**NZQA**

**Approved**

Achievement standard: 91361 Version 3

Standard title: Demonstrate understanding of sociocultural factors, and how competing priorities are managed, in technology

Level: 2

Credits: 4

Resource title: Characteristics of cladding

Resource reference: Generic Technology VP-2.8 v2

Vocational pathway: Services Industries

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| Quality assurance status | These materials have been quality assured by NZQA. NZQA Approved number A-A-02-2015-91361-02-8258 |
| Authenticity of evidence | Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material.Using this assessment resource without modification may mean that learners’ work is not authentic. Assessors/ educators may need to change figures, measurements or data sources or set a different context or topic to be investigated or a different text to read or perform. |

Vocational Pathway Assessment Resource

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Learner instructions

# Introduction

This assessment activity requires you to demonstrate your understanding of sociocultural factors and how competing priorities are managed in a field of building and in a particular technological development associated with cladding.

You are going to be assessed on how comprehensively you demonstrate your understanding of sociocultural factors and how competing priorities are managed in a field of building and in a particular technological development associated with cladding.

The following instructions provide you with a way to structure your work so you can demonstrate what you have learnt and achieve success in this standard.

Assessor/educator note: It is expected that the assessor/educator will read the learner instructions and modify them if necessary to suit their learners.

# Task

Create a report or presentation that could be used by real estate agents when working with clients who are concerned about cladding in terms of, for example sustainability or leaky buildings.

Confirm the format of your report or presentation with your assessor/educator. This could be, for example a written report, a pamphlet, a portfolio or an audio-visual presentation.

## Conduct research

Research the building field of technology and gather evidence you could use in your report or presentation. Your assessor/educator will advise you on how you might go about accessing suitable information.

The evidence you gather could include photographs, diagrams, notes you have written, and material from books, magazines, brochures or websites. Make sure you keep a record of the sources of this information.

You may work individually or in a group to conduct research but you must produce your report or presentation individually.

See Resource A for an example of how you may organise your investigation.

## Create a report or presentation

Create a report or presentation in which you do the following:

* Discuss the interactions between sociocultural factors and technological developments in cladding in the field of building. Describe what these sociocultural factors are and explain how and why they influence technological developments in cladding, providing detailed examples.
* Describe and explain the relationships between competing priorities and aspects of technological practice in the building field of technology.
* Describe and explain how competing priorities were managed in technological development in cladding in the field of building. Identify and discuss decisions made to manage these competing priorities.

# Resource A

## Structuring your investigation

Here are some sample questions you could use to help you begin your investigation into sociocultural factors and competing priorities in technological developments within a field of technology. This is only one way to go about the task and it does not fully cover all the information that you may require to write your report or presentation.

### Sociocultural factors

* What sociocultural factors could impact on technological developments in this field? You may consider, but are not limited to:
	+ social factors
	+ political factors
	+ environmental factors
	+ economic factors
	+ cultural factors
	+ spiritual factors.
* What limitations could these sociocultural factors place on technological developments in this field?

### Competing priorities

* What competing priorities influence the development of technological developments in this field? You may consider, but are not limited to:
	+ opposing stakeholder viewpoints
	+ innovation versus social acceptance
	+ expedient practices versus ethically acceptable practices
	+ the use of renewable versus non-renewable resources
	+ budget constraints versus the use of most suitable materials
	+ the use of resources of cultural significance in traditional versus contemporary contexts.
* How do these priorities affect aspects of technical practice? You may consider, but are not limited to:
	+ establishing a need or an opportunity
	+ design decisions and outcome development
	+ resources selection, use and availability
	+ manufacturing and/or production processes and methods
	+ implementation and evaluation within a social or physical environment
	+ maintenance and disposal issues
	+ ethical, social and moral responsibilities.

### Competing priorities in a particular technological development

* With reference to a particular technological development within this field, how have competing priorities been managed?
* What decisions had to be made to manage or resolve these competing priorities?
* How were such decisions justified?
* You may consider, but are not limited to:
	+ the stakeholders in the development work and the outcome produced
	+ the social and physical environment in which the development work took place and in which the outcome was situated
	+ legal requirements within the workplace and of the outcome and where the outcome operates
	+ cost restrictions in terms of material selection and equipment availability
	+ resource selection and justification
	+ maintenance and disposal
	+ cultural considerations which may be relevant to the particular development
	+ ethical, social, and moral responsibilities.

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Assessor/Educator guidelines

# Introduction

The following guidelines are supplied to enable assessors/educators to carry out valid and consistent assessment using this internal assessment resource.

As with all assessment resources, education providers will need to follow their own quality control processes. Assessors/educators must manage authenticity for any assessment from a public source, because learners may have access to the assessment schedule or exemplar material. Using this assessment resource without modification may mean that learners' work is not authentic. The assessor/educator may need to change figures, measurements or data sources or set a different context or topic. Assessors/educators need to consider the local context in which learning is taking place and its relevance for learners.

Assessors/educators need to be very familiar with the outcome being assessed by the achievement standard. The achievement criteria and the explanatory notes contain information, definitions, and requirements that are crucial when interpreting the standard and assessing learners against it.

# Context/setting

This activity requires learners to create a report or presentation to demonstrate their comprehensive understanding by exploring the interactions between sociocultural factors and how competing priorities are managed in the field of building and in a particular technological development within cladding.

You may wish to select or negotiate other fields of technology and/or technological developments to meet the identified needs of your learners. These could be within or outside your learners’ technological practice, but they need sufficient diversity of potential sociocultural considerations to enable learners to meet the requirements of the standard.

# Conditions

Learner investigation of selected technological developments can occur in parallel with their own technological practice or during a concentrated period of time with a major focus on this activity.

# Resource requirements

Learners will require access to the internet to find relevant information about the building field and technological development in cladding.

Useful websites related to wall cladding:

Homeowners’ Building Guide <http://buildingguide.co.nz/products/exterior-cladding>

Abodo <http://abodo.co.nz>

Style New Zealand Inspiration <http://nzexplorer.co.nz/home_exteriors.php>

Better Homes and Gardens article (*Cladding and rendering ideas*) <http://nz.lifestyle.yahoo.com/better-homes-gardens/diy/articles/a/-/8789375/cladding-and-rendering-ideas>

# Additional information

None.

# Assessment schedule: Generic Technology 91361 – Characteristics of cladding

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| Evidence/Judgements for Achievement | Evidence/Judgements for Achievement with Merit | Evidence/Judgements for Achievement with Excellence |
| The learner demonstrates understanding of sociocultural factors, and how competing priorities are managed, in technology by:* describing the interactions between sociocultural factors and technological developments in a field of technology

For example:The learner describes the interactions between sociocultural factors such as sustainability, life expectancy, visual impact, preferred trends, material costs, environmental efficiency and renewable materials associated with cladding materials in the building sector. They establish the need/opportunity for cladding developments and describe cladding design and development, resource selection and availability, and maintenance and disposal.* describing the relationships between competing priorities and aspects of technological practice in a field of technology

For example:The learner identifies and describes competing priorities involved with resource selection and use of cladding materials. They look at different options in terms of renewable and non-renewable resources, from both consumer and government perspectives. They look at how social and moral responsibilities affect cladding preferences. They consider the balance between traditional materials, government policy for sustainable housing, and design decisions regarding the physical environment in which the cladding materials will be used, noting similarities and differences in both. Design decisions reflecting the need for energy efficiency are described.* describing the competing priorities that were managed within a development in a field of technology

For example:The learner describes how design decisions for the use of cladding materials in low-cost housing are based on budget constraints being prioritised over the use of ideal materials in most situations.*The above expected learner responses are indicative only and relate to just part of what is required.* | The learner demonstrates in-depth understanding of sociocultural factors, and how competing priorities are managed, in technology by:* explaining the interactions between sociocultural factors and technological developments in a field of technology

For example:The learner describes and explains the interactions between sociocultural factors such as sustainability, life expectancy, visual impact, preferred trends, material costs, environmental efficiency and renewable materials associated with cladding materials in the building sector. The learner explains technological developments in cladding materials by looking at different housing and buildings and explaining how they interact with the Building Act (2004).* explaining the relationships between competing priorities and aspects of technological practice in a field of technology

For example:The learner describes and explains competing priorities involved with resource selection and use of cladding materials. They look at different options in terms of renewable and non-renewable resources, from both consumer and government perspectives. They look at how social and moral responsibilities affect cladding preferences. They consider the balance between traditional materials, government policy for sustainable housing, and design decisions regarding the physical environment in which the cladding materials will be used, noting similarities and differences in both. Design decisions reflecting the need for energy efficiency are explained.* explaining how competing priorities were managed within a particular development in a field of technology

For example:The learner describes and explains how design decisions for the use of cladding materials in low-cost housing have traditionally been based on budget constraints being prioritised over the use of ideal materials in most situations. They explain how recent government funding of sustainable housing has changed this and led to more suitable materials being used.*The above expected learner responses are indicative only and relate to just part of what is required.* | The learner demonstrates comprehensive understanding of sociocultural factors, and how competing priorities are managed, in technology by: * discussing the interactions between sociocultural factors and technological developments in a field of technology

For example:The learner discusses the complexity of the interaction between sociocultural factors such as sustainability, life expectancy, visual impact, preferred trends, material costs, environmental efficiency and renewable materials associated with cladding materials in the building sector. They discuss the ways that these factors influence developments in cladding materials and vice versa.The learner discusses technological developments in cladding materials by looking at different housing and buildings and discusses how they interact with the Building Act (2004).* explaining the relationships between competing priorities and aspects of technological practice in a field of technology

For example: The learner describes and explains competing priorities involved with resource selection and use of cladding materials. They look at different options in terms of renewable and non-renewable resources, from both consumer and government perspectives. They look at how social and moral responsibilities affect cladding preferences. They consider the balance between traditional materials, government policy for sustainable housing, and design decisions regarding the physical environment in which the cladding materials will be used, noting similarities and differences in both. Design decisions reflecting the need for energy efficiency are explained.* discussing the decisions made to manage competing priorities within a development in a field of technology

For example: The learner identifies competing priorities and trade-offs required to be made to benefit stakeholders in the long term.They highlight competing priorities in design decisions for the use of cladding materials in low-cost housing. They discuss how decisions are made based on budget constraints being prioritised over the use of ideal materials in most situations.They discuss how recent government funding of sustainable housing is influencing the social acceptability of different cladding materials and that the trend is now towards more suitable and energy efficient materials.They discuss how purchase decisions for cladding materials are made, based on technological and social research, and how research analysis leads to design decisions based on satisfying the potential home buyers’ wants, needs and budget.They discuss the need for an economical, sustainable cladding product with reference to issues related to leaky buildings.*The above expected learner responses are indicative only and relate to just part of what is required.* |

Final grades will be decided using professional judgement based on an examination of the evidence provided against the criteria in the Achievement Standard. Judgements should be holistic, rather than based on a checklist approach.