

Title	Troubleshoot, fix and escalate a range of common hardware and software problems		
Level	3	Credits	3

Purpose	<p>People credited with this unit standard are able to: use problem solving techniques to investigate common hardware and software problems and identify possible solutions; and fix common hardware and software problems by selecting from a range of possible solutions, and escalate unresolved common computer problems.</p> <p>This unit standard has been developed primarily for assessment within programmes leading to the New Zealand Certificate in Computing (Intermediate User) (Level 3) [Ref: 2592].</p>
----------------	--

Classification	Computing > Computer Support
-----------------------	------------------------------

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 Recommended skills and knowledge:
Unit 29784, *Troubleshoot, fix and escalate simple or routine hardware, software and connectivity problems*, or Unit 32976, *Use problem solving techniques and critical thinking to make informed decisions about digital solutions*, or equivalent knowledge and skills.
- 2 Assessment, where applicable, will be conducted in and for the context of real or realistic situations and/or settings, and be relevant to current and/or emerging practice. Demonstration of knowledge can be oral, written, practical, or a combination, as appropriate to the assessment situation. Learners may demonstrate that they know how to connect components if workplace policy precludes a practical demonstration.
- 3 The tasks must be of sufficient complexity to provide scope to meet the assessment evidence requirements. The assessment context for this unit standard must be suitable to meet the criteria for level 3 in the NZQF Level Descriptors, which are available by searching for “level descriptors” at www.nzqa.govt.nz.
- 4 Definitions
Application software refers to software which directly enables a computer user to carry out specific tasks (such as word processing, spreadsheet, database, presentation), as opposed to “system software”, which is software used to support the computer hardware and provide services required by application software.

Common problems refer to the hardware and software problems which a first line help desk may encounter. These may include but are not limited to – faulty components, connections, and power supply failure; simple hardware faults and related error messages; operational maintenance such as cleaning, replenishing consumables, use of system protection and/or maintenance utility software; common application and system software problems such as unresponsive applications, device drivers not installed, screen setting problems, connectivity issues, incompatibility with other devices.

Digital devices refer to electronic computing devices that can receive, store, process or send digital information, such as computers (desktop or laptop), tablets, smartphones or other emerging digital technologies.

Digital tool refers to both hardware (storage and display devices) and software (applications and programs).

Hardware refers to the physical parts of digital devices, such as monitors, keyboards, printers, cards, memory, wiring, central processing unit (CPU), storage devices.

System software refers to computer software designed to operate and control the computer hardware and to provide a platform for running application software.

System software can be separated into three different categories – operating systems, drivers and utility software.

Unresolved common computer problems refer to the problems which require the device to be disassembled to allow the replacement of components, or are unable to be resolved without specialist expertise.

- 5 Legislation relevant to this unit standard may include but is not limited to the:
Copyright Act 1994
Copyright (New Technologies) Amendment Act 2008
Harmful Digital Communications Act 2015
Health and Safety at Work Act 2015
Privacy Act 2020
Unsolicited Electronic Messages Act 2007
and any subsequent amendments.
Current legislation and regulations can be accessed at <http://legislation.govt.nz>.
- 6 Reference
ACC5637 Guidelines for Using Computers - Preventing and managing discomfort, pain and injury. Accident Compensation Corporation - Department of Labour, 2010, available from WorkSafe New Zealand, at <https://www.worksafe.govt.nz/topic-and-industry/work-related-health/ergonomics/safely-using-computers-at-work/>.

Outcomes and performance criteria

Outcome 1

Use problem solving techniques to investigate common hardware and software problems and identify possible solutions.

Range includes at least three hardware and three software problems.

Performance criteria

1.1 Problem solving techniques are used to investigate common problems.

Range problem solving techniques may include but are not limited to – brainstorming, describing problem to another person, online searching, reading manual/documentation.

1.2 Problems and identified possible solution(s) are recorded with sufficient information for it to be reapplied in similar cases.

Range may include but is not limited to – logbook completion, job cards, online logging, notes, personal filing.

Outcome 2

Fix common hardware and software problems by selecting from a range of possible solutions, and escalate unresolved common computer problems.

Range includes at least three hardware and three software problems, from which one of each will be unresolved problems.

Performance criteria

2.1 Solutions to fix identified problems are selected and implemented.

2.2 The digital tool is tested to verify that the implemented solution has resolved the problem.

2.3 Implemented solution is recorded with sufficient detail to allow resolution of similar problems.

2.4 Unresolved common hardware and software problems are recorded using appropriate computing terminology to allow the problem to be referred and solved.

Replacement information	This unit standard replaced unit standards 5947 and 18755.
--------------------------------	--

Planned review date	31 December 2026
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 January 2017	31 December 2024
Review	2	28 April 2022	N/A

Consent and Moderation Requirements (CMR) reference	0099
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Toi Mai Workforce Development Council qualifications@toimai.nz if you wish to suggest changes to the content of this unit standard.