40599 Identify principles of kaitiakitanga and circular economy in a resource recovery environment

Kaupae | Level	2
Whiwhinga | Credit	5
Whāinga | Purpose	This skill standard is intended for people who are new to the resource recovery industry or people who are already working in a resource recovery environment including resource recovery facilities, construction, demolition or manufacturing worksites. People credited with this skill standard will be to define the waste hierarchy and describe the principles of kaitiakitanga and circular economy and how these relate to a resource recovery environment. This skill standard aligns with the New Zealand Certificate in Resource Recovery (Level 2) [Ref: 2743] and may be used in programmes leading to qualifications and micro-credentials at Level 2 and above in other disciplines.

Hua o te ako me Paearu aromatawai \| Learning outcomes and assessment criteria

Hua o te ako | Learning outcomes	**Paearu aromatawai |** Assessment criteria
1. Describe kaitiakitanga in relationship to the environment.	a. Describe the Māori principles of kaitiakitanga, whakapapa, mauri and mana.
	b. Explain how kaitiakitanga and other Māori principles relate to the environment.
	c. Identify how own actions in resource recovery contribute to kaitiakitanga principles.
2. Define the waste hierarchy and explain how application of the waste hierarchy can reduce waste and emissions.	a. Define the levels of the waste hierarchy.
	b. Explain ‘downcycling’ and why retaining the value of materials in each level of the waste hierarchy is important.
	c. Identify how waste reduction can contribute to emissions reduction.
	d. Describe how kaitiakitanga and other Māori principles relate to the waste hierarchy.

Hua o te ako | Learning outcomes	**Paearu aromatawai |** Assessment criteria
3. Describe the principles of circular economy and how these relate to the resource recovery industry.	a. Describe the key principles of a circular economy.
	b. Explain how circular economy principles contribute to sustainable resource use and reduced environmental impact.
	c. Explain the difference between circular and linear management of resources.
	d. Describe how technical and biological cycles relate to the resource recovery industry.
	e. Identify how own actions in resource recovery contribute to circular economy principles.
	f. Describe how kaitiakitanga and other Māori principles relate to circular economy.

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Evidence presented for assessment against this skill standard may include oral, visual, video, written and/or practical activities demonstrated in the workplace.

Definitions

Emissions reduction refers to the reduction of gases which contribute to climate change, global warming, ozone depletion or air pollution. Gases include carbon dioxide, methane, surface ozone, nitrous dioxide and fluorinated gases.

Kaitiakitanga is the obligation arising from kin relationships, to act as kaitiaki (a guardian, a person obliged to exercise kaitiakitanga) of taonga.

Mauri literally meaning life force or life principle, acknowledges the need to respect and care for all things, both animate and inanimate objects (including: plants, rivers, mountains and people) based on the way in which all things on earth are inter-related and dependent on each other.

Mana implies authority, influence and prestige, which is bestowed upon an individual or group by others. An individual, whānau, hapū or iwi can exercise mana (rangatiratanga) in recognition of their accomplishments, expertise, knowledge, obligations or association to a person, people, place or thing.

Whakapapa refers to the kinship between all living things, past present and future. Whakapapa not only exists between people but between people and the environment.

Waste hierarchy refers to the five levels of the waste hierarchy as defined in Te rautaki para | Waste Strategy, Ministry for the Environment (page 15, 2023 edition).

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

Kaitiakitanga

- Identification of appropriate organic waste streams for composting from Māori perspective.

Circular economy

- Differences between technical and biological cycles.
- Options for repairing and/or recycling products.
- Where to get products repaired and identification of any barriers to repair.
- Zero waste principles.

Emissions

- Embodied emissions of products.
- Impact of greenhouse gases on health and environment.

Rauemi | Resources

Legislation, strategies and resources relevant to this skill standard include but are not limited to:

- Ministry for the Environment. (2023). Te rautaki para | Waste Strategy. Available from: https://environment.govt.nz/.
- Ellen Macarthur Foundation. Circular economy introduction. Available from: https://www.ellenmacarthurfoundation.org/.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this skill standard will take precedence for assessment purposes, pending review of this skill standard. Legislation can be accessed at: https://www.legislation.govt.nz.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa | Standard Setting Body	Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai | DASS classification	Service Sector > Resource Recovery > Resource Recovery Theory
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga | CMR	0014

Hātepe | Process	**Putanga** | Version	**Rā whakaputa** | Review Date	**Rā whakamutunga mō te aromatawai** | Last date for assessment
Rēhitatanga | Registration	1	24 April 2025	N/A
Kōrero whakakapinga | Replacement information	N/A		
Rā arotake | Planned review date	31 December 2029		

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development at qualifications@hangaarorau.nz to suggest changes to the content of this skill standard.