

Achievement Standard

Subject Reference	Generic Technology 3.14		
Title	Demonstrate understanding of the application of a technical area to a specific field		
Level	3	Credits	4
		Assessment	Internal
Subfield	Technology		
Domain	Generic Technology		
Status	Registered	Status date	4 December 2012
Planned review date	31 December 2016	Date version published	4 December 2012

This achievement standard involves demonstrating understanding of the application of a technical area to a specific field.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Demonstrate understanding of the application of a technical area to a specific field. 	<ul style="list-style-type: none"> Demonstrate in-depth understanding of the application of a technical area to a specific field. 	<ul style="list-style-type: none"> Demonstrate comprehensive understanding of the application of a technical area to a specific field.

Explanatory Notes

- This achievement standard is derived from the Level 8 achievement objectives from the Technology learning area in *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007; and is related to the material in the *Teaching and Learning Guide for Technology*, Ministry of Education, 2012, at <http://seniorsecondary.tki.org.nz>.

Appropriate reference information is available in *Safety and Technology Education: A Guidance Manual for New Zealand Schools*, Ministry of Education, and the Health and Safety in Employment Act 1992.

Further information can be found at <http://www.technology.tki.org.nz/>.

- 2 *Demonstrate understanding of the application of a technical area* involves:
- describing a technical area and its application within a specific field by explaining the technical ideas and developments that created the technical area
 - describing current limitations and opportunities of the technical area in relation to the specific field.

Demonstrate in-depth understanding of the application of a technical area involves:

- explaining current limitations and opportunities of the technical area and the potential for future developments in relation to the specific field.

Demonstrate comprehensive understanding of the application of a technical area involves:

- discussing the feasibility of a future development of the technical area related to the specific field.

- 3 *Technical area* includes Artificial Intelligence, nanotechnologies, smart materials, cryptographic algorithms, Computer Numerical Control, functional foods, laser technologies, modern materials, virtual modelling, and robotics.

- 4 Specific fields in which technical areas may be applied include: medical, sporting, communication, entertainment, food, gaming, and military.

- 5 Conditions of Assessment related to this achievement standard can be found at <http://ncea.tki.org.nz/>.

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