

Achievement Standard

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| Subject Reference | Chemistry 2.3 | | |
| Title | Demonstrate understanding of the chemistry used in the development of a current technology | | |
| Level | 2 | Credits | 3 |
| | | Assessment | Internal |
| Subfield | Science | | |
| Domain | Chemistry | | |
| Status | Registered | Status date | 17 November 2011 |
| Planned review date | 31 December 2019 | Date version published | 20 November 2014 |

This achievement standard involves demonstrating understanding of the chemistry used in the development of a current technology.

Achievement Criteria

| Achievement | Achievement with Merit | Achievement with Excellence |
|---|--|---|
| <ul style="list-style-type: none"> Demonstrate understanding of the chemistry used in the development of a current technology. | <ul style="list-style-type: none"> Demonstrate in-depth understanding of the chemistry used in the development of a current technology. | <ul style="list-style-type: none"> Demonstrate comprehensive understanding of the chemistry used in the development of a current technology. |

Explanatory Notes

- This achievement standard is derived from *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, Level 7. The standard is aligned to the Nature of Science achievement objectives and the Material World achievement objectives, and is related to the material in the *Teaching and Learning Guide for Chemistry*, Ministry of Education, 2010 at <http://seniorsecondary.tki.org.nz>.

This standard is also derived from Te Marautanga o Aotearoa. For details of Te Marautanga o Aotearoa achievement objectives to which this standard relates, see the [Papa Whakaako](#) for the relevant learning area.

- Demonstrate understanding* involves processing and interpreting information to provide an account of the chemistry used in the development of a current technology. This includes the use of chemistry vocabulary, symbols and conventions. This may also include an account of the historical development of the technology.

Demonstrate in-depth understanding involves making and explaining links between the chemistry and the development of the technology using chemistry vocabulary, symbols and conventions.

Demonstrate comprehensive understanding involves an evaluation of how the chemistry influenced the development of the technology.

- 3 *Current technology* means technology in use today. The historical aspect can encompass the whole of human history. Examples could include conducting polymers, nanotechnology, cosmetics, pharmaceuticals, paints, polymers, catalytic converters, fabric and fibre technology, and alloys.
 - 4 This standard requires the use of chemistry vocabulary, symbols and conventions including, where appropriate, names, formulae and equations.
 - 5 Conditions of Assessment related to this achievement standard can be found at <http://ncea.tki.org.nz/Resources-for-Internally-Assessed-Achievement-Standards>.
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Quality Assurance

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

Consent and Moderation Requirements (CMR) reference

0233