# **Materials and Processing Technology Level 1 Course Outline 1**

# Guide to aid teacher planning only - designed to be printed or viewed in A3, Landscape.

## Purpose

This example Course Outline has been produced to help teachers and schools understand the new NCEA Learning and Assessment matrices and could be used to create a year-long programme of learning. It will give teachers ideas of how the new standards might work to assess the curriculum at a particular level.

## Context

Processing (Food)

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| **Significant Learning** | **Learning activities and assessment opportunities**Throughout the year assessment for learning happens often. Evidence may also be collected for summative assessment. | **Duration** Total of 32 weeks |
| * learn about and understand the safe use of chosen materials, tools, and equipment whilst developing an outcome
* consider the impact of the outcome on the end user(s)
 | Induction to Food Technology roomsCodes of PracticeEngagement Practical lessons – ākonga-led recipe ideas to learn and develop understanding of expectations, routines, and rules.Refresher practise to ensure that all learners are familiar with:* testing
* recipe scaling
* food ordering systems
* specifications and meeting them
* collaboration
* recording of evidence
* any other relevant Codes of Practice from your own classroom

Class exercises give students an opportunity to practice skills and provide an opportunity for ***formative*** ***feedback***. | 2–3 weeks  |
| * consider the impact of the outcome on the end user(s)
* learn about the impact of and on society of outcome development
* understand the importance of manaaki whenua (caring for the land) and manaaki tangata (caring for the people) in sustainable design for generations now and into the future
* understand, use, rangahau (research), and apply design thinking principles

 * develop and apply practical skills to solve authentic problems or realise opportunities

 * understand that outcomes are designed and developed to address a need or opportunity for a person, whānau, or community
* use evaluation to determine an outcome’s fitness for purpose
* develop communication skills that support working with others
 | Manaakitanga Exploration of manaakitanga through consideration of the use of materials through kaitiakitanga – what it is, what it looks like in a Processing/Food context.Overview of a design thinking process. Ākonga will use design thinking to design, create, and refine an outcome that demonstrates manaakitanga for a person, whānau, or community group. Through this exploration, ākonga will be supported to identify and research a person, whānau, or community for whom they could show manaakitanga.* brainstorm people, whānau, community.
* research the identified person, whānau, community and give reasons for their choice (opportunity).
* research the ideas of manaaki whenua, manaaki tangata and economic factors and their role in design decisions.
* research kaitiakitanga and how this could influence design decisions.
* ākonga identify and record the purpose, identified person/whānau/community, key details from research as well as basic contextual requirements.

Design ideas* generate a range of concepts that underpin/show manaakitanga.
* use research into the chosen person/whānau/community to inform concepts.
* use research results about manaaki whenua, manaaki tangata and economic factors to inform concepts.
* gather feedback from at least two sources about potential concepts.
* use feedback to select a concept idea to develop.
* develop the concept idea using feedback, rangahau, and knowledge (prior and new).

Technological modelling* ākonga test a range of materials and techniques to determine their suitability.
* ākonga evaluate tests in relation to the brief and specifications.
* ākonga select the most appropriate materials and techniques to use in the development of the outcome.

Brief Development* ākonga refines teacher given/ākonga interpreted/developed brief to reflect decisions made based on design decisions, modelling and feedback from at least one source.

Final outcome development and evaluation* ākonga develops plan for final outcome including selected materials, techniques, equipment, and other resources required.
* ākonga produces final outcome.
* explain/justify that the outcome meets the brief and specifications relating to the identified person, whānau, community.
* explain/justify the outcomes fitness for purpose in the intended environment.

Work produced as part of this project to contribute to the assessment of **AS 92012– Develop a Materials and Processing outcome for an authentic context**Work produced may contribute to the assessment of **AS 92014 – Develop a sustainable Materials and Processing Technology design** | 14–15 weeks |
| * learn to be respectful and open-minded whilst considering the cultural safety of themselves and others
* learn about and understand the safe use of chosen materials, tools, and equipment whilst developing an outcome
* explore and apply world views to the development and creation of outcomes
* explore tikanga Māori and Pacific materials and processing techniques as a foundation for outcome development
* understand that tikanga influences outcome development
* learn about a range of traditional and contemporary materials and techniques and how they relate to each other
* develop auahatanga (innovation) skills through technological practice
* understand that outcomes are designed and developed to address a need or opportunity for a person, whānau, or community
* develop communication skills that support working with others
 | CelebrationExploration of Celebration - What does it mean? What does it look like in my whānau/family/culture? What might it look like in a Processing/Food context? What celebrations might there be coming up that I could work with?Through this exploration, ākonga will be supported to identify and research a person, whānau, or community whom you could connect with around a celebration.* brainstorm people, whānau, community who could benefit from an outcome situated around your own interpretation of celebration.
* research the identified person, whānau, community and why they are chosen (need/opportunity).
* students identify and record the purpose of development, key details from research, and basic contextual requirements.

Design ideas* generate a range of concepts.
* use research into the chosen person/whānau/community to inform concepts.
* gather relevant feedback from at least two sources about potential concepts including identified person/whānau/community.
* use feedback to select a concept idea to develop.
* develop the concept idea using feedback, rangahau, and knowledge (prior and new).

Technological modelling/Technological products* ākonga transform and manipulate a range of diverse materials to determine their suitability.
* ākonga will test the most relevant material(s) and components to determine their suitability.
* ākonga test a range of techniques to determine their suitability.
* evaluate tests in relation to the brief and specifications.
* gather relevant feedback about material exploration from at least two sources about potential concepts including identified person/whānau/community.
* ākonga select the most appropriate materials and techniques to use in the development of the outcome.

Brief Development* ākonga refines teacher given/ākonga interpreted/developed brief to reflect decisions made based on design decisions, modelling and feedback from relevant sources - chosen person/whānau/community.

Final outcome development and evaluation* ākonga develops plan for final outcome including selected materials, techniques, equipment, and other resources required.
* ākonga produces final outcome.
* explain/justify that the outcome meets the brief and specifications relating to the identified person, whānau, community.
* explain/justify the outcomes fitness for purpose for the identified need or opportunity.

Work produced as part of this project to contribute to the assessment of **AS 92013 – Transform or manipulate diverse materials to develop an outcome**Work produced may contribute to the assessment of **AS 92015 – Test materials and techniques to use in the development of a feasible materials and processing outcome** | 14 –15 weeks |