

# Assessment – Student Copy

For Achievement Standard 91635

**Subject Reference: Digital Technologies 3.43**

**Title: Demonstrate understanding of complex concepts of digital media**

*Version 3  
Level 3, Credit 4*

## Achievement Criteria:

Achievement	Achievement with Merit	Achievement with Excellence
Implement complex procedures to produce a specified digital media outcome	Skilfully implement complex procedures to produce a specified digital media outcome	Efficiently implement complex procedures to produce a specified digital media outcome
<ul style="list-style-type: none"><li>selecting software based on the features of the program(s) that enables the student to effectively demonstrate skills in creating, editing and integrating media types</li><li>applying a set of complex tools and techniques to present content in a media type</li><li>applying data integrity and testing procedures to ensure the outcome meets the specifications</li><li>following legal, ethical and/or moral requirements appropriate to the outcome</li></ul>	<ul style="list-style-type: none"><li>showing accuracy in the application of complex tools, techniques and procedures</li><li>showing independence with regard to decision making in the selection of software and application of complex tools, techniques and testing procedures</li></ul>	<ul style="list-style-type: none"><li>applying complex tools and techniques, and producing the outcome in a manner that economises the use of resources (eg optimised tool selection, batch processing images, use of master pages, use of libraries, timely production)</li></ul>

## Introduction

This assessment activity requires you to create a dynamic website using complex tools and techniques.

## ***Prior Learning***

You should have prior experience in the following subject areas:

- HTML
- CSS
- Programming languages and concepts, especially PHP
- Website Design, including Responsive Design so that webpages adjust to the device they are viewed on

## ***Definitions***

In the context of this assessment activity the following definitions apply

### **Specified digital outcome**

This refers to a digital media outcome and its relevant specifications. The digital media outcome is a dynamic website. The context and specifications are outlined in the following section but may be varied in consultation with your teacher.

### **Dynamic Websites**

Dynamic websites contain web pages that are generated in real-time. These pages include web server-side scripting code, such as PHP. When a dynamic page is accessed, the code within the page is processed on the web server and the resulting HTML is sent to the client's web browser.

### **Complex tools and techniques**

For the purpose of this assessment these will include the following:

- Web page design utilising HTML for page structure and CSS for style
- A server-side scripting language such as PHP
- Dynamic data handling passing data (text) between pages on the website
- Interaction between the user and content
- Responsive design so that different devices receive appropriate outputs

### **Media types**

At a minimum this assessment will involve the following media types – text, still images and web languages.

### **Data Integrity Procedures**

These will include checking for the relevance, accuracy and reliability to ensure the outcome functions as intended.

## ***Context***

At Bream Bay College in Ruakaka, there are four school houses: Sutherland, Argyll, Ross and Inverness. These are named after the old provinces in Scotland. Settlers from these provinces arrived in Bream Bay in the 1850s.

House teachers (Deans and Deputy Principals) would like a program to create House Certificates. After some discussion with stakeholders, it was agreed that a dynamic website would be a good solution.

## Specifications

The following specifications are intended as a guideline and may be varied in consultation with your teacher as long as they meet the standard required for a complex media outcome as defined above

- The website must contain minimum of two webpages.
- User interaction with the website must generate pages dynamically.
- The website structure must use HTML5 to structure the web page content.
- The website must incorporate a valid external (i.e. linked) cascading stylesheet (CSS3) to control the page layout and style distinct elements.
- At least two media types must be used in the website. At a minimum these are to include images and server-side scripting. However you are free to use other digital media types such as animation, audio and video.
- The website must provide multiple outputs for different devices (phone, tablet, laptop or desktop computer).
- Your input page must contain elements to collect:
  - A student's name
  - A student's House and Whanau (could be drop-down list(s))
  - The reason for the certificate (could be a drop-down list or input box)
  - The name of the person signing the certificate (drop-down list?)
- The certificate must contain the above, plus:
  - Today's date (generated with PHP)
  - The school and house Emblems
  - Suitable fonts (consider using web fonts)
  - A graphic created by you, representing a seal or emblem (eg: "Well done", "Great job" or "Congratulations".) In producing this graphic, you are required to demonstrate and document the use of complex image manipulation techniques (listed later in this document).
- Your website does **not** need to provide a mechanism for printing the certificate, but you could include a Print button for when this functionality is added.

If your teacher has provided specifications for the website, take careful note of them. Alternatively, devise your own specifications and then confirm with your teacher that they are suitable. This will ensure that you do not specify an outcome that is either too simple or too complex, and that you will have access to all grades of achievement.

## Designing Your Website

Identify an appropriate design concept for a house certificate. This may be provided by your teacher, or you may develop your own. However you must ensure that you are confident enough to meet the requirements of the chosen design concept which may include divisions, linking, embedding content, and design principles.

If your teacher has provided a template you will need to modify it for your own purpose in order to demonstrate understanding. Alternatively you may wish to create your own website layout from scratch but this will not affect your assessment grading.

## Notes

In creating the website, you will:

- Follow a step-by-step plan that you have already been through with your teacher. You will not be assessed on this but it is good practice to have a step-by-step plan for your finished website before starting to create it
- Build your website from source code, manipulated images or other digital media. This will include the following steps
- Create the website, adding HTML for structure and CSS for design
- Add server-side scripting code (PHP) to build a dynamic website
- Test your website

You will be assessed on the extent to which your website meets the specifications and the manner in which you apply techniques and testing procedures to create the specified outcome. Your independence, as well as your accuracy and efficiency, will be taken into account.

Creating content is not a significant part of this assessment activity. You may download suitable text and other content from the Internet as long as you address any legal (copyright and privacy), ethical and moral issues. However if you do use someone else's content, you must reference it appropriately. Alternatively, your teacher may provide text and other content for you to use.

Although you may not have created the text yourself, you are responsible for presenting it in the best possible way for reading on the web. This includes ensuring that it has suitable headings, subheadings, main body text structure and uses CSS to style these elements appropriately

Images used on the website need to be edited using techniques such as cropping (to remove unwanted content), resized, optimised for the web and saved in an appropriate format. In addition, you are expected to demonstrate two of the following image manipulation techniques: colour histograms and adjustments, non-destructive editing, pen tools and paths, filter effects, graphic optimisations, colour management and printing, automation scripts.

You may refer to existing web templates for information and ideas, but you may not simply download such a template and change its appearance – to do this would not fulfil the requirements of the task.

## ***Conditions***

This is an individual task. You have two weeks of in-class time and out-of-class time to complete the assessment for this standard. However this time could be increased or decreased by your teacher to meet student needs and the requirements of your programme to complete it.

## ***Documenting the Process***

In the assessment tasks you are required to keep a record of what you did. To do this you could keep a daily log, or you could annotate each step of your plan as you complete it. Screen shots are a useful way of capturing stages in the development

# **Assessment Tasks**

## ***Planning the Website***

Read the specifications provided above carefully. Alternatively, you may devise your own specifications and then confirm with your teacher that they are suitable. This will ensure that you do not specify an outcome that is either too simple or too complex, and that you will have access to all grades of achievement

Plan the site structure and what content will go where (ie pages, navigation, content structures, headings, etc), and the process that you will follow to create the website.

Plan the design for the certificate.

Identify a suitable design concept (this may be provided by your teacher or you may have developed one as part of another project). Ensure that you have the skills and knowledge to implement the concept eg in terms of page elements, linking structures, embedding content, and design principles).

## ***Software Selection***

***Achieved - selecting software based on the features of the program(s) that enables the student to effectively demonstrate skills in creating, editing and integrating media types***

***Merit - showing independence with regard to decision making in the selection of software and application of complex tools, techniques and testing procedures***

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Conduct your own research to evaluate the software you will be using to build the website.

Outline the features of the software you will be using and explain why these are effective in producing the complex digital outcome.

## **Develop a Test Plan**

*Achieved - applying data integrity and testing procedures to ensure the outcome meets the specifications*

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Data integrity and testing procedures need to be applied when developing digital media outcomes.

Develop your own test plan with a checklist of test tasks that includes the following components. As you go about the task, keep evidence of what you do, when you do it, the results of testing/checking, and how you correct any errors during testing

Ensure your test plan and checklist covers the following areas

- Data Integrity
- Content
- Links
- Functionality
- Browser Compatibility

## **Create the Website**

*Achieved - applying a set of complex tools and techniques to present content in a media type*

*Merit - showing accuracy in the application of complex tools, techniques and procedures*

*Excellence - applying complex tools and techniques, and producing the outcome in a manner that economises the use of resources (eg optimised tool selection, batch processing images, use of master pages, use of libraries, timely production)*

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Use the selected tools to create your dynamic website, following your plan, and keeping to the agreed specifications.

Keep evidence of what you do as you create your website and how you address the problems you encounter. You could, for example, annotate your plan as you complete each step. Screenshots are a useful way of capturing stages in the development. The plan, log and any other documentation you may generate will not be assessed however they may provide you with an additional opportunity to demonstrate to the teacher the manner in which you were working.

Apply data integrity testing procedures as appropriate to the media.

Ensure you address any legal, ethical and moral responsibilities as appropriate to the outcomes.

You will need to show evidence of:

- accuracy in the application of complex tools, techniques and procedures
- independence with regard to decision making in the selection of software and application of complex tools, techniques and testing procedures
- applying complex tools and techniques, and producing the dynamic website in a way that economises the use of resources.

## **Legal, Ethical and Moral Considerations**

*Achieved - following legal, ethical and/or moral requirements appropriate to the outcome*

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Identify the source of your website content including text, images and other forms of digital media. For content which is not original explain what steps you have taken to ensure you have complied with relevant legislation

Explain what steps you have taken to ensure you have followed legal, ethical and/or moral requirements to produce the dynamic website

## **Final Note**

When you have finished, upload your website to the Bream Bay College student server. Demonstrate the final version of your finished website to your teacher. Hand in copies of:

- Your log to record the process you went through to create your dynamic website
- Content including text and images embedded in your final outcome
- Records of testing and the results, including any corrections made
- Any other documents that you created as you developed your final outcome.

## **Authenticity**

The material submitted for assessment, including all photographs, diagrams and illustrations must not breach copyright or privacy issues. Evidence submitted for assessment should be such that the assessors can be confident that they are making a judgement about an individual candidate's understandings.

All information from sources other than the candidate's own work must be acknowledged and contain the following:

- The name of the publication or website
- The author and/or publisher and/or the owner of the information
- The publication date (for books and printed material) or the data accessed (for websites)
- The page number or full URL

An example of an acknowledgement:

*Website - [www.howstuffworks](http://www.howstuffworks.com)*

*Author – Tom Harris*

*Date Accessed – 20/7/2011*

*URL - <http://www.howstuffworks.com/file-compression.htm>*

## **Authenticity Form**

Schools are required to verify that the material presented for external assessment is each candidate's own. Teachers and candidates are required to complete and sign an authenticity form. When you have completed the assessment report ask your teacher for an authenticity form.