

Achievement Standard

Subject Reference	Generic Technology 2.5		
Title	Demonstrate understanding of how technological modelling supports risk management		
Level	2	Credits	4
		Assessment	External
Subfield	Technology		
Domain	Generic Technology		
Status	Registered	Status date	17 November 2011
Planned review date	31 December 2014	Date version published	17 November 2011

This achievement standard involves demonstrating understanding of how technological modelling supports risk management.

Achievement Criteria

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

Explanatory Notes

- This achievement standard is derived from the Level 7 achievement objectives from the Technology learning area 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 2007 that can be found at <http://techlink.org.nz/curriculum-support/papers/knowledge/tech-model/index.htm>.

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

- 2 *Demonstrate understanding of how technological modelling supports risk management* involves:
- explaining why different forms of modelling are used to manage risk
 - explaining why different forms of modelling are used with different stakeholder groups
 - describing the different forms of modelling that were used to decide what 'should' and 'could' be done at different stages of technological practice.

Demonstrate in-depth understanding of how technological modelling supports risk management involves:

- explaining how modelling enabled the identification of the type, severity and probability of risk during technological practice
- explaining why different forms of modelling were selected at different stages of technological practice to inform what 'should' and 'could' be done.

Demonstrate comprehensive understanding of how technological modelling supports risk management involves:

- discussing how different forms of modelling can provide valid and reliable evidence from different stakeholder groups.

- 3 *Technological modelling* refers to both functional modelling and prototyping.
- 4 *Risk management* refers to reducing the potential for malfunction and/or increasing the level of success of technological outcomes.
- 5 Assessment Specifications for this achievement standard can be accessed through the Technology Resources page found at <http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/subjects/>.

Replacement Information

This achievement standard and AS91356 replaced AS90339, AS90340, AS90341, AS90342, AS90343, AS90344, AS90360, AS90363, 13393, 13395, 13398, 13401, and 13407.

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

0233