

2024 NCEA Assessment Report

Subject:	Digital Technologies and Hangarau Matihiko
Level:	3
Achievement standard(s):	91908, 91909

General commentary

Candidates demonstrated a knowledge and understanding of the key concepts outlined in Level 8 of the New Zealand Curriculum. Candidates also demonstrated notable improvements in the application of theoretical concepts to practical scenarios and improved reflective analysis of developing digital outcomes.

It is important for students to focus on making their responses closer to the specified word count, to ensure clarity and relevance. Candidate responses that were well-written and contained the relevant information often outperformed those where students wrote extensively, sometimes repeating information, including conflicting details, or unintentionally introducing errors. Focusing on conciseness and relevance can lead to higher-quality responses.

Report on individual achievement standard(s)

Achievement standard 91908: Analyse an area of computer science

Commentary

Candidates displayed a good grasp of computer science concepts, consistent with Level 8 of the New Zealand Curriculum. Candidate responses that were able to showcase a thorough understanding of the topic by discussing it with both depth and breadth, going beyond what is covered in available resources, achieved at higher levels. Overall, successful candidates differentiated themselves by the depth of their technical understanding, the relevance and application of examples, the originality of their connections, and their ability to critically analyse and predict future developments in areas of computer science. Candidates who made minor errors in their submissions were not penalised if they demonstrated sufficient understanding throughout the submission. However, candidates who made errors and failed to show comprehensive understanding in their detailed responses often struggled to achieve.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- met the basic criteria of the assignment but lacked depth and complexity; their understanding was fundamental, covering essential concepts and definitions, while the analysis remained surface-level without much technical detail or advanced aspects
- had limited use of examples, often not explored in depth or effectively connected to the question
- demonstrated analysis that was simplistic, not delving into complexities or critically evaluating the data, resulting in submissions that often lacked insightful conclusions or evidence of higher-level thinking skills.

Candidates who were awarded **Achievement with Merit** commonly:

- demonstrated a clear and accurate understanding of the subject matter and applied concepts to real-world scenarios
- showed an adequate depth of analysis with a clear explanation of key concepts and some technical details
- used examples that were relevant, but lacked deeper analysis of their broader impacts
- drew conclusions that were more relevant, reflecting a deeper understanding of the topic; to achieve at a higher level, they needed to extensively explore the topic further or critically engage with the material.

Candidates who were awarded **Achievement with Excellence** commonly:

- were able to show deep, critical analysis of the subject matter, going beyond basic understanding. Their work explored complex concepts with significant detail and incorporated relevant examples effectively to support arguments
- demonstrated innovative connections and originality, often linking theoretical concepts with real-world applications
- included higher-level thinking processes such as synthesis, evaluation, and prediction
- submitted responses that were well-organised, clearly articulated, accurate, and concise.

Candidates who were awarded **Not Achieved** commonly:

- provided very limited information, with responses that were overly brief, vague, or ambiguous and did not demonstrate sufficient understanding
- submitted responses that lacked content depth, detailed examination of technical aspects, and broader implications of the topic
- demonstrated a basic or superficial understanding without effective application to real-world scenarios, and no critical evaluation or sophisticated analysis was evident
- showed only a very basic grasp of the topics, and there were fundamental errors or omissions in the responses.

Achievement standard 91909: Present a reflective analysis of developing a digital outcome

Commentary

Candidates undertook a good range of digital technology concepts, consistent with Level 8 of the New Zealand Curriculum, to develop complex outcomes. Responses that demonstrated a thorough grasp of the chosen context, addressing it, and incorporating insights beyond the standard resources, achieved at higher levels. Successful candidates distinguished themselves through their ability to integrate stakeholder feedback, justify decisions with clarity, and critically reflect on the development and impact of their outcomes. Overall, candidates who displayed technical understanding, applied stakeholder feedback effectively, and demonstrated critical analysis, achieved at higher levels. Minor errors did not hinder success if the overall understanding was clear. However, candidates who failed to provide comprehensive, detailed responses often struggled to meet the standard. Encouraging deeper reflection, broader stakeholder engagement, and iterative development will help students reach their full potential in this standard.

Grade awarding

Candidates who were awarded **Achievement** commonly:

- explained what they had done, but provided only limited reflection or reasoning for their decisions

- presented a project context that involved some genuine interactions with end-users and stakeholders
- demonstrated links between decisions made based on stakeholder and end-user interactions and the final outcome, although these links were often shallow or lacked depth
- discussed specific decisions that directly contributed to the outcome, avoiding vague or overly broad comments
- provided evidence of at least one planning decision, though this was often described with limited depth
- if working in a team, presented clear evidence of their individual responsibilities and decision-making within the group.

Candidates who were awarded **Achievement with Merit** commonly:

- undertook projects with sufficient complexity, allowing for deeper analysis of decisions and clear connections to the development process
- demonstrated genuine engagement with stakeholders and end-users through multiple, impactful interactions that informed their decisions
- showed evidence of project management, consistently referencing iterative development processes
- linked project management tools or screenshots to specific methodologies, enabling detailed discussion of their application in development
- discussed tools or techniques that made significant contributions to their outcomes, explaining why these were critical in addressing the identified issue, opportunity, or need
- if working in a team, ensured that their individual contributions were clearly identifiable and thoroughly explained, with in-depth reflections on their role in the project.

Candidates who were awarded **Achievement with Excellence** commonly:

- delivered a report based on a complex, non-trivial outcome requiring substantial development and decision-making
- demonstrated a deep understanding of stakeholders and end-users, building strong relationships and using their input to guide the project meaningfully
- provided insightful reasons for their decisions, showcasing a thorough knowledge of the practice
- evaluated decisions in fine detail, explaining the rationale behind their choices and identifying ways to improve both the outcome and the process
- critiqued their project comprehensively, suggesting relevant, non-trivial improvements and drawing connections to broader considerations such as future-proofing, accessibility, Mātauranga Māori, or cultural impacts
- when working in a team, clearly delineated their responsibilities and demonstrated effective collaboration in project management and decision-making
- offered critical, reflective analysis grounded in earlier research and project progression, drawing insightful conclusions that surpassed basic expectations.

Candidates who were awarded **Not Achieved** commonly:

- did not fully attempt or complete the presented questions
- failed to explain their individual roles or responsibilities in team projects
- showed a limited understanding of the questions, often providing unexpected or incorrect answers
- focused on unrelated aspects, such as art skills or cinematography, rather than addressing the core development process
- pursued predetermined project ideas by merely following tutorials or templates, with minimal attention to iterative development
- provided responses lacking the required breadth or depth
- discussed unrelated software or tools not directly connected to developing their outcome
- mentioned end-users or stakeholders without providing specific details about their feedback or its impact on the project

- focused on materials (e.g. 3D printing) rather than software processes used in developing the outcome
 - presented static images without sufficient description of the tools and techniques used to meet the standard
 - did not address copyright implications at the required level
 - overall, failed to demonstrate the expectations of Level 8 of the New Zealand Curriculum.
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