



Hamilton Christian School

Year 11 Digital Technologies

Digital Technologies | Hangarau Matihiko Level 1

Develop a proposal for a digital outcome

**AS91877 (3 credits) Version 1**

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| **Achievement** | **Achievement with Merit** | **Achievement with Excellence** |
| * Develop a proposal for a digital outcome. | * Develop an informed proposal for a digital outcome. | * Develop an effective proposal for a digital outcome. |

**Resource title:** Digital Imagination Factory

**IMPORTANT CRITERIA:**

1. *Develop a proposal for a digital outcome* involves defining:

* the proposed outcome statement including problem and/or issue, scope, purpose, context
* the requirements (including specifications)
* the end users
* the resources required (for example, people, equipment, timeframe estimate).

*Develop an informed proposal for a digital outcome* involves:

* using feedback and research to improve the proposal
* ensuring the proposal shows clear links between the requirements, end users and resources required.

*Develop an effective proposal for a digital outcome* involves justifying, with evidence, that the proposal meets the overall project requirements.

1. *A proposal* *for a digital outcome* is a concise document that outlines the scope of the project.
2. A *digital outcome* is a product that is developed using a digital device/s.

4 Examples of student developed outcomes that could come from this proposal are:

* a digital media outcome - web, print or other interactive media
* an electronics outcome - robots, wearable technology
* a computer system outcome - the design of a computer system to meet a client need
* a programming outcome - a computer program for a specific purpose or a computer game
* a data outcome - a database to structure, query and present information for a specific purpose
* any combination of the above, e.g. a Web App integrating programming, media and data, a robot integrating electronics and programming, or a video game integrating media and programming

**Context / Te Horopaki**

The activity requires students to develop an effective proposal for a digital outcome.

Students are able to brainstorm and develop their own ideas for a project and then use this proposal to go on and develop a digital outcome.

This assessment is a component of a larger project which also includes 1.2, (1.4/1.7), & 1.8

**Conditions**

The format of the final proposal is an E-PORTFOLIO of all the development, research and refinement of the student’s proposal process. The format is not assessed by this achievement standard.

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**

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.

**Student / Akonga Instructions**

**Introduction**

This assessment activity requires you to develop an effective proposal for a digital outcome.

You are going to be assessed on how effective your proposal is in meeting the project requirements for the digital outcome.

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.

**Due Date: FRIDAY 29th MARCH (Term 1, Week 9)**

**Task**

You will develop a proposal that is a critical part of a design process;

1. What do you intend to make and why?
2. Who will benefit from this outcome?
3. What problem or issue is it designed to solve or what purpose does it have?

The proposal process enables you to improve your idea, get valuable feedback, properly “scope” the project and end up with an effective proposal that outlines detailed specifications and requirements.

You will present a proposal document that outlines the development of your digital outcome.

Below is a framework which contains some of the critical steps that you could take.

**Framework:**

1. Identify potential issues or problems within a suitable context.
2. Choose an issue or problem and make sense of this issue or problem by refining your understanding of what you think possible outcomes may be to address this.
3. Develop a proposed outcome statement which defines:
   * clearly what the problem and/or issue is
   * the purpose of the outcome (including desired goals and objectives)
   * the context in which the outcome is to be developed
   * end users who will benefit from your proposal
   * the scope of the outcome (how the requirements of the project will be able to be delivered in the established timeframe)
4. Develop a set of requirements (including specifications), and resources that will clearly outline what your outcome should achieve.
   * + **Requirements** include all elements and functional attributes the outcome must include to be successful and make it fit for purpose.
     + **Specifications** are all the technical aspects that have been requested by the key end user or project overview. These must be included in the outcome and be measurable.
     + **Resources** include items such as hardware, software, time, materials and expertise.
5. Improve and develop your proposal through research and responding to feedback from others so that it can be communicated clearly. For example, you could:
   1. Test your ideas by getting feedback from your client(s) and use the feedback to help you improve your idea further. Your proposal should include evidence of this process.
   2. Develop an improved proposal with a set of revised specifications, requirements and resources that clearly outline what your proposed solution should achieve. This proposal needs to show clear links between the requirements, end users and resources required.
   3. Finally, justify with evidence how your proposed solution meets the overall project requirements.

Evidence to support the proposal could be collected through a presentation, recorded video, annotated photographs or blog, but you will need to hand in a document that is your final proposal. This document could then support the development of a digital outcome as part of another assessment.

Ensure you have clear guidance from your teacher regarding the length of your proposal.

**Student Planning Sheet**

|  |  |  |  |
| --- | --- | --- | --- |
| The Proposal | | | |
|  | Information | Resources (tools or materials) |
| Client | *Describe who your client is.* |  |
| Brief Statement | *A short statement that includes:*  *● what you are doing? (the issue)*  *● why you are doing it? (the purpose)*  *● who you are doing it for? (the target audience)*  *● how the solution will be used (context)* | *What resources will you need here?* |
| Requirements | *Outline the requirements that will make this project successful (fit for purpose)* | *What resources will you need here for a solution?* |
| Specifications | *Outline the technical aspects requested by the client or end user?* | *What resources will you need here for a solution?* |
| The end users | *Describe who the end users are and outline some expectations based upon evidence from research.* |  |

**GLOSSARY TERMS**

## Brief Statement

A short statement that includes:

● What you are doing (the issue)

● why you are doing it (the purpose)

● who you are doing it for (the target audience)

● how the solution will be used (context)

**Example:**

I am being asked to design a programme that will allow the general public to search for details about vehicles stolen in the last year. The programme will retrieve information from a database and will be run as a local desktop application.

## Requirements

The requirements include all elements the project must include to be successful and make it fit for purpose.

Examples:

* People must be able to login to the web site using a Google account
* People must be able to upload photos and add text descriptions

## Specifications

The technical specifications for this project. These are all the technical elements that have been asked for by the client or the project overview and must be in your project. Note: they are **different from the Requirements**.

Present them in a list format so it is easy to check them off during your final evaluation.

These might include:

* file formats
* sizes
* shapes
* specific colours, photos or logos requested by the client
* any technical specifications your solution must adhere to. eg. XHTML, CSS, WAI
* variables and functions: naming conventions and purpose

## Resources

List any tool or materials that will be required for the solution.

Describe the resource and its purpose or use within the solution.

## Client and Stakeholders

People who are involved in the project (i.e. have a stake in the project),

This might include:

* a customer or person who has requested the outcome be developed
* someone with financial interests (e.g. an investor)
* the target audience are stakeholders (we have separated them out in the brief)

## Target Audience

A description of the key target audience(s) that will be using the solution. This should include:

1. Characteristics – descriptions of the audience (can be generalised) that are relevant to the solution. eg. height, weight, age, gender
2. Knowledge/Skills: What does the audience already know and what can they already do? Keep it relevant to the solution.
3. Expectations: What will the target audience(s) expect from your solution?

## Budget/Costs

A breakdown of the costs by task. This is for the client to sign off on.

**Example:**

|  |  |
| --- | --- |
| **Analysis** | **5** |
| Initial analysis of project | 1 |
| Writing the brief | 2 |
| Initial research into existing solutions | 2 |
| **Concepts** | **20** |
| Initial sketches | 5 |
| Rendered concepts for sign off | 10 |
| Revisions to concepts | 5 |
| **Build** | **40** |
| create XHTML templates | 10 |
| prepare imagery | 10 |
| create CSS files | 5 |
| mark up content | 15 |
| **Review** | **5** |
| User testing | 2 |
| Functional testing | 2 |
| Final review of solution against specifications | 1 |
| **Delivery** | **2** |
| Upload web site | 1 |
| Final testing in live environment | 1 |
| **Total Time:** | **72 hours @ $100** |
| **Total Cost:** | **$7200 + GST** |

**Assessment schedule: Digital Technologies | Hangarau Matihiko 91877 – Digital imagination factory**

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| **Evidence** | **Achieved** | **Achieved with Merit** | **Achieved with Excellence** |
| Wrote a proposed outcome statement (brief) that includes the problem and/or issue, scope, purpose, context, and outline a proposed digital outcome. |  |  |  |
| List the requirements and specifications of the proposal. |  |  |  |
| Clearly identify the end users. |  |  |  |
| List the resources required for the proposal (for example, people, equipment, timeframe estimate). |  |  |  |
| Use feedback from the client and end users, as well as research, to improve the proposal |  |  |  |
| Show clear links between the requirements, end users, and resources required within the proposal |  |  |  |
| Justify, with evidence, that the proposal meets the overall project requirements |  |  |  |

**Exemplar model answers:**

**Assessment schedule: Digital Technologies | Hangarau Matihiko 91877 – Digital imagination factory**

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| **Evidence for Achievement** | **Evidence for Achievement with Merit** | **Evidence for Achievement with Excellence** |
| The student has developed a proposal for a digital outcomewhich involves:   * the proposed outcome statement including problem and/or issue, scope, purpose, context   The student:   * outlines the proposed outcome statement (problem/issue, scope, purpose, context). * has provided an outline on what the proposed digital outcome is, and has a problem/issue statement, the purpose of the digital outcome and where the digital outcome will be used.   **For example (partial evidence):**  *“I am going to make a website to help promote the idea of “Being a Tidy Kiwi”. This problem has seemed to get worse in our school and I would like to make this website to bring it to the attention of the students…….links could be placed on the main school site to help…..”*   * the requirements (including specifications)   The student:   * outlines the requirements that will make this project successful * has provided a relevant list of the requirements to make the digital outcome fit for purpose.   **For example (partial evidence):**  *"a page about composting and the benefits of composting, how to build a compost and where the compost is at the school, I also need a page about the recycling bins at the school – location. The website will need to load quickly and accurately on most browsers."*   * the end users   The student states who their end users are and outlines some expectations based upon evidence from research.  **For example (partial evidence):**  *"This website will be made for the students at this school …. most of them access the internet on their mobile phones….. this will be a good way to get information to them..."*   * the resources required (for example, people, equipment, timeframe estimate)   The student:   * outlines the resources required (people, equipment, time) * lists the resources required for the digital outcome, outlines what they are, and why they are needed.   **For example (partial evidence):**  *"I will need access to Notepad++ at home and at school to code my website. I am familiar with the software and it is free so I don’t have to buy a copy to use at home. It lets me code in HTML and CSS and I can preview the code really quickly in Chrome…."*  *The examples above are indicative samples only* | The student has developed an informed proposal for a digital outcome which involves:   * using feedback and research to improve the proposal   The student improves the proposal after feedback. They have gone through an improvement process based upon feedback and made relevant changes to their proposal.  **For example (partial evidence):**  *“after talking to the deputy principal….it would be better to promote the website to the year 9 students through…...to be more effective…..as a result I have decided to…...”*   * ensuring the proposal shows clear links between the requirements, end users and resources required   The student:   * ensures the proposal shows clear links between the requirements, specifications, end users and resources required * has shown consideration for the end user's needs, the available resources (i.e. time/expertise etc) and the context in their development of their proposal. Their proposal clearly addresses the problem, issue, purpose or context.   **For example (partial evidence):**  *“due to my inexperience with HTML and CSS I have decided that my website has to be fairly simple with only 4 pages or less……..*  *...The year 9’s are not allowed to use Facebook so I can’t use Facebook to promote my website….”*  *The examples above are indicative samples only* | The student has developed an effective proposal for a digital outcome which involves:   * justifying, with evidence, that the proposal meets the overall project requirements   The student has provided justifications with evidence for different aspects of their proposal, they have provided more than their own opinion, refined their proposal based on the feedback of others, and provided justification for the changes. They provide evidence of meeting the overall requirements.  **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…..”*  *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