# **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 rooms Codes of Practice  Engagement 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 | Celebration Exploration 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 |