

Achievement Standard

Subject Reference	Materials and Processing Technology 1.3		
Title	Demonstrate understanding of sustainable practices in the development of a Materials and Processing Technology design		
Level	1	Credits	4
		Assessment	External
Subfield	Technology		
Domain	Construction and Mechanical Technologies		
Status	Approved	Status date	December 2023
Planned review date	December 2028	Date version published	December 2023

Purpose Statement

Students are able to demonstrate understanding of sustainable practices in the development of a Materials and Processing Technology design.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Demonstrate understanding of sustainable practices in the development of a Materials and Processing Technology design 	<ul style="list-style-type: none"> Examine sustainable practices in the development of a Materials and Processing Technology design 	<ul style="list-style-type: none"> Evaluate sustainable practices in the development of a Materials and Processing Technology design

Explanatory Notes

- 1 *Demonstrate understanding of sustainable practices in the development of a Materials and Processing Technology design* involves:
- using sustainable practices in the development of a design for a person, whānau, or community.

Examine sustainable practices in the development of a Materials and Processing Technology design involves:

- refining the use of sustainable practices in the development of the design for a person, whānau, or community
- applying stakeholder feedback to make decisions about sustainable practices.

Evaluate sustainable practices in the development of a Materials and Processing Technology design involves:

- evaluating decisions about sustainable practices in the development of the design for a person, whānau, or community
 - evaluating how stakeholder feedback informs decisions about sustainable practices.
- 2 As part of the evidence provided, students must include discussion of kaitiakitanga in the context of applying sustainable practices for the environment during the development of a design. Examples of ways students can fulfil their responsibility towards the environment include:
- the selection of materials
 - the economic use of materials
 - the appropriate disposal of waste materials.
- 3 *A Materials and Processing Technology design* does not need to result in a final outcome.
- 4 The design will be developed using a design process.

A *design process* can involve:

- ongoing research
 - developing initial concept designs
 - refining the initial concept designs during the creation of the design.
- 5 For the purpose of this achievement standard, *stakeholder feedback* is used to inform the development and selection of sustainable practices for a design.

Stakeholder feedback is verbal or written information sourced first-hand. Sources of stakeholder feedback could include the end user, or people or groups that have expertise, experience, or a combination of both in this area. More than one stakeholder must be consulted.

- 6 Refer to the NCEA [glossary](#) for Māori, Pacific, and further subject-specific terms and concepts.
- 7 This achievement standard is derived from the Technology Learning Area at Level 6 of *The New Zealand Curriculum*: Learning Media, Ministry of Education, 2007.

Replacement Information

This achievement standard, AS92012, AS92013, and AS92015 replaced AS91044-AS91056.

Quality Assurance

- 1 Schools and institutions must have been granted consent to assess by NZQA before they can register credits from assessment against achievement standards.
- 2 Schools and institutions with consent to assess must engage with the moderation system that applies to those achievement standards.

Consent and Moderation Requirements (CMR) reference 0233
