demonstrate their competency with the relevant learning objectives.

Each module should include two or three activities for ākonga that:

- are related either to the practical exercise and application of their knowledge and skills – e.g. the creation of a product, or maintenance a product or to the knowledge content of the module.
- allow for a mix of group work – activities for the entire group to work together, in small groups and others focused on individual work.
- encourage learning while having fun and letting their imaginations run free!
- build the capabilities that TIPENE wishes them to graduate with – leadership, connection and competence, preparedness and confidence.

By the end of the modules, ākonga will have a good understanding of not only the theory, but the practical applications and related career possibilities.

Modules overview

Module	Knowledge/ Learning areas	NZ curriculum learning objectives	Kaiako background information	Learning Activities	Assessment activities or methods
1			[description title]	1. [group] 2. [Individual]	
2				1. [Create or design] 2. [Build or prototype] 3.	
3				1. [Assemble] 2.	
4				1. [Test] 2. [Refine]	
5				1. 2.	

Materials and Supplies required the project

[note what materials and supplies are required for the project – breaking down by module if possible]:

Module 1: [Title]

NZ curriculum learning objectives:

Preparing for Module 1

Materials You Will Need

[materials and reference].

Preparation

[Activity to undertake in preparation and planning].

Timing

[time requirements for each module and activity]

Knowledge area description

[Text and examples]

Introduce the topic

Outline key knowledge information and skills –

Ask exploratory questions – “you may wonder....”

Module 1 Ākonga Activities

[Description of activities and connection to knowledge]

[images]

Activity 1: Design

[Description and instructions of activity]

Activity 2: Build

[Description and instructions of activity]

Activity 3: Create

[Description and instructions of activity]