

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

**Cambridge ICT Starters  
On Track**

Scheme of Work

4294  
Web Design for a Purpose  
Stage 2 Module



UNIVERSITY *of* CAMBRIDGE  
International Examinations

## Introduction

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In this module, students are introduced to web page design. They learn how to create a simple series of connected web pages, incorporating links to other pages and to other websites, creating some basic navigation through their pages. They are able to select and arrange images and text on the pages so that they are appropriate to a particular audience and give the content some simple organisation. They understand the basics of HTML coding. The aim is that the students begin to understand some of the differences between web pages and other documents and start to think how to present content in a suitable way.

### What is Assessed in This Module?

Students will demonstrate how to:

- create a series of connected web pages
- include links between pages
- include links to other internet sites
- insert images
- demonstrate user awareness
- recognise HTML code

### To Start This Module You Will Need

- any simple web page design software can be used for this module, for example Front Page Express. MS Word can also be used by selecting the 'Save as web page' option – but may require some extra explanation about the source code it generates (because it is very complex). It is also possible to deliver this module using Notepad (by saving as xxx.html) because only a small number of simple HTML tags are required to achieve all the Learning Objectives
- a variety of URLs to a range of good and bad websites for evaluation
- a variety of resources such as, text and images, to work with suggested website ideas. Alternatively students can be given access to the internet (or other information resources) to find these for themselves

### Underpinning Knowledge

Before commencing this module it is recommended that students

- can use the internet to find information
- have some awareness of how to make documents suitable for an audience
- have some experience of combining text and images to produce good page design

### General Principles and Procedures

The following are further suggestions and considerations:

- some web creation software can be extremely complex, providing options beyond the requirements for this module, so teachers should be aware of limiting the features of the software in use, to what is required or to what the students can understand and manage
- students do not need to be able to use professional web design software to achieve this module – a simple web design tool which allows them to add text, images, links and some basic formatting to their pages is all that is required
- it is not necessary to learn HTML to create a website as many software packages do this in the background for you. You can always view the HTML source code in the browser
- the web pages created do not have to be published on the internet – ftp or upload is not assessed in this module

- if students are using MS Word to create their web pages, extra care should be taken to show students what works and what doesn't in web pages, because unlike web design software, MS Word will allow you to create things during design but will apply changes when the page is saved as HTML
- depending on the software being used, students may need to understand for themselves how to reference and store images which go with their web pages, so that if the page is moved the image is not lost from the web page. Encouraging good practice by storing all web page files within a specific folder will avoid problems later. (Some software does this automatically)
- image sizing and quality for the web can be a complex area which is not covered in the module. However, students are expected to be able to select images of the right size and quality for their purpose. They could either collect these from the internet, or select from a range provided by you – there is no necessity for the students to create the images themselves
- students can be given the content – they do not have to create or find it for themselves – but it should be given to them in such a way that they cannot simply do a save as HTML from the documents they are given
- if students create their own images or other objects to include in their web pages – it will be necessary to instruct them on which image types are supported and about image file size issues
- students should be encouraged to create simple sites which work well and suit their purpose rather than complicated sites which don't work properly and have too much going on to be efficient for their purpose
- even simple navigation can get complicated when there are several pages linked together and so there should be encouragement to test all links
- keeping the number of web pages created to a minimum, will ensure that navigation and linking of pages will be simpler for the student
- designing for a purpose is easiest if the audience or the objective is very clearly defined and is something that the students are likely to understand
- students will produce better work if they keep the content as simple as possible or use content that they have adequate knowledge of e.g. a hobby, school
- students would also benefit from doing some simple website criticism – finding good sites and bad sites and trying to look at which things work well
- introduce the issues of plagiarism, copyright, and privacy when creating websites, as students will need to be aware of these if they publish material to the Internet for others to view

## Scheme of Work

Learning Objectives	Classroom Ideas	Resources	Notes
<b>Session Plan One</b>			
<ul style="list-style-type: none"> <li>understand what makes a good website</li> <li>understand the needs of an audience</li> <li>understand the purpose of a website</li> <li>understand navigation options</li> </ul>	<ul style="list-style-type: none"> <li>student task: students visit saved URLs to construct a list of do's and don'ts for good web page design</li> <li>class discussion – what makes a good website?</li> <li>student task: Internet search on navigation options in web pages (visiting and viewing web pages with different styles e.g. search engines, information pages, media websites)– to compile a list of as many different navigation options as possible</li> <li>class discussion: which navigation is best to use for when?</li> <li>student task: create specifications: students think about the 3 website ideas using a specification template (see notes)</li> </ul>	<ul style="list-style-type: none"> <li>saved URLs of a range of good and bad webpage design, with template for comments e.g. what is the website about? who is it for? what is good and what is bad? best feature/worst feature</li> <li>3 ideas for a website e.g.               <ul style="list-style-type: none"> <li>to advertise a fun day for 5 year olds</li> <li>a website for an adult football club</li> <li>a website for a local grocery shop</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>students will need to understand the purpose of a particular website and the needs of its audience before that can attempt to design it</li> <li>providing a specification template with the following headings will help students to define what these are:               <ul style="list-style-type: none"> <li>who is going to use the website?</li> <li>what is its purpose?</li> <li>what style suits this audience? E.g. font. colour, background</li> <li>content – what needs to go on this site to make it useful?</li> <li>navigation – what is necessary and what will suit the audience?</li> </ul> </li> <li>the more detail they provide here the easier design will be</li> </ul>

Learning Objectives	Classroom Ideas	Resources	Notes
<b>Session Plan Two</b>			
<ul style="list-style-type: none"> <li>• plan a website</li> <li>• prepare content for a website</li> </ul>	<ul style="list-style-type: none"> <li>• student task: selecting one of their specifications for a website from last session, students :               <ul style="list-style-type: none"> <li>- sketch out a page design on blank cards (one for each page – 3 pages)</li> <li>- decide which text and image objects will go where</li> </ul> </li> <li>• make notes about :               <ul style="list-style-type: none"> <li>- what items (if any) need to be on every page</li> <li>- how the pages should be linked – make sure that there is always somewhere to go from every page (e.g. no dead-ends)</li> <li>- what sort of style is needed</li> </ul> </li> <li>• think of meaningful file names for each of the pages</li> <li>• locate and collect any extra graphics and other websites to link to</li> </ul>	<ul style="list-style-type: none"> <li>• blank cards</li> <li>• students own specifications for a website from previous session</li> <li>• resources for website ideas e.g. text and images. (Or students can search for this themselves from the internet or other information sources)</li> </ul>	<ul style="list-style-type: none"> <li>• when planning their website students should refer to their original specifications and apply these to:               <ul style="list-style-type: none"> <li>- page layout (starting with the homepage and then branching off to the main sections)</li> <li>- type of graphics (positions, sizes, colours and shapes)</li> <li>- headings for each page (font, style, colour, position and content)</li> </ul> </li> <li>• navigation:               <ul style="list-style-type: none"> <li>- encourage very simple navigation because it is easier to test</li> <li>- text links along the bottom of each page</li> <li>- a link back to the homepage on every page e.g. a logo</li> <li>- hyperlinks linking text to new pages</li> </ul> </li> </ul>

Learning Objectives	Classroom Ideas	Resources	Notes
<b>Session Plan Three</b>			
<ul style="list-style-type: none"> <li>• use web design software</li> <li>• create a web page</li> <li>• add links to other pages</li> <li>• create hyperlinks to other websites</li> </ul>	<ul style="list-style-type: none"> <li>• teacher demonstration: how to use the web design software to add text, add pictures, create hyperlinks</li> <li>• student task: <ul style="list-style-type: none"> <li>- use web design software to create their web pages (using plan from previous session)</li> <li>- save web pages as they are created</li> <li>- test their website including all links</li> <li>- make modifications</li> </ul> </li> <li>• sharing opportunity: students user test each others websites and provide feedback</li> <li>• class discussion: <ul style="list-style-type: none"> <li>- what worked well</li> <li>- what was difficult</li> <li>- what have we learned?</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• website design software e.g. FrontPage</li> </ul>	<ul style="list-style-type: none"> <li>• refer to help files in the specific software to provide guidance on page and image sizes</li> <li>• providing opportunities for discussion and for students to user test each others work will help students learn from each others ideas</li> <li>• encourage students to provide positive as well as negative feedback</li> <li>• encourage some methodology in how to check that all links work – by identifying first a list of what should be connected to what. This way missing links will be identified as well as incorrect ones</li> </ul>

Learning Objectives	Classroom Ideas	Resources	Notes
<b>Session Plan Four</b>			
<ul style="list-style-type: none"> <li>• work systematically</li> <li>• devise a method for producing a website from an idea</li> </ul>	<ul style="list-style-type: none"> <li>• teacher introduces criteria for success in this module: e.g. evidence for working through the 7 phases of development:               <ul style="list-style-type: none"> <li>- specify</li> <li>- design</li> <li>- collate (resources)</li> <li>- create</li> <li>- test</li> <li>- modify</li> <li>- evaluate</li> </ul> </li> <li>• class discuss for each phase the following:               <ul style="list-style-type: none"> <li>- what do I need to produce/do in this phase?</li> <li>- what do I need to provide to prove that I have done this stage well?</li> </ul> </li> <li>• record discoveries on a class chart, listing tasks, outcomes and evidence required</li> <li>• students practise by using this plan to create new websites from simple ideas</li> </ul>	<ul style="list-style-type: none"> <li>• chart for devising a method</li> <li>• ideas and resources for simple websites (for practise)</li> </ul>	<ul style="list-style-type: none"> <li>• drawing attention to the 7 phases required for success in the module Learning Objectives: Specify, Design, Collate, Create, Test, Modify, Evaluate, should help students to focus on having distinct outcomes for each phase</li> <li>• students will find it easier to produce evidence of each phase if outcomes and evidence required are clearly defined and if they have actually seen good examples of these</li> <li>• creating a staged method for the whole class to adopt will encourage students to develop good routines which will help them to produce work independently</li> </ul>

Learning Objectives	Classroom Ideas	Resources	Notes
<b>Session Plan Five</b>			
<ul style="list-style-type: none"> <li>recognise basic HTML tags</li> <li>use HTML</li> </ul>	<ul style="list-style-type: none"> <li>student task: view source code on web pages they have previously created</li> <li>students use highlighter to mark the names of images in their webpage. What code is written either side? Locate some other TAGS and simple instructions e.g. New Line, Bold, or Headings.</li> <li>student task: <ul style="list-style-type: none"> <li>open the notepad file in your browser – what do you see?</li> <li>open the notepad file in notepad – what do you see?</li> <li>change the text between the body TAGS 'my name is .....' save the page and view it again in the browser</li> <li>make the text bold by putting &lt;b&gt; before the text and &lt;/b&gt; after the text. View again</li> <li>put some text between the 2 title tags – what does it do?</li> </ul> </li> <li>this task can be extended to use other basic html tags</li> </ul>	<ul style="list-style-type: none"> <li>students own web pages</li> <li>notepad program</li> <li>prepared notepad page (saved as html) with html code for a very simple web page (see notes)</li> <li>web monkey lesson on HTML (for students)</li> <li><a href="http://hotwired.lycos.com/web-monkey/kids/lessons/html.html">http://hotwired.lycos.com/web-monkey/kids/lessons/html.html</a></li> </ul>	<ul style="list-style-type: none"> <li>you can see the source code for any page by selecting Page Source from the View menu in your browser</li> <li>what is HTML? HTML (Hyper Text Mark-up Language) source code is the language of the World Wide Web. You use it to format text and graphics into files ready for the Web. HTML consists of additional formatting in a text file, called TAGS. All of the text inside less than (&lt;) and greater than (&gt;) characters are called TAGS. HTML provides your Web browser with instructions as to what the web page is to look like. The browser reads these instructions and displays the web page.</li> <li>notepad code for a web page: <pre> &lt;html&gt; &lt;head&gt;&lt;title&gt;&lt;/title&gt;&lt;/head&gt; &lt;body&gt;text here&lt;/body&gt; &lt;/html&gt; </pre> </li> </ul>



## Assessment Ideas

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To show how the Assessment Idea fully incorporates the Learning Objectives tested, the Assessment Idea is cross-referenced with the Learning Objective table below.

### Assessment Idea

For assessment of this module students could be given some snippets of text from a newspaper about a topic of interest like a children's theatre event. Provide images for students to select from and students could find web links to other similar events or to the theatre company to include in the web pages.

Design and create 3 web pages to advertise this event using some or all of text provided. (1) Your pages should be linked together (2) to make an easy to use website because children will be viewing these pages. Include at least one link to an external website you found which would be useful to have on your pages (2) and include any or all of the images provided. (3) Test your website and make any modifications. Write a short description of who will use your website and why you think the design of it is good for this audience. Mention anything you have paid particular attention to – or any changes you made after testing to make it better for this audience. (4) Print the source code to this page and circle the tags which keep your images in place and a tag which shows some text formatting, such as BOLD (5).

	Stage 2 Module – Web Design for a Purpose
1	Create a series of connected web pages
2	Include Links
3	Insert images
4	Demonstrate user awareness
5	Recognise HTML code

Teachers should retain the following evidence for moderation:

- copy of assessment task
- students saved web page or printed copy of one page (as long as the single page is a fair representation of all the pages)
- students written reasons for Learning Objective 4
- printed webpage with source code showing and annotated by student to identify HTML code

## Resources

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**Quality Web Content** - contains archived articles on quality web content. The articles provide information about writing content for, creating, or improving a website.

<http://www.webpagecontent.com/>

**Guidelines for Schools For the Online Publication of Student Images and Schoolwork** - guidelines developed by the New Zealand Ministry of Education to address the implications of online publishing under the New Zealand Privacy Act 1993 and the Copyright Act 1994. The guidelines include draft policy and authorisation forms for schools to use.

[http://www.tki.org.nz/r/governance/curriculum/copyguide\\_e.php](http://www.tki.org.nz/r/governance/curriculum/copyguide_e.php)

**School Publishing Policies** - offers schools comprehensive guidelines for publishing material on the Internet. It also includes links to further guidelines for the setting up and design of websites.

<http://www.buddyproject.org/tool/design/1policies.asp>

**Webmonkey for Kids** - a guide for students on how to build websites. It includes HTML and web design lessons, project ideas and templates, and a guide for teachers and parents. It also has a section called tools which links to downloads, sites, and reference guides needed for website creation.

<http://hotwired.lycos.com/webmonkey/kids/>

### Web design software

**Macromedia Dreamweaver and Fireworks** - Trial versions available

<http://www.macromedia.com/>

**FrontPage 98 Tutorial Participants Notes** - FrontPage 98 course notes which aim to give teachers an introduction into a variety of school based websites and to give teachers the necessary skills to be able to create web pages that include text, images and links and to be able to publish their web site on the Internet.

[http://www.tki.org.nz/r/ict/pedagogy/frontpage\\_tutorial\\_e.php](http://www.tki.org.nz/r/ict/pedagogy/frontpage_tutorial_e.php)