

Achievement Standard

Subject Reference	Design and Visual Communication 1.31		
Title	Produce instrumental, multi-view orthographic drawings that communicate technical features of design ideas		
Level	1	Credits	3
		Assessment	External
Subfield	Technology		
Domain	Design and Visual Communication		
Status	Registered	Status date	20 January 2011
Planned review date	31 December 2014	Date version published	20 January 2011

This achievement standard involves the production of instrumental, multi-view orthographic drawings that communicate technical features of design ideas.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Produce instrumental, multi-view orthographic drawings that communicate technical features of design ideas. 	<ul style="list-style-type: none"> Produce instrumental, multi-view orthographic drawings that clearly communicate technical features of design ideas. 	<ul style="list-style-type: none"> Produce instrumental, multi-view orthographic drawings that effectively communicate technical features of design ideas.

Explanatory Notes

- This achievement standard is derived from the Technology learning area of *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, and is related to the *Teaching and Learning Guide for Technology*, Ministry of Education, 2010 at <http://seniorsecondary.tki.org.nz/>.

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

- Produce instrumental, multi-view orthographic drawings that communicate technical features of design ideas* involves:
 - using instrumental drawing techniques and conventions to produce 2D drawings that describe the technical features of a design. Describing technical features includes but is not limited to showing visible surface features, dimensions, material and scale.

Produce instrumental, multi-view orthographic drawings that clearly communicate technical features of design ideas involves:

- producing 2D drawings that detail the technical features of a design. Detailing technical features typically includes but is not limited to communicating technical features not visible in the main outline or those associated with communicating complex shape and/or form.

Produce instrumental, multi-view orthographic drawings that effectively communicate technical features of design ideas involves:

- producing accurate 2D drawings that show in-depth information about technical features of a design. In-depth information typically includes but is not limited to exploded and sectional views that explain technical features.

- 3 *Multi-view orthographic drawings* refer to instrumental drawings that contain two or more projected views. Where possible these views should be organised in third-angle orthographic projection.

Multi-view orthographic drawings should comply with standards convention NZS/AS 1100.101:1992, *Technical Drawing – General Principles*.

- 4 *Instrumental, multi-view orthographic drawings* include the use of key line types (eg construction lines and outlines), projection, and appropriate drawing and text layout. Examples of instrumental, multi-view orthographic drawing conventions include, as appropriate, those associated with orthographic drawing planes and reference lines, labelling, scale, dimensioning, sectioning, geometric construction and surface development.

Instrumental drawings can be constructed using either traditional drawing equipment or computer applications.

- 5 *Design ideas* are student-generated responses to a design brief.
- 6 *Technical features* refer to information related to the dimensions, component shapes, and construction methods necessary to produce the design.
- 7 Assessment Specifications for this achievement standard can be accessed through the Technology Resources page found at <http://www.nzqa.govt.nz/ncea/resources>.

Replacement Information

This achievement standard replaced unit standard 7502.

Quality Assurance

- 1 Providers and Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against achievement standards.
- 2 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

0233