Assessment Specifications

Level 2 Digital Technologies 2024

Published in March 2024

General information

Domain:	Technology
Assessment event scheduling:	School scheduled within NZQA defined period
Assessment timing:	Point-in-time during the year
Multiple assessment opportunities:	Candidates can only attempt the Digital Technologies Common Assessment Activities once in the time slot selected by their school from the two Digital Technologies weeks
Assessment method:	Common Assessment Activity
Assessment format:	Common Assessment Activity
Assessment medium:	Digital submission
Final date of submission:	30 October 2024
Standards:	91898, 91899

Digital Technologies subject page

National secondary examinations timetable

Information relating to all achievement standards

A common assessment activity (CAA) is developed and marked by NZQA, and administered by a school in a single session during a period of assessment specified by NZQA.

NZQA will notify schools during Term 1 of the two different periods of assessment, and then schools must inform NZQA of the day during one of these periods of assessment on which the CAA will be administered.

Authenticity requirements and administration and submission instructions will be published on the Digital Technologies subject page in Term 3, Week 1.

Conditions of assessment

Internet access is not permitted.

Candidates must complete their assessments individually under teacher supervision, in accordance with the NCEA Assessment and Examination Rules and Procedures. The material submitted for assessment must be the candidate's own work. Unless specified below (under standard numbers), candidates are not permitted to access any resources (either in hard copy or online) other than those supplied in the assessment itself.

Schools, teachers, and candidates are not permitted to share or discuss the assessment or their assessment responses with any other schools, teachers, or candidates until after the final date for submission (30 October 2024).

The use of chatbots, generative AI, paraphrasing tools, or other tools that can automatically generate content is not permitted and material generated by these tools should not be submitted as part of the candidate's work.

Authenticity

Teachers must closely supervise the process of evidence collection to ensure that candidates:

- do not copy from another person or source without appropriate acknowledgement
- do not receive guidance, scaffolding, instruction, assistance, or assessment conditions beyond what is specified as permissible in these Assessment Specifications.

Where a teacher cannot verify that the assessment submitted is the authentic work of the candidate, they must notify NZQA of a possible Candidate Breach of External Assessment.

Special Assessment Conditions

Refer to the NZQA website for further information.

Aromatawai Special Assessment Conditions

Submission requirements

Evidence may be submitted as ONE document file (PDF).

Candidates should refer to Further Guidance for Submission Responses for further information.

Refer also to other resources on the subject page of NZQA website.

Further submission instructions and authenticity requirements will be provided for schools in Term 3, Week 1.

Specific information for individual achievement standards

Standard:	91898
Domain:	Technology
Title:	Demonstrate understanding of a computer science concept
Version:	1
Number of credits:	3
Assessment format:	Common Assessment Activity

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 computer science concepts:

- artificial intelligence
- computer security
- error control.

For 2024, the questions on impacts will focus on ethical issues and future-proofing.

For **artificial intelligence**, questions may cover: machine learning, common issues, training, evaluation, Turing test relevance, adoption, policies, the use of artificial intelligence for shopping (e.g. self-checkouts), AI hallucinations, and recent developments in large language models such as ChatGPT and Google Bard/Gemini, weak AI/strong AI.

For **computer security**, questions may cover: social engineering, biometric authentication, email white lists and black lists, common issues, data privacy, ways individuals can protect their computers, use of computer security, and retail shopping.

For **error control**, questions may cover: parity, barcodes, check digits, check sums, QR codes, Reed-Solomon principles, error detection/correction, scale, efficiency, network ARQ/FEC, RAID levels in data storage, and use of error control in shopping.

Standard:	91899
Domain:	Technology
Title:	Present a summary of developing a digital outcome
Version:	1
Number of credits:	3
Assessment format:	Common Assessment Activity

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 7 of *The New Zealand Curriculum* (see the Teaching and Learning Guide for Digital Technologies).

Questions will require the candidate to discuss:

- the process of developing the digital outcome, including researching, designing, testing, getting and using feedback, and evaluating
- decisions made during the development of the digital outcome, which may relate to:
    - the choice of tools and techniques
    - consultation with subject-matter experts
    - testing and trialling with particular people or groups.
- the digital outcome that was developed, and what could have been different based on experiences.

The discussion will require candidates to focus on how the aesthetics, functionality, cultural and/or ethical, sustainability and/or future-proofing, usability, and end-user considerations were considered during development of the digital outcome.

Candidates must prepare up to THREE images (JPG or PNG) in advance to include in the assessment:

- a single image of the digital outcome (e.g. a website, a poster, an electronic device)
- a single sample image showing a relevant digital component of the outcome in the software used to create it, for example:
    - the HTML/CSS for a website in a text editor (e.g. VS Code, Notepad++)
    - the "layers" view of a vector or raster graphic (e.g. in Inkscape/Illustrator, GIMP/Photoshop)
    - the source code for controlling an electronic device (e.g. in Arduino C, PBasic)
    - the CAD/CAM file for a 3D model (e.g. in Blender, Fusion 360, SketchUp)
    - the source code for an application in a suitable text editor (e.g. VS Code, Replit).
- a single image of their development process (e.g. agile development, a planning chart).

Candidates will only have access to their three images. They will not have access to their digital outcome or any other online or paper resources.

Special notes

The school may be required to provide a link to evidence of the candidate's digital outcome (e.g. working files). 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.