

## Achievement Standard

|                            |                                                    |                               |                  |
|----------------------------|----------------------------------------------------|-------------------------------|------------------|
| <b>Subject Reference</b>   | Design and Visual Communication 3.33               |                               |                  |
| <b>Title</b>               | Resolve a product design through graphics practice |                               |                  |
| <b>Level</b>               | 3                                                  | <b>Credits</b>                | 6                |
|                            |                                                    | <b>Assessment</b>             | Internal         |
| <b>Subfield</b>            | Technology                                         |                               |                  |
| <b>Domain</b>              | Design and Visual Communication                    |                               |                  |
| <b>Status</b>              | Registered                                         | <b>Status date</b>            | 4 December 2012  |
| <b>Planned review date</b> | 31 December 2020                                   | <b>Date version published</b> | 17 November 2016 |

This achievement standard involves resolving a product design through graphics practice.

### Achievement Criteria

| Achievement                                                                                           | Achievement with Merit                                                                                        | Achievement with Excellence                                                                                       |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>Resolve a product design through graphics practice.</li> </ul> | <ul style="list-style-type: none"> <li>Clearly resolve a product design through graphics practice.</li> </ul> | <ul style="list-style-type: none"> <li>Effectively resolve a product design through graphics practice.</li> </ul> |

### Explanatory Notes

- This achievement standard is derived from Level 8 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 *Resolve a product design through graphics practice* involves:
- exploring and refining design ideas based on an analysis of the design context (including opportunities and constraints) and understanding of product design knowledge
  - communicating a product design that addresses identified opportunities and constraints.

*Clearly resolve a product design through graphics practice* involves:

- exploring the wider environmental conditions and human factors related to the design context to identify opportunities and constraints
- communicating a product design that addresses significant opportunities and constraints.

*Effectively resolve a product design through graphics practice* involves:

- making informed designer decisions that integrate product design knowledge, and understanding of the wider environmental conditions and human factors related to the design context
- communicating a product design that is justified in terms of the significant opportunities and constraints.

- 3 *Product design* is the design of objects and artefacts and may include: fashion, packaging, media products, consumer products and engineered products.

- 4 Product design knowledge includes elements of design approaches, technical knowledge and visual communication techniques relevant to the specific product design context. These may include:

- design tools used for the development of product design ideas (e.g. market research, anthropometrics, ergonomics, mockups, and models)
- technical knowledge of materials, joining, fitting, assembly, finish, fasteners, sustainability, and environmental considerations
- product design visual communication techniques and approaches (e.g. product design drawings and rendering, prototypes, models, and animation).

- 5 Design contexts may include: furniture, utensils, jewellery, garments, textile items, containers, sporting/leisure equipment, appliances, transportation, fittings, electronic devices.

- 6 *Graphics practice* involves expressing a visual literacy through the developing of a design idea by applying design and visual communication techniques and knowledge, leading to the communication of an outcome in response to a brief.

- 7 Conditions of Assessment related to this achievement standard can be found at <http://ncea.tki.org.nz/Resources-for-aligned-standards/Technology/Level-3-Technology>.

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### Replacement Information

This achievement standard and AS91631 replaced unit standard 7514, AS90737, and AS90738.

**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