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**Internal Assessment Resource**

**Digital Technologies & Hangarau Matihiko Level 1**

This resource supports assessment against Achievement Standard 91878

**Standard title:**  Develop a design for a digital outcome

**Credits:** 3

**Resource title:** NZ culture

**Resource reference:** Digital Technologies & Hangarau Matihiko 1.2B Version 1

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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 2017 Version 1  To support internal assessment from 2018 |
| 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/ākonga 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. |

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**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**

This activity requires students to develop effective signage, posters, or other graphic media, to promote the different learning areas within their school.

The signage will be used by teachers, students and visitors to the school to identify visually, the concepts and cultural connectedness behind the different learning areas. The signage must incorporate the concept of developing an understanding of New Zealand identity, culture and language. The focus is on the design work leading to the signage not the outcome.

These developed designs could be presented through a laminated or printed signage, web page, video, animation, or document (e.g. poster, interactive PDF, pamphlet, etc.). The selection of method for presentation and communication of the design will depend upon the focus of the teaching and learning programme.

Teachers could also choose to integrate opportunities to present evidence for achievement standard 91877, *Create a proposal for a digital outcome,* as part of a larger assessment project, and/or achievement standard 91880 *Develop a digital media outcome*. Teachers must ensure the rigour of the digital media outcome meets the requirements of AS91880.

The context of this resource is to enable understanding of developing a graphic design through:

* establishing the purpose of the signage for each department and the needs of the users who will be affected by the signage
* researching and generating a range of design ideas
* addressing relevant implications and end user considerations using the concept of cultural connectedness
* making judgements on the appropriateness of the chosen design.

In this assessment activity, students will:

* research and generate a range of design ideas, define the purpose and audience and choose a final design for their school signage.

**Conditions/Ngā Tikanga**

Where a group approach is used, the teacher/kaiako needs to ensure that there is opportunity for each student to provide evidence for all aspects of the standards.

The 3 credits for the achievement standard indicates that approximately 30 hours needs to be allocated for teaching, learning (in and out of the classroom) and assessment in a programme of study. Students should have a minimum of three specific checkpoints with their teacher as they work through this assessment task. For example, one at the end of the initial research, one when they have developed their initial design ideas, and one when they have developed their design.

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.

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**Student/Ākonga instructions**

**Introduction/Kupu Arataki**

This assessment activity requires you to investigate a way to build the concept of cultural connectedness around your school using your design skills.

You are required to develop a design for signage.

You are going to be assessed on how effectively you develop a design for your digital outcome.

Teacher note: Insert due dates and timeframes

**Task/Hei Mahi**

**Follow these steps:**

1. Investigate the learning areas covered in your school (e.g. mathematics, English, science and agribusiness, social sciences).
2. Choose the learning area/s you are going to develop signage design ideas for. Some suggestions are given below:
   * **The New Zealand Curriculum** specifies **eight learning areas**: English, the Arts, Health and Physical Education, Learning Languages, Mathematics and Statistics, Science, Social Sciences, and Technology
   * **The Technology Learning Area** specifies **five Technological areas**: Designing and developing materials outcomes, Design and Visual Communication, Designing and developing processed outcomes, Computational thinking and Designing and developing digital outcomes.
   * **Te Marautanga o Aotearoa** specifies **four learning foundations**: Kōrero (oral language), Pānui (reading), Tuhituhi (writing) and Pāngarau (mathematics).
   * You can choose your own but will need to check this out with your teacher. The selection must be broad enough to allow for meaningful design ideas to be selected and developed.
3. You need to make some decisions about purpose of the design. The resource sheet below has some background questions and thinking that you might want to use to help you.
4. Research design concepts that you will be able to use in your design ideas. For example:
   * signage themes and trends
   * typography, fonts, kerning, leading, tracking, and hierarchy
   * colour, colour theory, hues, saturation, tones
   * layout and composition, arrangement, proximity whitespace, alignment, contrast, repetition
   * imagery, effective use, image usage rights, vector vs raster, cosmetics.
5. Generate a range of design ideas on how you want to develop and present these ideas, taking into account the Learning Areas, learning principles, or other appropriate school themed signage you are investigating and the end users you are designing for.
   * To help, you will need to research graphic design and design ideas related to effective and meaningful signage. Look at a range of relevant websites for ideas. For example:

<https://www.iponz.govt.nz/about-ip/maori-ip/concepts-to-understand/>

<http://identitypr.com/public-relations/marketing/tips-on-how-to-create-effective-signage/>

<http://www.thesignchef.com/how-to-design-a-sign>

<https://www.gcflearnfree.org/beginning-graphic-design/typography/1/>

<https://en.wikipedia.org/wiki/Visual_design_elements_and_principles>

Select the design/s that will allow you to display your signage.

1. Annotate your thinking and decision making to help support the development of your ideas.
2. Seek feedback from a variety of relevant people about your ideas. Think about:
   * Are your design ideas effective at developing an understanding of one’s own identity, language and culture?
   * Are your design ideas effective at developing an understanding of the relevance of culture in each particular Learning Area, learning principles, or other appropriate school themed signage?
   * Are your design ideas presented clearly?
   * Are your design ideas culturally appropriate?
   * **How do you know?**
3. Annotate your design ideas with feedback from others to help inform the refinement of your design. What needs to change? Why? How could you make the change? What are you hoping to achieve?
4. Describe the relevant implications and explain how the design addresses those relevant implications. For example:
   * How have you addressed ethical or intellectual property issues?
   * How have you ensured that your outcome is usable and functional for your end users?
   * How have you ensured your outcome is culturally appropriate?
   * How have you ensured that your aesthetic elements are appropriate for your target audience and have enhanced the presentation of your data to make it meaningful?
5. Justify the final design choice, after you have considered and analysed all evidence and information you gained from the research, feedback and design process.

**Resource sheet**

*What is the foundational purpose of the signage?*

* + Whose attention are you trying to attract?
  + Who is your target audience?
  + Who is your message to be aimed at?
  + Think about the construction; print, build, size, materials etc.

*What understanding will you need? Think about:*

* + New Zealand’s own identity, language and culture
  + Māori knowledge and expertise
  + The learning area/s you are developing the signage for

*What do you want the sign to do or what is the primary purpose of your signage?*

* + To advertise/promote, identify, inform, inspire etc?

*What does the signage need to achieve?*

* + How to incorporate relevant and meaningful culture in different learning areas
  + How to appropriately appreciate a Māori world view and values
  + How to incorporate your understanding of New Zealand culture and make it relevant
  + Does the signage need to be eye-catching in order to promote the subject?
  + Does the signage need to follow a set of school style guidelines?
  + Does the signage need to link the New Zealand Curriculum symbols, the Learning Area statement and each Learning Area’s whakatau?
  + What do you need to use to quickly identify the Learning Area to make it easier for people to recognise it?
  + Do you want to create greater subject recognition and exposure within the school?
  + Are you trying to make people aware of areas that are important to that Learning Area?
  + What does the signage need to inform or educate about?

You are going to be assessed on how well you:

* apply a process through the development and testing phases of your outcome to improve the quality and functionality of your outcome
* describe relevant implications
* ensure the signage is fit for purpose and meets end-user requirements
* use research and feedback to guide the development of your design ideas
* take into consideration relevant implications; and
* justify, with evidence, that the chosen design is suitable for the purpose and end users.

**Assessment schedule/Mahere Aromatawai: Digital Technologies & Hangarau Matihiko** **91878 – NZ Culture**

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| **Evidence/Judgements for Achievement/Paetae** | **Evidence/Judgements for Achievement with Merit/Kaiaka** | **Evidence/Judgements for Achievement with Excellence/Kairangi** |
| The student has developed a design for a digital outcome which involves:   * **defining the purpose and end users for the digital outcome**   The student has defined the purpose of their signage in reference to the Learning Area/s decided. They have defined the end users for the signage.  **For example (partial evidence):**  *The student identified the maths learning area, and determined that both statistics and calculus would need to be displayed with neither of them being given a more dominant position so that the staff and students would not be exposed to a non-intended bias.*   * **researching and generating a range of design ideas**   The student has researched and annotated a range of signage design ideas. They have:   * presented the design ideas as annotated sketches or low-fidelity mock-ups * presented different colour combinations, font combinations and ways to represent data through imagery or visual illustrations.   **For example (partial evidence):**  *Technology is made using an appropriate brown colour as a base with the words Hangarau Technology with a poutama weaving together the words Digital and Materials. There are a number of traditional Maori and other tools used across Foods, Materials and Digital Areas*.   * **selecting a chosen design, and describing the appropriateness of that chosen design**   The student has generated a final design for their signage that displays data based on their context of cultural connectedness. They have provided a concise statement about the appropriateness of the chosen design in relation to the data gathered about understanding the context and the end users.  **For example (partial evidence):**  *The student was able to show an understanding of the history of the Maori iwi in their area, and found there was a strong connection with the French missionaries, so for the Languages Learning Area they were able to explain why they included the French Flag into their design.*   * **describing relevant implications**   The student has taken into consideration relevant implications such asthe target audience and end user considerations, the aesthetics of the signage, social, cultural and ethical considerations when designing the signage and copyright issues.  **For example (partial evidence):**  *I have got feedback about the cultural and social appropriateness of the design/s of my signage as I need to make sure it has captured the essence of the learning area/s and embraced the idea of cultural connectedness. I also thought about the imagery I was using and accessed copyright free images or created my own.*  *The examples above are indicative samples only* | The student has developed an informed design for a digital outcome which involves:   * **using feedback to improve the design**   The student shows how the design of the signage has been changed and refined through the use of feedback.  **For example (partial evidence):**  *The student had found an image of a tiki on a rugby ball. Initially they thought this was a great find. They used that in The Physical Education and Health signage, however after talking to their teacher they were told that using hei tiki for particular products or services may be offensive to Māori. The student then decided to just use a normal rugby ball instead.*   * **explaining how the design meets relevant implications**   The student has discussed how the design meets relevant implications  **For example (partial evidence):**  *In this case the student was able to meet these criteria as they resolved design issues (above). For example, as they refined their design, they discovered information about appropriate use of imagery. They were able to relate what they found, and why it meant that they could not use their original Rugby Ball tiki idea. They were also aware of copyright issues. The student discussed how they plan to use only imagery/visual illustrations that they have created themselves or those from the open-clip art library to respect intellectual property, or use images that they have run past someone who is able to help them understand the significance.*    *The examples above are indicative samples only* | The student has developed an effective design for a digital outcome which involves:   * **justifying, with evidence, that the chosen design is suitable for the purpose and end users**   **For example (partial evidence):**  *The student has annotated their chosen design to justify selection of content and aesthetic elements. Their annotations clearly link to the research they have completed on appropriate use of (for example) Maori elements, the refinements they have made based upon feedback from the end users, and a reflection on how the signage will effectively convey information for the users in an appropriate and meaningful way.*  **For example (partial evidence):**  *The student chose a particular design for the Science Faculty. They justified their use of the green shade used, as they sampled it from the NZC document, they used the name Pūtaiao that they verified using a dictionary and their Science Teacher. They had originally made a background motif of a generic science lab (taiwhanga pūtaiao) and used a DNA double helix, a prism with colours, and some bubbling beakers. However, the student decided that these images although very relevant to science were not as culturally relevant in New Zealand, so they decided to use these to help emphasise a more cultural link by using an unfolding koru (Biology) etc to emphasise a New Zealand cultural connection. The student was able to demonstrate through feedback and testing that the sign was readable, and clearly science focussed, they even had an endorsement from the science teacher saying it was a pleasure to see such effective science signage, and their Maori teacher endorsing it as accurate and appropriate.*  *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.