



Browser

This is the name given to the program which allows you to view webpages on the internet. There are many different browsers available including those below:



A browser allows the user to :

- Find and look at web pages
- Navigate between web pages and websites
- Move backwards and forwards between pages using the back and forward buttons

A web browser can also:

- remember location of your favourite pages
- remember which pages you have visited in your 'history' function

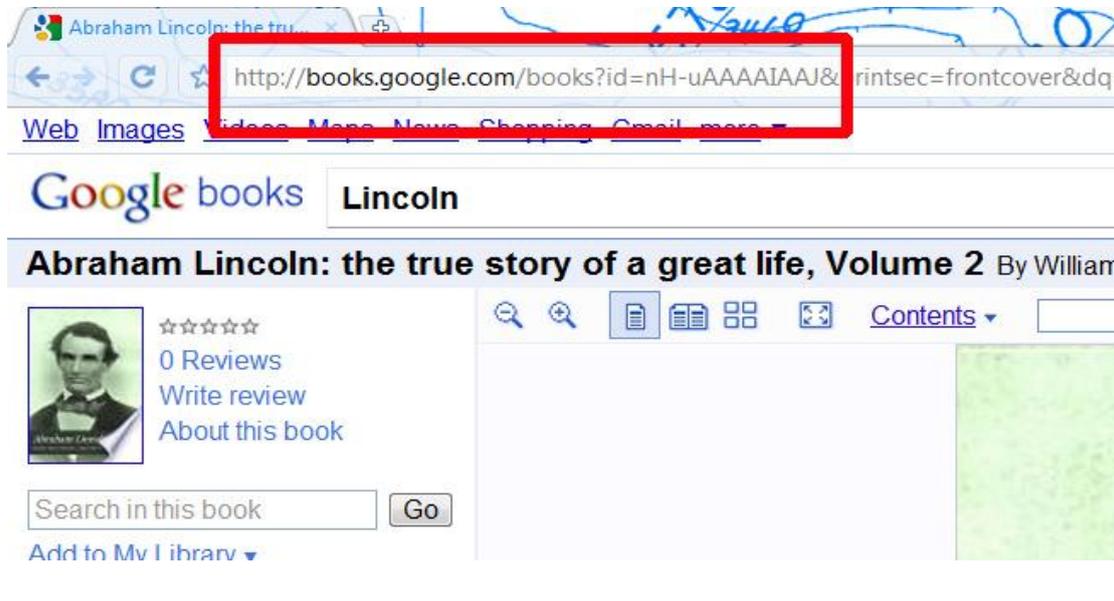
Search Engine

Search engines are used to look for web pages. A simple search is a search that contains one topic, for example, 'Computer Network LAN'. The search engine will find all the web pages related to that topic and send the results to your computer for your browser to display.



URL

This is the name given to a web address and stands for **Uniform Resource Locator**.



A URL is divided into 3 parts:

<http://www.bbc.co.uk>

- 1 - The first part is the protocol. The most common one is http (Hyper Text Transfer Protocol). It is used in transferring web pages to your computer. Some websites begin with ftp (File Transfer Protocol) and is used to transfer files across the internet.
- 2 - The second part indicates which server the web page is stored on, for example in this case www.bbc
- 3 - The third part indicates the type of organisation that is storing the web pages, so it would be .co.uk for a company in the UK. Below are some examples of the third part of the URL:

Third Part	Type of Organisation
.sch	School
.com	Commercial Company
.net	Network Organisation
.mil	Military
.org	Organisation such as charity
.gov	Government
.ac	Academic such as university or college



Hyperlinks

Web pages are linked together by setting up hyperlinks. Setting up a hyperlink is straightforward: you simply choose the section that you want to link from and then insert a hyperlink using the menus. The package will then ask you to browse and select the page you want to link to. You can then choose a range of objects to link the user to the next page, for example a piece of text or a graphic.

Internal Hyperlink

This is one that takes the user to a new location within the current open web page or website

External Hyperlink

This is one that open a web page located on a different website than the one the user is currently on

Absolute Web Address

This specifies exactly on which server the web page is stored and directs you to that server. Absolute pathways always include the domain name of the website, including <http://www>. – this points to the server on which it is stored. The two addresses below are examples of this:

<http://www.bbc.co.uk/sport/football/scottish-premier>

<http://www.mysite.com/help/articles/how-do-i-setup-a-webapge.html>

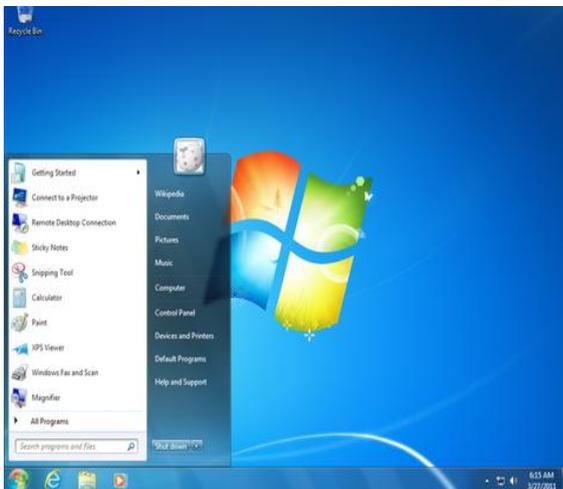
Relative Web Address

On the other hand a relative web address links a web page to other web pages on a single website (using internal hyperlinks). Relative links only point to a file or a file path, often on the computer on which it is being developed. This is often when developers construct a site in one place then publish it to another place. An example of this:

<help/articles/how-do-i-setup-a-webpage.html>



User Interface



V



The user interface is the space where interaction between humans and machines occurs. In the above picture you will see two different interfaces, Windows 7 and Windows 8, these are very different.

Windows 7 has been designed for to be used with a mouse and a keyboard whereas Windows 8 has been with large icons called live tiles which let you see information at a glance and is designed for ease of use by using touch, although it still can also be used with a mouse and keyboard.

Designing a user interface

A well-designed user interface will pay attention to:

VISUAL LAYOUT

- avoid using inappropriate colours
- balancing the colours
- keeping the screen uncluttered
- avoid using too many animation special effects

NAVIGATION

- have a range of text and graphic-based hyperlinks throughout the website to make moving about as flexible as possible
- have a navigation bar with clear links to different areas in the website
- have a site map for visitors to the website who may need more help
- be consistent throughout the website, this will help users learn through repetition how to get around the website
- reduce clutter by grouping links into sections
- keep the number of clicks to a minimum – a good design will make the pathways through the website clear and simple not complex.
- visit www.webpagemistakes.ca/website-navigation for more hints and tips



CONSISTENCY

- using the same terms throughout the website
- using the same sounds to alert, for example an input error
- using the same mouse action or command to produce the same action
- using the same font and font size
- using the same graphics style and size
- using the same navigation bar in the same location on each web page
- using the same text alignment

INTERACTIVITY

- using feedback to step users through a process to alert them to errors
- using hotspots to trigger actions
- using clear links with meaningful text
- using interactive animations
- using video clips
- using sound files
- using polls or quizzes

READABILITY

- paying attention to text size (too big, too small)
- paying attention to font used (too difficult to read)
- paying attention to colour balance
- paying attention to use of headings and sub-headings

Testing

When you have created your website you need to test the navigation, including any pathways and links that you have included.

This can be done several ways:

- By checking that each of the internal and external hyperlinks operate as intended. This can be carried out by members of the development group.
- By asking people outside of the development group to perform a series of tasks on the website and then asking for their feedback on the suitability of the navigation structure.
- By giving the website to a chosen group of end users, letting them use it in any way they see fit and asking for their feedback (beta testing).

Target Audience



When developing a website, the developer must consider who the website is intended for – i.e. the **target audience**

- Consider the type of users – expert, novice, age-range, class e.g. Business person
- Different media types that could be used
- Balance of media types
- Different navigation features
- Accessibility – different colours/text size/audio



Activity 6 User Interface Research

From what you have learnt about user interfaces complete the investigation.

Open up the file called “**User Interface Investigation**” and work your way through each website including comments in each box.



Delivery Driver Theme - Example



Children's Theme - Example



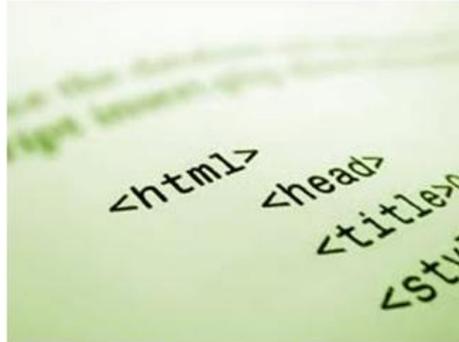
Education Theme Example



Medical Theme - Example

Activity 7: HTML Coding

Open the file **“Create website in HTML”** worksheet from the shared area and follow through the steps.



Activity 8: JavaScript Fun

Open the file **“JavaScript Fun”** worksheet from the shared area and follow through the steps.

```
11 var band = {
12   "name": "The Red Hot Chili Peppers",
13   "members": [
14     {
15       "name": "Anthony Kiedis",
16       "role": "lead vocals"
17     },
18     {
19       "name": "Michael 'Flea' Balzary",
20       "role": "bass guitar, trumpet, backing vocals"
21     },
22     {
23       "name": "Chad Smith",
24       "role": "drums, percussion"
25     },
26     {
27       "name": "John Frusciante",
28       "role": "Lead Guitar"
29     }
30   ],
31   "year": "2009"
32 }
```

Multimedia

Multimedia refers to any electronic material that contains a combination of different types of digital content – such as:

- Text
- Audio
- Graphics
- Video



Because this media is stored digitally as electronic files either on computer hard drives, DVD's or solid-state memory cards, it is also known as digital media.



Video

Text



Hardware

- When working with text, you need a keyboard to type in your text.
- A mouse can also be extremely useful when working with text as you may want to move large chunks of text within your document or you may wish to highlight certain words to change their style.
- In order to see the text you are working with you need a monitor or projector.



Audio

Hardware

To get sounds into your presentations you need to have all or some of the following:

- A microphone to record sound.
- A CD/DVD drive or a USB/Hard Disk for capturing music files. Copyright laws may apply
- A sound card is a peripheral device that enables the computer to input, process, and deliver sound.
- In order to hear the sounds that we have created, we need speakers, which turn electrical signals into sound.



Graphics

Hardware

To capture pictures to use in your multimedia presentations you can use:

Digital Camera

A device that records and stores photographic images in digital form. Most current models are also able to capture sound or video, in addition to still images. These stored images can be uploaded to a computer immediately or stored in the camera for to be uploaded into a computer or printer later. Images may also be stored on an SD card or external hard disk.



Scanner

A device that captures images from photographic prints, posters, magazine pages, and similar sources for computer editing and display. Very high-resolution scanners are used for scanning for high-resolution printing, but lower resolution scanners are adequate for capturing images for computer display.



Video

Hardware

To capture videos to use in your multimedia presentations you can use:

Digital Video Camera

Is a portable electronic recording device capable of recording live-motion video and audio for later playback. Today Digital Video Cameras record in an assortment of formats, including MPEG and AVI. Most camcorders can be connected directly to a personal computer with a Universal Serial Bus (USB) so that video can be edited.



Webcam

Is a video camera, usually attached directly to a computer. A live cam is one that is continually providing new images that are transmitted in rapid succession or, in some cases, in streaming video.

