NCEA Review and Maintenance Programme – 2026 updates

Review and maintenance work has been undertaken for all three levels of NZC NCEA for 2026. This pdf document contains the updated assessment materials for **Materials and Processing Technology Level 1**. In January 2026 the NCEA website will be updated with these changes for Level 1, and the pdf version will be removed as it will no longer be necessary. For Levels 2 and 3, assessment materials will be updated on TKI in January. For external assessment specifications, refer to the NZQA website.

Subject: Materials and Processing Technology Level 1

Product	What's changed?
Conditions of Assessment across all internal standards	Updated to provide clearer guidance around authenticity.
AS1.3 92014 Unpacking	Clarification and alignment with Achievement Standard revisions.
AS1.4 92015 Unpacking	Updated to clarify and align the 'Intent of the standard' section with the Achievement Standard.
Subject Learning Ooutcomes	Updated for clarification and to align with 1.3 revisions.

Contents

Product	Page
Conditions of Assessment across all internal standards	2
AS1.3 92014 Unpacking	4
AS1.4 92015 Unpacking	6
Subject Learning Outcomes	8

NCEA Conditions of Assessment

across all internally assessed standards

Subject:	All NZC subjects
Achievement Standard:	All NZC internal Achievement Standards

The Conditions of Assessment across all Level 1 internally assessed standards have been updated to include clearer guidance about authenticity. Any changes to Standard Specific Conditions of Assessment will be shown separately within this document.

Conditions of Assessment

for internally assessed standards

These Conditions provide guidelines for assessment against internally assessed Achievement Standards. Guidance is provided on:

- specific requirements for all assessments against this Standard
- appropriate ways of, and conditions for, gathering evidence
- ensuring that evidence is authentic.

Assessors must be familiar with guidance on assessment practice in learning centres, including enforcing timeframes and deadlines. The NZQA website offers resources that would be useful to read in conjunction with these Conditions of Assessment.

The learning centre's Assessment Policy and Conditions of Assessment must be consistent with NZQA's Assessment Rules for Schools with Consent to Assess. This link includes guidance for managing internal moderation and the collection of evidence.

Gathering Evidence

Internal assessment provides considerable flexibility in the collection of evidence. Evidence can be collected in different ways to suit a range of teaching and learning styles, and a range of contexts of teaching and learning. Care needs to be taken to allow students opportunities to present their best evidence against the Standard(s) that are free from unnecessary constraints.

It is recommended that the design of assessment reflects and reinforces the ways students have been learning. Collection of evidence for the internally assessed Standards could include, but is not restricted to, an extended task, an investigation, digital evidence (such as recorded interviews, blogs, photographs, or film), or a portfolio of evidence.

Effective assessment should suit the nature of the learning being assessed, provide opportunities to meet the diverse needs of all students, and be valid and fair.

Ensuring Authenticity of Evidence

Authenticity of student evidence needs to be assured regardless of the method of collecting evidence. This must be in line with the learning centre's policy and NZQA's Assessment Rules for Schools with Consent to Assess.

Ensure that the student's evidence is individually identifiable and represents the student's own work. The evidence must be an accurate reflection of what the student independently knows and can do, according to the Standard being assessed. This includes evidence submitted as part of a group assessment, evidence produced outside of class time or without assessor supervision, and evidence produced with any use of generative artificial intelligence tools (GenAI). GenAI use should be carefully considered in the context of the Standard being assessed and its Conditions of Assessment, discussed with students before the assessment, and its use must be acknowledged. For example, an investigation carried out over several sessions could include:

- teacher guidance on the nature and extent of acceptable GenAI use, if any
- assessor observations and conversations
- meeting with the student at set milestones or checkpoints
- the student's record of progress, such as photographic entries or any GenAI prompts used.

NCEA Unpacking the Standard

Subject:	Materials and Processing Technology
Achievement Standard:	1.3 Demonstrate understanding of sustainable practices in the development of a Materials and Processing Technology design
Credits:	4

The intent of the Achievement Standard

This Achievement Standard assesses the ability of ākonga to explore the importance of using sustainable practices, for both today's and future generations, during the development of a design for a person, whānau, or community.

Sustainable practice is an enduring competency which is integral to any design process. It is about applying sustainable practices during the development of the design to make sure sustainability is considered before a physical outcome is developed.

Ākonga must include discussion of kaitiakitanga as they consider and apply these sustainable practices. This will help them to become more responsible designers and understand how their actions can affect the world around them.

Making reliable judgements

This Standard does not require the design to be developed into a physical outcome.

To attain this Standard, ākonga must include discussion of kaitiakitanga in the context of applying sustainable practices for the environment during the development of the design. Examples of ways ākonga can fulfil their responsibility towards the environment include:

- the selection of materials
- the economic use of materials
- the appropriate disposal of waste materials.

Examination of the sustainable practices will lead ākonga to apply a critical eye to their design. The aim of this reflection is to get them to make refinements to the sustainable practices applied to their purposeful design.

Ākonga will appraise their design through the evaluation of decisions made about sustainable practices in the development of the purposeful design for a person, whānau, or community.

Kaiako will support ākonga to make selections of images from their learning to curate a portfolio that will be submitted to NZQA in Term 4. A design brief can be provided by kaiako and further developed by ākonga, or generated by ākonga.

Collecting evidence

To document their thinking and ideas, ākonga are encouraged to build digital folders at the start of the year to add to and curate throughout development. Teachers should make sure that ākonga collate evidence to meet the requirements of the standard. Collecting evidence at the time of development will ensure sufficient supporting evidence is available to be assessed and will be a true representation of the practice and process.

Possible contexts

A Materials and Processing Technology design could be in the context or contexts the ākonga is studying, for example, hard materials, textiles, food technology, and electronics.

NCEA Unpacking the Standard

Subject:	Materials and Processing Technology
Achievement Standard:	1.4 Demonstrate understanding of techniques selected for a feasible Materials and processing Technology outcome
Credits:	4

The intent of the Achievement Standard

This Achievement Standard assesses the ability of ākonga to trial and then select suitable techniques for a feasible outcome. They will identify the techniques with the most appropriate functional attributes. The selected techniques will either respond to a design opportunity, meet end user needs, or both. Ākonga will use stakeholder feedback to inform their decisions.

The techniques selected during the development of a feasible outcome have a direct effect on its functionality. Ākonga will trial potential techniques and compare them to determine which ones are the most appropriate for the feasible outcome. They will also seek and apply relevant stakeholder feedback to help them make effective decisions regarding the selection of techniques. Finally, ākonga will analyse how the connections between trialling, the selection of appropriate techniques, and stakeholder feedback helped to inform and improve the feasibility of the outcome.

Making reliable judgements

Choosing reliable materials or components will lead to informed decisions about which techniques to use to achieve the desired result.

For the purpose of this Achievement Standard, functional modelling is the practice of trialling alternative versions of techniques to determine the most appropriate for the feasible outcome. Ākonga will apply their knowledge of functional modelling to develop an understanding of which potential techniques are the most appropriate to develop their feasible outcome.

Ākonga should seek stakeholder feedback during trialling. Stakeholder feedback needs to be purposeful, reliable, and informative and should be gained from first-hand sources. This could include people, or groups of people, that have expertise, experience, or a combination of both in this area. More than one stakeholder should be consulted at more than one point during development.

Ākonga do not need to have a completed outcome to achieve this Standard.

Collecting evidence

To document their thinking and ideas, ākonga are encouraged to build digital folders at the start of the year to add to and curate throughout development. Teachers should make sure that ākonga will collate evidence to meet the requirements of the standard. Collecting evidence at the time of development will ensure sufficient supporting evidence is available to be assessed and will be a true representation of the practice and process.

Possible contexts

A Materials and Processing Technology feasible outcome could be in the context or contexts the ākonga is studying, for example, hard materials, textiles, food technology, and electronics.

Materials and Processing Technology NCEA NZC Level 1
Subject Learning Outcomes for Assessment

Companion to the Materials and Processing Technology Learning Matrix

What are the Subject Learning Outcomes and how can I use them?

Subject Learning Outcomes identify the knowledge and skills that students need to be ready for assessment. Subject Learning Outcomes are informed by the Achievement Standards. They should be used in conjunction with the full suite of NCEA materials. For guidance on assessment criteria, please also refer to the Achievement Standards, Unpacking, and External Assessment Specifications or Conditions of Assessment as appropriate.

Subject Learning Outcomes do not replace any documents. This includes the External Assessment Specifications and Conditions of Assessment. All NCEA materials need to be used to fully understand the requirements of each Achievement Standard and to plan a robust teaching, learning, and assessment programme. Subject Learning Outcomes should not be used to make assessor judgments. The Achievement Standard and the Assessment Schedule for Internal Assessment Activities are used to make such judgments.

Subject Learning Outcomes, alongside other key documents, make clear to teachers what to include in their teaching and learning programmes and what student capabilities to check for, in the lead up to assessment. Each Subject Learning Outcome does not need the same amount of teaching time.

All learning should connect with students' lives in Aotearoa New Zealand and the Pacific. Teachers or students usually select the contexts. As such, contexts are not always specified in the Subject Learning Outcomes. Examples may be provided to illustrate topics and contexts, but they are not prescriptive.

Students are entitled to teaching that supports them to achieve higher levels of achievement. Subject Learning Outcomes mainly align with outcomes for the Achieved level. However, outcomes for higher levels of achievement are also included.

The knowledge and skills in the Subject Learning Outcomes are the expected learning that underpins each Achievement Standard. Students will draw on this learning during assessment. It is important to note that assessment is a sampling process so not everything that is taught will be assessed.

Achievement Standard 1.1 (92012): Develop a Materials and Processing Technology outcome in an authentic context (6 Credits)

What is being assessed	Subject Learning Outcomes
Apply technological practice in an authentic context to develop and create a materials and/or processing technology outcome	Students are able to: ● apply technological practice in an authentic context to a materials and/or processing technology outcome, including but not limited to resistant materials, textiles, food, digital, or electronics. For example, they will understand and apply the iterative stages of technological practice by: ○ identifying a need and/or opportunity for a person, whānau, or community ○ undertaking relevant research ○ ideating, developing, and refining ideas ○ evaluating ideas and outcomes. For example, evaluate the outcome against the brief with specifications to determine fitness for purpose, ie has the outcome met the brief with specifications? If so, how? If not, why? ● use or develop a given brief which outlines: ○ the who, what, when, where, how, and why (conceptual statement) ○ measurable physical and functional specifications to enable evaluation of fitness for purpose in the actual or modelled intended environment. Students can generate their own brief with specifications and/or refine a given brief with specifications. ● develop and create a fit-for-purpose outcome. For example, use practical skills to safely develop and create an outcome that is guided by the brief with measurable specifications and meets the requirements of the end user. For Merit, students are able to: ● seek, record, analyse, and apply stakeholder feedback. For example, respond to the stakeholder feedback received from more than one stakeholder at more than one stage and use it to guide the development of the outcome. ● explain decisions that inform improvements by showing how the quality of the outcome was enhanced. For example, through the results of testing undertaken during development.

	For Excellence, students are able to: ● analyse how stakeholder feedback informed development. For example, closely examine and respond to advice or comments received from stakeholders by implementing changes to the developing outcome. ● evaluate the outcome against the brief with specifications to determine fitness for purpose, considering stakeholder(s), end user(s), and potential next steps. For example: ○ evaluate the finished outcome in the intended or modelled environment to determine its effectiveness and fitness for purpose for the stakeholder(s) ○ evaluate the finished outcome for the end user against the brief with the measurable physical and functional specifications, to determine its fitness for purpose ○ explain decisions that inform potential improvement for the finished outcome to improve the fitness for purpose (what went well and how/why can it be improved?).

Achievement Standard 1.2 (92013): Experiment with different materials to develop a Materials and Processing Technology outcome (6 Credits)

What is being assessed	Subject Learning Outcomes
Develop and create a purposeful materials and/or processing technology outcome through experimentation with different materials	Students are able to: ● safely explore materials through experimentation. They could try: ○ transforming, and/or ○ combining, and/or ○ manipulating, and/or ○ forming, and/or ○ a combination of all four. ● select different materials (including but not limited to items, ingredients, and/or components that an outcome can be made from) to use in initial material explorations ● identify how the exploration/experiments informed their understanding of the properties of materials. For example, what was discovered about material properties as a result of: ○ transforming, and/or ○ combining, and/or

	○ manipulating, and/or ○ forming, and/or ○ a combination of all four techniques and processes. ● identify a need or opportunity for a person, whānau, or community. A purposeful context may arise as a result of the process of materials experimentation and/or it may be identified as part of a given brief. ● apply the knowledge gained from material explorations to guide the deliberate selection of materials to use for the creation of a purposeful outcome ● use practical skills to develop and create a purposeful outcome using the selected materials. For Merit, students are able to: ● carry out ongoing investigation of the properties of materials. For example, undertaking further experiments to gather deeper understanding of how materials function and their physical attributes. A series of 'what if' questions could guide decision-making, for example 'what would happen if epoxy resin was inlaid in timber?'. ● apply knowledge gained from further investigation of material properties and select the most suitable materials, for example, make comparisons between the methods of transforming, and/or combining, and/or manipulating, and/or forming materials to make an informed decision ● examine, analyse, and implement stakeholder feedback gathered from more than one person at different stages during experimentation with materials ● communicate how relevant stakeholder feedback guided the selection of materials and informed the development and creation of the purposeful outcome. For Excellence, students are able to: ● examine in detail the properties of the materials explored and use the findings to guide a deliberate selection of suitable material(s), for example, compare the benefits and constraints of the materials in relation to development and creation of the purposeful outcome ● show sound reasoning and justification for the selection of materials used in the development and creation of the purposeful outcome.

Achievement Standard 1.3 (92014): Demonstrate understanding of sustainable practices in the development of a Materials and Processing Technology design (4 Credits)

What is being assessed	Subject Learning Outcomes
Apply sustainable practices in the development of a Materials and Processing Technology design for an outcome Show knowledge of sustainable practices used in the design and development of a Materials and Processing Technology outcome	This Achievement Standard does not require the design to be developed into a physical outcome. Students are able to: ● develop Materials and Processing Technology concept designs. This involves examining and applying sustainable practices for the environment, to the design process. For example, the inks or stains used in the creation of a technology outcome, and consideration of resulting waste. ● use technology practice to underpin their design process ● discuss kaitiakitanga in the context of applying sustainable practices for the environment during the development of their design. Examples of ways students can fulfil their responsibility towards the environment include: ○ the selection of materials, for example, ingredients, components, and other resources ○ the economic use of materials, for example, using a lay plan, repurposing materials, or preserving or dehydrating excess food ○ the appropriate disposal of waste materials, for example, considering recycling or use of e-waste facilities for excess circuitry. ● use a design process for a person, whānau, or community that may include: ○ ongoing research ○ developing initial concept designs ○ stakeholder feedback ○ refining and developing the design through ongoing research, developing initial concept designs, and refining initial concept designs during the creation of the design. For Merit, students are able to:

	• refine the application of sustainable practices in the development of the design for a person, whānau, or community. This refinement could include:
	  ○ ongoing research to influence the selection of materials, ingredients, components, and other resources
	  ○ further discovery about how the economic use of materials generated additional efficiencies for how materials, ingredients, components, and other resources could be used
	  ○ a deeper understanding of how the disposal of waste materials, ingredients, components, and other resources could further reduce harm to the planet.
	
	For Excellence, students are able to:
	• evaluate how ongoing decisions informed the sustainable practices applied to the purposeful design.

Achievement Standard 1.4 (92015): Demonstrate understanding of techniques selected for a feasible Materials and Processing Technology outcome (4 Credits)

What is being assessed	Subject Learning Outcomes
Describe, trial, and select appropriate techniques for a feasible materials and/or processing technology outcome	This Achievement Standard does not require a final physical outcome to be made. Students need an understanding of functional modelling. This may involve trialling part of the designed outcome to determine potential fitness for purpose. Students are able to: ● identify a feasible material and/or processing technological outcome ● investigate and trial appropriate techniques during the development of the feasible outcome, focussing on what is relevant. A feasible outcome is one that is capable of being created. This involves describing, trialling, and then selecting the most appropriate techniques for the feasible outcome. For example: ○ considering the functional attributes of the technological outcome when selecting techniques to trial, ie, seams, joints, meat tenderisation. For Merit, students are able to: ● compare the most appropriate techniques to inform decision-making in the refinement of the feasible outcome ● seek, document, analyse, and apply stakeholder feedback in decision-making for selecting techniques for a feasible outcome. For Excellence, students are able to: ● analyse how trialling techniques, the selection of appropriate techniques, and stakeholder feedback connect to inform and improve the feasibility of the outcome.