

## Achievement Standard

<b>Subject Reference</b>	Generic Technology 1.5		
<b>Title</b>	Demonstrate understanding of how technological modelling supports decision-making		
<b>Level</b>	1	<b>Credits</b>	4
		<b>Assessment</b>	External
<b>Subfield</b>	Technology		
<b>Domain</b>	Generic Technology		
<b>Status</b>	Registered	<b>Status date</b>	20 January 2011
<b>Planned review date</b>	31 December 2014	<b>Date version published</b>	20 January 2011

This achievement standard involves demonstrating an understanding of how technological modelling supports decision-making.

### Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> <li>Demonstrate understanding of how technological modelling supports decision-making.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate in-depth understanding of how technological modelling supports decision-making.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate comprehensive understanding of how technological modelling supports decision-making.</li> </ul>

### Explanatory Notes

- 1 This achievement standard is derived from Level 6 of the Technology learning area (Technological Knowledge strand) 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, 2010 at <http://seniorsecondary.tki.org.nz>.

Appropriate reference information is available in *Safety and Technology Education: A Guidance Manual for New Zealand Schools*, Learning Media, Ministry of Education, 1998; and The Health and Safety in Employment Act 1992, and in the *Technology Curriculum Support*, October 2010 that can be found at <http://www.techlink.org.nz/curriculum-support/pdfs/technology-curriculum-support-Oct-10.pdf>

Further information about technological modelling can be found at <http://www.techlink.org.nz/curriculum-support/papers/knowledge/tech-model/index.htm> and <http://www.techlink.org.nz/curriculum-support/indicators/index.htm>.

- 2 *Demonstrate understanding of how technological modelling supports decision-making involves:*
- identifying the technological modelling undertaken to develop and trial a technological outcome
  - identifying evidence derived from technological modelling
  - describing how the evidence gained informed decisions about ‘what could happen’ and ‘what should happen’ for the technological outcome.
- Demonstrate in-depth understanding of how technological modelling supports decision-making involves:*
- explaining the purpose of the technological modelling undertaken to develop and trial a technological outcome
  - explaining why the evidence gained enabled decisions to be made about ‘what could happen’ and ‘what should happen’ for the technological outcome.
- Demonstrate comprehensive understanding of how technological modelling supports decision-making involves:*
- discussing how decisions made about a technological outcome considered ‘what could happen’ and ‘what should happen’
  - discussing how technological modelling identifies risk to support decision making.
- 3 *Technological modelling* refers to both functional modelling and prototyping.
- 4 Assessment Specifications for this achievement standard can be accessed through the Technology Resources page found at <http://www.nzqa.govt.nz/ncea/resources>.
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### **Replacement Information**

This achievement standard and AS91049 replaced AS90050.

This achievement standard, AS91045, AS91047, and AS91049 replaced unit standard 13389.

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### **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