Achievement Standard

Subject Reference	Digital Technologies 1.6
Title	Develop a computer system

Level 1   **Credits** 4   **Assessment** Internal

Subfield Technology

Domain Digital Technologies

Status Registered   **Status date** 23 November 2017

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This achievement standard involves developing a computer system.

Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
● Develop a computer system.	● Develop an informed computer system.	● Develop a refined computer system.

Explanatory Notes

1   This achievement standard is derived from Level 6 of 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 at http://seniorsecondary.tki.org.nz.

Further information can be found at http://www.technology.tki.org.nz/.

Appropriate reference information is available in *Safety and Technology Education: A Guidance Manual for New Zealand Schools*, Ministry of Education at http://technology.tki.org.nz/Technology-in-the-NZC/Safety-in-Technology-Education-revised-2017, and the Health and Safety at Work Act 2015.

This standard is also derived from *Te Marautanga o Aotearoa*. For details of *Te Marautanga o Aotearoa* outcomes to which this standard relates, see the Papa Whakaako for the relevant learning area.

2 *Develop a computer system* involves:
- using appropriate tools, procedures and protocols when installing and configuring hardware, software and peripherals for a purpose and end-user
- undertaking a range of appropriate testing procedures, diagnosing and troubleshooting to identify and resolve given installation and configuration faults
- investigating the parts and components (hardware and software) to be used in the computer system
- describing relevant implications.

Develop an informed computer system involves:
- using information gained from testing procedures, diagnosing and troubleshooting, to inform development and to improve the quality of the computer system
- explaining the basic purpose and function of the parts and components (hardware and software) used in the computer system
- addressing relevant implications.

Develop a refined computer system involves:
- accurately using tools, procedures and protocols when installing and configuring hardware and software to ensure the outcome is fit for purpose
- justifying the choice of parts and components (hardware and software) used in the development of the computer system.

3 Examples of relevant implications include:
- social
- cultural
- legal
- ethical
- intellectual property
- privacy
- accessibility
- usability
- functionality
- aesthetics
- end-user considerations
- health and safety.

4 Appropriate procedures for installing and configuring hardware, software and peripherals include:
- use of procedures specified in original equipment manufacturer manuals
- antistatic procedures
- electrical safety procedures
- meeting manufacturer and warranty requirements
- relevant occupational safety and health regulations
- satisfying end-user requirements.

5 Appropriate testing procedures may include:
- procedures to ensure that compatibility issues are resolved
- all connected hardware devices are detected and operate correctly in response to a range of requests
- software programs run as specified.

6   Given installation and configuration faults may include:
  ● incorrect or missing cables
  ● incorrectly installed hardware
  ● missing or incompatible drivers and other system software
  ● missed steps in software installation
  ● incorrect versions of software
  ● incorrect software configuration parameters.

7   Conditions of Assessment related to this achievement standard can be found at
     http://ncea.tki.org.nz/Resources-for-Internally-Assessed-Achievement-Standards.

Replacement Information
This achievement standard replaced AS91080 and AS91081.

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