

Achievement Standard

Subject Reference Generic Technology 1.11

Title Demonstrate understanding of basic human factors in design

Level 1 **Credits** 4 **Assessment** Internal

Subfield Technology

Domain Generic Technology

Status Registered **Status date** 20 January 2011

Planned review date 31 December 2020 **Date version published** 17 November 2016

This achievement standard requires demonstrating understanding of basic human factors in design.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Demonstrate understanding of basic human factors in design. 	<ul style="list-style-type: none"> Demonstrate in-depth understanding of basic human factors in design. 	<ul style="list-style-type: none"> Demonstrate comprehensive understanding of basic human factors in design.

Explanatory Notes

- 1 This achievement standard is derived from Level 6 of 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 at <http://seniorsecondary.tki.org.nz>.

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

Appropriate reference information is available in *Safety and Technology Education: A Guidance Manual for New Zealand Schools*, Ministry of Education at <http://technology.tki.org.nz/Curriculum-support/Safety-and-Technology-Education>, and the Health and Safety at Work Act 2015.

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.

- 2 *Demonstrate understanding of basic human factors in design* involves:
- describing the human factors that need to be considered when designing a product, system or environment
 - explaining how personal preference, group preferences, style and trends may impact on the design of a product, system or environment
 - describing data gathering and analysis techniques that may be used when designing a product, system or environment.

Demonstrate in-depth understanding of basic human factors in design involves:

- explaining the human factors that need to be considered when designing a product, system or environment
- explaining how data gathering and analysis techniques may be used in the design of a product, system or environment.

Demonstrate comprehensive understanding of basic human factors in design involves:

- discussing why human factors identified for the design of a product, system or environment need to be considered
- discussing the suitability of data gathering and analysis techniques that may be used in the design of a product, system or environment.

- 3 *Human factors* include ergonomic and aesthetic factors that influence the design of products, systems and environments. These factors are supported by the use of anthropometric, psychological and sensory data gathering and analysis techniques.

- 4 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