Assessment Specifications

Level 3 Digital Technologies 2026

Published in October 2025

General information

Domain:	Technology
Standards:	91908, 91909
Assessment method:	Examination, end of year
Assessment medium:	Online digital examination

Link to Digital Technologies subject page

National secondary examinations timetable

Information relating to all achievement standards

Further information about digital external assessment can be found on the NZQA website:

Digital external assessment

Special assessment conditions

Refer to the NZQA website for further information.

Aromatawai special assessment conditions

Equipment required

Laptop or desktop computer

Specific information for individual achievement standards

Standard:	91908
Title:	Analyse an area of computer science
Version:	1
Number of credits:	3

Candidates will receive a printed resource booklet to support their answers.

Candidates will be required to respond in short and/or extended answers (800–1500 words in total) to questions relating to their choice of ONE of the following areas of computer science:

- Complexity and tractability
- Big data
- Formal languages.

For **Complexity and tractability**, questions may cover: polynomial and non-polynomial time complexity, Big O notations O(1), O(log n), O(n) , O(n^k), O(2^n), O(n!), and best-case, worst-case, and average-case time complexity, complexity classes (P, NP, NP-complete), solving complex problems (approximation algorithms/heuristics), algorithm design and optimisation, optimal solutions (Travelling salesman/knapsack, etc.).

For **Big data**, questions may cover: characteristics of big data (volume, variety, velocity, etc.), generation, processing and analysing data in different formats, interpretation and representation (bias and display), tools and technologies used in big data, and big data considerations (privacy, ethics, and data governance).

For **formal languages**, questions may cover: regular expressions and their use in pattern matching and validation; simple finite-state automata and their role in recognising regular languages; context-free grammars (CFGs) and their applications in programming languages; and the relationship between formal languages, compilers, and computational complexity.

Special notes

Teachers are encouraged to help their students to develop answering techniques to ensure that they are able to respond clearly and concisely within the total recommended word limit of 1500 words.

Teachers are strongly encouraged to prepare students to be able to apply their understanding of computer science to unfamiliar contexts.

Teachers should prepare students to identify and articulate instances where overlap with various areas of computer science occurs, e.g. with artificial intelligence.

Further information about digital external assessment can be found on the NZQA website.

Digital external assessment

Standard:	91909
Title:	Present a reflective analysis of developing a digital outcome
Version:	1
Number of credits:	3

Candidates will be required to respond in short and/or extended answers (800–1500 words in total) to questions relating to a digital outcome they have developed within the past 12 months. Candidates must have developed the outcome themselves. It must not be selected or sourced from AI, the internet, or anyone else's digital product or work.

The digital outcome must be based on Level 8 of The New Zealand Curriculum (see the Teaching and Learning Guide for Digital Technologies). Outcomes at this level demonstrate complexity, depth, and independence in both design and technical implementation.

Examples include but are not limited to:

- a fully functional and content-rich website with custom HTML/CSS/JavaScript components
- an interactive game with original assets and coded mechanics
- a design for a manufactured product developed as a parametric CAD model, and validated through digital testing within software and/or physical testing
- a multimedia package with integrated digital assets
- a film/video/animation with original footage, editing, and post-production techniques
- an electronic device with custom-programmed microcontroller code, circuit design, and a purpose-built housing.

Each outcome should include at least one substantial digital component that has been created, tested, and refined by the student using appropriate tools and techniques.

The questions will require candidates to discuss the decisions and considerations made during the development of the digital outcome and evaluate both the outcome and the development process (see Explanatory Notes 4 and 5 of the standard).

The discussion will require candidates to focus on how the following considerations were considered during development of the digital outcome:

- selection of tools and techniques
- ways of addressing implications and end-user considerations
- influence of stakeholder feedback.

Relevant implications include: social, cultural, legal, ethical, intellectual property, privacy, accessibility, usability, functionality, aesthetics, sustainability, future proofing, end-user considerations, health and safety.

Special notes

As this is an online digital examination, candidates are **not required** to prepare or submit images, unlike in previous years.

The school may be required to provide a link to evidence of the candidate's digital outcome (e.g. working files), to show the development process undertaken to create the digital outcome in the software used.

Teachers are encouraged to help their students to develop answering techniques to ensure they are able to respond clearly and concisely within the total recommended word limit of 1500 words.