

<b>Title</b>	<b>Demonstrate knowledge of structural principles for building work</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	People credited with this unit standard are able to demonstrate knowledge of structural principles for building work.
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<b>Classification</b>	Construction > Core Planning and Construction
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<b>Available grade</b>	Achieved
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### Guidance Information

For assessment against performance criterion 1.1, experiments may be physical or computer simulations.

### Outcomes and performance criteria

#### Outcome 1

Demonstrate knowledge of structural principles for building work.

#### Performance criteria

- 1.1 Basic structural principles are derived and described from experimentation.
- Range beam depth relative to span, compression/tension/neutral axis, characteristics of pin joints and rigid joints, the effects of point loads and uniformly distributed loads, cantilevers, methods of bracing including triangulation, element failure including buckling.
- 1.2 The effect of loading of common building elements is described in accordance with basic structural principles.
- Range beam, column, cantilever, wall, floor, truss.
- 1.3 The effect of loading of common building materials is described in accordance with basic structural principles.
- Range reinforced concrete beams, structural steel sections, timber.

**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	18 March 2011	31 December 2024
Review	2	25 August 2022	31 December 2024

**Consent and Moderation Requirements (CMR) reference**

0048

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.