

# Year 9 ICT Notes

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**Gozo College Secondary School**

NAME: \_\_\_\_\_

CLASS: \_\_\_\_\_



# COMPUTER ESSENTIALS

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## The Processor

Every computer has a processor inside it. The processor also known as the Central Processing Unit (CPU) is the 'brain' of the computer. It determines the speed at which program instructions are carried out by the computer.

The speed of the CPU is measured in gigahertz (GHz). The higher the GHz the faster the computer will execute program instructions. 1GHz is equal to 1 billion cycles per second. Each computer instruction requires a fixed number of cycles, so the speed of the CPU determines how many instructions per second the microprocessor can execute.



## Random Access Memory

The **Random Access Memory (RAM)** is made up of small memory chips that form a memory module. These modules are installed in the RAM slots on the motherboard of your computer.



Computer programs are stored in a disk which is referred to as the hard disk. Typically hard disks are located inside the computer. When you want to use a program such as a word processor, you instruct the computer to load this program. In a matter of seconds the computer reads the program from the disk and starts loading (copying) it into the RAM.

The more RAM your computer has, the more data can be loaded from the hard drive into the RAM, which can effectively speed up your computer. In fact, adding RAM can be more beneficial to your computer's performance than upgrading the processor. Nowadays, 4GB RAM is a standard on all computers.

If the computer's power supply is cut off, the information held in the RAM is lost. For this reason, data stored in RAM, which is required for future use, has to be stored on secondary storage devices such as USB (Universal Serial Bus) flash drives and hard disks.

## Storage Devices

As indicated in the previous section, the internal memory (RAM) is temporary, and therefore information has to be stored on permanent media (hard-disks or USB flash drives) referred to as secondary or backing storage.



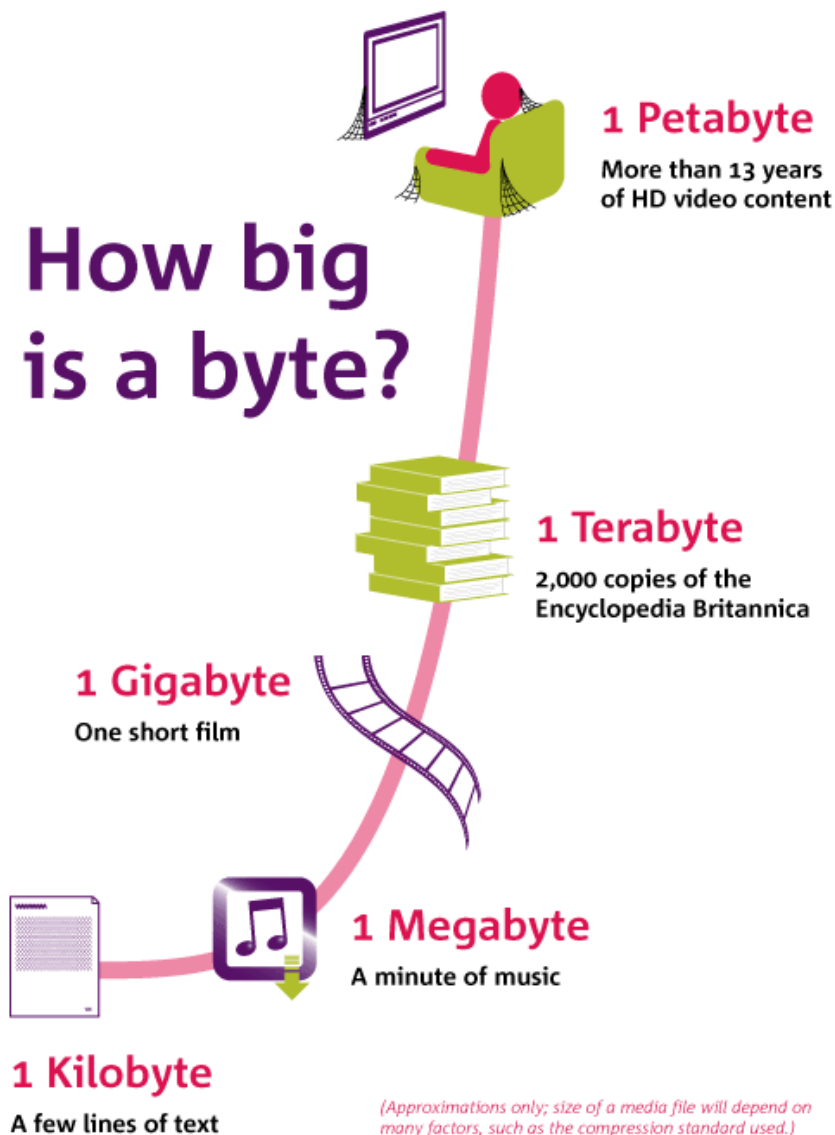
Storage devices and media include: internal hard disks, external hard disks, network drives, CDs, DVDs, Blu-Ray Discs, USB flash drives, memory cards and online file storage. To use any type of disk, the computer has to be equipped with the appropriate disk drives.

## Units of Storage

Before going into more details about the types of storage devices, it is important to understand the basics about computer storage.



1. **Bit** – short for Binary Digit, is the smallest unit of information on the computer. A single bit can hold only one of two values: 0 or 1. More meaningful information is obtained by combining consecutive bits into larger units. A group of eight bits (e.g. 1011 0010) make up one byte.
2. **Byte (B)** - is the amount of storage needed to store one character (e.g. a, c, +, =, %, 8). So, for instance, a computer with 32,000 bytes of memory can store up to 32,000 characters in its memory. Large amounts of memory are indicated in terms of kilobytes, megabytes and gigabytes.
3. **Kilobyte (KB)** – is equivalent to 1024 bytes.
4. **Megabyte (MB)** – (1024 KB) is equivalent to 1024×1024 bytes (or 1,048,576B). Five hundred (500) pages of double-spaced text occupy about 1MB of space.
5. **Gigabytes (GB)** – (1024 MB) is equivalent to 1024×1024×1024 bytes (or 1,073,741,824B). Hard-disks (discussed later) have storage capacities measured in terms of GB (320GB and more).
6. **Terabyte (TB)** – (1024 GB) is equivalent to 1024×1024×1024×1024 bytes (or 1,099,511,627,776B).






## Types of Storage Media

- **Internal hard disk** – is typically found inside the computer. It contains all program folders and files. It also stores data files i.e. document, spreadsheet, presentation files etc. Hard disks can hold very large amounts of data (200-320GB).

The hard disk is constructed of rigid magnetic disks sealed in a protective case. Data is recorded magnetically onto concentric circular tracks, each one divided into a number of sectors.



- **External hard disk** – is similar to an internal hard disk in function. External hard disks are portable disks that connect to the computer via through the USB port.
- **Network drive** – is typically a shared disk that is accessed by several computers connected to a network. Typically a network drive stores data files that are shared amongst several users. 
- **CD (Compact Disc)** – is a portable device used to store data files. CD-RW disks can be erased and written to over and over again. CD-RW disks have storage capacities up to 700MB.
- **DVD (Digital Versatile Disk)** – disk is similar to CD-RW but this can store much more data than the CD. DVDs have storage capacities which range from 4.7GB to 17GB. Typically these disks are used for full-length movies, advanced multimedia games and interactive encyclopaedias.
- **Blu-Ray Disc** – is similar to CD and DVD. Blu-ray discs were developed for recording and playing back high-definition (HD) video and for storing large amounts of data. Blu-ray disc can hold up to 25 GB of data. Dual-layer Blu-ray discs will be able to store 50 GB of data. That is equivalent to 4 hours of HDTV.
- **USB flash drive** – consists of a small printed circuit board protected inside a plastic, metal or rubber case. The USB connector is often protected by a removable cap. USB flash drives are small and easy to carry around. They can store large amounts of data (up to 256GB). USB flash drives connect to the computer through USB ports. 
- **Memory card** - is a compact disk used to store digital data. Memory cards are typically used with digital cameras, smartphones etc. 

It is important to copy data files present on the hard-disk onto a secondary storage medium (e.g. USB flash drive, CD-RW or DVD-RW) in case the hard-disk fails. This process is known as data backup. You should backup your files regularly.

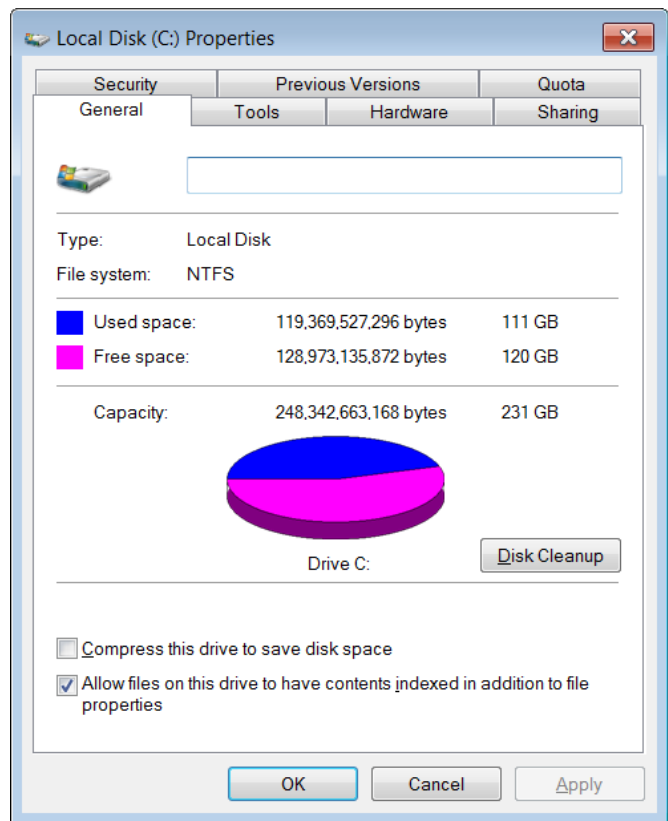
It is also recommended that you make two/three backups of all data files. One copy should be kept away from the computer room – **off-site storage**.

In recent years, some users are making use of **online file storage** (e.g. OneDrive, Google Drive and Dropbox) available through Internet to store data files. These can be easily accessed from any computer connected to Internet. Such storage is particularly useful to share data files with friends or colleagues.

## Viewing available Space on a Storage Device

To view the available space on a USB flash disk, hard disk etc.:

1. Navigate to the USB flash disk or hard disk in Computer window.
2. Right-click the disk.
3. Click **Properties**. The Properties dialog box is displayed. Free space indicates the available space on the selected storage device.
4. Click **OK** button.

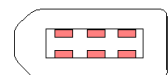
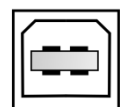


## Input / Output Ports

Computers have different input/output ports i.e. slots where cables connect peripherals connect to the computer.

Typically all computers will have these ports:

- **USB (Universal Serial Bus) port** – is a slot in the computer that supports fast transfer data rates. USB flash disks, digital cameras, mice, keyboards etc. can be connected to the computer via the USB port.
- **HDMI (High-Definition Multimedia Interface) port** – is a slot on the computer that supports the transfer of audio and video data through a single cable. A computer with an HDMI port can be connected to an external monitor or HDTV (High-Definition Television) with one cable, supporting high-definition video and audio.
- **Network port** – is used to connect the computer to a network or a modem.
- **FireWire port** – is a slot that connects digital video cameras to the computer. FireWire supports faster transfer data rates than USB ports.



**WORKSHEET 1**

1 Mention two **differences** between **RAM** and **ROM**:

Difference 1: \_\_\_\_\_  
 \_\_\_\_\_

Difference 2: \_\_\_\_\_  
 \_\_\_\_\_

[ 2 marks ]

2. Select the correct answer:

Which of the following is referred to as "read and write" memory?

- A. RAM
- B. CPU
- C. ROM



The processing speed of a CPU is measured in ...

- A. Gigabytes (Gb)
- B. Gigahertz (GHz)
- C. Megabytes (MB)

By increasing one of the following, the computer performs faster. Which one

- A. ROM
- B. RAM
- C. Weight of PC

[ 3 marks ]

3. **Tick** the items which really affect computer performance:

a.	CPU speed.	<input type="checkbox"/>
b.	Type of printer installed.	<input type="checkbox"/>
c.	RAM size.	<input type="checkbox"/>
d.	Size of monitor.	<input type="checkbox"/>
e.	Number of applications running.	<input type="checkbox"/>
f.	Size of computer case.	<input type="checkbox"/>
g.	Install a 5.1 speaker surround system.	<input type="checkbox"/>

[3 marks]



4. Fill in the blanks with following **storage devices**

**Memory card, Hard Disk, Online Storage, DVD, USB Flash Drive, RAM**

- a) Its storage capacity is between 4.7GB and 17GB.  
It uses Digital Optical Recording to store data. \_\_\_\_\_
- b) This is a portable storage device.  
It is often used instead of a CD-RW or floppy disk. \_\_\_\_\_
- c) This is the main memory of a computer system.  
It is of type volatile. \_\_\_\_\_
- d) This is used inside mobile phones, MP3 players and  
digital cameras to store digital data. \_\_\_\_\_
- e) This is considered as the main backing storage of a  
computer. \_\_\_\_\_
- f) A service that provides users with a system  
for the backup and storage of computer files. \_\_\_\_\_

[6 marks]

5. a) **Match** each phrase with its definition as in the example shown in bold [4 marks]

	Phrase			Definition
A	RAM			is a portable storage device, which can be used instead of a floppy disk or a CD.
B	Memory card			uses Digital Optical Recording to store data. Its capacity varies between 4.7GB and 17GB.
C	Hard Disk			is volatile storage that holds the program and data that the CPU would be processing.
D	DVD		<b>B</b>	is a storage used to store digital data. They are typically used with digital cameras.
E	USB flash drive			is the large storage area within a computer.

- b) One advantage of **online file storage** is the ability to share files. Write another benefit.

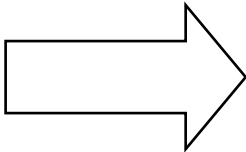
\_\_\_\_\_ [2]

6. Which **input/output port** is normally used in the following scenarios. [4 marks]

**HDMI          USB          Firewire          Network**

- a. \_\_\_\_\_ - is a slot that connects digital video-cameras to the computer. This port supports faster data transfer than USB ports.
- b. \_\_\_\_\_ - is a slot in the computer that supports fast transfer data rates. Pen-drives, digital cameras, mice and keyboards can be connected to the computer via this port.
- c. \_\_\_\_\_ - lets you connect any digital audio and video source, to any digital audio and video display device with a single cable.
- d. \_\_\_\_\_ - is used to connect the computer to a network or a modem.

7. Put the following **units of measurement** into the **correct order of size**. [5 marks]

Megabyte Terabyte Byte Gigabyte Kilobyte Bit		_____ Bit _____ _____ _____ _____ _____	Smallest ↓ Largest
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8. Match the following with the correct answer. *The first one has been done for you:* [5 marks]

1 bit 2 TB 1 KB 1 GB 2 bytes 1 MB	A B C D E F	_____ _____ A _____ _____ _____	is equal to <b>1024 MB</b> is equal to <b>1024 x 1024 bytes</b> is a single Unit of information, <b>1 OR 0</b> is equal <b>2048 GB</b> is equal to <b>1024 bytes</b> is equal to <b>16 bits</b>
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9. Below is a description of a **Central Processing Unit** and its **functions**. Fill in the blanks using the following words/phrases. [6 marks]

**Operating system, applications, processing, brain, GHz, Main Memory**

The CPU is the single most important item of all the hardware within the system and is labelled as the \_\_\_\_\_ of the computer. It is responsible for the running of the \_\_\_\_\_ (e.g. Microsoft Windows) as well as your \_\_\_\_\_. It performs all the \_\_\_\_\_ within the computer. It also accesses and uses the \_\_\_\_\_ called RAM (Random Access Memory) available in your computer. In many ways, the CPU controls the overall speed of your computer which is measured in \_\_\_\_\_.

10. State whether the following statements are **TRUE** or **FALSE** [10 marks]

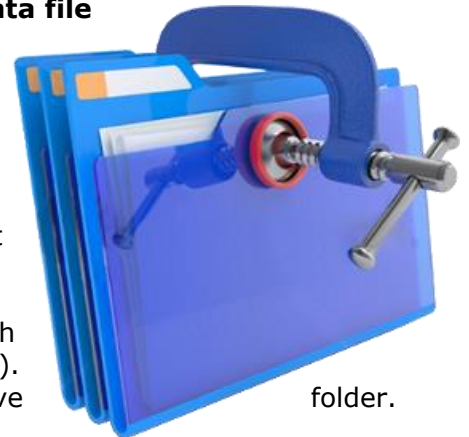
STATEMENT	TRUE or FALSE
(i) Blue Ray can hold up to 25 GB of data.	
(ii) Memory cards are often used in devices such as digital cameras and music players.	
(iii) GB is a larger storage unit than TB.	
(iv) Google Drive is an example of online file storage.	
(v) A film stored on DVD would be around 50 Kilobytes in size	
(vi) To check available space on a storage device, right click the device and click properties.	
(vii) HDMI support the transfer of video data only.	
(viii) A network drive allows you to store your data centrally. It is normally backed-up daily.	
(ix) USB stands for Universal Standard Bus.	
(x) Fire-wire is a very slow method for transferring digital content.	

## File / Folder Compression

File compression is the **process of reducing the size of a data file**

**to the smallest size possible.** Compressed files take up less storage space and can be transferred to other computers more quickly than uncompressed files. You can work with compressed files and folders in the same way that you work with uncompressed files and folders. You can also combine several files into a single compressed folder. This makes it easier to share a group of files.

Typically compressed files are organised in a folder ending with the extension **.ZIP** (MS Windows) or **.SIT**, or **.HQX** (Macintosh). A folder containing compressed files is also known as an archive



folder.

## Compressing Files in Folders

To compress files in a folder on a drive:

1. Locate the file or folder that you want to compress.
2. Right-click the file or folder. A short-cut menu will be displayed.
3. Point to **Send to**.
4. Click **Compressed (zipped) folder**. A new compressed folder is created in the same location.

To rename it, right-click the folder, click **Rename**, and then type the new name.

Note that:

- Some types of files, like JPEG pictures, are already highly compressed. If you compress several JPEG pictures into a folder, the total size of the folder will be about the same as the original collection of pictures.
- If you have already created a compressed folder and you want to add a new file or folder to it, drag the files that you want to add to the compressed folder.

## Extracting Compressed Files

To extract compressed files from a location on a drive:

1. Locate the compressed folder that you want to extract files or folders from.
2. Do one of the following:

To extract a single file or folder, double-click the compressed folder to open it. Then, drag the file or folder from the compressed folder to a new location.

To extract the entire contents of the compressed folder, right-click the folder, click **Extract All**, and then follow the instructions.

## Malware

**Malware** (malicious software) is a program designed to secretly enter and damage a computer system. Malware includes:



- A computer virus is a piece of program designed and written to make additional copies of itself and spread from location to location, typically without user knowledge or permission. Viruses are written by programmers with malicious intent to annoy computer users.
- Worms are similar to viruses in that they make copies of themselves, but differ in that they need not attach to particular files or sectors at all. Once a worm is executed, it seeks other systems - rather than parts of systems - to infect, then copy its code to them. Typically worms slow down computer systems.
- Trojan horses secretly place illegal, destructive instructions in the middle of a computer program. Once the program is run, the Trojan horse becomes active. Trojans do not replicate themselves like other viruses.
- Spyware is a program that secretly installs itself on computers and collects information about users without their knowledge. Spyware programs can collect various types of personal information, such as Internet surfing habits and sites that have been visited. They can also interfere with user control of the computer in other ways, such as installing additional software and redirecting Web browser activity. Spyware is known to change computer settings, resulting in slow connection speeds, different home pages, and/or loss of Internet or functionality of other programs.

Two sources of viral infections are:

- Sharing infected files over the intranet i.e. the internal computer network of an organisation.
- Downloading infected files from Internet sites.

You should be careful with program or file downloads from the Web. Files available on bulletin boards or public newsgroups may be infected. Software updates e.g. drivers, multimedia players, should be downloaded from the manufacturer's official website. It is important to update your anti-virus program to prevent against malware.

## Using Antivirus Software

Anti-virus software is a program which protects the computer system against most viruses. Typically, such programs **detect the presence of viruses** in a computer and in most cases **remove (or disinfect)** any files infected by viruses.

Different users may have different anti-virus programs. You can follow these generic steps to scan specific drives, folders and files for viruses.

1. Click **Start** button.
2. Highlight **All Programs**.
3. Highlight the antivirus program. A submenu will be displayed.
4. Select the appropriate scanning option.
5. Follow any other steps.



**WORKSHEET 2**

1 Look at the following picture.



Indicate, by writing the label number, which is the

- |                      |                      |                                   |                      |
|----------------------|----------------------|-----------------------------------|----------------------|
| i) Presentation file | <input type="text"/> | iv) Spreadsheet file              | <input type="text"/> |
| ii) Compressed file  | <input type="text"/> | v) Video file                     | <input type="text"/> |
| iii) Database file   | <input type="text"/> | vi) Portable document format file | <input type="text"/> |

[ 6 marks]

2. **File Compression** is a desirable feature in a computer system.

i) Give **2 reasons** why a user may want to compress a file or folder.

a) \_\_\_\_\_

b) \_\_\_\_\_

[ 4 marks]

ii) Write the name of a **utility program** that can be used to compress or un-compress a file or a folder.

\_\_\_\_\_

[1 mark]

**The following question deals with issues of malware and security**

3 a). **Underline** the correct answer

*A common way of infecting your computer with a virus is by?*

- A. Connecting it to old computers
- B. Opening email attachments
- C. Saving a file in a pen-drive



What is the best way of protecting your computer from getting a virus?

- A. Install a new hard drive.
- B. Install anti-virus software.
- C. Remove dust from the computer to keep it clean.

[2 marks]

b) **Malware** (malicious software) is a program designed to secretly enter and damage a computer system. Malware includes: *Viruses, Worms, Trojan horses* and *Spyware*. Mention 2 characteristics of each one of them.

Viruses	i)
	ii)
Worms	i)
	ii)
Trojan horses	i)
	ii)
Spyware	i)
	ii)

[8]

c) List **4 different ways** how to combat the possibility of malware.

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

d) \_\_\_\_\_

[4 marks]



# ONLINE ESSENTIALS

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## WEB BROWSING CONCEPTS

### The Internet

Many people use the terms Internet and World Wide Web interchangeably, but in fact the two terms are not the same.

The **Internet**, short for '**Inter**national **net**working,' consists of thousands of computer networks that connect millions of computers around the world. The Internet refers to the hardware and software that provides different communications services between computer networks. The Internet is also referred to as the 'Net', 'Information Superhighway' and 'cyberspace'.

### World Wide Web

The **World Wide Web (WWW, W3 or the 'Web')** is a way of accessing information over the Internet. It is an information-sharing model that is built on top of the Internet.

The Web is just one of the ways that information can be disseminated over the Internet. The Internet (not the Web), is also used for electronic mail, file transfer protocol, Usenet newsgroups and instant messaging. So the Web is just a one part of the Internet.

The Web consists of the text and pictures that you view on your computer. It encompasses all the Internet screens that appear on your computer. Over the years, these screens have evolved from heavily based text screens to graphical screens with pictures, sounds and video files. Such displays are commonly referred to as Web pages.

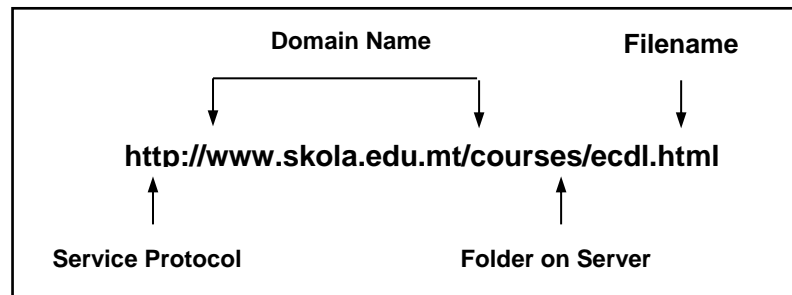
### Uniform Resource Locator & Hyperlinks

The **Uniform Resource Locator (URL)** is a standard address that tells your browser how to locate a file or other resource on the Web. This is also known as an Internet address or Web address. Every Web page is assigned an address e.g:

`http://www.skola.edu.mt`

The URL contains all the useful information about the site that you are looking for. From the URL it is possible to know what type of organisation has put up the site, and an indication of where the organisation is based.

The URL of a Web page is made up of 3 distinct components:



- 1. Service Protocol** – Thousands of computers on Internet communicate with each other by sending packets of data back and forth. The diversity and multitude of computers on Internet dictate a standard procedure or protocol (set of rules) for the reading of Web pages. `http://` is the language used by the web browser to request Web pages from a Web server.
- 2. Domain Name** – This identifies the name of the organisation where the information is stored. 'mt' indicates that the web site is registered IN Malta. 'edu' shows that skola is an educational website.

The following table shows some geographical domains:

Domain	Area	Domain	Area
<b>at</b>	Austria	<b>fr</b>	France
<b>au</b>	Australia	<b>gr</b>	Greece
<b>ca</b>	Canada	<b>ie</b>	Ireland
<b>ch</b>	Switzerland	<b>jp</b>	Japan
<b>de</b>	Germany	<b>mt</b>	Malta
<b>dk</b>	Denmark	<b>nz</b>	New Zealand
<b>it</b>	Italy	<b>uk</b>	United Kingdom

The following table shows the types of organisations that may be found on Internet:

Organisation	Meaning
<b>com</b>	Commercial organisation
<b>edu/ac</b>	Educational institution
<b>gov</b>	Government body or department
<b>net</b>	Networking organisation
<b>org</b>	Non-profit making organisation (unions or charities)

- 3. Folder & Filename** (the File Path) - This shows the location of the Web page on the Internet server and the name of the document that is being requested. The file 'ecdl' ends with the extension '.html' – short for hypertext markup language.

Some examples of URLs include:

Ministry of Education  
University of Malta  
Government of Malta  
NATO

<http://www.education.gov.mt/>  
<http://www.um.edu.mt>  
<http://www.gov.mt>  
<http://www.nato.int>

**Web page** – is the basic unit of the WWW. Web pages are **hypermedia documents** or screen displays containing all sorts of data ranging from text files and sound (audio) files to graphic images and any other sort of data stored in a computer file.

Unlike regular documents, Web pages contain coloured text and graphics, which can link to other Web pages.

For example, a Web page about Malta may contain the following coloured text - 'Beaches'. When you position the pointer over this text, the pointer changes to a pointing finger. Clicking the mouse over this text will take you to another web page displaying information and small pictures (called thumbnails) of popular beaches in Malta. When you click on a thumbnail you will be taken to another Web page displaying an enlarged view of the small picture. The beaches page may also contain the following coloured text 'Transport in Malta'. Clicking the mouse over this text will take you to a Web page with information about transport in Malta.

As you move from one Web page to the next, you may be jumping from one computer to another on the Internet. The coloured text and graphics which take you from one Web page to the next are known as hyperlinks.

**Hyperlinks** are text or images available on Web pages which make connections to:

- other sections on the same Web page.
- a different Web page.

Hyperlinks may be used to download files or launch an application, video or sound.

## Web Browsers

The **Web browser** is a program used to locate and display Web pages. The three most popular browsers are Microsoft Internet Explorer, Mozilla Firefox and Google Chrome. These can be downloaded for free from Internet. These browsers can display graphics as well as text. In addition, these can present multimedia information, including sound and video, though they may require plug-ins for some formats.



The **Web server** is a computer connected to the Internet that makes Web pages available to other computers. Web servers store and deliver files over the Internet in response to requests from web browsers. Any computer can be turned into a Web server by installing server software and connecting the machine to the Internet.

## Internet Activities

Some typical uses of Internet include:

- **Information Searching** – Many people use the World Wide Web to search for information of all sorts. Typically they input keywords in a search engine such as Google or Bing to locate web pages with the information they require.
- **Shopping** – Nowadays more and more people are buying and selling goods/services through Internet. This online trading is often referred to as electronic commerce or e-commerce. Online buyers use credit cards to purchase books, clothes, electronic devices, cinema tickets etc. Amazon and eBay are two popular online shops.
- **E-commerce** - Computer networks are gradually replacing our shopping habits. Nowadays more and more people are buying and selling goods/services through Internet. This online trading is often referred to as electronic commerce or e-commerce. Online buyers use credit cards to purchase goods/services.
- **Learning** – Many students use the World Wide Web to locate information that will help them with their studies at school, university etc. Some students follow courses through Internet. E-learning is a form of learning or education through the use of computers connected to Internet. It includes text, video, audio, animation and virtual environments.

Typical benefits associated with e-learning include:

- *Flexible learning time* - Students and adults can work through and study a course at any time of the day. E-learning is particularly useful for people who work or have family commitments.
- *Flexible learning location* - Students and adults can work through and study a course from any location even whilst being abroad.
- *Multimedia learning experience* – Typically e-learning includes text, video, audio and animations which facilitate learning.
- **Publishing** – Nowadays many people are setting up their blogs. A blog, short for web log, is a type of website usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video. The latest entry is always displayed at the top of the Web page.

Many blogs provide commentary or news on a particular subject; others function as more personal online diaries. A typical blog combines text, images, and links to other blogs, Web pages, and other media related to its topic. The ability for readers to leave comments in an interactive format is an important part of many blogs.

- **Banking** - Nowadays many banks enable their customers to perform electronic banking (e-banking) transactions through Internet. Users do not need to go to the bank to transfer funds, pay bills, view and check their bank accounts etc.

The advantages associated with e-banking include:

- The banking services are available 24 hours a day seven days a week. There are no banking hours.
- No commuting time – You will not need to go to the bank and therefore avoid queues.
- **Government Services** - Nowadays many government departments offer services to the community through the use of ICTs. Locally, the government portal that gives access to all information and services provided by government departments is available at [www.gov.mt](http://www.gov.mt). Everyday many people seek information about services offered by government departments. They also make Internet payments for various services such as examination fees, car licences, income tax payments etc. Government services offered through Internet are referred to as **e-government**.
- **Entertainment** – Many people listen to radio and follow streaming of television programmes on the Internet. A lot of youngsters and adults play online games. Some of these are single-player games whilst others involve several players.
- **Communication** – Many people use the Internet for communication purposes including electronic mail (e-mail), instant messaging (IM) and Voice over IP. Social media websites such as Facebook and LinkedIn facilitate communication between friends/relatives and people with common interests.

## Protecting Yourself Online



If you decide to shop on the Internet, protect yourself by dealing with secure sites. Browsers display security warnings when you are about to enter a secure site. You can tell when you have a secure connection by looking at the URL. Secure sites have URLs starting with "https:" not "http://".

Before entering your username and password in any screen, you should routinely check that the web address of the page displayed in the browser begins with "https://".

Be cautious with email messages asking you to send your username and password. Reputable organisations will never ask for these details and other personal information (e.g. financial details) to be sent by email or phone.

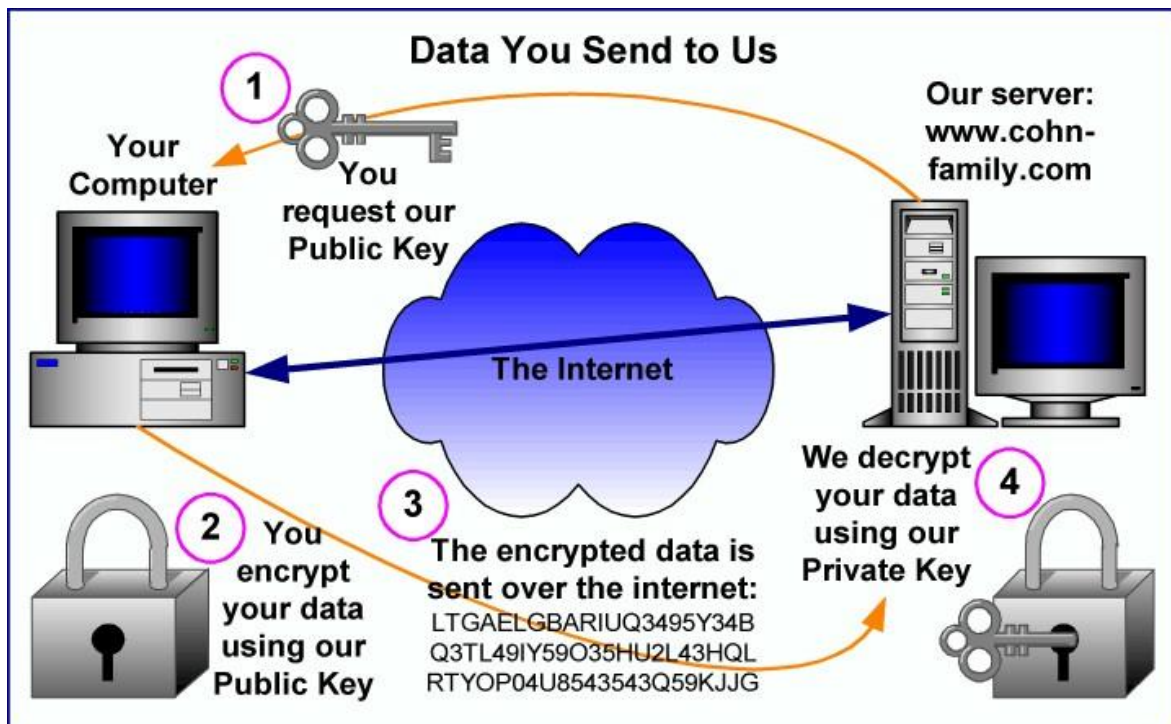
It is important to sign out/log off and close all browser windows when you are done with your online shopping, e-banking etc.

## Encryption

**Encryption** is the translation of data into a secret code. A secret key or password is required to translate (decrypt) the secret code back to readable data. Encryption is used to safeguard confidential data as this as being transmitted over the Internet.



Public-key encryption is one type of computer encryption system. This uses a public key known to everyone and a private or secret key known only to the recipient of the message. When John wants to send a secure message to Jane, he uses Jane’s public key to encrypt the message. Jane then uses her private key to decrypt it.



## Secure Web Sites

A secure (**protected**) Web site is a site that can only display its content if the user types in a username and a password. Many organisations restrict access to sections of their Web sites.

The URL of a secure website starts with "**https://**" not "http://". The browser will also show the **padlock** symbol:



When users try to access secure web sites, the browser prompts for a username and a password. The Web sites will be displayed if the correct username and password are entered.

## Digital Certificates

Internet users are often concerned about online purchases. Normally payments for online purchases are made by a credit-card. Here are some important facts that you should know before submitting your credit number:

- Information travelling between your computer and a server can be routed through many computer systems.
- Any one of these computer systems can capture and misuse your information. Each of these computers can eavesdrop and make copies of your information.
- An intermediary computer could even deceive you and exchange information with you by representing itself as your intended destination.



If you decide to shop or do banking on the Internet, protect yourself by dealing with secure sites. Browsers display security warnings when you are about to enter a secure site. You can tell when you have a secure connection by looking at the URL. Secure sites have URLs starting with "**https:**" not "http://".

A secure Web site has a digital certificate confirming that it is secure and genuine. It ensures that no other Web site can assume the identity of the original secure site. When you are sending personal information over

the Internet, you should check the certificate of the Web site you are using to ensure that it will protect your personally identifiable information.

Digital certificates are issued by a certificate authority. When you visit a secure Web site, the site automatically sends you its digital certificate. Digital certificates are used by organisations involved in online monetary transactions. The certificates ensure that credit card details will not be intercepted as these travel from the buyer's computer to the web server. Digital certificates can be viewed by double-clicking on the padlock icon in the Web browser.

## Controlling Internet Use

Parents should supervise Internet use by their children and teenagers. Software may be used

- to limit web browsing to "kids websites"; and
- to block particular categories of web content such as "Pornography", "Drugs", and so on. File downloads may also be disabled.

## WEB BROWSING


### Opening & Closing the Web Browser

As indicated earlier the Web browser is a program used to locate and display Web pages. The most popular browsers are Microsoft Edge and Google Chrome. However, throughout this course we will be using Microsoft Internet Explorer.

To start MS Internet Explorer:

1. Click **Start** button.
2. Click **All Programs**.
3. Click **Internet Explorer**. The following screen will be displayed:

Note that:

- You may also open MS Internet Explorer by clicking **Internet Explorer** icon in the Windows task bar. 
- When you start MS Internet Explorer, this will display a specific Web page. The first page displayed when you start up your browser is called the home page.



To close the web browser, click **Close** button.



## Entering URLs & Displaying Web Pages

To enter a URL:

1. Type the URL in the address field e.g. **http://www.google.com.mt**



2. Press **ENTER** key.

## Refreshing Web Pages

Sometimes the content of a Web page (news page) may be updated during your online session. Your browser downloads the page once but it will not automatically reload the page when this has been changed. The refresh facility forces the browser to download the latest version of the page.

To reload a Web page, click **Refresh** button.



## Stopping Web Pages from Downloading

The downloading of some Web pages from Web servers to your computer may take considerable time. There may be several reasons for this:

1. Web pages that are heavy loaded with images, sounds and movies are larger in terms of memory compared to text based Web pages. Accordingly these pages take considerable time to transmit from Web servers to your computer.
2. The Web server may be slow.
3. The modem and link to the Web server may be slow.

You can stop a transfer whenever the loading process takes longer than expected by clicking the **Stop** button in the web page address



## Activating Hyperlinks

Links or hyperlinks are words or pictures in a Web page that can connect to another Web page. Links are usually underlined or in a different colour than the regular text in the Web page. Another way to find out if a piece of text or picture is a link, by placing the cursor over it. If it is a link, the cursor will change to a pointing hand.



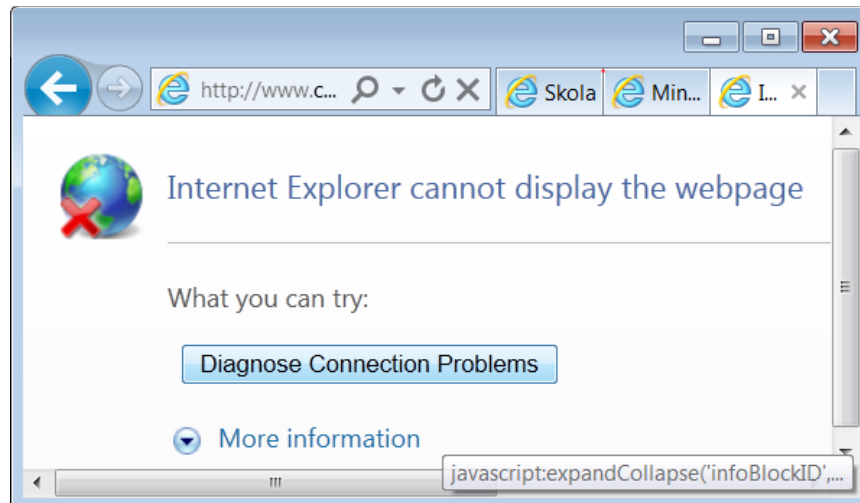
To navigate a website:

1. Position the mouse pointer over the hyperlink. The pointer will change into a pointing hand. Also the URL location of the link appears in the status message area at the bottom-left of the window.

- Click once on the highlighted text, image, or icon. This transfers page content from a server location to your computer.

Note that:

- Sometimes the page specified by a link may not be available. Such links are often referred to as dead links. The error window shown on the following page will be displayed.
- By default, links you have previously visited (referred to as followed links) are shown in a different colour compared to links (or unvisited links) that you have not visited.



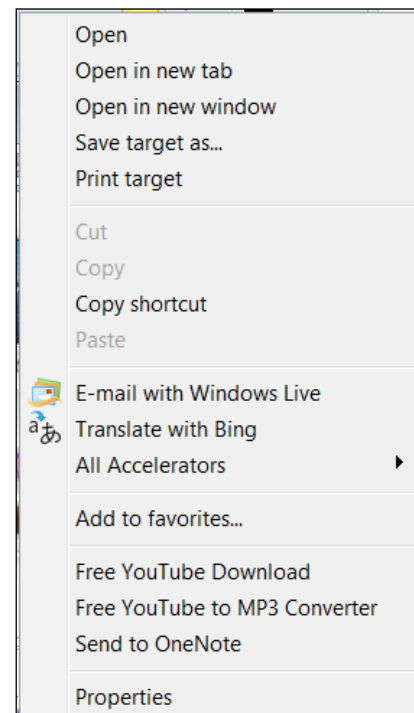
## Opening Web Pages

To display a Web page in a new browser window:

- Position the pointer on a hyperlink.
- Right-click the mouse. This will display a pop-up menu.
- Click **Open in new window**.

Note that:

- You can also open a hyperlink and display the Web page in a new browser window by pressing **SHIFT** key whilst clicking on the link.
- Your screen will display two browser windows, one containing the first Web page and the second containing the second Web page.
- Typically you can switch between different browser windows by clicking the appropriate browser window button on the task bar.



To display a Web page in a new tab:

1. Repeat steps 1-2 as above.
2. Click **Open in new tab**.

Note that:

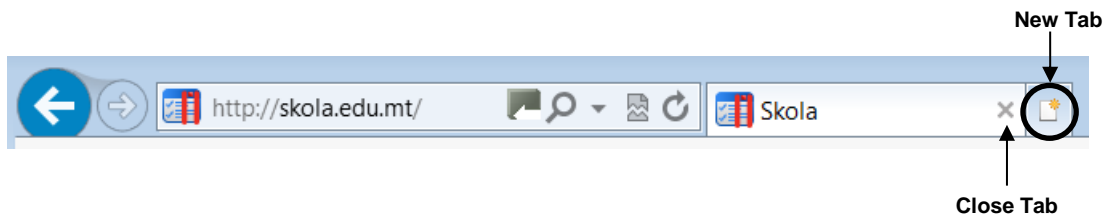
- Your screen will display one browser window with two web pages in separate tab panes. Tabs enable you to switch between web pages within the same browser window. There are some features associated with tab browsing such as bookmarking all web pages.



## Opening & Closing Tabs

To open a browser tab:

Click the **New Tab** button on the address bar. This will create a new tab in the same browser window.



To close a browser tab:

Click the **New Tab** button on the address bar. This will create a new tab in the same browser window.

To switch between tabs:

Click on the browser tab to view.

## Navigating Backwards & Forwards

You can navigate backwards and forwards between previously visited web pages:

1. Click **Back** button or ALT+← keys to display the previous page in the history list.
2. Click **Forward** button ALT+→ keys to display the next page in the history list. This button is available only after you have used **Back** button or a history menu item.



## Navigating to the Home Page

You can navigate to the home page of MS Internet Explorer by clicking the **Home** button.



Note that:

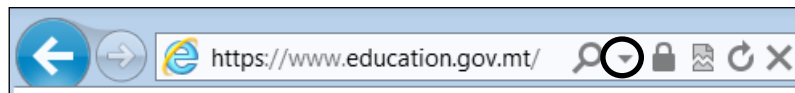
- Alternatively you can press **ALT+M keys** to display the browser's home page.

## Displaying Previously Visited URLs

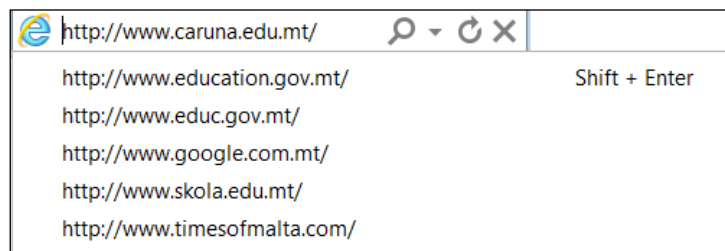
MS Internet Explorer offers several facilities to re-display previously visited Web pages.

To display previously visited URLs using the address bar:

1. Click the drop down arrow to the right of the address bar. A list of previously visited URLs will be displayed.



2. Click the address of the Web page you wish to visit.

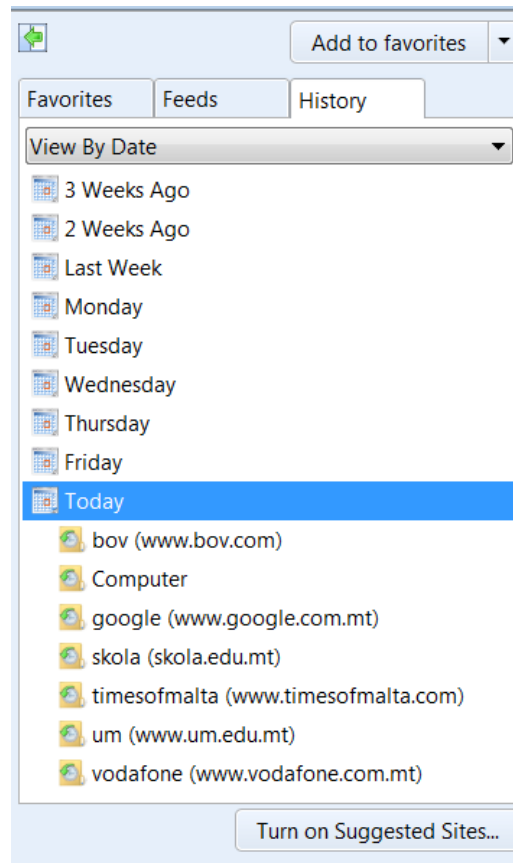


MS Internet Explorer automatically saves previously visited Web pages in a list known as the **history list**. The history list contains shortcuts to pages you viewed during browsing sessions. The list allows you to quickly return to the pages you have recently visited.

To access the history list and display previously visited Web pages:

1. Click **Favourites** button. The Favourites pane appears along the left side of the browser window.
2. Click the **History** tab. This contains links to Web sites and pages visited in the previous days and weeks.
3. Click a week or day.
4. Click a website folder to display individual pages.
5. Click the Web page icon to display page.





## Completing Web-based Forms

In recent years Web pages have become highly interactive. Nowadays, Web pages do not only display information. Users are purchasing goods and services through the Web. Users are applying for courses through the Web etc.

Web-based forms are one way how users may interact with the Web. Online forms are the equivalent of printed forms. They are so convenient because users can complete and submit these forms quickly.

Web based forms may contain:

- **Text fields** - These are blank boxes where you type in textual information.
- **Menu fields** - These provide you with a choice to make in the form of a menu that "appears" when you click on it.
- **Check boxes** - These are used when you have a choice to make. You can choose as many check boxes as you want.
- **Radio buttons** - These are also used when you have a choice to make. Unlike check boxes, you can only choose the one you want. They are circular.
- **Submit or Reset buttons** - These allow you to clear your form (reset) or to submit your form. What happens to the data after you "submit" depends on how the Web page has been set up.

First Name:  Last Name:  ← **Text Field**

Language & Content: English - United States

ZIP/Postal Code:  Gender:

Industry: [Select Industry] ← **Menu field**

Title: [Select Industry]  
 Advertising/Marketing/PR

Specialization: Aerospace  
 Agriculture/Chemicals/Forest Products  
 Automotive  
 Computers/Electronics  
 Construction  
 Consumer Goods  
 Education (includes students)  
 Energy/Mining  
 Finance/Insurance/Real Estate

People Search Listing:

Entertainment    Business    Shopping  
 Home & Family    Computers & Technology    Sports & Outdoors ← **Check Boxes**  
 Health    Personal Finance    Travel  
 Music    Small Business    Sweepstakes & Free Stuff

← **Button**

To submit a web-based form:

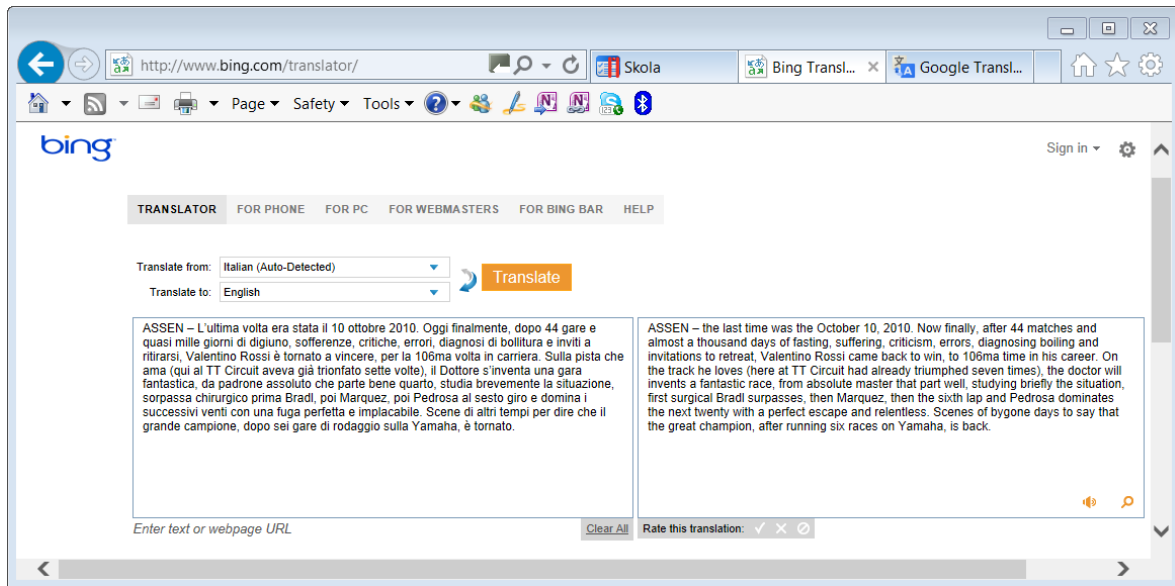
1. Complete the web-based form.
2. Click the **Submit** button.

To reset a web-based form, click the **Reset** button.

## Using an Online Translation Tool

The Internet has free translation tools (e.g. Bing Translator and Google Translate) that will help you read through web pages in languages you do not know.


1. Type [www.bing.com/translator](http://www.bing.com/translator) in the address bar.
2. Press **Enter** key.
3. To translate text, copy and paste the text in the left pane.  
To translate a web page, copy and paste the URL of the page in the left pane.
4. In the Translate from: field choose the language to translate from.
5. In the Translate to: field choose the language to translate to.
6. Click **Translate** button.



## Setting the Browser Home Page

Your **home page** is displayed each time you start Internet Explorer or when you click Home button.

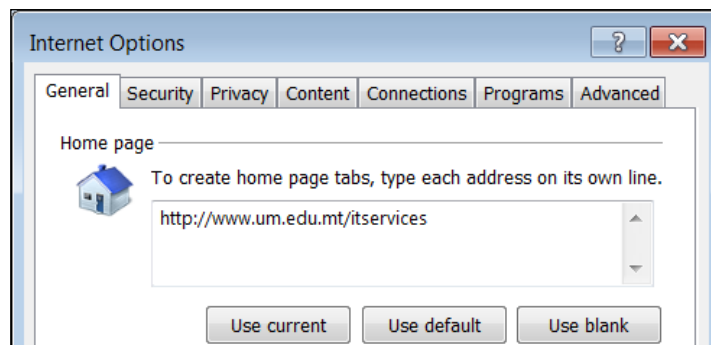
You can set the browser's home page as follows:

1. Navigate to the webpage you want to set as the home page.
2. Click the **Tools** button. 
3. Click **Internet options**. The Internet Options dialog box is displayed.
4. In the General tab, do one of the following:

To set the current webpage as the home page, click **Use current**.

To reset the home page, click **Use default**.

To set a blank home page, click **Use blank**.



5. Click **OK**.

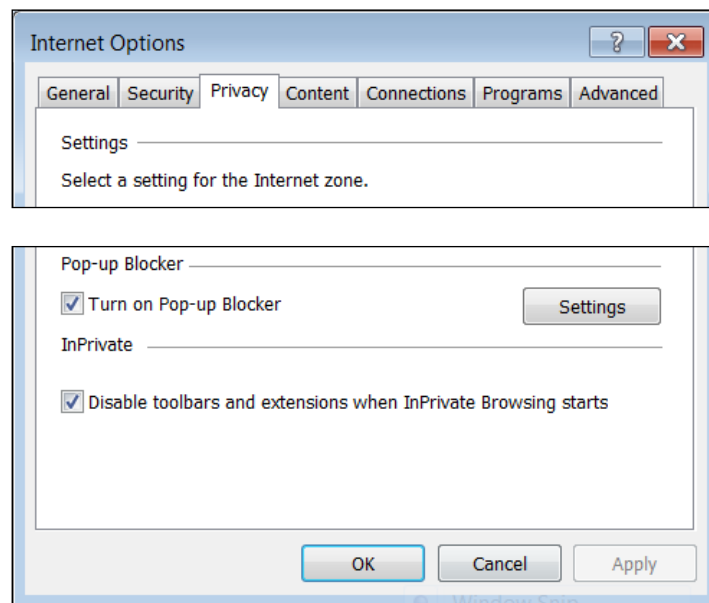
## Allowing & Blocking Pop-ups

A **pop-up** is a small web browser window that appears on top of the website you are viewing. Pop-up windows often open as soon as you visit a website and are usually created by advertisers.

MS Internet Explorer has a Pop-up Blocker feature that lets you limit or block most pop-ups. You can choose the level of blocking you prefer, from blocking all pop-up windows to allowing the pop-ups that you want to see. When Pop-up Blocker is turned on, the Information bar displays a message saying "Pop-up blocked. To see this pop-up or additional options click here."

By default, the Pop-up Blocker is turned on in MS Internet Explorer. To turn the pop-up blocker off:

1. Click the **Tools** button.
2. Click **Internet options**. The Internet options dialog box is displayed.
3. Click the **Privacy** tab.
4. In the Pop-up Blocker section, untick the **Turn on Pop-up Blocker**.
5. Click **OK** button.



Note that:

- To turn on the pop-up blocker again, repeat steps 1-3 as above and tick **Turn on Pop-up Blocker** and click **OK** button.

## Allowing & Blocking Cookies

**Cookies** are text files that save information regarding particular websites. They may save information, shopping cart contents, or user preferences.



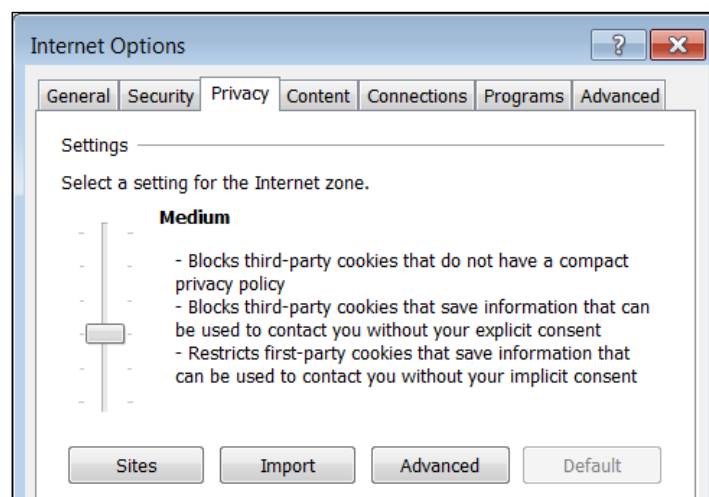


When a Web browser requests a Web page from a Web server, the latter can store a piece of text on the user's computer. The text is sent back to the server each time the browser requests a page from that server.

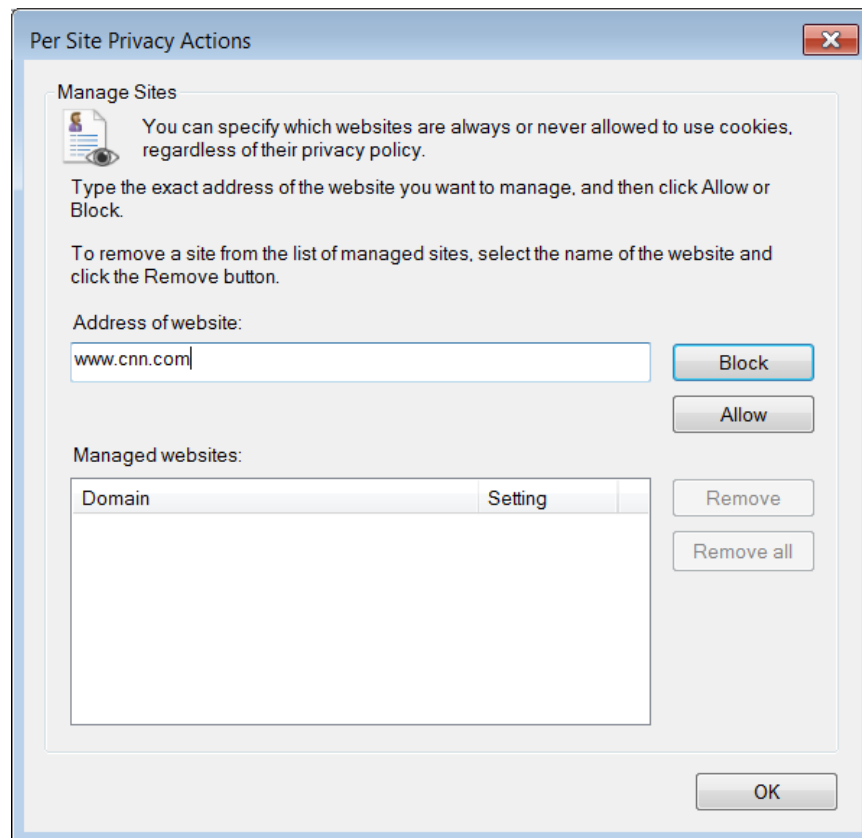
The main purpose of cookies is to identify users and possibly prepare customised Web pages for them. When you enter a Web site using cookies, you may be asked to fill out a form providing such information as your name and interests. This information is packaged into a cookie and sent to your Web browser which stores it for later use. The next time you go to the same Web site, your browser will send the cookie to the Web server. The server can use this information to present you with custom Web pages. So, for example, instead of seeing just a generic welcome page you might see a welcome page with your name on it.

Many websites require that you enable cookies in order for the website to be properly viewed. To enable cookies:

1. Click **Tools** button.
2. Click **Internet Options**. The Internet Options dialog box.
3. Click the **Privacy** tab.



4. Set the slider to **Medium**. This should be enough to enable cookies.  
If you want to enable cookies for a particular site, click **Sites** button. In Address of website: field type the URL. Click **Allow** button to enable cookies for that site.
5. Click **OK** button to close the Per Site Privacy Actions dialog box.
6. Click **OK** button to close the Internet Options dialog box.



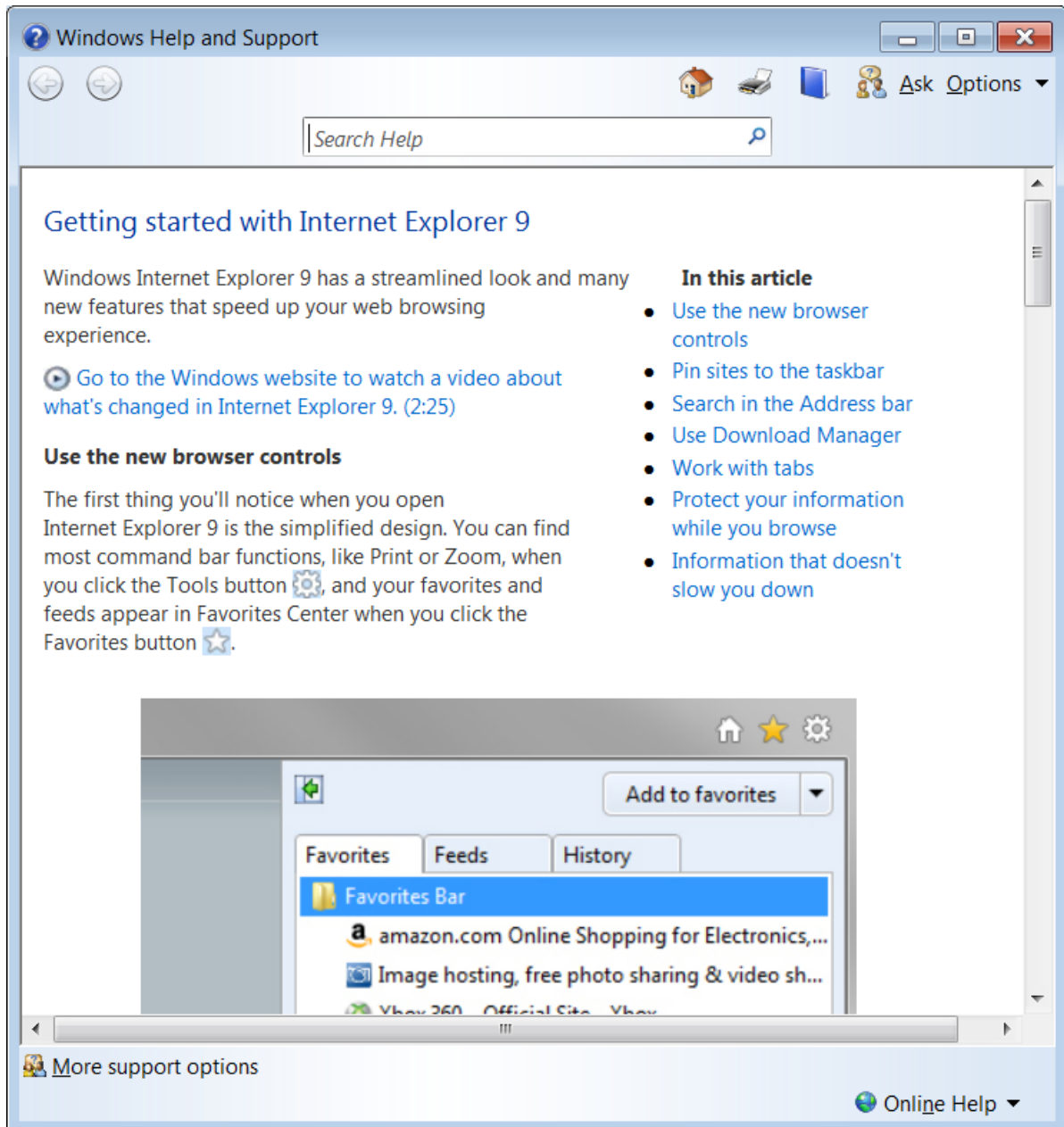
To block cookies for a site:

1. Repeat steps 1-4 as above.
2. If you want to block cookies for a particular site, click **Sites** button. In Address of website: field type the URL. Click **Block** button.
3. Repeat steps 5-6 as above.

## Using Help

To use the available Help functions in Internet Explorer:

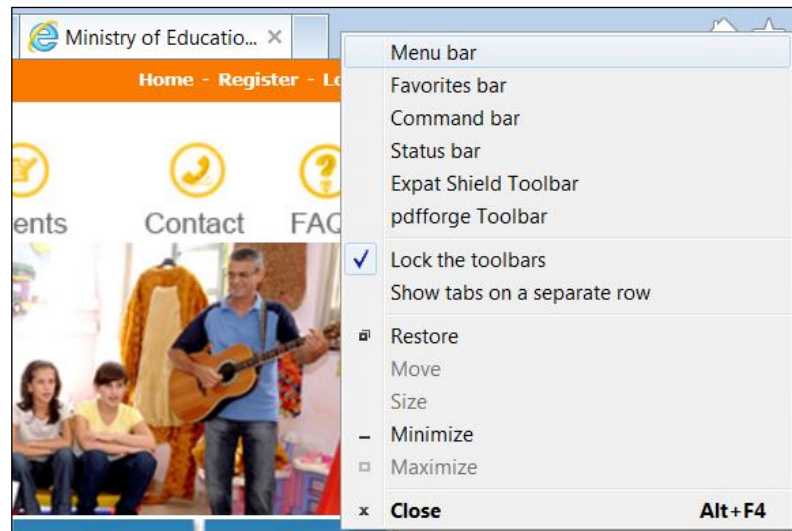
1. Press **F1** key. The Windows Help and Support window will be displayed.
2. In the Search Help field, type in the keyword to find e.g. cookies.
3. Click the topic to display. Help text will.
4. Close the help window.



## Displaying & Hiding Toolbars

By default Internet Explorer does not display toolbars. To display or hide built-in toolbars:


1. Right-click anywhere in the tab bar. A short-cut menu will be displayed.
2. Click the toolbar to display/hide.

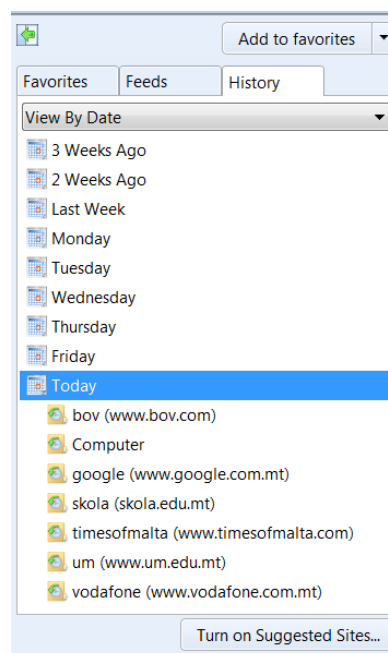


## Deleting the Browsing History

MS Internet Explorer automatically saves previously visited Web pages in a list known as the history list. The history list contains shortcuts to pages you viewed during browsing sessions. The list allows you to quickly return to the pages you have recently visited.

To access the history list and display previously visited Web pages:

1. Click **Favourites** button. The Favourites pane appears along the left side  of the browser window.
2. Click the **History** tab. This contains links to Web sites and pages visited in the previous days and weeks.
3. Click a week or day.
4. Click a website folder to display individual pages.
5. Click the Web page icon to display page.



To delete specific websites from the history list:

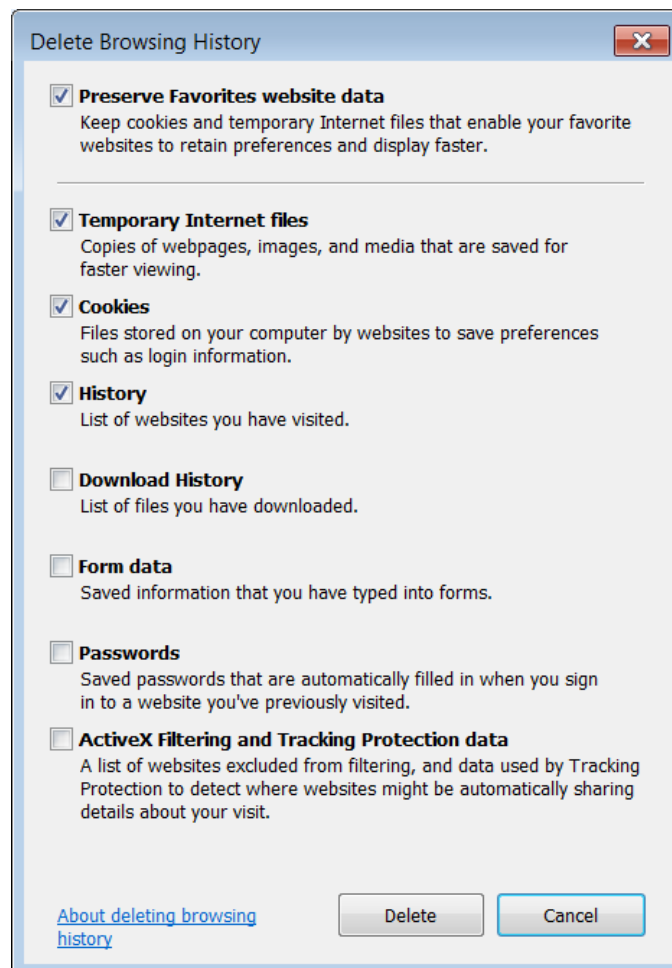
1. Repeat steps 1-3 as above.
2. Right-click the website folder to delete.
3. Click **Delete**.

To delete all browsing history:

1. Click **Tools** button.
2. Point to **Safety**.
3. Click **Delete Browsing History...** The Delete Browsing History dialog box is displayed.
4. Tick the **History** check box.
5. Click **Delete** button.

Note that:

- Deleting your browsing history does not delete your list of favourites or subscribed feeds.

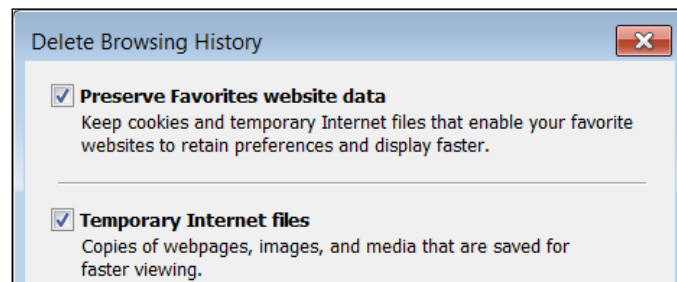


## Deleting Temporary Internet Files & Saved Form Data

**Cache** is a special folder on the hard disk that stores Web pages accessed by your browser. The first time visit a Web page, your browser retrieves all content (text, images, audio etc.) and a copy of these will be stored on the hard disk. The next time you visit the same Web page, your browser checks if the last modified dates of the files on the Internet are newer than the ones stored or cached. If the dates are the same, your browser uses the files on your hard disk instead of downloading these again from the Web server. Thus the cache speeds up browsing of Web pages. The files stored in the cache are known as **temporary Internet files**.

The temporary Internet files are never deleted unless the cache is full. To delete these:

1. Click **Tools** button.
2. Point to **Safety**.
3. Click **Delete Browsing History...** The Delete Browsing History dialog box is displayed.
4. Tick the **Temporary Internet files** check box.
5. Click **Delete** button.



To delete saved information that you have typed in web forms:

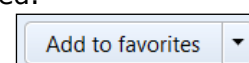
1. Repeat steps 1-3 as above.
2. Tick Form data.
3. Click **Delete** button.

## Adding & Deleting Bookmarks

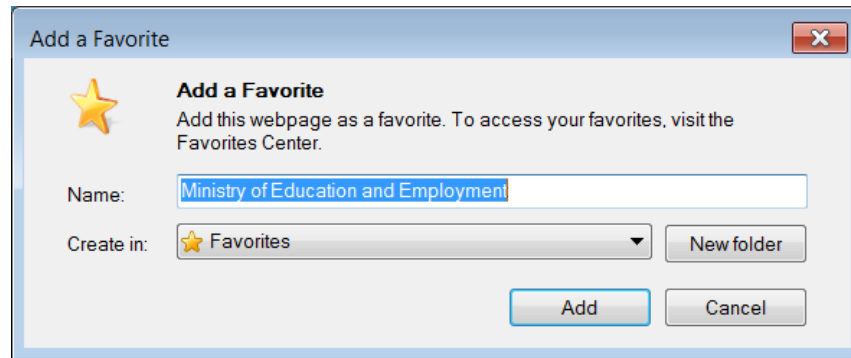
The **bookmarks**, referred to as **Favourites** in MS Internet Explorer enable you to store the URLs of Web pages that you frequently visit. It is a list of URLs of frequently visited Web pages. Through the favourites list you can return to a Web page without having to remember and retype its URL. Once you add a URL to the favourite list, the item stays until you remove it or edit the list.

To add a URL to your list of favourite Web pages:

1. Go to the page that you want to add to your favourites list.
2. Click **Favourites** button. A short-cut menu is displayed.
3. Click **Add to favourites** button.



The Add a Favourite dialog box is displayed. You can replace the default name of the Web page in the Name: field.



4. Click **Add** button.

Note that:

- The title of the currently displayed Web page will be added to the Favourites list. The Favourites menu grows as you add Web pages.

To delete a bookmark:

1. Click **Favourites** button. The Favourites tab in the pane displaying the list of bookmarked Web pages appears.
2. Right-click the web page to delete from the Favourites list.
3. Click **Delete** in the shortcut menu.

## Displaying Bookmarked Web Pages

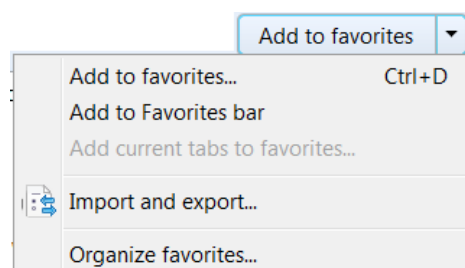
To display a bookmarked web page:

1. Click **Favourites** button. The Favourites tab in the pane displaying the list of bookmarked Web pages appears.
2. Click the page to open. The browser will display the selected Web page.

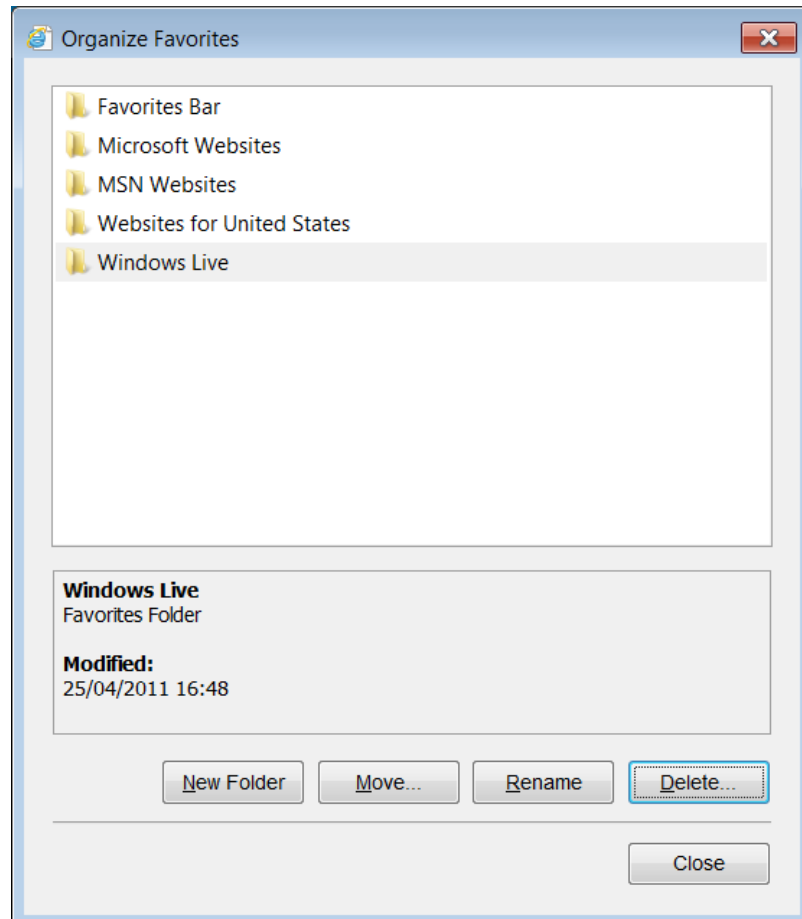
## Creating & Deleting Bookmark Folders

As your list of favourite pages grows, you can organise them by moving them into folders. To create a folder in the favourites list:

1. Click **Favourites** button.
2. Click **Add to favourites** arrow. A drop-down menu is displayed.

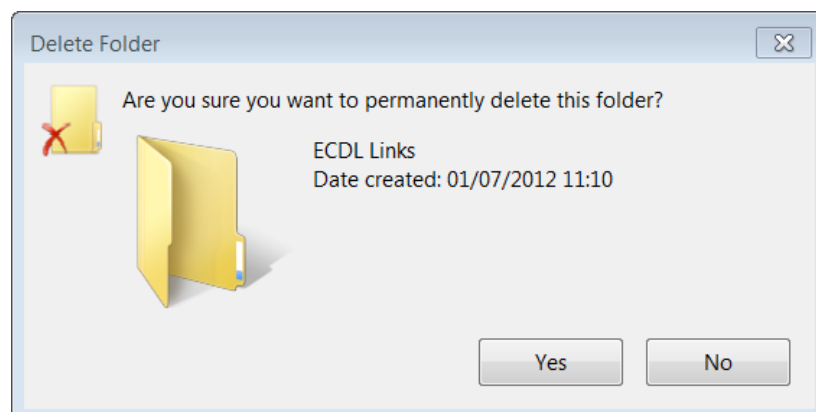


3. Click **Organise favourites...** The Organize Favourites dialog box is displayed.
4. Click **New Folder** button. A new folder icon is displayed in the list.
5. Type a name for your folder e.g. **ECDL Links**.
6. Press **Enter** key.
7. Click **Close** button.



To delete a folder in the Favourites list:

1. Repeat steps 1-3 as above.
2. Select the name of the folder to delete.
3. Click **Delete...** button. The Delete Folder dialog box is displayed.



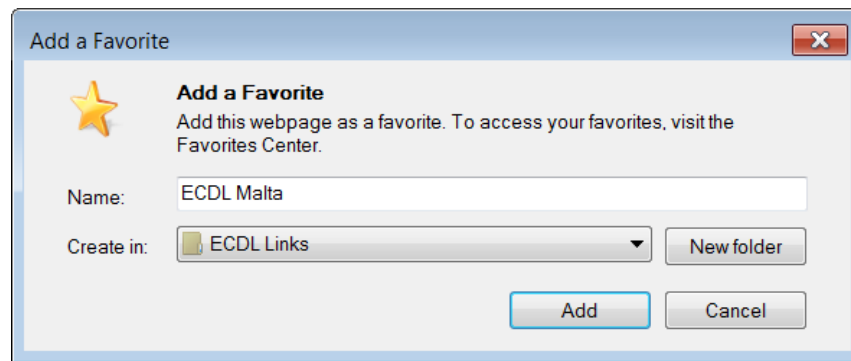
4. Click **Yes** button to confirm.



## Adding Web Pages to Bookmark Folders

To add a Web page to a particular folder in the Favourites list:

1. Go to the Web page that you want to add to your Favourites list.
2. Click **Favourites** button.
3. Click **Add to favourites** arrow. A drop-down menu is displayed.
4. In the drop-down menu, click **Add to favourites...** again. The Add a Favourite dialog box is displayed.



5. Click the drop-down arrow in the Create in: field. This will display the available Favourite folders.
6. Click the folder where the web page will be added.
7. Click **Add** button.

## Downloading Files from a Web Page

You can download text files, image files, sound files, video files, and software from a Web page as follows:

1. Right-click the file to download.
2. Click **Save target as...** The Save As dialog box will be displayed.
3. Browse to the disk/folder where the file will be saved.
4. Type the name of the File in the File name: field.
5. Click **Save** button.

Note that:

- Files downloaded from Web pages may be infected with a virus. It is important that you use anti-virus software to scan all files downloaded from the Web. If the files are safe you can proceed with opening these.

To save an image:

1. Right-click the image.
2. Click **Save picture as...** The Save Picture dialog box will be displayed.
3. Browse to the disk/folder where the file will be saved.
4. Type the name of the File in the File name: field.
5. Click **Save** button.

## Copying Text, Images & URLs

You can copy text, images and URLs from a web page to a document or email.

To copy text from a web page to a document/e-mail:

1. Select the text you want to copy.
2. Right-click over the highlighted text.
3. Click **Copy**.
4. Paste the information into the document/e-mail you are working on.

To copy an image from a web page to a document:

1. Right-click the image to copy
2. Click **Copy**.
3. Paste the image into the document/e-mail you are working on.

To copy a URL to a document:







1. Right click the hyperlink text.
2. Click **Copy Shortcut**.
3. Paste the URL into the document/e-mail you are working on.



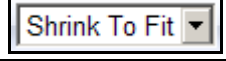
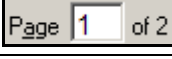




## Previewing Web Pages

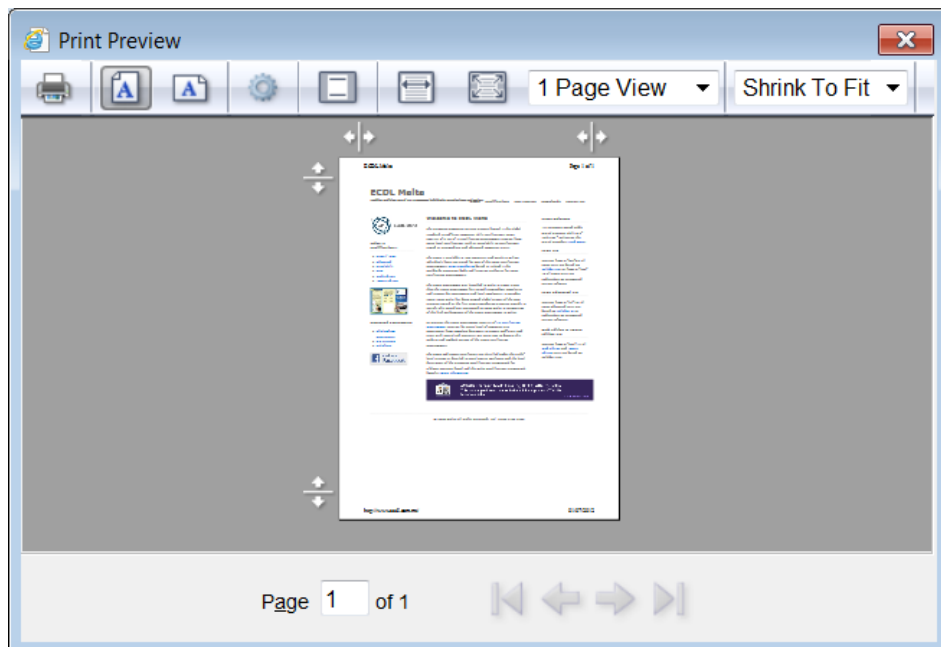
When printing a Web page, MS Internet Explorer formats content according to the size of the printed page. The Print command rearranges the page layout (text is word-wrapped and graphics are repositioned) to fit in the paper.

To preview the appearance of a printed Web page:

1. Click the **Tools** button. A drop-down menu will be displayed.
2. Point to **Print**.
3. Click **Print preview...** The Print Preview dialog box is displayed.
4. Select the appropriate option.
5. Click **Close** button to close the Print Preview screen.

Option	Button	To do this
Print		Set printing options and print the page
Portrait		Print the page vertically (portrait orientation).
Landscape		Print the page horizontally (landscape orientation).
Page Setup		Change paper size, orientation, or margins, and add headers or footers.
Turn headers or footers on or off		Decide whether to print additional information (such as the date, website address, or page number) at the top or bottom of the page.
View full width		Zoom the webpage to the width of the preview screen.

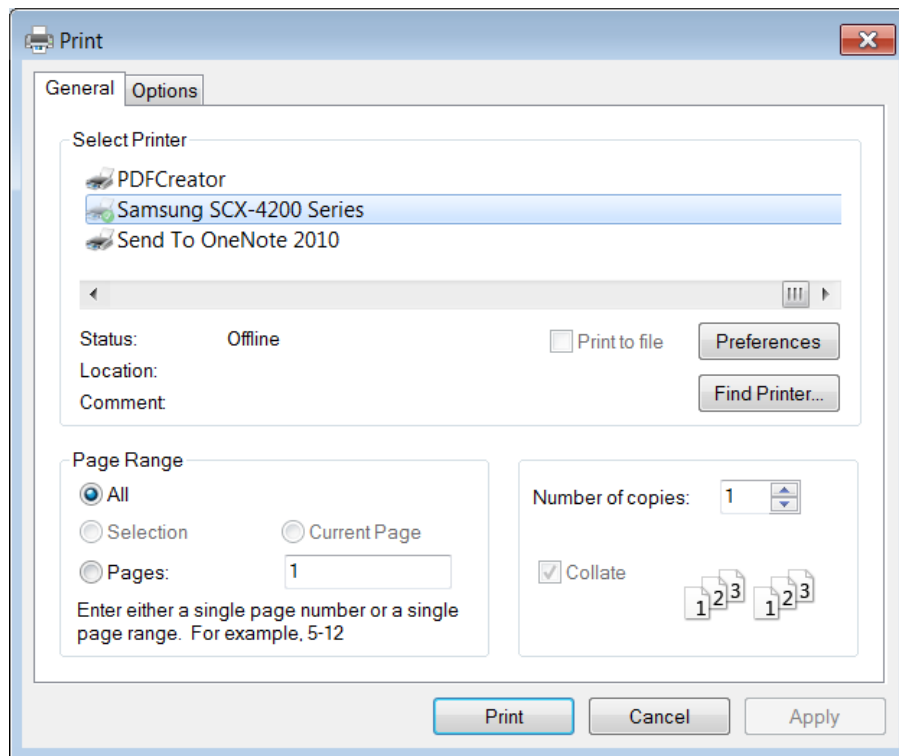
Option	Button	To do this
View full page		Zoom the webpage to show the full webpage in the preview screen.
Show multiple pages		View multiple pages on the preview screen
Change Print Size		Stretch or shrink the page size to fill the printed page.
Page number		Type the number of the page you want displayed.
First page		Display the first page to be printed.
Previous page		Display the previous page to be printed.
Next		Display the next page to be printed.
Last Page		Display the last page to be printed.



## Printing

You can also adjust the Page setup options before printing:

1. Click the **Tools** button. A drop-down menu will be displayed.
2. Point to **Print**.
3. Click **Print...** The Print dialog box will be displayed.
4. Select the appropriate options.
5. Click **Print** button.



To print...	Do this
Entire Web page	Tick the option All in the Page Range section.
Specific page(s)	Type the pages to print in the Pages: field.
Selected text	Tick the option Selection in the Page Range section.
Number of copies	Type in a number in the Number of copies: field.

## WEB-BASED INFORMATION

### Search Engines

If you do not know the URL of a Web page, you can still search for it using the search engines available on Internet. A **search engine** is a program that locates Web sites via searches for keywords and phrases.

Typically, a search engines use a program known as a spider to fetch as many Web pages as possible. Another program known as indexer, then reads these documents and creates an index based on the words contained in each document. Therefore search engines do not search the WWW in real time. Each search engine maintains a database of information accumulated from the WWW.

When you use a search engine and submit a query, the database is searched to yield Web pages that fit the search criteria. These are returned as a list of 'hits', rank ordered according to criteria applied by the search engine. Different search engines maintain different databases of information and apply different criteria to rank order the list of potential sites.

There are several search engines on the Internet including:

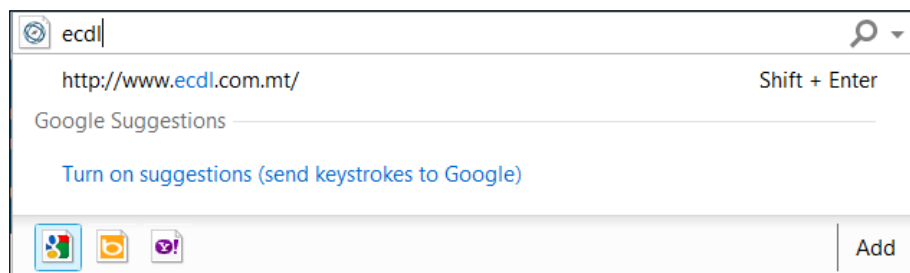
Search Engine	URL
Google	<a href="http://www.google.com">http://www.google.com</a>
Yahoo	<a href="http://www.yahoo.com">http://www.yahoo.com</a>
Ask	<a href="http://www.ask.com">http://www.ask.com</a>
Bing	<a href="http://www.bing.com">http://www.bing.com</a>

Most search engine sites contain sub-headings called directory indexes to facilitate the location of information on Internet. Directory indexes are used as a starting point for a search, refining the search criteria at each step of the way.

### Searching for Information

To select a specific search engine:

1. Type a word or phrase in the Address bar.
2. Click the arrow in the address bar.

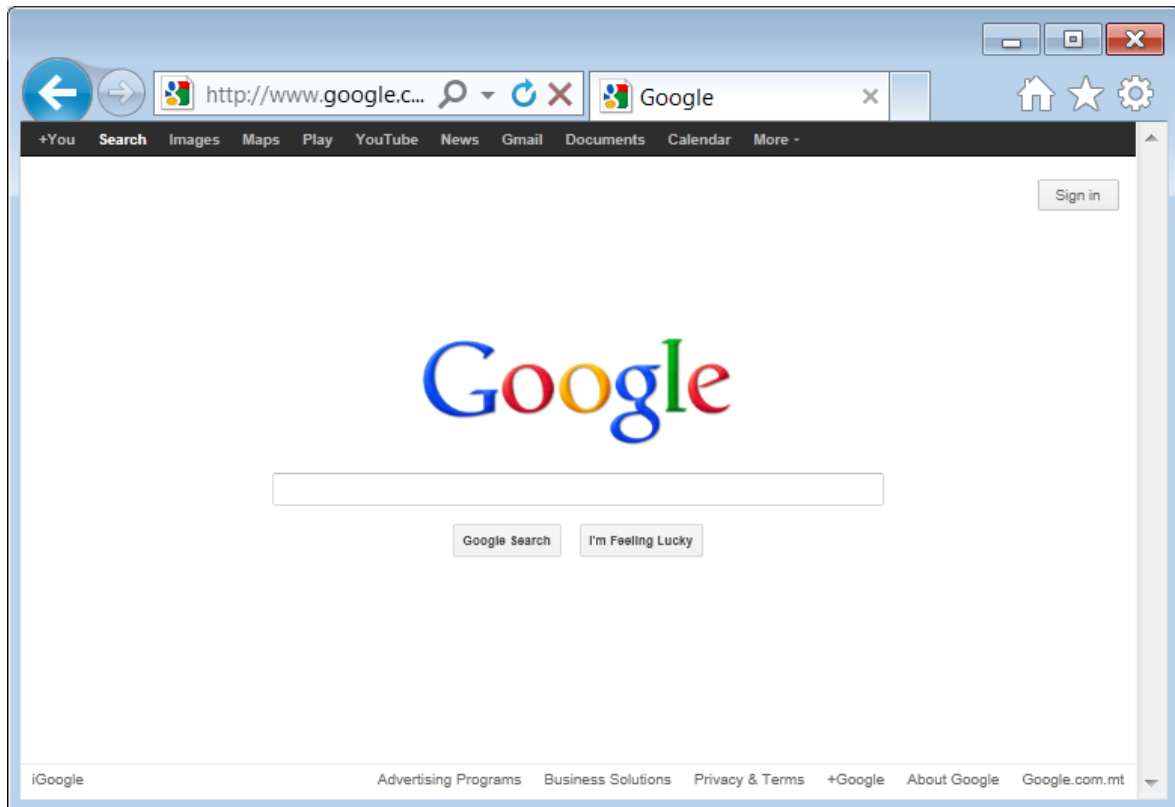


3. Select a search provider icon at the bottom of the expanded Address bar e.g. Google.
4. Press **Enter** key.

It is possible to look for information using the search facility available on the search engine site. If you know exactly what you are looking for, type the word or phrase that best describes the subject, click on 'search' button, and wait for the search engine to come up with the results.

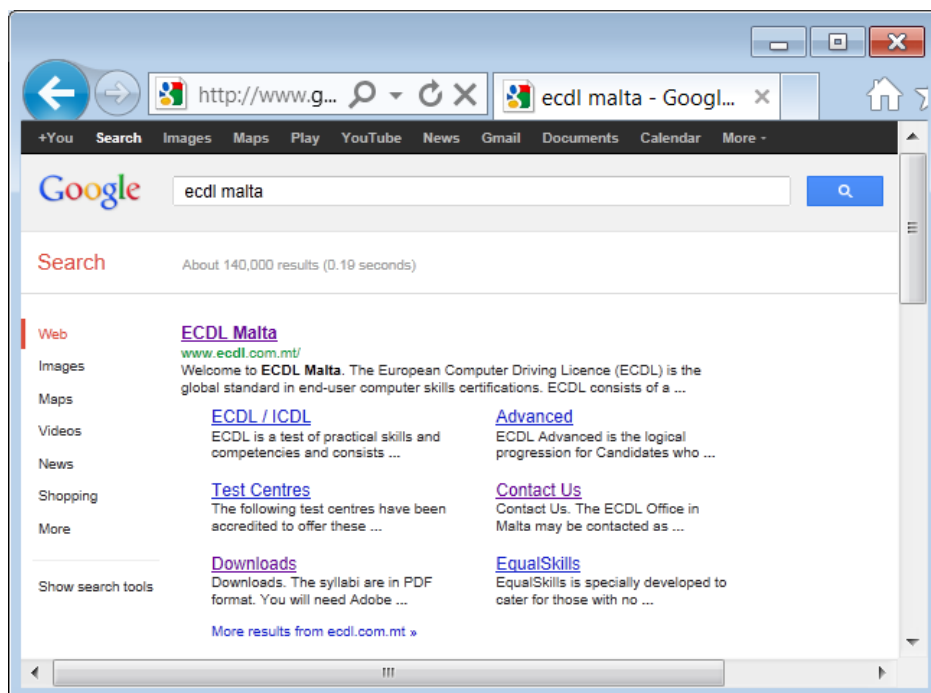
In some cases the search engine would list thousands of web pages related to the subject you are searching for. This would make it next to impossible to go through all the Web pages on the list. The following hints might help you select the appropriate information from Internet:

- **Read the 'hints' and 'help' for each search engine** - these will explain how the search tool works, and which commands can be used to attain more accurate results.
- **Use specific words instead of general ones** – for example, searching for 'constructivist education' will have more specific results than a search for 'education'.
- **Use quotes around words that are part of a phrase** - if you want the words to be found in a specific order, it is important to enclose them in inverted commas. Thus, if you want to find documents about Jean Piaget, type in '**Jean Piaget**'. The former will produce a never-ending list of Web pages having either Jean or Piaget or both.
- **Use the '+' (plus) for words that the search must contain** – if you are looking for Italian cars, you should search for **+Italian+cars**, which, means that the documents retrieved will all have both the word 'Italian' and the word 'cars' in them.
- **Use the '-' (minus) for words that the search must not contain** – if you are looking for information about cars but these must not be Italian cars, you should search for **+cars-Italian**. The results of this search would include a list of documents about cars with no mention of Italian cars.
- **Use Boolean operators AND, OR, AND NOT** – These operators must appear in capital letters and with a space on each side.
  - **AND** – documents found must contain all words joined by this operator, for example **italian AND cars** would list all Web pages about Italian cars.
  - **OR** – documents found must contain at least one of the words joined by OR, for example **butterfly OR caterpillar** would list all Web pages containing either butterfly or caterpillar.
  - **AND NOT** – documents found cannot contain the word that follows AND NOT, for example **English language AND NOT England** would display of all Web pages containing English language and not England.



To search for specific information:

1. In the Search field: type the keywords.
2. Press **ENTER** key. The search engine will locate occurrences of the text in its database of Web pages.
3. Examine the search results. These are usually presented as a list of links to pages containing the text you requested. Click any link to display a Web page.



## Searching Web Based Encyclopaedias & Dictionaries

You can access many encyclopaedias e.g. Wikipedia and dictionaries e.g. Dictionary.com on Internet. The screens of encyclopaedias and dictionaries vary however all of them will have a search field where you can type keywords to search.

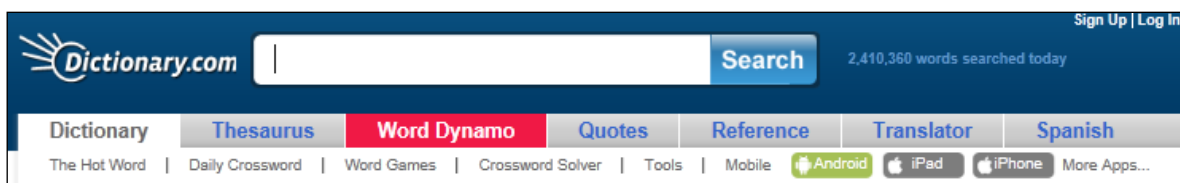
To use Wikipedia:

1. In the address bar type [www.wikipedia.org](http://www.wikipedia.org).
2. In the search field type the keyword e.g. ecdl.
3. Click search button.

A screenshot of a search interface. It features a search input field containing the text 'ecd', a dropdown menu set to 'English', and a search button with a right-pointing arrow.

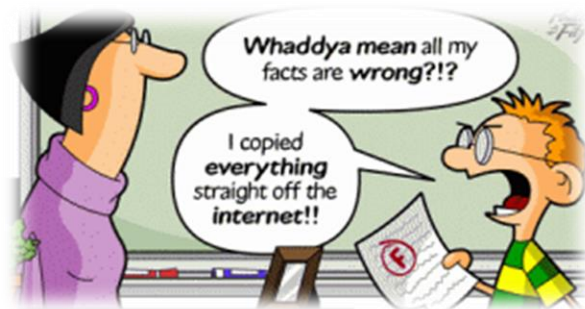
To use Dictionary.com:

1. In the address bar type [www.dictionary.com](http://www.dictionary.com).
2. In the search field type the keyword e.g. floods.
3. Click **Search** button.



## Evaluating Online Information

The World Wide Web offers information and data from all over the world. Anyone can write a Web page. This means that the Web has high quality information and information of a dubious nature. It is therefore important to critically evaluate the online information.



- **Purpose of online information** – It is important to understand the purpose of the site. Is it meant to present factual information? Is it presenting the personal opinion of the author? Is it presenting information for entertainment purposes? Is it presenting commercial, sales or marketing information?
- **Credibility of online information** – Who is the author of the web page? What qualifications does this person have on this topic? Are there any references on the web page to other credible pages? Is the information up to date?
- **Target audience** – Is the information intended for primary school children, university students, adults etc.?





## COMMUNICATION CONCEPTS

### Online Communities

An **online (virtual) community** is a group of people that communicate with each other using Internet e.g. email, internet social network service or instant messages. They communicate for social, professional, educational or other purposes.

Many individuals use **social networking websites** such Facebook to keep in touch with their friends and seek 'old' friends. They set up an online profile, describing their interests, and add links to other profiles. Generally, users are able to post personal information, including photographs, videos etc. Some people join special interest groups on social networking sites.



An **Internet forum** is also called a message board, discussion group, bulletin board or web forum. An Internet forum usually allows all members to make posts and start new topics.

Before a prospective member joins an Internet forum and makes posts to others, s/he is usually required to register. The prospective member must usually agree to follow certain online rules, sometimes called netiquette. When a member is approved by the administrator or moderator of the Internet forum, the member usually chooses his or her own user name and password. Sometimes, a password is supplied.

The separate conversations in an Internet forum are called threads. Threads are made up of member-written posts. Internet forum members can usually edit their own posts, start new topics, post in their choice of threads and edit their profile. A profile usually lists optional information about each forum member such as the city they are located in and their interests.

An Internet forum administrator or monitor may also participate in the forum. A forum administrator can usually modify threads as well as move or delete threads if necessary. Administrators can also usually change software items in an Internet forum. Moderators often help the administrator and moderate Internet forum members to make sure the forum rules are being followed.

**Chat rooms** are virtual spaces on Internet where individuals discuss topics in real time. Within a chat room, there may be a moderator who monitors the content of the conversation in order to prevent abuse.

Social networking, Internet forums and chat rooms provide ways to learn, talk and socialize, however some users abuse these systems. Children and teens must be aware that they can meet irresponsible users and adults who use chat rooms anonymously. Children must report all bullying and harassment they may receive through chat rooms. Children and teens must never give their



personal contact details, pictures etc unknown users. They must never meet a person that they have met through a chat room or any other social networking. If they agree to meet a person, they must be accompanied by a parent or an adult family member. Parents need to be aware of who their children are talking to in chat rooms and social networking sites.

**Online computer games** refer to any type of game that someone can play through the Internet or over a computer network. Most of the time, online gaming refers to video games played over the Internet, where multiple players are in different locations across the world. Online gaming also refers to gambling over the Internet, through an online casino.

Online gaming is growing in popularity for a variety of reasons. Gamers can easily find opponents of a similar skill level when playing a game over the Internet. Players also can compete in multiplayer games, where many players play an ongoing game in a virtual world. Often times, participants can communicate with other gamers through text chat sessions during online gaming or, sometimes, players can actually speak to other players, using special audio hardware. Some online games charge a monthly fee for access to the video game software.

Parents are encouraged to supervise closely what their children are doing on the computer. Software can be installed on computers to monitor the sites visited by children and teenagers. Parents are encouraged to agree with children on the duration of time that their children spend on the computer.

## Publishing & Sharing Content Online

You can publish and share content online through:

- A **blog** short for web log is a type of website usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video. The latest entry is always displayed at the top of the Web page.

Many blogs provide commentary or news on a particular subject; others function as more personal online diaries. A typical blog combines text, images, and links to other blogs, Web pages, and other media related to its topic. The ability for readers to leave comments in an interactive format is an important part of many blogs.

Examples of blogging software include Wordpress and Blogger.

- A **microblog** is a type of blog that lets users publish short text updates. Microblogging is a web service that allows the subscriber to broadcast short messages to other subscribers of the service. Microposts can be made public on a web site and/or distributed to a private group of subscribers. Subscribers can read microblog posts online or request that updates be delivered in real time to their desktop as an instant message or sent to a mobile device as an SMS text message. Twitter is an example of a microblogging software.

- A **podcast** is an audio or video file available on the Internet for you to listen to and/or watch. A podcast can also refer to a series of these audio or video files (similar to how a TV or radio show can be a series of shows or just one show). When using the word podcast, most people refer to the entire series and not just one audio or video file.

Podcast is made up of two words:

- **POD** - You can either listen to a podcast on your computer or transfer it to your portable audio (e.g. MP3 player) or video device, which means that file is **P**ortable, and it's **O**n-**D**emand because you can listen to or watch it when you want.
- **CAST** - the file is sent out to you over the Internet, in the way a broadcast comes to you over the radio or TV airwaves. But instead of using a radio or TV, with podcasts you use a computer connected to the Internet, and on that computer you have a program that allows you to subscribe to, manage, and listen to or watch your favourite podcasts.

Podcasting lets you automatically receive the latest audio/video shows from websites that you subscribe to as soon as these are available. You can subscribe to receive a podcast, rather like you might subscribe to a magazine and get it delivered each week.

In order to subscribe for a podcast, you need an Internet connection and podcast software which is usually available free of charge e.g. iTunes or Winamp. To subscribe to podcasts, locate the relevant button on the website. Each time you connect to Internet the podcast software will automatically download any new available podcasts to your computer.



- **Photo sharing** is the publishing or transfer of a user's digital photos online, thus enabling the user to share them with others (publicly or privately). This function is provided through both websites and applications that facilitate the upload and display of images. Examples of image sharing tools include Flickr, Picasa and Facebook.
- A **video sharing website** allows individuals to upload video content to share, distribute or place on a website. The type of video content uploaded can be anything from short video clips all the way to full length movies. Examples of video sharing websites include YouTube, Vimeo, Dailymotion and Facebook.

## Protecting Yourself Online

- Use appropriate privacy settings on social networking sites to limit access to your information, pictures etc. Double-check your privacy settings to ensure that these are working as you would expect. From time to time developers of social networking sites implement improvements to privacy settings. Adjust your privacy settings accordingly.
- Be careful how much information you divulge about yourself on social networking sites. You may have friends with whom you are uncomfortable of sharing particular information. Avoid posting comments and pictures which embarrass

you if seen by family members, colleagues, students, your present or future employer.

- Posting particular messages on walls of social networking sites may not always be appropriate. Use private messaging when appropriate.

## Instant Messaging

**Instant Messaging (IM)** is an Internet service that enables you to communicate using text with another person/s using an instant messaging program. The communication is real time – similar to a telephone conversation but using text instead of voice. A program known as instant messenger is used for text or chat communication. Typically, the instant messaging system alerts you whenever somebody on your private list is online. You can then initiate a chat session with that particular individual. You can also use an instant messaging program to send files such as documents and pictures.



Nowadays, programs such as MS Windows MSN (Messenger), MS Lync, Skype and Google Hangouts are used as instant messengers and VoIP. Some users make use of web cam during IM or VoIP communications.

## Short Message Service & Multimedia Messaging Service

**Short Message Service (SMS)** allows for short text messages to be sent from one cell phone to another cell phone or from the Web to another cell phone. SMS is also referred to as texting, sending text messages or text messaging. SMS text messaging is the most widely used data application in the world.

**Multimedia Messaging Service (MMS)** is a mobile phone service that allows users to send multimedia messages to each other. This includes images, videos, and sound files. Most modern mobile phones and smartphones support MMS messaging.

## Voice Over Internet Protocol

**Voice Over Internet Protocol (VoIP)** is an Internet service that enables you to communicate using voice with another person/s. The communication is real time. It is a telephone conversation over Internet. Sometimes this is referred to as Internet telephony or IP telephony. Many home users communicate with their friends and relatives through Internet telephony using a VoIP program, a microphone and speakers/headphones. There are no additional charges for these voice calls because these happen over the same Internet service used for Web browsing and e-mail.



## Netiquette

As with other forms of communication media, there are widely observed conventions, often known as 'network etiquette' or 'netiquette' - associated with electronic communication. Netiquette is a set of guidelines intended to promote effective, efficient and responsible electronic communication between all users.

The following netiquette guidelines are derived from those in use at many locations on the Internet:

- Use short meaningful descriptions in the subject field of all your messages. Messages without subject lines can confuse and frustrate the persons who receive these particularly if they receive a lot of mail.
- Messages should be concise and to the point. Use short paragraphs with breaks in between. White space makes long text easier to read.
- Be careful about the way you express yourself in a message, especially if you feel strongly about an issue. Never shoot off a quick response to some issue. Once you press the send button there is no way you can retrieve the message back.
- Never type your messages in all uppercase letters. Capitalizing whole words that are not titles is the equivalent of shouting. Asterisks are usually used to add \*emphasis\* to a word.
- Acronyms (e.g. ASAP – as soon as possible) are often used in email messages. Avoid overuse of acronyms in your messages. Such messages can confuse and annoy readers that are not familiar with acronyms.
- Ensure that your message is free of spelling and grammar errors before pressing the 'send' button.
- It is unethical to forward a message without asking permission of the person who wrote the message.



- Do not make changes to someone else's message and pass it on without making it clear where you have made the changes.
- Do not initiate or forward chain letters and other unwanted email, known as 'spam', to your friends.
- Be careful with file attachments that you send along with your mail. Large files can completely fill the recipient's mailbox making it impossible for him/her to receive any more messages. Seek permission from your recipients before actually sending large mail (>5Mb). Compression utility programs can be used to reduce the sizes of your attached files.
- Some networks blocked the transmission of emails with particular files e.g. executable files and MS Access files. You may be able to send such files if these are compressed using compression utility programs.

## Electronic Mail

Electronic mail or **email** is a way of sending electronic messages through the systems and networks that make up the Internet. Email is the most frequently used application on the Internet. This is because email has many advantages over other means of communication:

- Email is very fast compared to normal the postal service. An email gets to any destination in a few minutes.
- Email is cheaper compared to the normal postal service. It only requires an Internet connection. There is no need for envelopes and stamps.

To send and receive email you will need an Internet connection and an email address. You may also need an email client (or program).

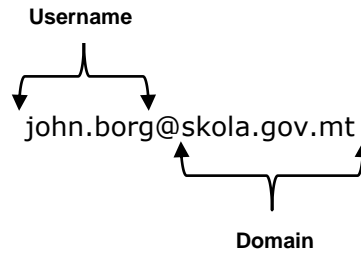
You can obtain an email address from any of the following sources:

- Typically the ISP which provides you with an Internet connection will also provide you with an email address.
- Your school will provide you with an email address. It is important that you use such email for schoolwork. Such emails should not be used for personal communication or to forward jokes.
- You can get a free email address from some Web sites e.g. Hotmail, Yahoo, Gmail etc. Email addresses derived from the Web are known as Web-based email accounts. Web-based accounts enable you to read and send email through a Web page i.e. from any location.

## Structure of an Email Address

Email addresses have a standard format made up of two parts separated by the @ symbol:

1. The **UserID** or **Username** is a unique identification of a person on a particular server.
2. The **Host name** or **Domain name** is the location at which the mail is sent. This refers to the mail server i.e. the computer where the recipient has a mailbox.



### How does Email work?

Every user with an email address has a mailbox that stores all incoming and outgoing mail. The mailbox is located on the mail server computer at the ISP. This mail server computer is connected to Internet 24 hours a day. So, your incoming mail is delivered to your mailbox even while you have your computer switched off. Therefore, you need to check your mailbox to read your mail. You will need a mail program such as MS Outlook or Mozilla Thunderbird to read and send mail (unless you will be checking email on the Web).

You type a message on your computer using a mail client. You send the message when you connect to Internet. The email will be delivered to the electronic mailbox of the recipient (the person who receives your email) on a mail server computer. The recipient can check his or her mailbox and can download the electronic messages from the mail server to his/her computer. The recipient of your message can respond to you, forward the message to someone else, file the message in the computer, or just delete the message.

It is important to understand that the recipients of your mail do not have to be present at their computer when you send mail to them. Your message travels to the destination mailbox quickly. But the person at the other end still has to check the mailbox to read your message.



### E-Mail Recipients

You should always make sure you e-mail the right people, in the right way. The To, Cc and Bcc fields allow you to indicate how your message should be read by the people that receive it.

The **To** field is for people that the message directly affects, and that you require action from. If you expecting someone to do something, they should be in the To field.

The **Cc** (or **carbon copy**) field is for people you want to know about the message, but are not directly involved. It's mainly for people that do not need to act or reply to the message, but to keep them informed.

The **Cc** field can be used for a number of reasons.



- It keeps other people "in the loop" on certain issues.
- It lets people know if they are expected to take action, or if they are just being informed.
- It allows you to make the receiver aware that other people know what is going on (in case you want them to take the content more seriously, or treat it as more important or urgent).

The **Bcc** field (**Blind Carbon Copy**) is used when you want other people to receive the message, but you don't want the other recipients to know they got it. When people get an e-mail, they will see all the people in the To and Cc lines - but not Bcc.

One good use of Bcc is when sending an e-mail to hundreds of people. You don't want them all to see each other's e-mail addresses so you use this field, rather than the To or Cc lines.

## Fraudulent & Unsolicited Email

All email users must be able to distinguish between genuine, unsolicited and fraudulent messages.

From time to time you may receive messages with promotional material about a product or service. You may not be interested in such messages which are often referred to as unsolicited mail or spam mail.

Occasionally you may receive messages with information about fraudulent schemes such as pyramid selling or get rich quick schemes. It is important that you do not forward such emails and delete these from your mailbox.

You may also receive messages which appear to be sent from a reputable institution such as a bank, a mobile company, an Internet Service Provider (ISP) asking for personal information such as name, surname, address, username, password, and credit card details. This is known as phishing. It is important that you do not forward such emails and delete these from your mailbox.

## Phishing Messages

**Phishing messages** often direct you to enter details at a fake website whose look and feel are almost identical to the legitimate one. Reputable organisations never ask users to send their usernames, passwords, credit card details etc. via email. It is therefore important to disregard these messages. If you are in doubt, phone the organisation and inform them that you received a phishing message.



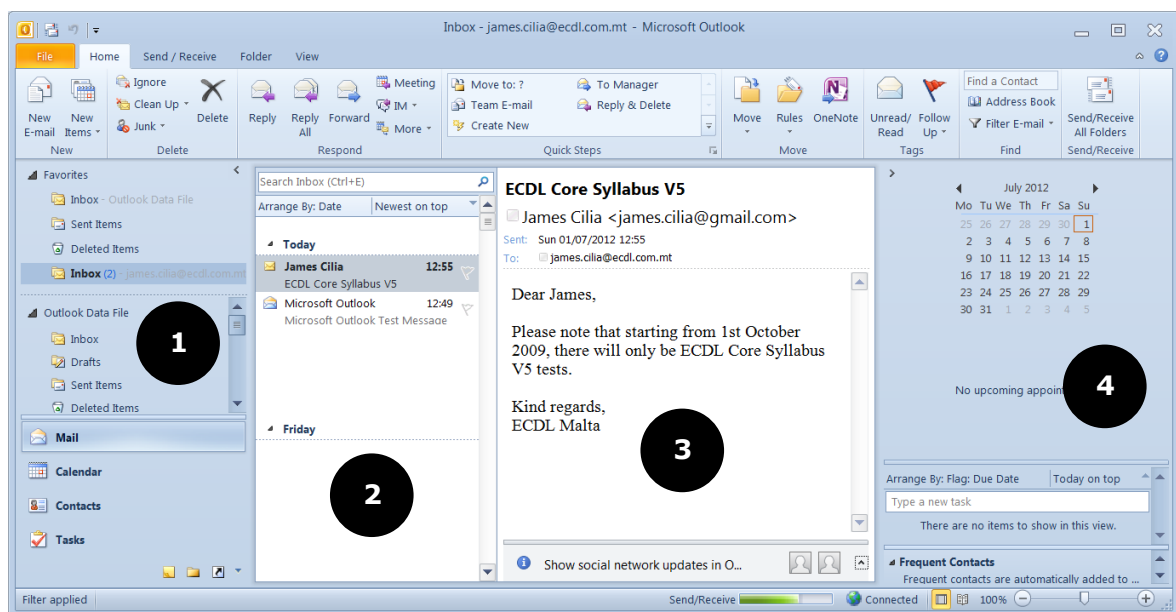
## USING EMAIL

### Opening & Closing MS Outlook

As indicated earlier, an email client is a program used to send and receive email. There are several email clients such as MS Outlook and Mozilla Thunderbird. The email program that you will use is MS Outlook 2010.

To start MS Outlook:

1. Click **Start** button.
2. Select **All Programs**.
3. Click **Microsoft Office**.
4. Click **Microsoft Outlook 2010**.



MS Outlook 2010 displays four vertical panes:

- *Navigation Pane* (1) – has tools and information determined by the current selection. The Navigation Pane displays several tabs including Mail, Calendar, Contacts, Tasks, Notes, Folder List, Journal, and Shortcuts.
- *Message Pane* (2) - contains all emails in the folder currently selected.
- *Reading Pane* (3) - displays the content of the email currently selected, its basic header information (sender, recipients and subject) and any file attachments.
- *Calendar Pane* (4) - displays appointments, events and meetings.

To close MS Outlook, click **Close** button.

## Email Folders

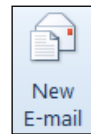
Email programs typically have the following standard folders:

- **Inbox** - All incoming messages automatically go to the Inbox folder (except suspected spam). You can read your mail in the Inbox, then delete it, move it to another folder, or leave it in the Inbox.
- **Outbox** - In MS Outlook, the email messages you compose stay in this folder until you click the Send/Receive button.
- **Sent** - The Sent folder contains a copy of all email messages that you send. This makes it simple for you to review or resend the message if necessary.
- **Deleted/Trash Items** - When you delete messages, these will be moved to the Trash folder. You can empty the Trash folder. Once messages are emptied from the folder, they are permanently deleted.
- **Draft** - The Drafts folder holds messages that you have composed or are in the process of composing and have not sent. A message saved in your Drafts folder remains there until you send it or delete it.
- **Spam/Junk** - When you receive messages that your ISP/email provider identifies as junk mail, it directs the messages to the Spam folder. Using caution, you can read these emails, move them to other folders, and delete them.

## Creating New Email

To create a new email:

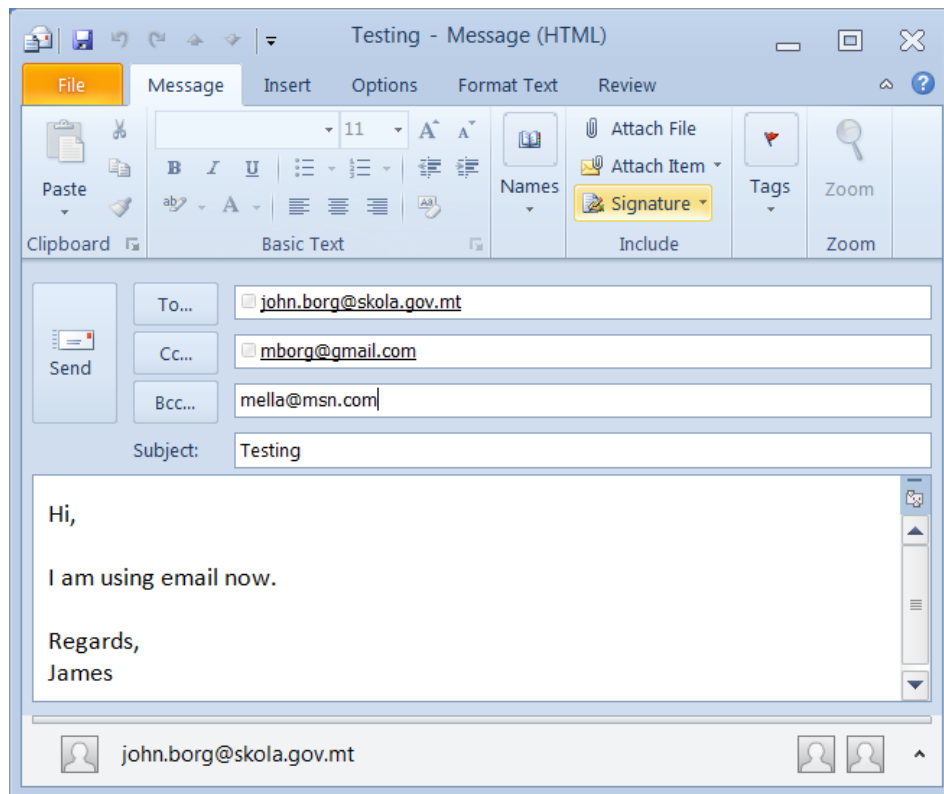
1. In the Home tab, click **New E-mail** button. The Untitled Message window will be displayed - here you will type the message to send.
2. Type the email address of the person you want to send the message to in the To: field. If you want to send the same message to several people, press **ENTER** key after typing the first address and type another email address.



An address in an address list can have one of the following recipient types:

- To:** Primary recipients of your message.
  - Cc:** Carbon Copy, for secondary recipients i.e. the persons whom you decide to keep them informed.
  - Bcc:** Blind Carbon Copy, email addresses typed in this field are not visible.
3. Type the subject of your message in the Subject: field.
  4. Click in the lower part of the window and type in the message. You can copy and paste text from other programs such as MS Word etc.
  5. Click **Send** button to send your message.





Note that:

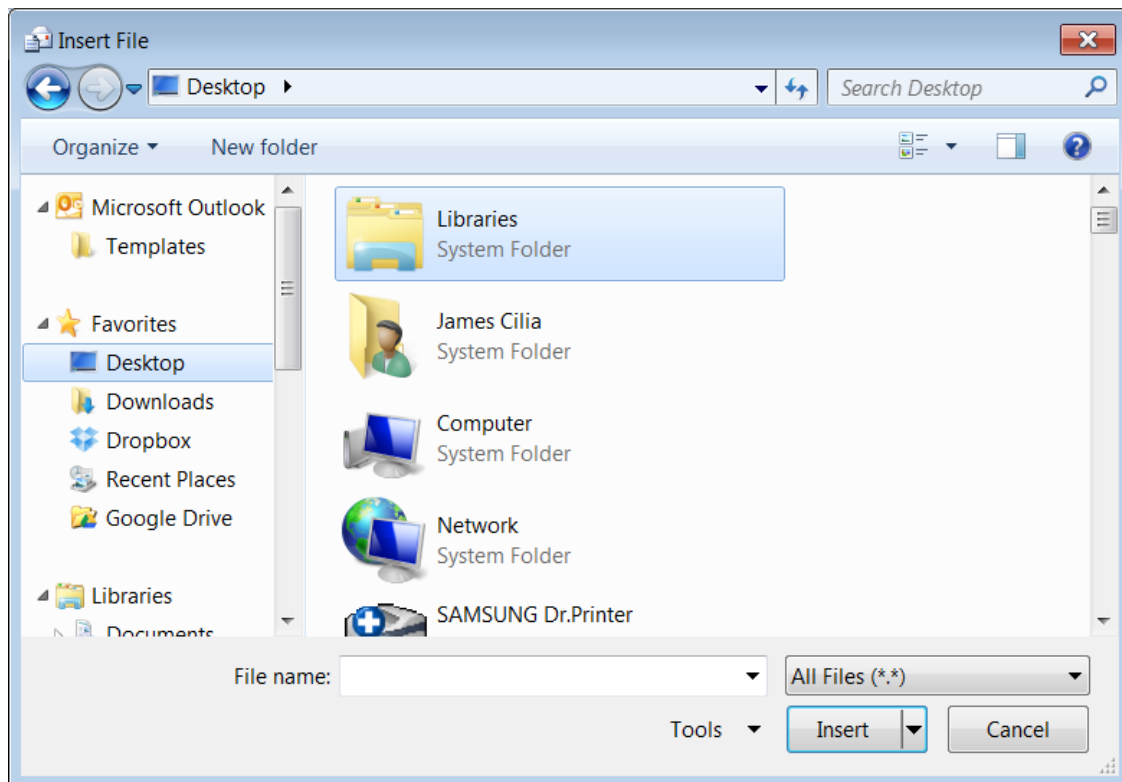
- By default, the email message sent is stored in the Sent Items folder.
- To discard your message without sending it, just close the window.

## Inserting & Removing File Attachments

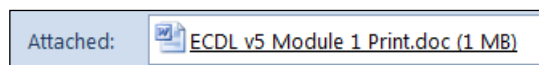
Email messages do not only consist of simple text messages. Depending upon the hardware and software, e-mail messages can contain embedded sound files, image files, video-clip files, executable files etc. These are collectively known as attached files. **Attached files** are files that are sent along with e-mail messages.

You can attach files to an email message:

1. In the Message tab, click **Attach File** button. The Insert File  **Attach File** dialog box will be displayed.



2. Browse to the disk/folder where the file (to be attached) is located.
3. Click the file to attach. The name of the selected file will be displayed in the Attached: field.



4. Click **Insert** button.

To remove a file attachment:

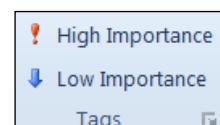
1. Click the name of the file in the Attached: field.
2. Press **Delete** key.

## Setting Message Priority

When you send a new message, you can assign a priority to it, so the recipient could see if the message has a high or low priority setting.

You can set the priority of a message:

1. Click the **Message** tab.
2. In the Tags group, click **High Importance** or **Low Importance**.



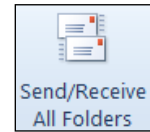
Note that:

- Messages sent with a high priority setting will be delivered at the same speed as a message having a low priority setting.
- To switch off priority repeat steps 1-2 as above.

## Retrieving Messages

Messages are stored in your mailbox on the mail server until you download them using your mail program. To retrieve messages, you need to connect to the Internet:

1. Click **Home** tab.
2. Click **Send/Receive All Folders** button. The program retrieves all mail in your mailbox.



Note that:

- By default, the Inbox folder stores all incoming mail.

## Replying to Emails

When replying to a message the original message and the subject details of the message with the prefix RE:. The reply to the message can be typed above, below or in the body of the original message.

To reply to a message:

1. In the Inbox folder, select the message to reply to.
2. Click the **Home** tab.
3. In the Respond group:

To reply to the sender, click **Reply** button.

To reply to all recipients of the original email, click **Reply All** button.

4. The RE: message form displays. Type a reply message.
5. Click **Send** button.



## Forwarding Emails

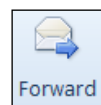
Once a mail message has been read it can be forwarded to other mail users. The sender's own comments can be added to the message before it is sent to other members.

As with replying to messages, the subject of the original message is automatically entered in the Subject box with a prefix. In this case FW: indicating that the message is a forwarded message.

When forwarding a message the original message with the address information is automatically entered in the Message area.

To forward an email:

1. In the **Inbox** folder, select the required message to forward.
2. Click the **Home** tab.
3. In the Respond group, click **Forward** button. The FW: message form displays.
4. Click in the To: field and type the email addresses of the users to receive the forwarded message.
5. If required, type a message in the **Message** area.
6. Click **Send** button.



## Saving & Opening File Attachments

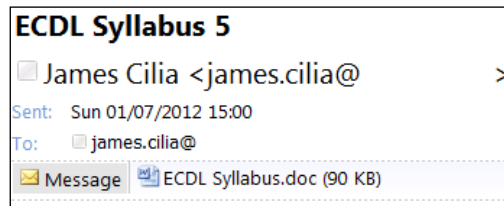
Messages carrying attachments display a paper-clip icon. When you read these messages, the name of the attached file will be displayed below attachments.



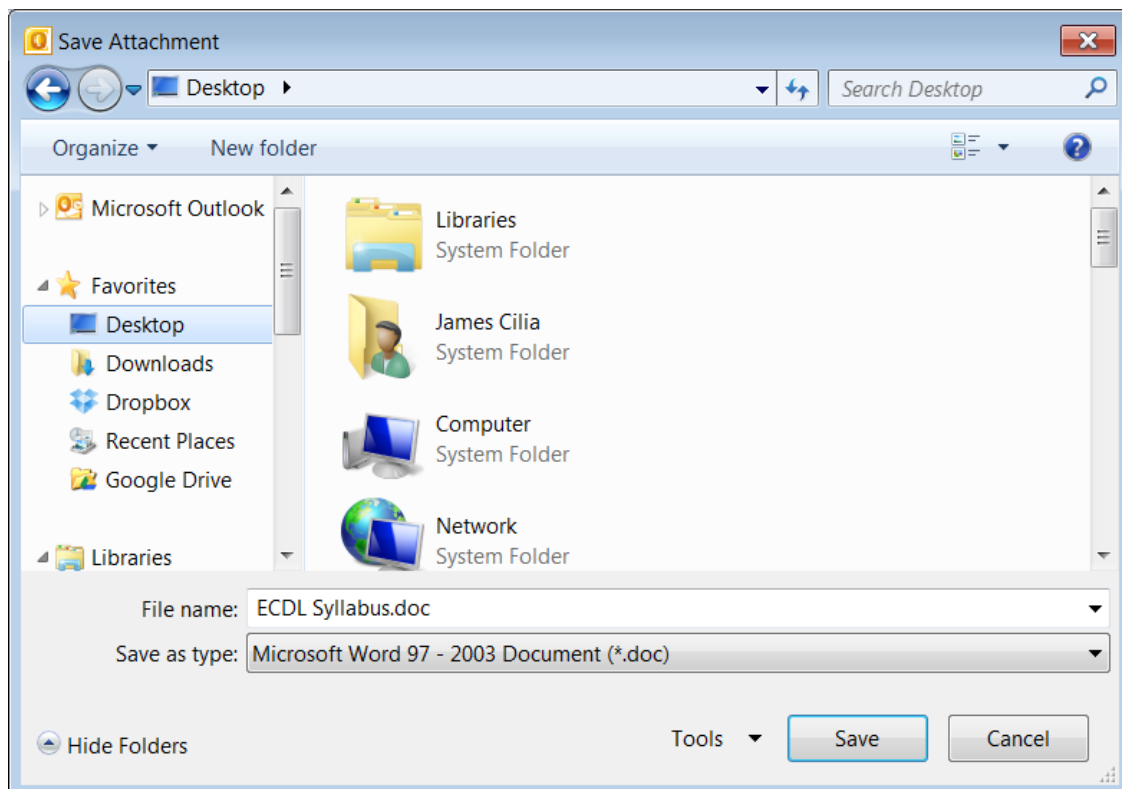
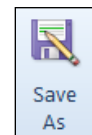
It is important that you save the attached file on your computer and use updated antivirus software to scan if the file is infected.

To save a file attachment:

1. Click the email that has the file attachment.



2. Click the attached file.
3. In the Attachments tab, in the Action group, click **Save As** button. The Save Attachment dialog box is displayed.



4. Browse to the disk/folder location where the attachment will be saved.
5. Click **Save** button.

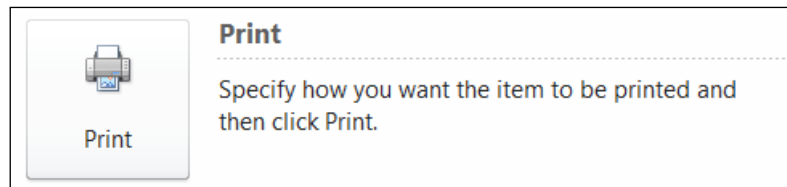
Note that:

- To open the attachment/s saved you will need a program that can open files of the same type as the attachment's file format. For example, if you want to open a .DOCX file, make sure you have a program on your computer that can open .DOCX files.

## Previewing & Printing Messages

You can preview a message before printing:

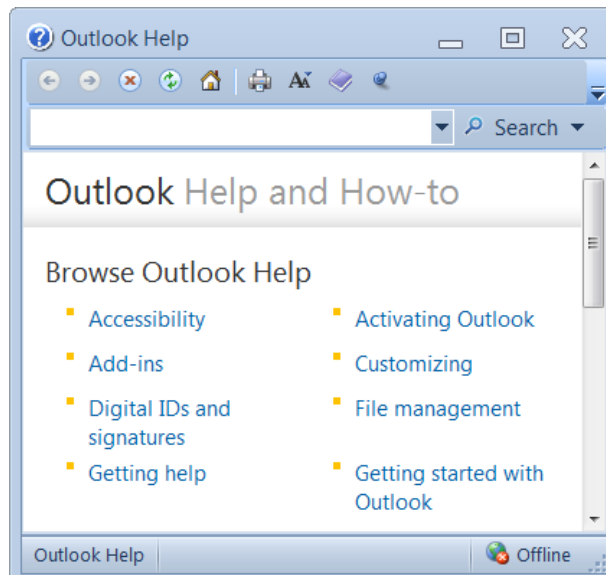
1. Click **File** tab.
2. Click **Print**. The BackStage View is displayed. The message will be displayed on the right.
3. Click **Print** button.



## Using Help

To use MS Outlook help:

1. Click **Help** button. The Outlook Help window is displayed.

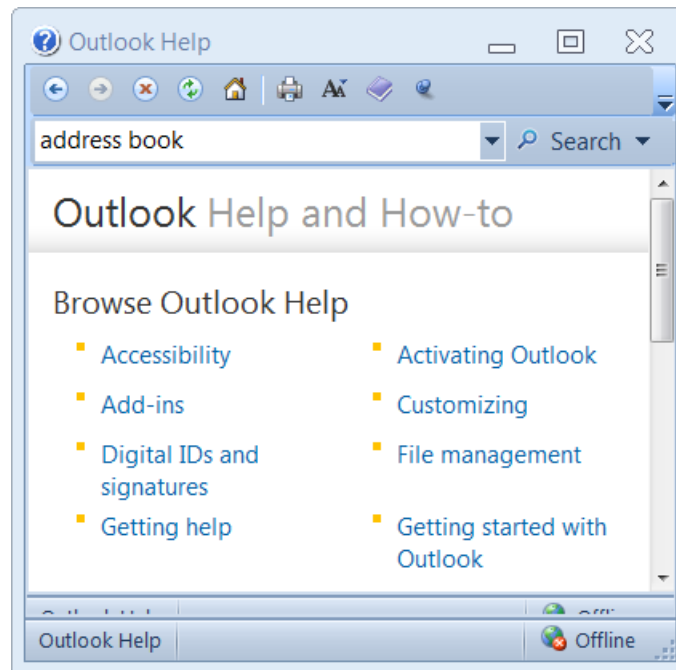


2. Click one of the main topics e.g. 'Getting started with Outlook'. This will display sub-topics. Click the sub-topic to display.

You can type a keyword or question e.g. 'address book' in the search field. Click **Search** button. Click the topic to display.



3. Click **Close** button to close the Word Help window.



## Minimising & Restoring the Ribbon

You can minimise the Ribbon i.e. the row of buttons below each tab:

1. Right-click on one of the tabs e.g. the **View** tab.
2. Click **Minimise the Ribbon**. This will hide the Ribbon, leaving only visible the Ribbon's tab headers.

Note that:

- Clicking on any of the tabs will now display the tab's commands, and hide the ribbon once you have clicked on a command.

To restore the minimised Ribbon:

1. Right-click on one of the tabs e.g. the **View** tab.
2. Click **Minimise the Ribbon**. This will display the Ribbon.

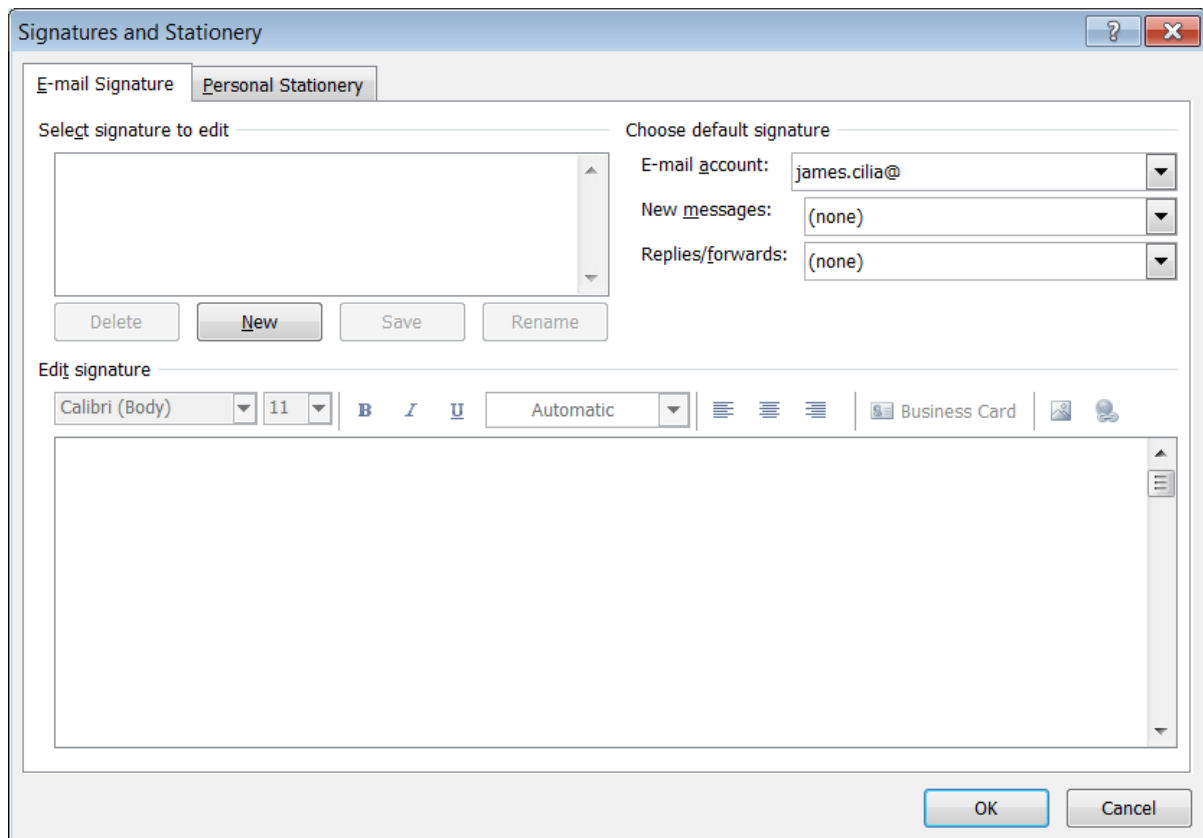
## Creating & Inserting Email Signatures

You can create personalized signatures for your email messages that include text, images, your electronic business card, a logo, or even an image of your handwritten signature.

Your signature can automatically be added to outgoing messages, or you can manually add the signature to only the messages that you choose.

To create a signature:

1. Open a new message.
2. In the Include group, click the **Message** tab.
3. Click **Signature** button.
4. Click **Signatures...**



5. In the E-mail Signature tab, click **New** button.
6. Type a name for the signature.



7. Click **OK** button.
8. In the Edit signature box, type the text that you want to include in the signature.
9. To format the text, select the text, and then use the style and formatting buttons to select the options that you want.
10. To finish creating the signature, click **OK** button.

Note that:

- The signature that you just created or modified won't appear in the open message; it must be inserted into the message.

To insert a signature manually:

1. In a new message, on the Message tab, in the Include group, click the **Signature** button.
2. Click the signature to insert.



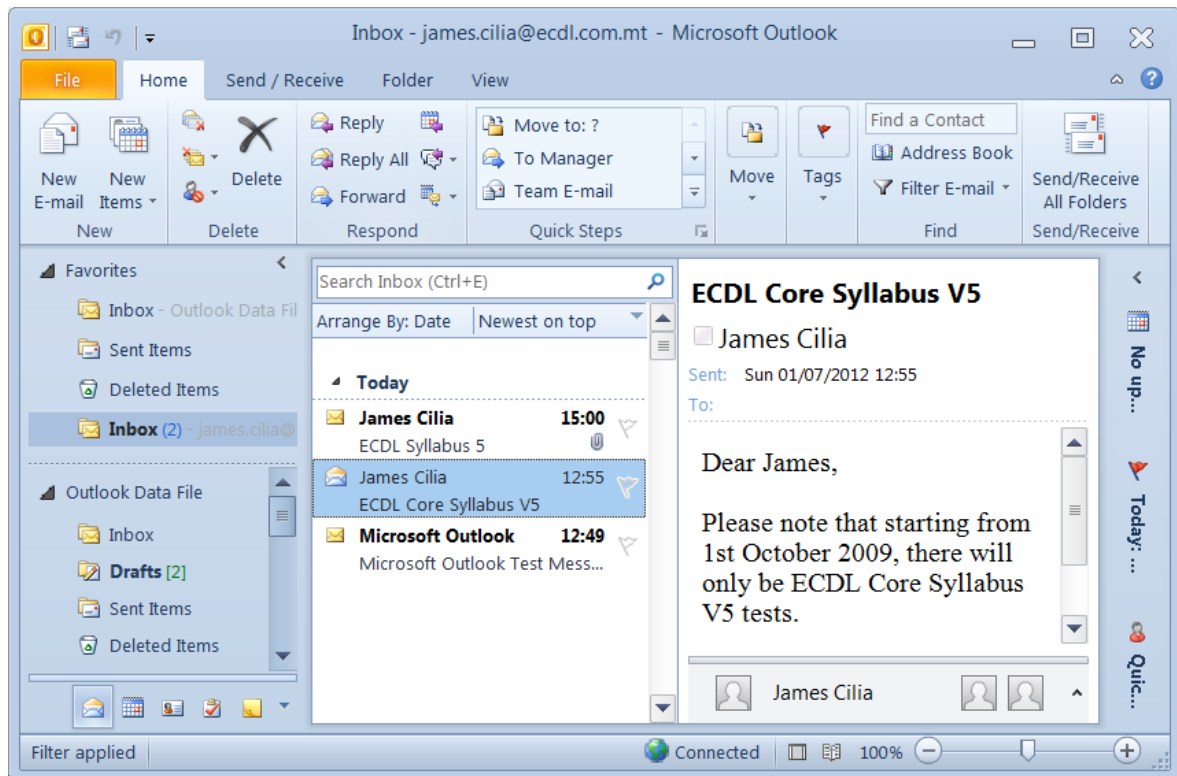
Note that:

- To remove a signature from an open message, select the signature in the message body, and then press **DELETE** key.

## Identifying Read & Unread Emails

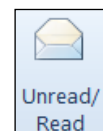
When you receive emails, the Unread Mail folder will be bold. It will also display the number of unread messages within a bracket.

Unread emails in the Message pane will display a closed envelope. Messages that you have already opened will display an open envelope.



You can also mark emails as read or unread:

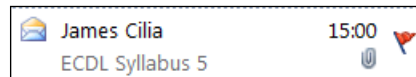
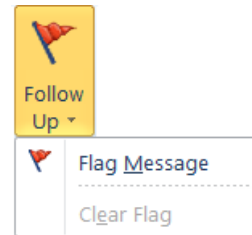
1. Choose the message in the Message pane.
2. In the Home tab, in the Tags group, click **Unread/Read** button.



## Flagging Emails

You can use flags to remind yourself to follow up an issue or to categorize messages in your Inbox. To flag a message:

1. Click the message to flag.
2. Click the **Home** tab.
3. In the Tags group, click **Follow Up**.
4. Click **Flag Message**. The subject of the message will display a coloured flag.



To remove the flag mark from a message:

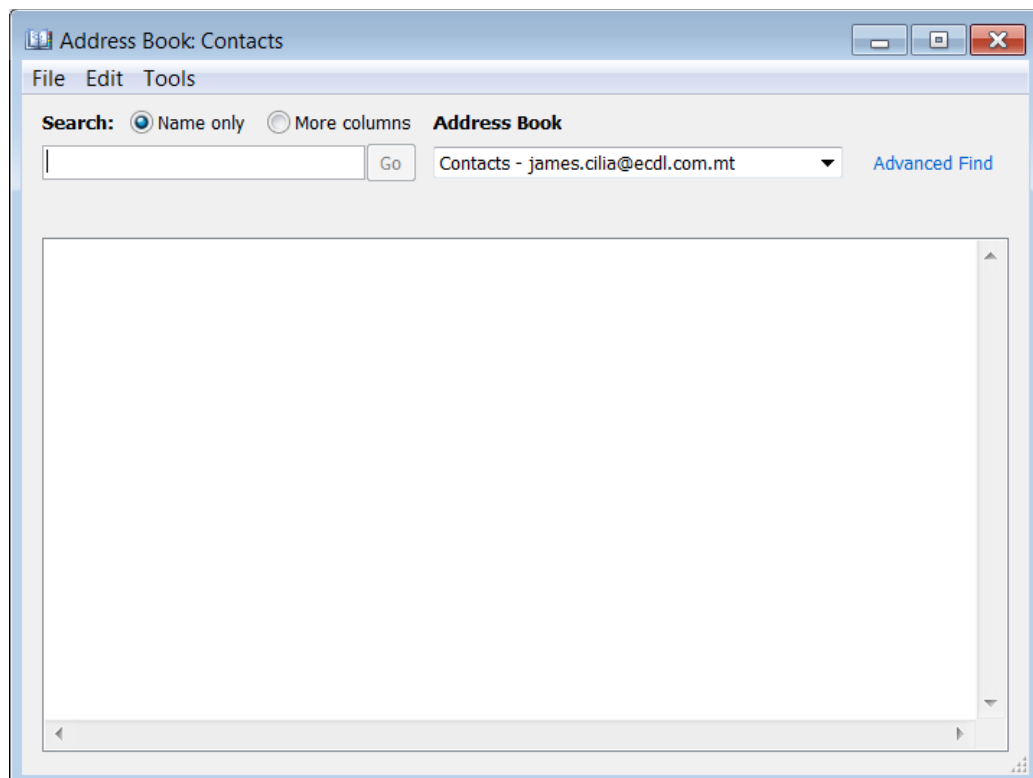
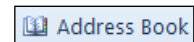
1. Repeat steps 1-3 as above.
2. Click **Clear Flag**.

## Adding & Deleting Address Book Contacts

MS Outlook has a built-in address book to store the email addresses and other contact details of friends etc.

To open the address book:

1. Click **Home** tab.
2. In the Find group, click **Address Book**. The Address Book: Contacts window is displayed.

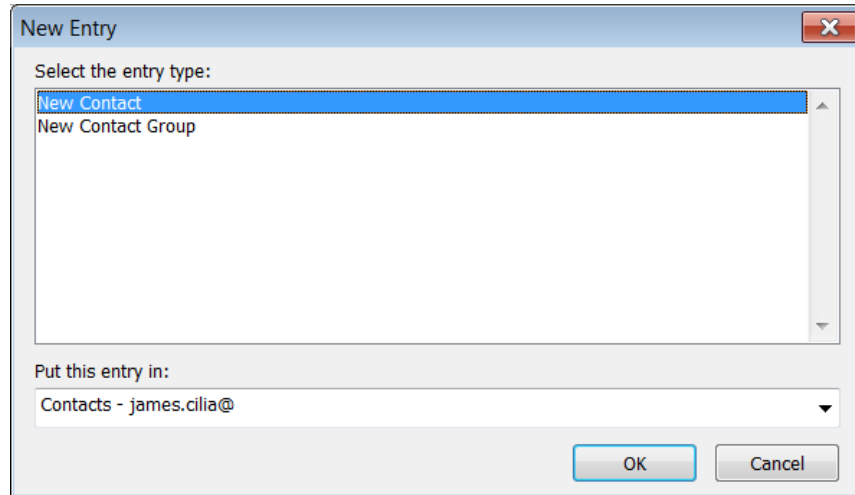


Note that:

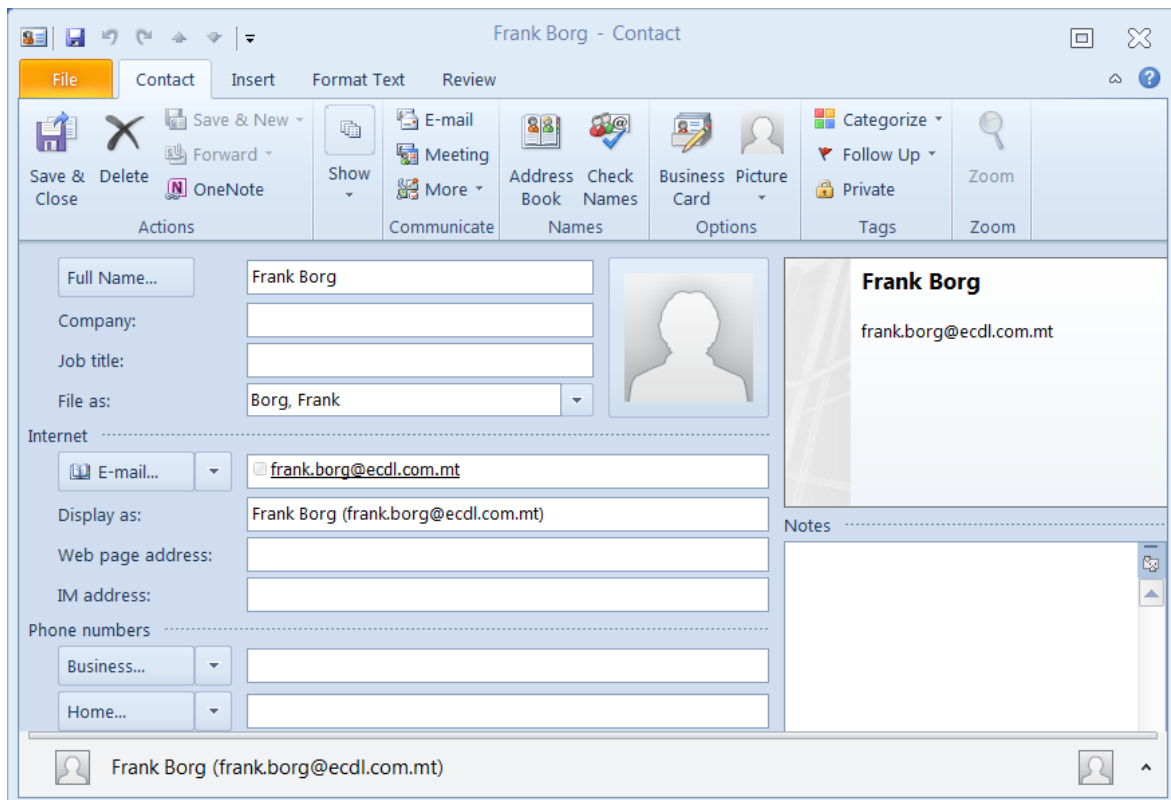
- The first time you open the address book, it will be empty.

To add the details of a friend to the address book:

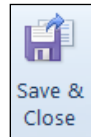
1. Repeat steps 1-2 as above.
2. Click **File** menu.
3. Click **New Entry...** The New Entry dialog box is displayed.



4. In the Select the entry type: field click **New Contact**.
5. Click **OK** button.
6. Type the contact details in the form.

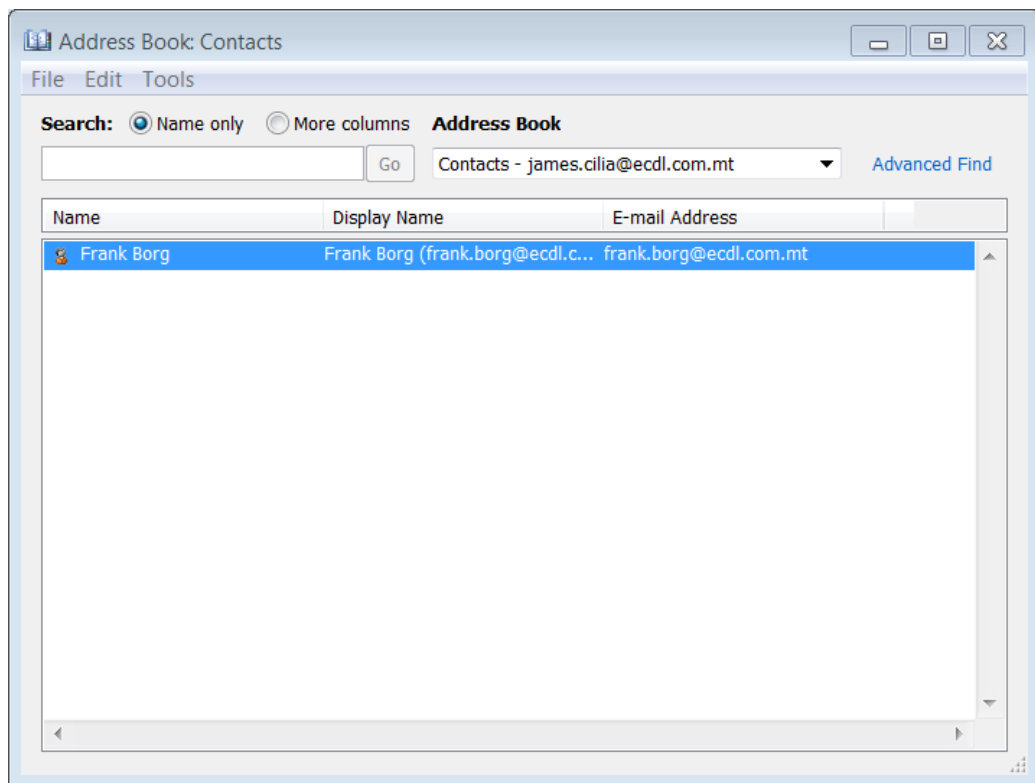
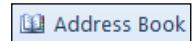


7. In the Contact tab, in the Actions group, click **Save & Close** button. The Address Book window will display the details of your friend.
8. Close the Address Book window.

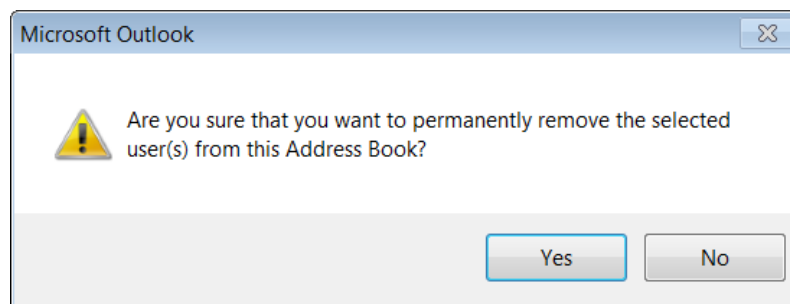


To delete the contact details from the address book:

1. Click **Home** tab.
2. In the Find group, click **Address Book**. The Address Book: Contacts window is displayed.



3. Choose the contact details to be deleted.
4. Click **File** menu.
5. Click **Delete**.



6. Click **Yes** button to confirm the deletion of contact details.
7. Close the Address Book window.

## Updating Address Books

You can update an address book from incoming email:

1. In the **Inbox** folder, select the required message to add the sender's email address.
2. Right-click the email address of the sender.
3. Click **Add to Outlook Contacts**. The Contact window will be displayed.
4. Type in any other details as appropriate.
5. Click **Save & Close** button.

## Creating & Updating Mailing Lists

A mailing or distribution list is a group of email addresses collected under one name. In MS Outlook, mailing lists are referred to as a contact group. A message sent to a contact group goes to all recipients that are listed in the group.

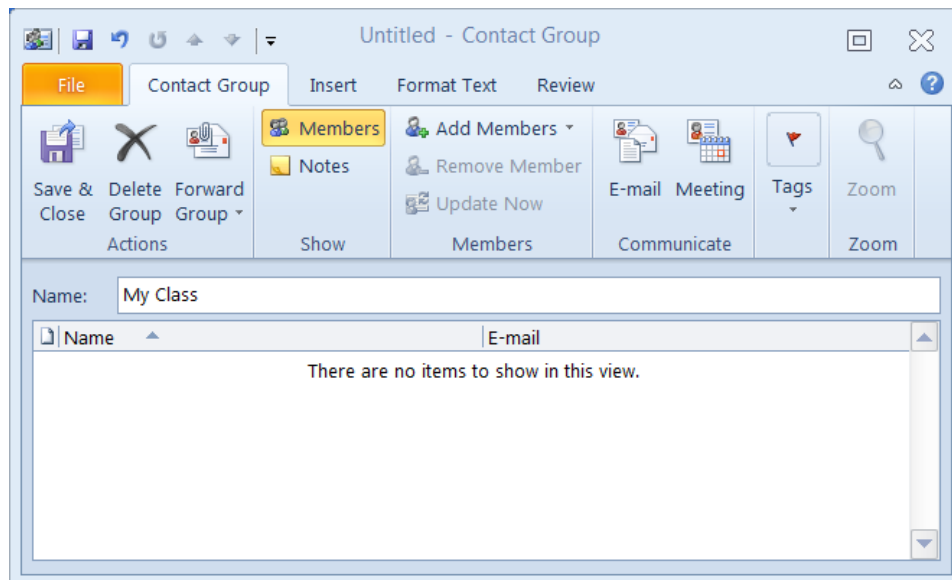
You can create a contact group:

1. Click **Home** tab.
2. In New group, click **New Items**.
3. Point to **More Items**.
4. Click **Contact Group**.



The Untitled – Contact Group window is displayed.

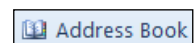
5. In the Name: field, type the name of the group e.g. My Class.

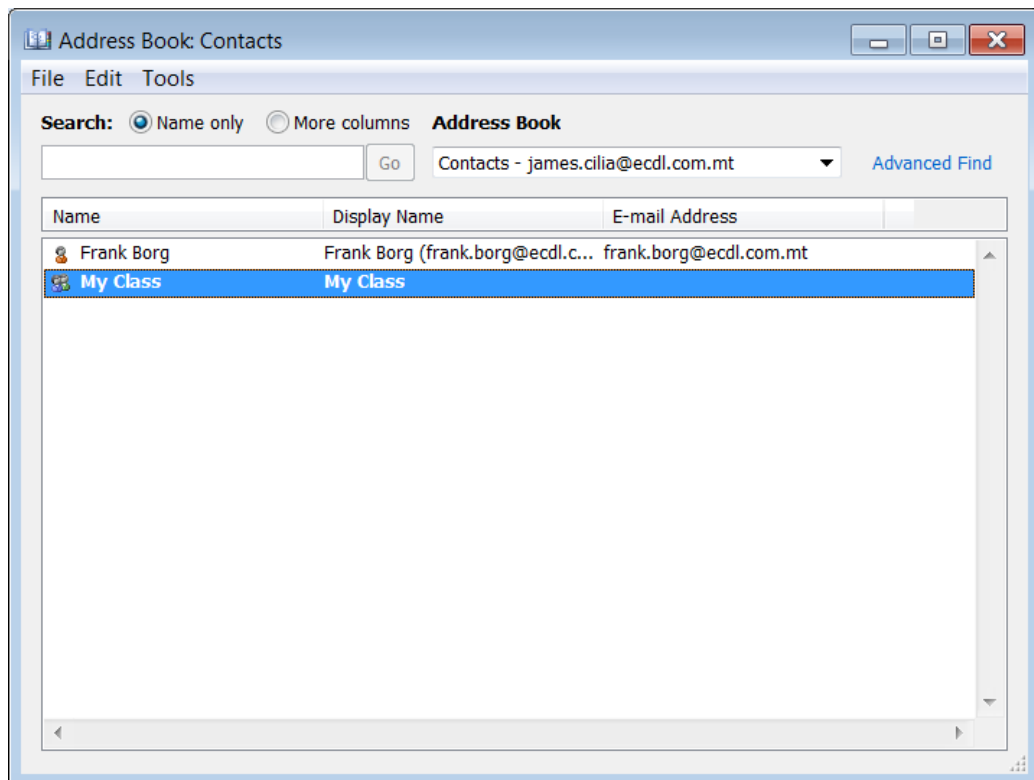


6. Click **Save & Close** button.

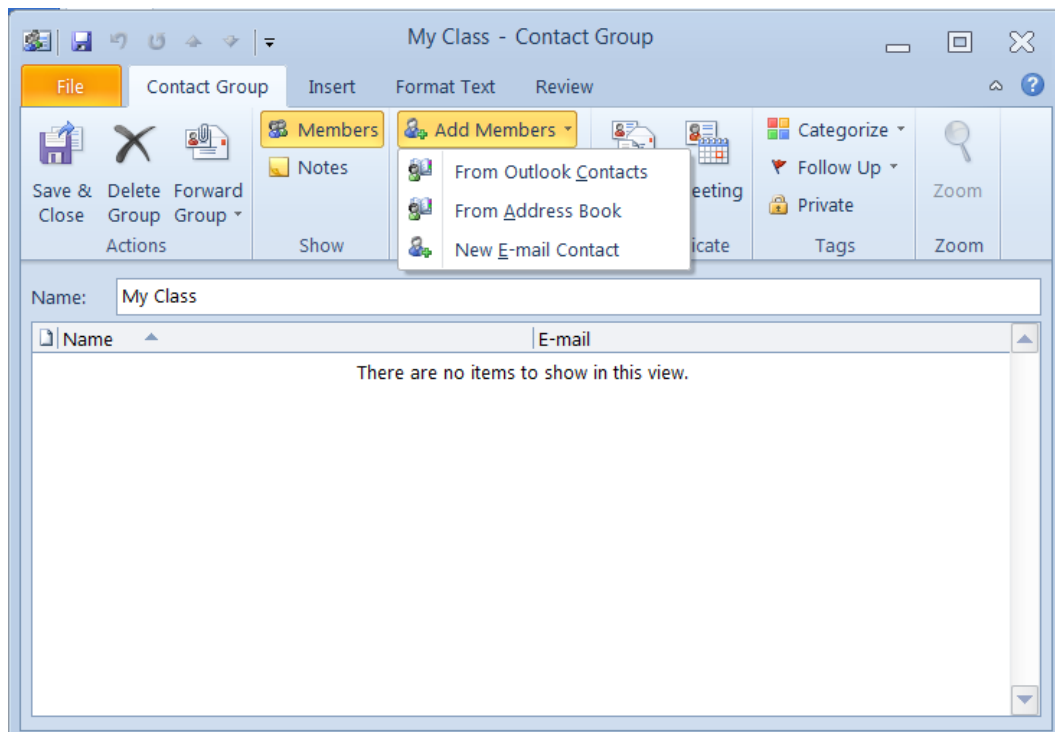
To update a contact group with members:

1. Click **Home** tab.
2. In the Find group, click **Address Book**. The Address Book: Contacts window is displayed.





3. Double-click the name of the group e.g. My Class. The Contact Group window is displayed.
4. In the Contact Group tab, in the Members group, click **Add Members**.



Choose the appropriate option:

Click **From Address Book** - If you select contacts from your address book you can scroll through and add the contacts you want.



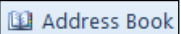
Click **New E-mail Contact** - If you want to add a new email contact to your group, you'll just need to enter in their display name and email address then click **OK**. If you want the new member added to your Contacts list then make sure **Add to Contacts** is checked.

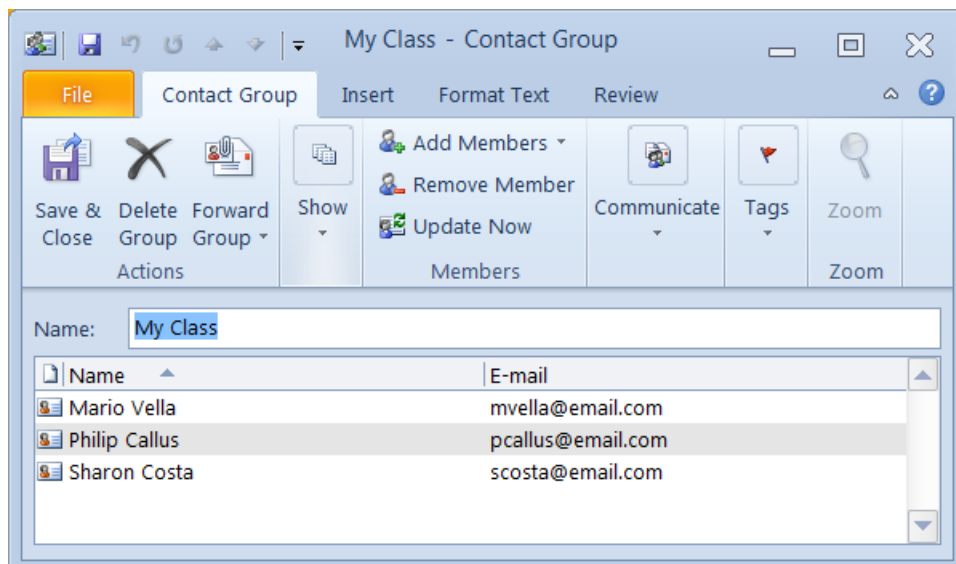
5. Click **Save & Close** button.

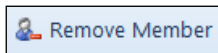
Note that:

- There is no maximum number of names that you can include in a contact group.

To remove members from a contact group:

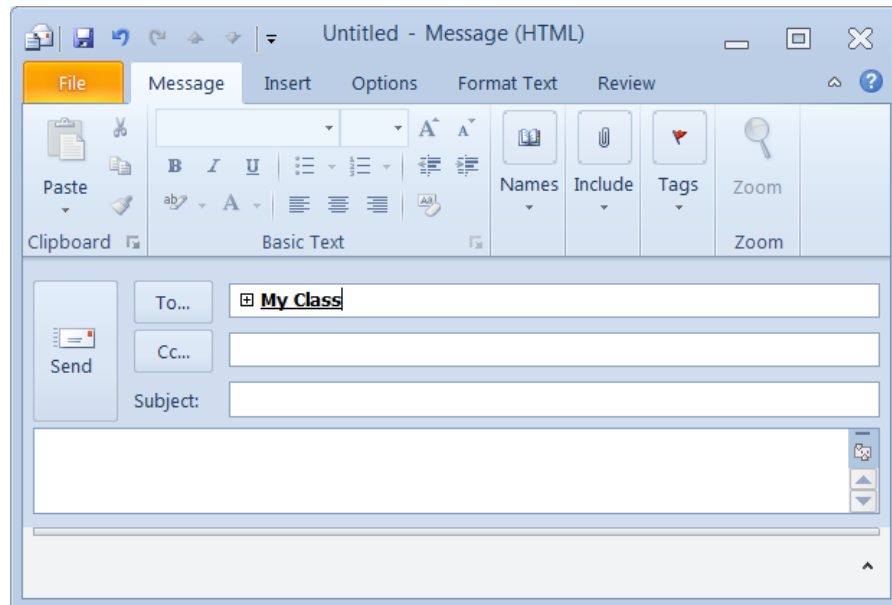
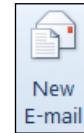
1. Click **Home** tab.
2. In the Find group, click **Address Book**. The Address Book:  Address Book Contacts window is displayed.
3. Double-click the name of the group e.g. My Class. The Contact Group window is displayed.



4. Click the name of the member to delete.
5. In the Members group, click **Remove Member**. 
6. Click **Save & Close** button.

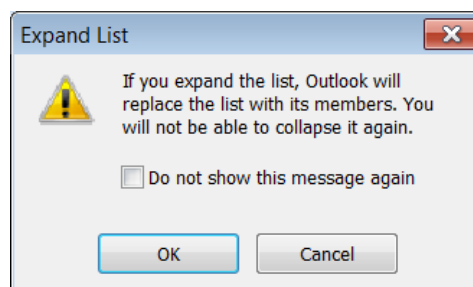
To send an email to a contact group:

1. Click **New E-mail**.
2. In the To... field type in the name of the contact group.
3. Type the subject for your email.
4. Type the body text.
5. Click **Send** button to send the email to all members in your contact group.



Note that:

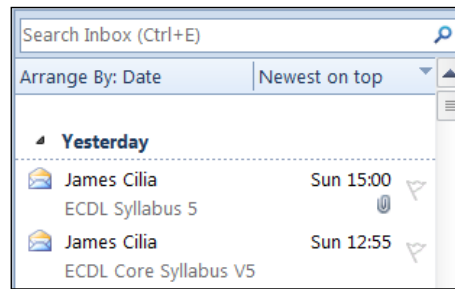
- If you want to make sure you have everyone included in the group, click the plus icon to expand the contacts. You will get a dialog box telling you the members of the group will be shown and you cannot collapse it again. Check the box not to see the message again then click **OK**.



## Searching Messages

You can use the Instant Search tool in MS Outlook to search for a message by sender, subject or email content:

1. In the Navigation, click the folder that you want to search.
2. In the Instant Search box, type your search text e.g. sender's name or subject or text in email messages.



Items that contain the text that you typed are displayed in the Instant Search Results pane with the search text highlighted.

To narrow your search, type more characters.

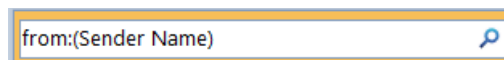
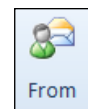
To widen your search to include all folders, at the end of the search results, click Try searching again.

3. Click the message to view.

To search an e-mail specifically by sender:

1. In the Navigation, click the folder that you want to search.
2. Click the Instant Search box.
3. In the Search tab, in the Refine group, click **From**.

The Instant Search box will display from:(Sender Name)



4. Replace the Sender Name with the name or email address of the sender.

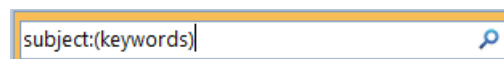
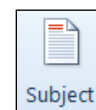
Items that contain the sender name are displayed in the Instant Search Results pane.

5. Click the message to view.

To search an email specifically by subject:

1. In the Navigation, click the folder that you want to search.
2. Click the Instant Search box.
3. In the Search tab, in the Refine group, click **Subject**.

The Instant Search box will display from:(keywords)



4. Replace the keywords with a word or phrase

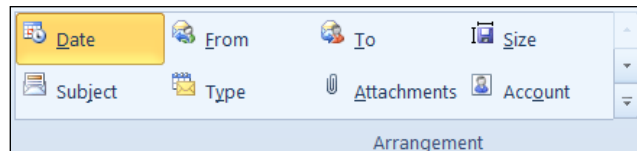
Items that contain subjects with the word or phrase are displayed in the Instant Search Results pane.

5. Click the message to view.

## Sorting Messages

You can sort emails by name, by date or by size:

1. Click **View** tab.
2. In the Arrangement group,
  - Click **From** to sort the emails by name.
  - Click **Date** to sort emails by date starting from the most recent one.
  - Click **Size** to sort the emails by size.



## Creating & Deleting Email Folders

You can create folders in MS Outlook to organise the messages that you want to save for future reference. For example you can create a folder to store messages that you received during 2011.

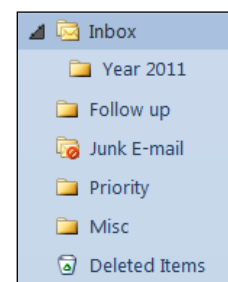
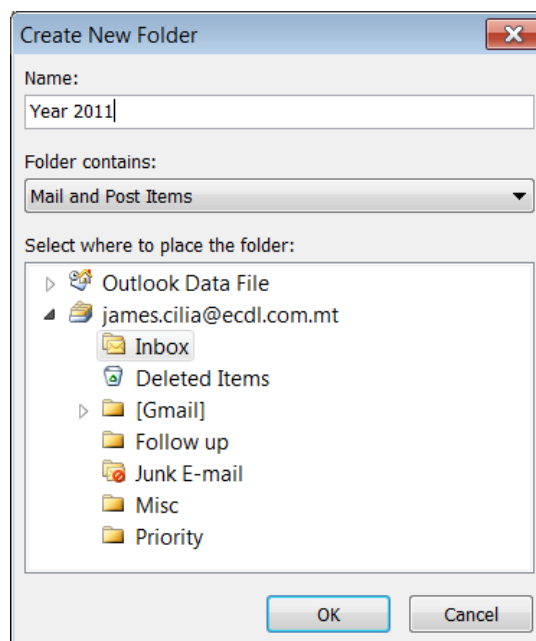
To create an email folder:

2. Click **Folder** tab.
3. In the New group, click **New Folder**.
4. In the Name: field type the folder's name e.g. Year 2011.
5. Click **OK** button.



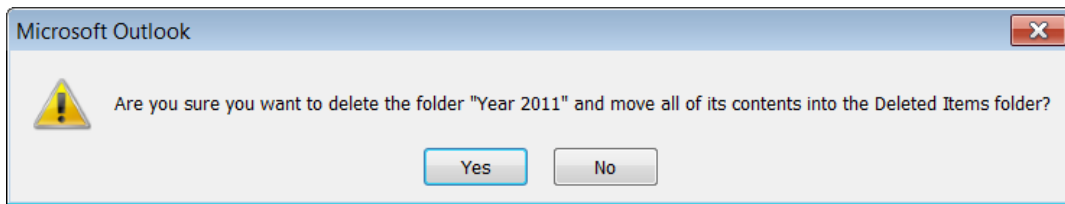
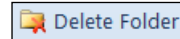
Note that:

- The Navigation pane will display the folder created.



To delete an email folder:

1. Select the name of the folder to delete e.g. Year 2011.
2. Click the **Folder** tab.
3. In the Actions group, click **Delete Folder**.

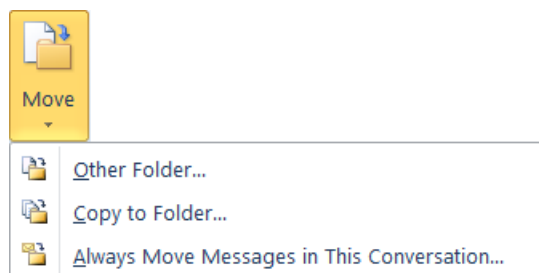


4. Click **Yes** button to confirm that the folder will be deleted.

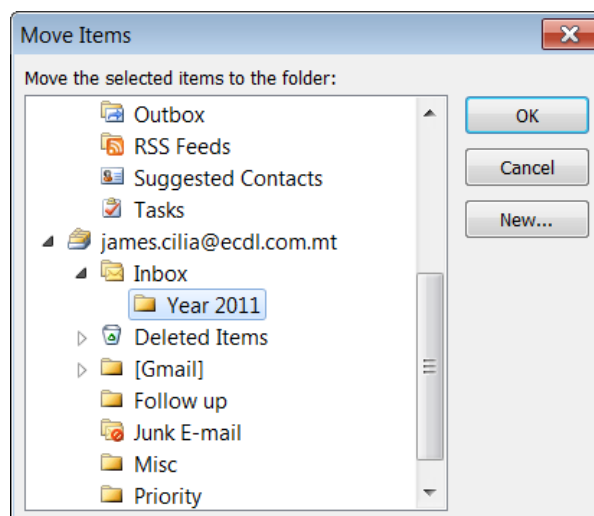
## Moving Email to Folders

To move an email to a folder:

1. In the **Inbox** folder, select the message to move.
2. In the Home tab, in the Move group, click **Move**.
3. Click **Other Folder...**. The Move Items dialog box is displayed.



4. In the Move Items dialog box, click the folder name where the message will be moved.
5. Click **OK** button.



## Deleting Email

To delete an email:

1. Choose the message in the Message pane.
2. In the Home tab, in the Delete group, click **Delete**.



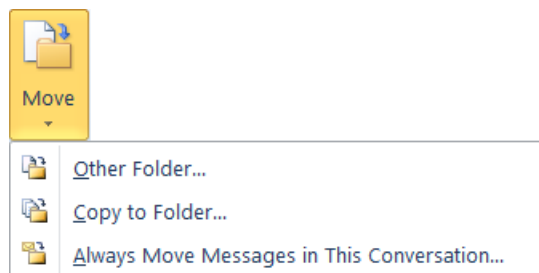
Note that:

- Deleted messages are transferred to the Deleted Items folder.

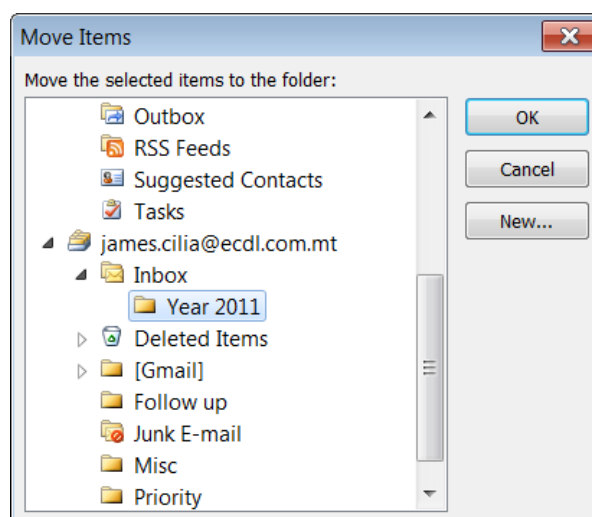
## Restoring Deleted Email

You can restore a deleted message:

1. Click **Deleted Items** folder. This will display the list of messages that have been deleted.
2. Choose the message to undelete in the Message pane.
3. In the Home tab, in the Move group, click **Move**.
4. Click **Other Folder...** The Move Items dialog box is displayed.



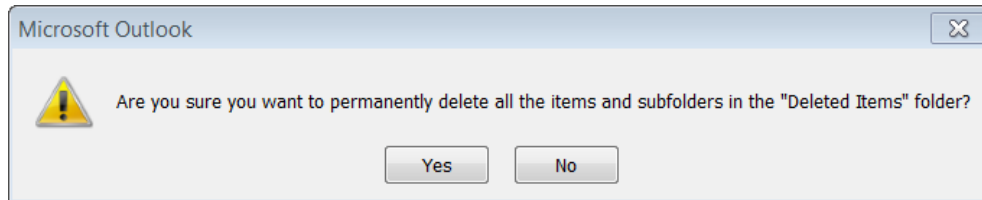
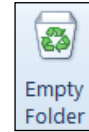
5. In the Move Items dialog box, click the folder name where the message will be moved.
6. Click **OK** button.



## Emptying the Deleted Items Folder

You can delete your mail permanently from the Deleted Items folder as follows:

1. Click **Deleted Items** folder.
2. Click **Folder** tab.
3. In the Clean Up group, click **Empty Folder**.



4. Click **Yes** button.

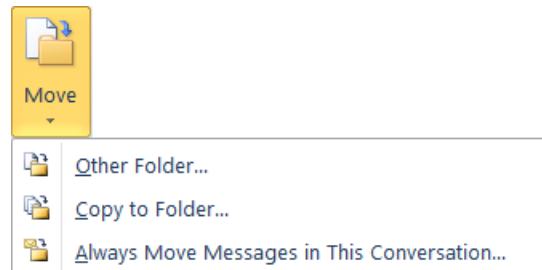
Alternatively, you can delete all messages in the Deleted Items folder as follows:

1. Right-click **Deleted Items** folder.
2. Click **Empty Folder**.

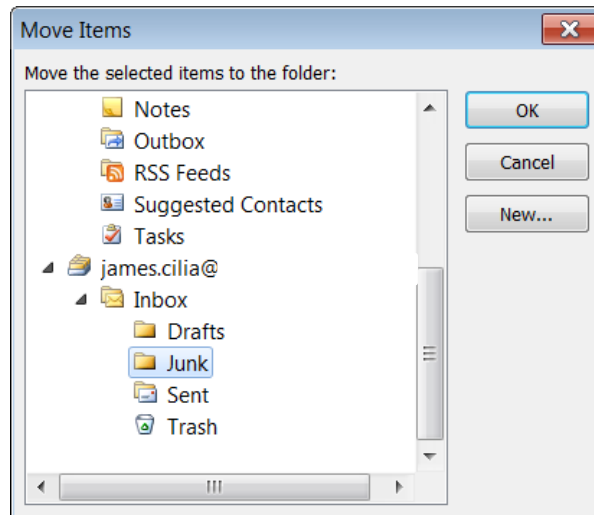
## Moving / Removing Email To / From the Junk Folder

To move an email to the junk folder:

1. In the **Inbox** folder, select the message to move.
2. In the Home tab, in the Move group, click **Move**.
3. Click **Other Folder...** The Move Items dialog box is displayed.



4. In the Move Items dialog box, click the Junk folder where the message will be moved.
5. Click **OK** button.



To remove email from the Junk folder:

1. Click the **Junk** folder.
2. Click the email message to remove from the Junk folder.
3. Click **Move** button.
4. Click **Inbox**.

## Creating a Meeting in a Calendar

In MS Outlook, a **meeting** is an event that occurs at a scheduled time and you invite other people by using a meeting request that is sent via e-mail. The meeting may also include resources such as conference rooms.

To schedule a meeting in MS Outlook, you create a meeting invitation that you send to the participants or invitees, who respond by accepting or declining the meeting request or by proposing a new time. Responses to your meeting invitations appear in your Inbox.

A meeting requires three basic elements: someone to organize it, people to come, and a place to meet. MS Outlook can help pull these pieces together quickly and efficiently.

MS Outlook meetings are activities you schedule in your calendar that involve inviting other people or reserving resources. The people involved have the following distinct titles and roles:

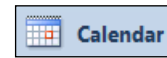
- **Meeting organizer** – Whoever sets up a meeting becomes the meeting organizer. The organizer is the only person who can change the meeting details once it has been set up. Also, keep in mind that you can never assign a new organizer to an existing meeting. Once you are the organizer, you're always the organizer.
- **Attendee** - Anyone who is invited to the meeting is considered an attendee. There are two categories of attendee: required and optional. Once an attendee is added to the attendee list, that person will always be considered an attendee for the meeting. Even if an attendee declines a meeting, he or she is still considered an attendee.



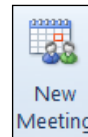
- **Location/Resource** - The place the meeting will occur is the location, sometimes referred to as resource. How you specify a location (or resource) for the meeting will depend on how things are set up at your organization.

To create a meeting:

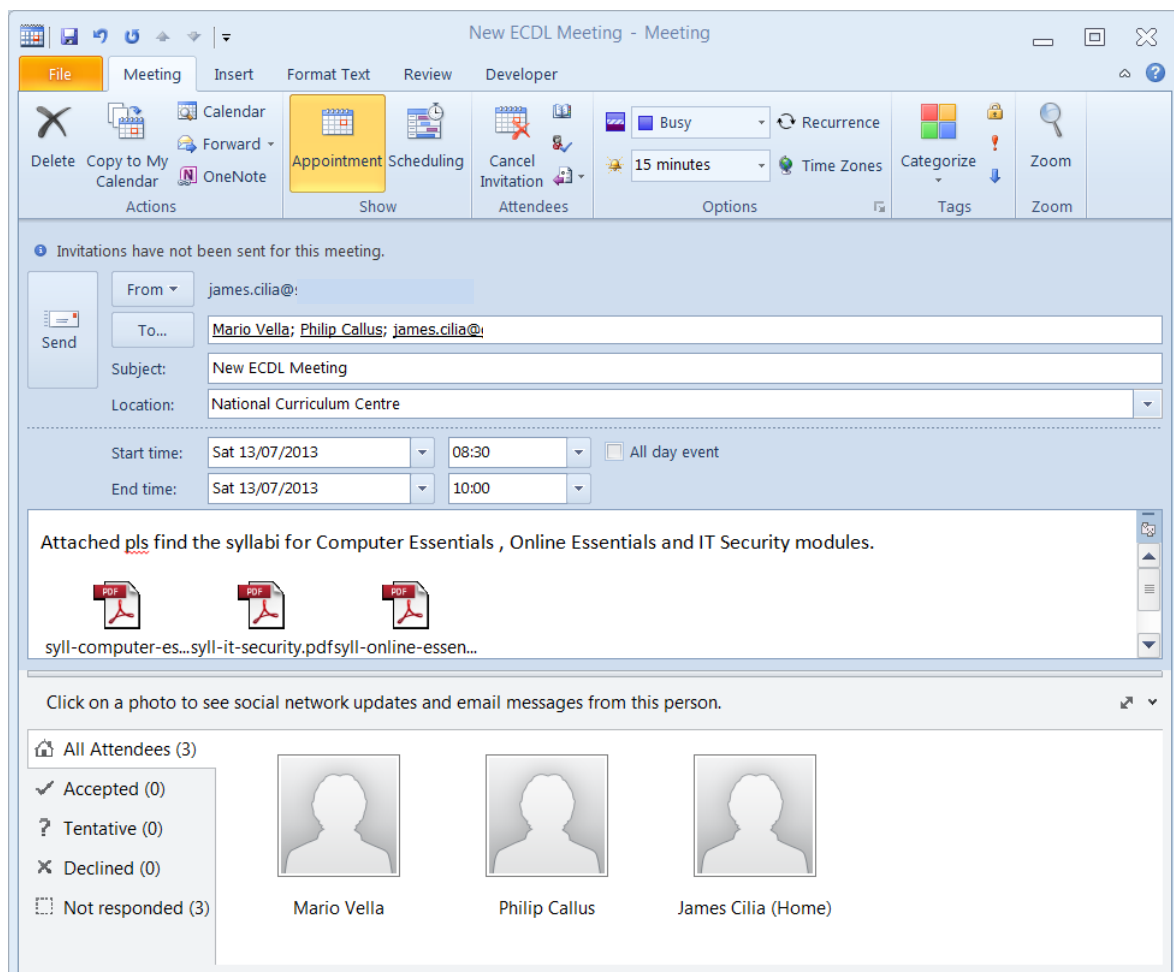
1. At the bottom of the navigation pane, click **Calendar**.



2. In the Home tab, click **New Meeting**.



3. In the To... field, enter the names of people or resources to include for the meeting or click the To button to add invitees by selecting from a list.

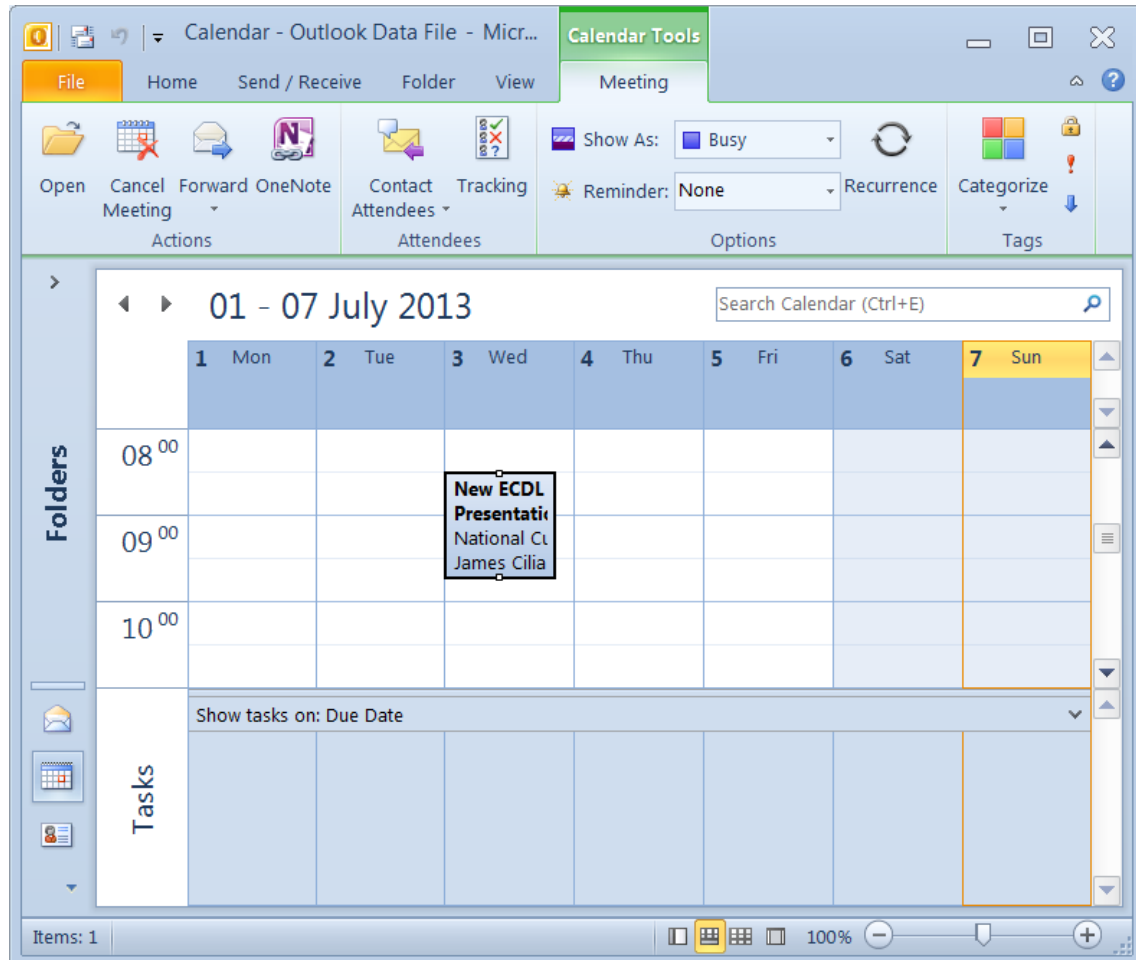
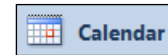


4. In the Subject: field, type the name of the meeting.
5. In the Location: field, type where the meeting will be held.
6. Set the Start time.
7. Set the End time.
8. In the meeting request body, type any information that you want to share with the recipients. You can also attach a file.
9. Click **Send** button.

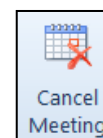
## cancelling a Meeting

To cancel a scheduled meeting in MS Outlook:

1. At the bottom of the navigation pane, click **Calendar**.
2. Locate the meeting to cancel.
3. Click the meeting to cancel.



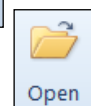
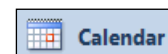
4. In the Meeting tab, click **Cancel Meeting** button.



## Updating a Meeting

To update the details of a scheduled meeting in MS Outlook:

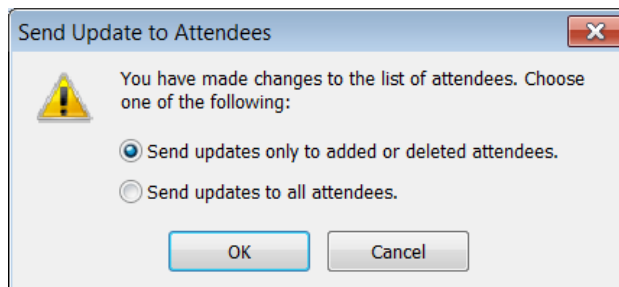
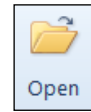
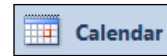
1. At the bottom of the navigation pane, click **Calendar**.
2. Locate the meeting to update.
3. Double-click the meeting or click **Open** button in the Meeting tab.
4. Update the details.
5. Click **Send** button.



## Adding / Removing Invitees to a Meeting

To add or remove invitees:

1. At the bottom of the navigation pane, click **Calendar**.
2. Locate the meeting to update.
3. Double-click the meeting or click **Open** button in the Meeting tab.
4. Update the invites in the To: field.
5. Click **Send** button. The Send Update Attendees dialog box will be displayed.

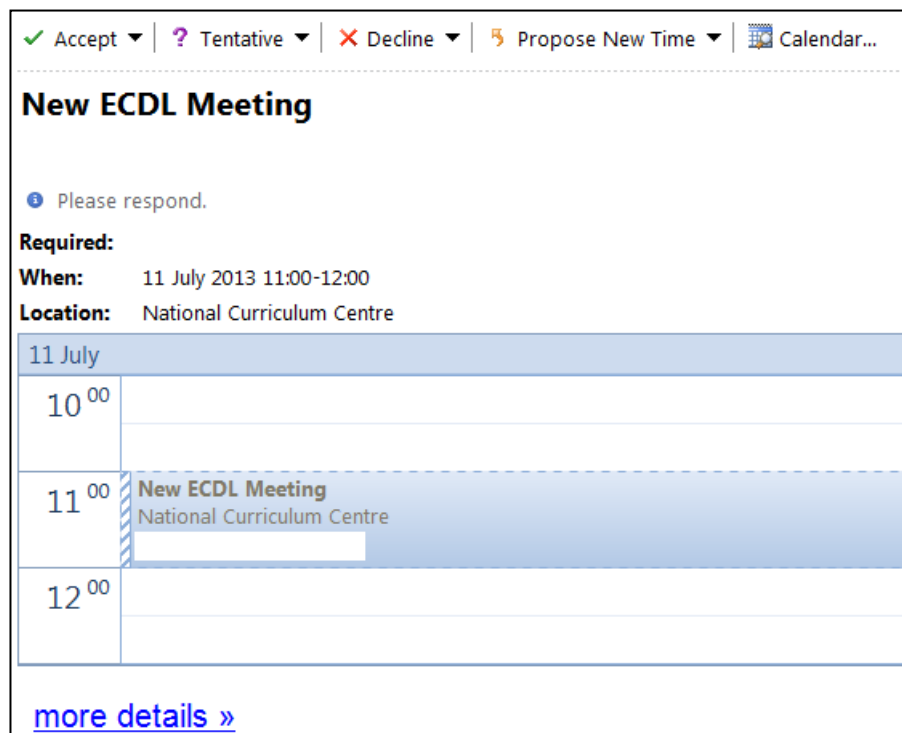


6. Click the appropriate option.
7. Click **OK** button.

## Accepting / Declining an Invitation

To accept or decline a meeting invitation:

1. Click the invitation email in your Inbox. The invitation emails will display a horizontal bar with the words: Accept, Tentative, Decline, propose New Time etc.



**2.** To accept an invitation:

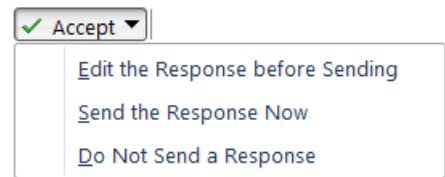
- a. Click the **Accept** drop-down arrow.
- b. Choose the appropriate option.

**Edit the Response before Sending:**

Write a message to accompany your response to the meeting.

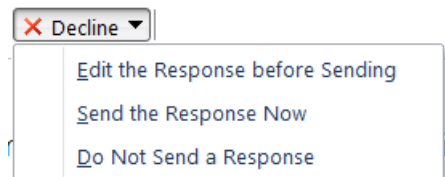
**Send the Response Now:** Send your response without an accompanying message.

**Do Not Send a Response:** Accept, Tentative or Decline the meeting without sending a response.



## To decline an invitation:

- a. Click the **Decline** drop-down arrow.
- b. Choose the appropriate option.



## Note that:

- When you accept a meeting invitation this will be added to the MS Outlook Calendar.

**WORKSHEET 3**

1 **Internet services** are making life easier. Write the name of the following services:

- i. Paying online electricity bills using your bank account. \_\_\_\_\_
- ii. Buying tickets from a website using a debit card. \_\_\_\_\_
- iii. Using the government website to pay tax online. \_\_\_\_\_
- iv. Sending a message using an online mailing system. \_\_\_\_\_

[4 marks]

2 Maria is studying History using another internet service called **e-Learning**. She can read notes and other content that helps her to learn better.

Write about **three features of e-Learning** that makes it so popular with students. [ 3 marks ]

- i. \_\_\_\_\_  
\_\_\_\_\_
- ii. \_\_\_\_\_  
\_\_\_\_\_
- iii. \_\_\_\_\_  
\_\_\_\_\_

3. The Internet has provided the community with online services which are becoming more common in everyday life. Using the below terms give the name of the service for the following:

E-Banking	E-Government	E-Learning	E-Commerce
-----------	--------------	------------	------------

	Description	Name of Service
a.	Buying a pair of headphones from an online store and paying using your credit card.	
b.	Transfer money from one account to another.	
c.	Students may apply online for their exams.	
d.	Students can enjoy effective lessons at school which are enriched with multimedia content.	
e.	Search online for jobs available through job centres database	

[5 marks]

4 Fill in with the following terms:

caching	VoIP	Pop-up	Firewall
https	encryption	cookie	Digital certificate

- a) This refers to the translation of data into a secret code.
- b) A message given to a Web browser by a Web server. It is stored in a text file and may contain your name and your preferences.
- c) This is an Internet service that enables you to communicate with someone else using your voice.
- d) This is frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet.
- e) A small window that suddenly appears on top of the browsers' window.
- f) A website uses this protocol to obtain confidential user information, such as credit card numbers.
- g) It is used to verify that a user sending a message is who he or she claims to be, and to provide the receiver with the means to encode a reply.
- h) With this method, the page quickly displays in the browser instead of having to wait for response from the Web site's server all over again.


[8 marks]

a) Mark the following with a **T** (True) or and **F** (False)

- i) **Encryption** is used in web sites which contain online games.
- ii) **Digital certificates** are used by organisations involved in online monetary transactions.
- iii) A web site that starts with "**https**" is a site that is used to steal information.
- iv) Once you install an **antivirus** on your computer, you can be sure that no virus will ever enter your computer.
- v) A web site with a lock symbol is a site that can only be accessed with a valid username and password.


[5]

5 Match each phrase with its definition.

<b>A</b>	firewall			a small web browser window that appears on top of the website you are viewing.
<b>B</b>	Cache			is an Internet service that enables you to communicate with someone else using your voice.
<b>C</b>	VoIP			a special folder on the hard disk that stores Web pages accessed by your browser.
<b>D</b>	pop-up			a text files that save information regarding particular websites. They may save information, shopping cart contents, or user preferences.
<b>E</b>	Cookie			a system designed to prevent unauthorised access to your computer system when connected to the Internet.

[5]

**WORKSHEET 4**

1. The **URL** of the web-site for primary and secondary schools is: <http://skola.gov.mt> Complete the following sentences.

i. **URL** stands for \_\_\_\_\_ and it refers to a web-site's \_\_\_\_\_.  
[2 marks]

ii. **HTTP** stands for \_\_\_\_\_ and it is the 'language' used to \_\_\_\_\_  
[2 marks]

2. Give **one situation** where you would fill in a **form** from a web-site.

\_\_\_\_\_  
\_\_\_\_\_  
[1 Mark]

3. The menu shown on the right is displayed when the right-mouse button is clicked on a web-page.

Write the option that you would choose to...

i. **Save a picture** from a web-page  
\_\_\_\_\_

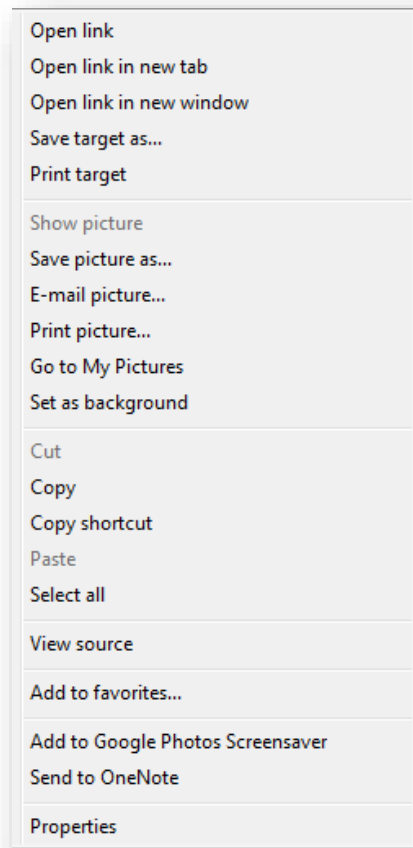
ii. **Get the address** of the web page into a document  
\_\_\_\_\_

iii. **Download** a file from a web-page  
\_\_\_\_\_

iv. **Bookmark** a web-page  
\_\_\_\_\_

v. Get a **hard copy** of a picture  
\_\_\_\_\_

[5 Marks]





4. For each of the following, **underline** the correct answer
- a) A **cookie** is... [1 mark]
- a. A file that has not been downloaded properly from a web-site.
  - b. A piece of hardware that is used to speed up Internet access.
  - c. A small text file that stores information about the web-sites that you visit.
- b) Which one of the following is a program used to **view HTML documents** on the World Wide Web? [1 Mark]
- a. A bookmark
  - b. A browser
  - c. A cookie
- c) Which one of the following is a **digital certificate**? [1 mark]
- a. A program that allows the regular update of the antivirus program on a computer.
  - b. A program that searches for an Internet connection.
  - c. A program that provides an assurance that software downloaded from the Internet comes from a trustworthy source.
- d) Which one of the following describes **malware**? [1 mark]
- a. Software that is used to backup data to an external storage device.
  - b. Software that is created and distributed for harmful purposes.
  - c. Software that is used to create web pages.
- e) What is **encryption** and why is it used? [1 mark]
- a. Encoding of data to prevent infection by computer viruses.
  - b. Encoding of data to prevent loss of data.
  - c. Encoding of data to prevent unauthorized access to data.
- f) **Internet cache** enables... [1 mark]
- c. The computer to use less memory while browsing the Internet.
  - d. A web-site to be displayed faster the next time it is visited.
  - e. The user to access a web-site over and over again.

g) A **protected web-site** is a web-site that... [1 mark]

- a. Can be accessed without risking a virus infection.
- b. Can only be accessed after a password is entered.
- c. Cannot be accessed at all.

h) A **firewall** consist of ... [1 mark]

- a. Software that protects the computer against hacking.
- b. Hardware that protects the computer against hacking.
- c. Both software and hardware that protect the computer against hacking.

i. Which one of the following is the best method to ensure access to a network is secure? [1 mark]

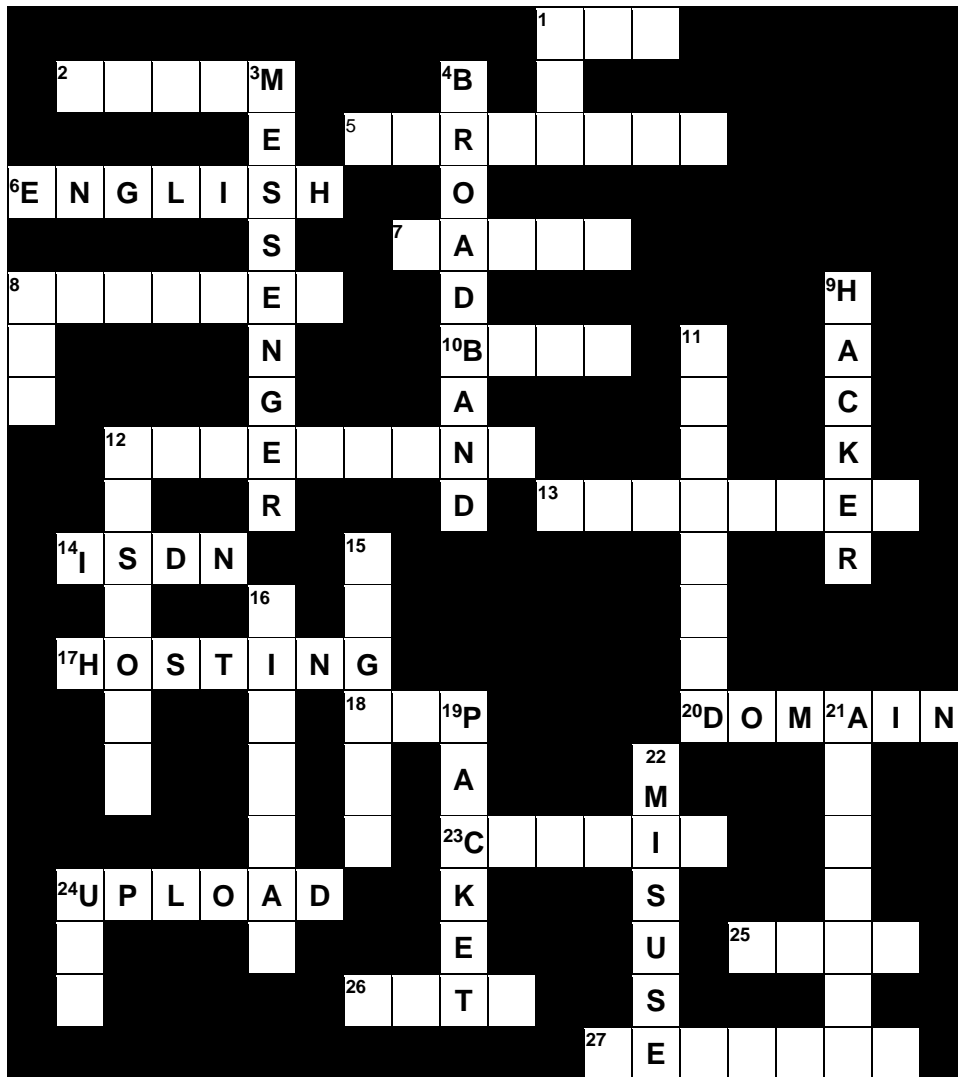
- a. The network requires a user name and password for access.
- b. The network only requires a user name for access.
- c. The network provides anti-virus protection.

j. Which one of the following is the most likely to **infect** your computer with a virus while you are browsing the Internet? [1 mark]

- a. Downloading files from a web site.
- b. Refreshing web pages.
- c. Installing a firewall.

**WORKSHEET 5**

Below is a partially completed crossword. **Fill in the missing words** by following the tips given. [ 20 marks ]



**Across:**

- 1: *Internet is an example of this type of network.*
- 2: *A piece of hardware that lets you connect to the Internet.*
- 5: *Software to stop people from getting unauthorized access through Internet.*
- 6: The nationality of *Tim Berners-Lee*, the inventor of the Internet.**
- 7: *Internet ... helps website to load faster the next time you open them.*
- 8: *Software that lets you use the Internet.*
- 10: *This button will take you to the previous page.*
- 12: *Click this to get to a new section or to a new website.*

13: *File ..... protocol will let you upload a webpage.*

**14: After 56k modems, but before broadband.**

**17: What is needed to keep this website on the net 24 hours a day.**

18: *A company that provides you with an Internet Service is called ...*

**20: [www.gozo.com](http://www.gozo.com) is an example of this.**

23: *Information about you stored in small text file.*

**24: The action of sending webpage to your host site.**

25: *A type of picture file commonly used on the net.*

26: *The language the web browser uses to request pages from the web server.*

27: *The button used to reload a webpage.*

### **Down:**

1: *First 3 letters of a website*

**3: Software for chatting.**

**4: Type of connection needed for speed.**

8: *Used in email to send a message without all knowing.*

**9: A person who tries to access computers that one is unauthorised to do.**

11: *A method of getting software from another computer onto your own.*

12: *This button will show where you have been.*

15: *A search ..... helps you to find the information you need.*

16: *A ..... certificate is used to make a website more secure.*

**19: Data is transmitted down the telephone line in one of these.**

21: *<http://schoolnet.gov.mt/ads> is an example of a web .....*

**22: The computer ..... act is the law to prevent hacking.**

24: *Another word having the same meaning of a web address.*

