



National Certificate of Educational Achievement
TAUMATA MĀTAURANGA Ā-MOTU KUA TAEA

Exemplar for Internal Achievement Standard

Digital Technologies Level 2

This exemplar supports assessment against:

Achievement Standard 91897

Use advanced processes to develop a digital technologies outcome

An annotated exemplar is an extract of student evidence, with a commentary, to explain key aspects of the standard. It assists teachers to make assessment judgements at the grade boundaries.

New Zealand Qualifications Authority

To support internal assessment

	Grade: Excellence
1.	<p>For Excellence, the student needs to use advanced processes to develop a refined digital technologies outcome.</p> <p>This involves discussing how the information from planning, testing and trialling of components assisted in the development of a high-quality outcome.</p> <p>There is no student work currently available at this grade.</p> <p>The student has discussed how information from the planning, testing and trialling of components assisted in the development of a high-quality outcome. Evidence is provided showing that several options were trialled, and that the most appropriate was chosen and justified. They also used information from a range of sources, such as end-user feedback and research, to develop a high-quality outcome.</p>

	Grade: Merit
2.	<p>For Merit, the student needs to use advanced processes to develop an informed digital technologies outcome.</p> <p>This involves:</p> <ul style="list-style-type: none"> • effectively using project management and version control tools and techniques to manage the development of a digital technologies outcome • trialling multiple components and/or techniques and selecting those which are most suitable • using information from testing and trialling appropriately to improve the functionality of the digital technologies outcome • addressing relevant implications. <p>There is no student work currently available at this grade.</p> <p>The student has effectively used project management tools and techniques to manage development, feedback and/or collaborative processes. For example, they have:</p> <ul style="list-style-type: none"> • created new versions of the outcome to improve functionality or include added features • shared documents/data and managed feedback using Google Team Drive • managed their workflow using Trello to update tasks and dates as the project progressed • managed their assets effectively using structured file and folder naming conventions, linking and back-ups. <p>The student has trialled multiple components and/or techniques. Trialling of several options has been undertaken for more than one program component. For example, they trialled several ways of presenting the selection of program choices via the GUI, and selected the one that had the best usability and prevented the user from entering incorrect data.</p> <p>The student has appropriately used information from testing and trialling to improve the functionality of the digital technologies outcome. For example, testing and trialling occurred during development, and they indicated how this approach improved their outcome. Changes were also made to improve functionality, which can be seen in their project management tool(s) and logs which include annotations.</p> <p>The student has addressed relevant implications by providing annotated screenshots of their program illustrating how they addressed functionality, usability and accessibility.</p>

	Grade: Achieved
3.	<p>For Achieved, the student needs to use complex processes to develop a digital technologies outcome.</p> <p>This involves:</p> <ul style="list-style-type: none"> • using appropriate project management tools and techniques to plan the development of a digital technologies outcome • decomposing the outcome into smaller components • trialling the components of the digital technologies outcome • testing that the digital technologies outcome functions as intended • explaining relevant implications. <p>There is no student work currently available at this grade.</p> <p>The student has used appropriate project management tools and techniques to plan the development of a digital outcome. For example, they used at least two project management tools and techniques (not involving planning the outcome itself). These included:</p> <ul style="list-style-type: none"> • following an Agile-based planning methodology, using standups and sprints • using Trello (or an offline visual planning board) to manage the development process • ensuring code was clearly named, showed version numbers, and indicated which part of the decomposition had been coded • creating a team drive to add each version of the code to, to allow teacher access and to back up the program in the cloud. <p>The student decomposed the digital technologies outcome into smaller components and has trialled these. Different sorts of digital outcomes will have different types of components, e.g. modules or functions in a program, or parts of a webpage/database. For example, the student has broken down the outcome into smaller components (menus, image galleries etc.) prior to trialling and testing. They have trialled:</p> <ul style="list-style-type: none"> • the menu to ensure that all options could be displayed, and have decided to add sub-menus • the other major components to confirm they are fit for purpose. <p>The student has tested that the digital technologies outcome functions as intended. Components were combined into a working outcome and tested for functionality. The outcome works for expected input, the navigation works correctly, content is readable and legible, custom styles work correctly, and it functions properly on a range of devices.</p> <p>The student has identified and explained at least two relevant implications. They explained what the implication is and how it applies to the outcome, as well as what it needs to do or include to meet the implication.</p>