

<b>Title</b>	<b>Demonstrate knowledge of an issue in a sustainable chemistry context</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>4</b>

<b>Purpose</b>	People credited with this unit standard are able to: describe an issue for chemistry practices related to sustainability; and analyse alternative sustainable chemistry practices for the issue.
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<b>Classification</b>	Science > Chemistry
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<b>Available grade</b>	Achieved
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### Guidance Information

- Reference of research is consistent with institutional and/or provider requirements.
- Glossary  
*Alternative practices* refer to a system or way of reducing environmental impact that is a non- conventionally applied practice.  
*Environmental impacts* refers to greenhouse gas emissions, air emissions, solid waste, pollutant effects, toxicity, hazards, water use, land use, material intensity, energy use.  
*Sustainable chemistry* refers to a chemical philosophy encouraging the design of products and processes that reduce or eliminate the use and generation of hazardous substances, focusing on industrial applications.

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### Outcomes and performance criteria

#### Outcome 1

Describe an issue for chemistry practices related to sustainability.

#### Performance criteria

- Issue is described in terms of its environmental impacts.
- Issue is described in terms of local, national and global practices.

#### Outcome 2

Analyse alternative sustainable chemistry practices for the issue.

Range evidence of research – three published academic sources are identified and referenced.

**Performance criteria**

- 2.1 Alternative practice(s) are compared with current practice(s) and appraised in relation to sustainable chemistry.
- 2.2 Alternative practices(s) are analysed in relation to their effectiveness to reduce the environmental impact.

**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	18 June 2010	31 December 2022
Rollover	2	27 January 2015	31 December 2022
Rollover and Revision	3	15 June 2017	31 December 2022
Revision	4	26 October 2017	31 December 2022
Review	5	22 October 2020	31 December 2022

**Consent and Moderation Requirements (CMR) reference**

0113

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.