

**Internal Assessment Resource**

**Digital Technologies & Hangarau Matihiko Level 2**

This resource supports assessment against Achievement Standard 918901

**Standard title:** Conduct an inquiry to propose a digital technologies outcome

**Credits:** 6

**Resource title:** It’s A Small World After All

**Resource reference:** Digital Technologies & Hangarau Matihiko 2.1B

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| This resource:   * Clarifies the requirements of the achievement standard * Supports good assessment practice * Should be subjected to the school’s usual assessment quality assurance process * Should be modified to make the context relevant to students in their school/kura environment and ensure that submitted evidence is authentic |

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| Date version published by Ministry of Education | December 2018 Version 1  To support internal assessment from 2019 |
| Authenticity of evidence | Teachers/kaiako must manage authenticity for any assessment from a public source, because students may have access to the assessment schedule or student exemplar material.  Using this assessment resource without modification may mean that students’ work is not authentic. The teacher may need to change figures, measurements or data sources or set a different context or topic to be investigated or a different text to read or perform. |

Achievement Standard 91890 is derived from both *The New Zealand Curriculum* and *Te* *Marautanga o Aotearoa.*

**Internal Assessment Resource**

**Achievement Standard:** 91890

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**Resource reference:** Digital Technologies & Hangarau Matihiko2.1B

**Teacher/Kaiako guidelines**

The following guidelines are supplied to enable teachers/kaiako to carry out valid and consistent assessment using this internal assessment resource.

Teachers/kaiako need to be very familiar with the outcome being assessed by the achievement standard. The achievement criteria and the explanatory notes contain information, definitions, and requirements that are crucial when interpreting the standard and assessing students/ākonga against it.

**Context/Te Horopaki**

The assessment activity requires students to conduct a comprehensive inquiry, their investigation will lead them to propose an outcome that uses their digital technology knowledge/skills.

The context for this inquiry is “There are always things that can be changed, done better, improved. What could that be in your small part of the world, in your community?”

Students will decide on their own inquiry focus linked to the context, they will develop their own inquiry questions(s), undertake research, evaluation, and inquiry refinement. The information gathered will then be organised, analysed and an outcome based on the inquiry will be proposed.

The inquiry may focus on a digital technologies concept (for example ideas from within the computational thinking or design and develop digital outcomes curriculum progressions) or for example, a community issue that can be addressed with a digital technologies outcome.

**Conditions/Ngā Tikanga**

Students should identify and agree on milestones of the inquiry with their teacher as they work through this assessment activity. It is recommended that students have at least two checkpoints with their teacher to ensure they have an opportunity to ask questions and gather feedback.

The format of the final inquiry documentation should be a concise record of the inquiry steps followed to propose the digital outcome.

Conditions of Assessment related to this achievement standard can be found at <http://ncea.tki.org.nz/Resources-for-Internally-Assessed-Achievement-Standards>

**Resource requirements/Ngā Rauemi**

Students will need access to the web, digital devices and information from a variety of sources, such as: current or historical news articles or stories, and/or notes from textbooks, radio segments. Community contacts and relevant industry/businesses could also be used as a reference source.

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**Student/Akonga instructions**

**Introduction/Kupu Arataki**

This assessment activity requires you to conduct an inquiry that focuses on your community. Throughout this process you are to meet expected inquiry milestones.

The context for this inquiry is “There are always things that can be changed, done better, or improved. What could that be in your small part of the world, in your community?”

You may work with others to help generate ideas and develop those ideas. However, you are expected to show your own thinking and evidence of how you discussed and combined ideas together to write and submit your own inquiry document.

Teacher note: Insert due dates and timeframes/milestones

**Task/Hei Mahi**

Decide on the focus of your inquiry. The scope of your inquiry could have a global, national, or local focus. It could be how the issue is dealt with in your community or your suburb, school or home. The community can be global, national or local. For example, the global village, Aotearoa, your city, suburb, your school or a club/group/organisation within the school.

You are to develop an inquiry question that has relevance to you and your community that relates to your inquiry focus. You are to consider how digital technologies can be used to address the inquiry question.

Establish key milestones for the ongoing cycle of your inquiry and a means for monitoring your progress against these key milestones (for example, using a project management tool such as Trello, diary, stickies, online calendar).

1. Some key questions that might help you start your inquiry:
   * What is one of the issues in our community and what can we do about it?
   * How does it impact me and/or the community?
   * Who does it involve? What does it look like? Where is it? What causes it?
   * Why does it happen? How does it happen? What is being/or has already been done?
   * What could I do? How can I link this to a digital outcome?
2. You are to undertake research and gather information that broadens your understanding of your inquiry focus. You should use a variety of sources i.e. internet, library, interview, surveys etc. Be thorough and constantly evaluate your research to ensure it is relevant and useful to your inquiry.
3. You are to organise and analyse this information, and give explanations of any challenges, implications and relevant perspectives (members, stakeholders, media etc.) and how these may or do impact on the focus of your inquiry.
4. Throughout the inquiry process you should reflect on your findings and how your digital technologies outcome helps. Keep track of your questioning processes and discuss the impact of your findings in relation to the initial inquiry question(s) and the impact that your proposed outcome will have on the situation.
5. Write a brief outline of the digital technologies outcome you propose to develop. This can be a partially developed or a completed outcome.
6. Analyse the implications and perspectives that impact on the proposed outcome. Discuss the impact of the findings in relation to the inquiry question(s) and the proposed outcome.
7. Present your conclusions in relation to the inquiry question and the proposed outcome. Your conclusions should show insight – creative, different and original thinking about your inquiry.

You may work with others to help generate ideas and develop those ideas. However, you will be expected to show your own thinking and evidence of how you discussed and combined ideas together to write and submit your own proposal document.

You are going to be assessed on how well you conduct your digital technologies inquiry. This will include how you have used your findings and drawn insightful conclusions throughout the process, and how these findings have been included in the proposed outcome.

Submit your final evidence of your digital technologies inquiry. Be concise: you will be assessed on the quality of your ideas, not the length of your response. Discuss with your teacher how much evidence you need to produce.

**Assessment schedule/Mahere Aromatawai: Digital Technologies & Hangarau Matihiko 91890 - It’s A Small World After All**

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| **Evidence/Judgements for Achievement/Paetae** | **Evidence/Judgements for Achievement with Merit/Kaiaka** | **Evidence/Judgements for Achievement with Excellence/Kairangi** |
| Conduct an inquiry to propose a digital technologies outcome.  The student has:   * decided on a digital inquiry focus linked to using digital technologies   **For example (partial evidence):**  *“What can be done to help year 9 students find their way around the school?”*   * developed inquiry questions linked to using with a digital technologies in relation to a community issue * undertaken research and gathered, organised and analysed information   **For example (partial evidence):**  The student researched ways in which digital technologies are used to help people navigate their way around new environments and analysed their application to a school environment.  They have looked at existing signs, information, what and where visitors/students need to know etc and have put all information into a table/flowchart showing outcomes.   * proposed a digital technologies outcome to the inquiry   **For example (partial evidence):**  The student has proposed a solution that has a digital technologies focus. For example,posters, signage, maps, use QR codes, mobile app or a VR code system.   * summarised the findings   **For example (partial evidence):**  The student has written a brief outline summarising their findings in relation to their inquiry question(s).   * established and met agreed milestones   **For example (partial evidence):**  The student showed evidence of an ongoing cycle of inquiry and reflection and this was documented using an online tool (e.g. Trello).  *The examples above are indicative samples only* | Conduct an in-depth inquiry to propose a digital technologies outcome.  The student has:   * analysed the implications and perspectives that impact on the proposed outcome   **For example (partial evidence):**  The student has analysed how Year 9 and 10 students use digital tools to navigate new physical environments. For example, they have looked at Google Maps and have investigated how radio-frequency identification (RFID) tags work and how these could be applied to the school scenario. They have surveyed the Year 9 and 10 students within the school and have determined the majority use a mobile device as their first tool of choice.  Year 9’s would need to be made aware there is a system to help them. The perspective of both adult visitors and Year 9s need to be considered in the development of the digital outcome.   * discussed the impact of the findings in relation to the inquiry question(s) and the proposed outcome   **For example (partial evidence):** The student has ensured clear links between the inquiry questions, any changes to that question and the impact this may have on end users and the digital outcome.  The student has discussed how multiple end users might have differing perspectives on the proposed outcome. Their evidence clearly addresses the inquiry questions, implications and perspectives. *For example, students had a wide range of devices but as the school is networked with wireless the decision was to make a web-based navigation outcome. This means that all students, regardless of device type, can access the information on a device they feel comfortable with in a new environment.*  *The examples above are indicative samples only* | Conduct a comprehensive inquiry to propose a digital technologies outcome.  The student has:   * drawn insightful conclusions about the findings in relation to the inquiry question(s) and the proposed outcome.   **For example (partial evidence):**  *“...although the deputy principal liked the idea…. several of the groups suggested…..as a result the idea will now include…..this addition will help to really get the message across.*  *..it should be an effective strategy because…..this approach should be successful because…..”*  *After talking to the network technician, there were identified dead spots in the school and this is additional supplementary information that would be needed (for example, a poster).*  *The examples above are indicative samples only* |

Final grades will be decided using professional judgement based on a holistic examination of the evidence provided against the criteria in the achievement standard