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**Internal Assessment Resource**

**Digital Technologies & Hangarau Matihiko Level 2**

This resource supports assessment against Achievement Standards 91891 and 91893[[1]](#footnote-1)

**Standard title:**  91891 Apply conventions to develop a design for a digital technologies outcome (3 credits)

91893 Use advanced techniques to develop a digital media outcome (4 credits)

**Credits:** 7

**Resource title:** Close encounters

**Resource reference:** Digital Technologies & Hangarau Matihiko 2.2A\_2.4A

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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/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. |

**Internal Assessment Resource**

**Achievement Standards:** 91891 and 91893

**Standard title:**  91891 Apply conventions to develop a design for a digital technologies outcome (3 credits)  
91893 Use advanced techniques to develop a digital media outcome (4 credits)

**Credits:** 7

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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 standards. 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 is an integrated assessment activity supporting a project approach that assesses against two achievement standards.

Students are required to design and develop an advanced website. Please see the student task for more details. Teachers are encouraged to edit this default task to make it suitable for their students and context.

Note: Allow students to either complete the default task (see student task) or ‘pitch’ an alternate idea. Provided their idea allows them to use advanced techniques to design and create a website, they should be encouraged to develop their custom solution.

**Conditions/Ngā Tikanga**

It is recommended that students should have at least two identified checkpoints with their teacher as they work through this assessment activity to ensure they have an opportunity to ask questions and gather feedback.

The format of the final outcome is a website that uses relevant conventions.

In addition to the website, students will need to supply evidence of planning, designing and testing the outcome.

Conditions of Assessment related to these achievement standards 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, a text editor and image manipulation software.

**Internal Assessment Resource**

**Achievement standards:** 91891 and 91893

**Standard title:**  91891 Apply conventions to develop a design for a digital technologies outcome (3 credits)  
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**Student/Ākonga instructions**

**Introduction/Kupu Arataki**

This assessment activity requires you to apply conventions to design a website and then create the website you have designed.

You will be assessed on how effectively you design and develop your site.

Teacher note: Insert due dates and timeframes

**Task/Hei Mahi**

Design and create a website which has a specific purpose and audience and uses relevant conventions.

Below are some potential purpose/audience ideas.

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| **Purpose** | **Target Audience** |
| Site to showcase Y12 Painting | Y11 Art students, their parents and the wider school community |
| Food @school – site which features food created by the Y13 Food Technology/Hospitality class | Y10 – Y13 students, their parents and the wider school community |
| Team Page – site which includes information on a given school team/club. | Students who are involved might want to be involved in the given team |

1. Select an appropriate context for your website, describe the purpose and requirements of the end users.
2. Research websites and design ideas, investigate and explain relevant conventions to inform the development of your site. For a website, relevant conventions may include:

* how privacy, ethical and/or intellectual property issues have been addressed
* how your design ensures that the resulting website will be fully functional and easy to use
* how your chosen aesthetic elements are appropriate for your end users.

1. Generate and model a range of design ideas using conventions. Select a design and explain the appropriateness of the design. Use feedback gained from modelling to improve the design.
2. Justify how your chosen design addresses implications, end-user considerations and uses appropriate conventions. You might wish to consider:

* how privacy, ethical and/or intellectual property issues have been addressed
* how your design ensures that the resulting website will be fully functional and easy to use
* how your chosen aesthetic elements are appropriate for your end users.

1. Create a website based on your chosen design. Your website must demonstrate advanced skills and techniques as you implement or integrate components such as:

* an intuitive navigation
* formatting that it is easy to read and use
* ensuring the site is accessible for a range of users (for example, alt tags, support for visually impaired users, can be used for screen readers etc.)
* a customised stylesheet and current HTML conventions for markup
* commenting of HTML and CSS files as appropriate
* integrating a range of media (for example, image, sound, moving image)
* integrating an external library or other web languages
* management of assets for the website.

1. Carry out key testing procedures during the development of your website. For example, you should

* test your website to ensure it functions across a range of browsers and devices (e.g. responsive to different screen sizes)
* run a validation check and address any issues
* test for standard procedures to improve optimisation. For example, the loading speed, file size and image optimisation
* test that your website has met relevant web design conventions.

1. Document (through providing screenshots/a screencast) the iterative improvement of the design and development of your website site. Document what has been tested, the ongoing iterative improvements/edits you have made to the design and website. Include annotations of why you made edits/improvements.

**Submit:**

Your completed website and the following documentation:

* **Design ideas, modelling, user feedback, final design and justification**. This would generally include a series of wire frames and mock ups showing a range of potential layouts, colours, fonts etc. This section should also include feedback from modelling, evidence of refining the design and justifications related to how the design is suitable for the target audience.
* **Testing**. Screenshots/a screencast showing that the site has been tested and works as expected. Document changes to your site based on usability testing. Provide before and after screenshots to show how the site has been improved.

Note: Testing can be done by making a brief screencast showing the outcome being comprehensively tested. You can take screenshots of your testing and annotate them. Alternatively, you can submit a screencast and talk through your testing procedures as you work through the development of your website.

* That implications have been explained and addressed. This could include an explanation on why your outcome needs to:
  + be socially/culturally acceptable
  + honour legal, ethical and intellectual property obligations
  + be accessible, usable and functional
  + be sustainable and future proof
  + effectively use web design conventions.

You should show how you have addressed these implications.

**Assessment schedule/Mahere Aromatawai: Digital Technologies & Hangarau Matihiko 91891 – Close encounters**

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| **Evidence/Judgements for Achievement/Paetae** | **Evidence/Judgements for Achievement with Merit/Kaiaka** | **Evidence/Judgements for Achievement with Excellence/Kairangi** |
| Apply conventions to develop a design for a digital technologies outcome.  The student has:   * described the purpose of the outcome and the requirements of the end users * investigated and explained relevant conventions   **For example (partial evidence):**  The student has chosen a specific purpose and audience for their site. For example*, “The debating team need a website where they can show potential debaters and the wider school community what is involved in this activity, celebrate their successes and advertise upcoming debates. The site needs to have information related to both junior and senior debaters.”*  The student has looked at other schools’ debating websites/sports team sites to inform their design.  Evidence might include annotated screenshots of between two and four existing sites showing features that could be implemented and/or avoided. The student has also researched current design trends. They have listed between three and five key considerations based on this research.   * generated and modelled a range of design ideas   **For example (partial evidence):**  Students have created a series of possible site layouts. They have also experimented with different colour, background and font options. Evidence should be in the form of wireframes for the initial layout of the page followed by mock-ups showing various options.   * selected an appropriate design for the purpose of the outcome and explained the appropriateness of that design   **For example (partial evidence):**  Students have indicated which design they will use to create a working website and explained why the chosen design is suitable for the intended audience/end users.   * explained relevant implications   **For example (partial evidence):**  Students have mentioned the importance of honouring copyright and privacy (e.g. getting permission from students whose photos appear in the site). They have explained why the site needs to be aesthetically pleasing, fully functional, easy to use and accessible.  *The examples above are indicative samples only* | Apply conventions to develop an informed design for a digital technologies outcome.  The student has:   * used feedback gained from modelling to improve the design   **For example (partial evidence):**  The student has provided initial designs followed by feedback from potential users. They have used user feedback to improve their initial design. Evidence could include further mock-ups for a chosen concept where it is clear that user feedback has resulted in changes that make the design more effective. The student has provided initial designs followed by feedback from potential users. They have used user feedback to improve their initial design. Evidence could include further mock-ups for a chosen concept where it is clear that user feedback resulted in changes that make the design more effective.   * explained how the chosen design addresses implications, end-user considerations, and uses appropriate conventions   **For example (partial evidence):**  Relevant implications are discussed, and student clearly shows how their design takes these implications into account.  *The examples above are indicative samples only* | Apply conventions to develop a refined design for a digital technologies outcome.  The student has:   * justified how the chosen design addresses implications, end-user considerations, and uses appropriate conventions   **For example (partial evidence):**  Relevant implications are discussed, and student justifies their design decisions. For example*, “It is important that my site is easy to use. I have sought feedback from potential users and have adjusted my design by making the link text larger and making the background lighter for accessibility reasons."*  *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.

**Assessment schedule/Mahere Aromatawai: Digital Technologies & Hangarau Matihiko 91893 – Close encounters**

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| **Evidence/Judgements for Achievement/Paetae** | **Evidence/Judgements for Achievement with Merit/Kaiaka** | **Evidence/Judgements for Achievement with Excellence/Kairangi** |
| Use advanced techniques to develop a digital media outcome.  The student has:   * used appropriate tools and techniques for the purpose and end users   **For example (partial evidence):**  The student has created a website using html/css with an external stylesheet. The material is structured and formatted using a range of tags and styles (i.e. it has clear headings, body text and lists/bullets if required).  The student has used an external library to further enhance the user’s experience.   * applied appropriate data integrity and testing procedures   **For example (partial evidence):**  The site has been tested/previewed either in two unrelated browsers or with at least two different screen sizes. The site looks acceptable on screen on a range of screens.  The text has been proof read and there are no obvious spelling/grammatical issues (minor spelling/grammar issues are OK for Achieved).   * used relevant conventions   **For example (partial evidence):**  The student has used concepts such as contrast, repetition, alignment, proximity and white space to lay out their site.   * explained relevant implications   **For example (partial evidence):**  The student has explained why copyright should be honoured/images should be credited.  They have mentioned why the site should be accessible for colour blind/visually impaired users.  They have stated why their site should be easy to navigate (the site may have minor navigation issues).  *The examples above are indicative samples only* | Use advanced techniques to develop an informed digital media outcome.  The student has:   * used information from testing procedures to improve the quality of the outcome   **For example (partial evidence):**  The student has previewed the outcome and made changes to the layout/formatting to improve it.  The student has asked a volunteer to use their site and made changes based on volunteer feedback.  The student has previewed the site using a slightly smaller (or larger) screen and adjusted the layout to ensure the site looks acceptable on a range of wide screen devices.   * improved the quality of the outcome by applying relevant conventions   **For example (partial evidence):**  The student has used fonts to ensure that the site looks consistent on all devices.  The student has used css to go beyond the basics – for example they have used partial transparency, rounded corners, shadows or css grid to create an aesthetically pleasing outcome.   * addressed relevant implications.   **For example (partial evidence):**  The student has acknowledged and credited the source of their images (or made it clear that the images are original).  They have ensured that all their images have ‘alt’ tags/descriptions so that the material can be read out by screen-readers (and is thus accessible to visually impaired users).  The site is easy to use/navigate.  *The examples above are indicative samples only* | Use advanced techniques to develop a refined digital media outcome.  The student has:   * used iterative improvement throughout the design, development and testing process to produce a high-quality outcome   **For example (partial evidence):**  The student carried out testing at key points during the creation of the website to ensure that it was fit for purpose and easy to use. They made changes based on testing and feedback at each cycle in an iterative loop. For instance, they checked that…   * navigation was intuitive * the material was easy to read/understand * the website loaded quickly * usability heuristics were adhered to * the application of css was effective for the purpose and end-users * they have saved or screen shot their iterative development process. * used efficient tools and techniques in the outcome’s production   **For example (partial evidence):**  The student has a sensible file structure with a separate images sub-folder (and possibly sub-folders for css/js as well).  Html/css have been appropriately commented and/or class names are descriptive (e.g. <div class=”main”>).  Images have been resized and optimised.  *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.

1. Achievement standards 91891 and 91893 are derived from both *The New Zealand Curriculum* and *Te* *Marautanga o Aotearoa.* [↑](#footnote-ref-1)