

## Achievement Standard

<b>Subject Reference</b>	Information and Communication Technology 3.6		
<b>Title</b>	Explain knowledge that underpins an information and communication technology outcome		
<b>Level</b>	3	<b>Credits</b>	4
		<b>Assessment</b>	External
<b>Subfield</b>	Technology		
<b>Domain</b>	Technology – General Education		
<b>Registration date</b>	18 January 2006	<b>Date version published</b>	22 February 2006

This achievement standard involves explaining knowledge that underpins the development of an existing information and communication technology (ICT) outcome.

### Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> <li>Explain the knowledge that underpins the development of an existing ICT outcome.</li> </ul>	<ul style="list-style-type: none"> <li>Explain the underpinning knowledge and how it has been synthesised in the development of an existing ICT outcome.</li> </ul>	<ul style="list-style-type: none"> <li>Discuss the underpinning knowledge and how it has been synthesised in the development of two or more existing ICT technology outcomes.</li> </ul>

### Explanatory Notes

- This achievement standard is derived from *Technology in the New Zealand Curriculum*, Learning Media, Ministry of Education, 1995, Level 8; and *Hangarau i roto i te Marautanga o Aotearoa*, Te Pou Taki Kōrero, Te Tāhuhu o te Mātauranga, 1999.
- 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 Code of Practice for State Primary, Composite and Secondary Schools*, Learning Media, Ministry of Education, 1993.

- 3 *An existing ICT outcome* is one that has been developed and implemented by a technologist(s). A *technologist* is defined as a professional involved in the design and/or development of a technological outcome. The student cannot be the technologist.
- 4 *Knowledge* that underpins the development of an existing ICT outcome includes such things as:
- knowledge of the key resources (including such things as people, time, components, and materials) that have been used
  - knowledge of codes of practice, codes of ethics, and legislation
  - knowledge from other disciplines, eg science, social science, arts
  - techniques and procedures used to develop and implement the technological outcome.
- 5 *Explain* means describe in detail giving reasons.  
*Discuss* means compare and contrast.  
*Synthesise* refers to the ability to bring together knowledge, skills, ideas and methods from different sources to advance one's practice but not necessarily to produce a more complex outcome. This emphasis is about knowledge and the way it is used, not the quality of the outcome. Therefore, for achievement with merit or achievement with excellence, the student is able to demonstrate access to a wide variety of knowledge and the discerning use of knowledge relevant to the existing technological outcome.
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### Quality Assurance

- 1 Providers and Industry Training Organisations must be accredited by the Qualifications Authority 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.

### 3.6 Assessment criteria

To gain an *achievement* grade for these achievement standards, students need to *explain* the technological knowledge that underpinned the development of an existing technological outcome, which was developed by a professional technologist.

For award of an achievement with *merit* grade students are required **to explain the knowledge that underpinned the development of an existing technological outcome, which was developed by a professional technologist, and provide details about how this knowledge was synthesised during the outcome's development. In providing**

**this detail, students are required to explore the wide variety of knowledge that the professional technologist drew upon and identify how this was thoughtfully used to underpin the development of a technological outcome.**

To gain achievement with *excellence* students need to discuss the knowledge that underpinned the **development of two or more technological outcomes, which were developed by a professional technologist(s), and provide details about how this knowledge was synthesised during the outcomes development.** In providing this detail, students are required to explore the wide variety of knowledge that the professional technologist(s) drew upon and identify, compare and contrast how this was thoughtfully used to underpin the development of the technological outcomes. The two or more existing technological outcomes may be developed from the same professional technologist or by different technologists who working in the same context/technological area.