

<b>Title</b>	<b>Use mathematical processes and skills in a variety of contexts</b>		
<b>Level</b>	<b>1</b>	<b>Credits</b>	<b>7</b>

<b>Purpose</b>	<p>People credited with this unit standard are able to apply mathematical processes of problem solving, developing logic and reasoning, and communicating mathematical ideas across the Number, Measurement, Algebra, Geometry and Statistics strands at levels 5 and 6 of <i>Mathematics in the New Zealand Curriculum</i>, or of <i>Tauaki Marautanga Pangarau</i>, Taumata 5 and 6. Achievement of credit for this unit standard will provide a foundation for those people who intend to continue study in mathematics.</p>
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<b>Classification</b>	Mathematics > Mathematical Processes
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<b>Available grade</b>	Achieved
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**Explanatory notes**

1 Learning Programme

This unit standard can be used to assess outcomes of a learning programme based on *Mathematics in the New Zealand Curriculum* (Learning Media, Ministry of Education, 1992), Levels 5 and 6, pages 23 to 29, and the objectives of the other strands at Levels 5 and 6; or on *Tauaki Marautanga Pangarau* (Learning Media, Ministry of Education, 1994), Taumata 5 and 6.

2 Assessment Note

In order to achieve credit for this unit standard, learners will need to demonstrate the mathematical processes in content from mathematics unit standards at Level 1 or higher.

For outcome 1, situations for modelling could be: physical, social, commercial, mathematical, simulated situations. The standard **must** be met with models which include at least two from the following list: diagrams, equations, patterns, graphs, tables, descriptions, combinations of these.

For outcome 2, problems **must** involve combinations of at least two of: numerical, algebraic, geometrical, statistical, and graphical ideas.

For outcome 4, communication could be in: own language; mathematical language; diagrams; written or oral reports.

Calculators and computers could be used in achievement of credit for this unit standard.

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## Outcomes and evidence requirements

### Outcome 1

Select models and apply skills, concepts, and understanding to situations.

#### Evidence requirements

- 1.1 Selected mathematical model matches situation.
- 1.2 Mathematical skills and concepts are applied to the model to produce results consistent with the situation.

### Outcome 2

Use mathematical skills from different branches of mathematics to solve problems.

#### Evidence requirements

- 2.1 Strategies which enable problems to be explored are selected and applied.
- 2.2 Mathematical skills are linked to solve problems.

### Outcome 3

Reason logically.

#### Evidence requirements

- 3.1 Information and results of reasoning are able to be interpreted in context.
- 3.2 Words and symbols are used to describe patterns.

### Outcome 4

Communicate mathematical ideas.

#### Evidence requirements

- 4.1 Mathematical ideas are communicated in logical order.
- 4.2 Information is recorded in ways which enable conclusions to be drawn.
- 4.3 Group solutions of tasks are collated and presented.

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**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	3 August 1995	31 December 2013
Revision	2	26 November 1996	31 December 2013
Revision	3	1 November 1999	31 December 2013
Review	4	9 December 2010	31 December 2013
Rollover	5	11 April 2011	31 December 2013

<b>Accreditation and Moderation Action Plan (AMAP) reference</b>	0071
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This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Please note**

Providers must be granted consent to assess against standards (accredited) by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Consent requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

*This unit standard is expiring*