

## Achievement Standard

**Subject Reference** Graphics 3.4

**Title** Develop and communicate a solution to an engineering or technological design brief

**Level** 3      **Credits** 5      **Assessment** Internal

**Subfield** Design

**Domain** Design - Graphic Communication

**Status** Expiring      **Status date** 4 December 2012

**This achievement standard is expiring. Assessment against the standard must take place before the expiry date set out below.**

**Expiry date** 31 December 2013      **Date version published** 4 December 2012

This achievement standard involves developing and communicating a design solution to an engineering or technological design brief. It gives students the opportunity to gain practical appreciation of the importance of design in improving the quality of people's lives.

### Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> <li>Develop and communicate a solution to an engineering or technological design brief.</li> </ul>	<ul style="list-style-type: none"> <li>Develop and communicate a refined solution to an engineering or technological design brief.</li> </ul>	<ul style="list-style-type: none"> <li>Develop and communicate a critically analysed solution to an engineering or technological design brief.</li> </ul>

### Explanatory Notes

- This achievement standard is related to *Graphics Education, Guidelines for Years 9–13*, Learning Media, Ministry of Education, 2001, pp. 16–42.
- Develop and communicate* may include the use of: design sketches, working drawings, notes, research, models, mock-ups, audio, visual, oral presentation to a group, 3D rendered pictorial sketches or drawings, computer generated images, and photography.
- A *refined solution* will involve ongoing analysis and reflection at each stage of the design process and will significantly improve the quality of the solution in relation to the specifications in the brief.

- 4 *A critically analysed solution* involves the examination of the implications of the alternatives. This can be demonstrated through extensive drawing, annotation and/or other means of communication.
  - 5 Design and drawing should be in accordance with current codes of practice and New Zealand Standards where appropriate.
  - 6 It is expected that the student will undertake appropriate research, record their findings, and develop conceptual ideas and viable design solutions. It is also expected that they will use specialist knowledge, a variety of drawing systems and a range of graphical techniques appropriate to this area.
  - 7 In developing a solution, reference must be made to the design principles of aesthetics and function, including references to the elements of design derived from these principles, as well as addressing the requirements of the brief and its specifications.
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### Replacement Information

This achievement standard, AS90738, and unit standard 7514 have been replaced by AS91630 and AS91631.

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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

0226