

Essential Skills ICT Level 1 Resource Pack for Experienced Construction Workers

ES LEVEL 1 RESOURCE FOR EXPERIENCED WORKERS IN CONSTRUCTION – OCTOBER 2012



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Acknowledgements

We would like to thank CITB-ConstructionSkills NI who had this resource published. We also acknowledge our colleagues in South West College for their support. We have benefited from the expertise of many friends within the industry.

Aims

It is intended that these vocationally contextualised resources will support Essential Skills ICT tutors in their efforts to make programmes for construction workers vocationally relevant.

This resource should be used in the context of appropriately planned and structured Essential Skills programmes and should be used and adapted appropriately within that context.

Guidance for Using Resource

It is not intended that these materials should be used as a fixed programme of learning but as a resource which tutors can use to aid them in the planning and delivery of programmes suited to the needs of their particular groups of learners. It is envisaged that tutors will bring their own ideas to these materials and extend and enhance them in order to keep activities refreshed and dynamic for learners.

Essential Skills tutors should ensure that they read and understand the following publication before they develop programmes: ESSENTIAL SKILLS GOOD PRACTICE: THE ASSESSMENT PROCESS. DEL NI, Nov 2011.

All information on this page is current and up to date at the time of printing (October 2012).

This section mainly addresses the curriculum areas specified, although to allow a more realistic setting for each task, some elements from other curriculum areas may also be mentioned. This resource has been prepared for use with Microsoft Office ® 2010 software and Microsoft Windows ® XP Operating System.

Essential Skills ICT for Construction Workers

To achieve the Essential Skills ICT Level 1 Award you will be asked to produce work which will form a Portfolio, which will be formally assessed. You will not have to complete an exam.

This booklet will help you practice the skills you will need to achieve your Level 1 in ICT.

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Disclaimer

The contents of this resource are fictional. No actual person, company, or event, is depicted.

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1.1 USE ICT SYSTEMS: INTERACT WITH AND USE ICT SYSTEMS INDEPENDENTLY TO MEET NEEDS

Tasks



This section mainly addresses the curriculum areas specified, although to allow a more realistic setting for each task, some elements from other curriculum areas may also be mentioned. This section has been prepared for use with Microsoft Office ® 2010 software.

Understand and follow recommended safe practices.

There are tens of thousands of people employed in the construction industry in Northern Ireland, the vast majority of these people make use of ICT in their daily work, for example; costing a new build, creating CAD drawings, writing tenders, sending E-mails, using the internet for research or for making purchases, taking photographs at various stages of a building project etc. In your job you will be required to have a good understanding of ICT and know how to work with various ICT programs.

You are employed by Kanzil Construction Ltd who are based in Omagh, Co. Tyrone, N. Ireland. The company undertake both large and small construction projects locally and internationally and depend on ICT significantly for the successful running of their business. The following resources will help you to become familiar with various computer applications which are used in the daily running of many construction companies.

Use correct procedures to start and shutdown ICT systems and to open, use and close applications as appropriate.

As part of the induction session to new employees, the IT technician employed by Kanzil Construction Ltd explains how to;

- Use correct procedures to start and shutdown ICT systems and to open, use and close applications as appropriate.
- Use input devices and output devices.
- Select and use software applications to achieve a purpose.
- Recognise and use interface features.
- Understand that settings may need to be adjusted according to individual needs.

TASK 1.1A

Task – Your first task is to start up the computer and login with a username and a password.

Using a computer you have been provided with, please follow the instructions below to ensure you can start up your PC.

- 1. Ensure the computer has been connected to the power outlet.
- 2. Find and press the "on switch" on the front of your Computer.



3. Wait for the computer to boot up. A screen will come up, as this is the initial "boot up" screen.



4. You may be asked to enter a password (which you should be provided with). The computer will load up after you have entered the password successfully.



Please record your user name and password below for future reference. Make sure your password is one that will be very difficult for anyone else to guess. Your password should not have any common words such as 123, password, or your date of birth.

My user name is:
My password is:

TASK 1.1A

What is the "Desktop"?

When you start your computer, the first thing you see is the desktop.

The desktop is your work area. In this resource pack, we will be using the Microsoft Windows XP ® Operating System.



TASK 1.1A

Activity: Lets practice (Shutting down your computer)

It is important that you know how to shut down your computer when you are finished working on it. Follow the steps below to shut down your computer.

1. Left click on the Start Button in the lower left corner of the screen.





2. When the menu appears, click with the left mouse button on the red "Shut Down" button.





Note: If you select the "Log off" option instead of the "Shut Down" option, it will log you out of your user session but the computer is still left on so that another user session can be started again without rebooting. All you need is a username/password.

3. There will be a dialog box with a drop-down menu. Choose **Shut Down** from the list and click the OK button.





TASK 1.1B(A)

Input and Output devices: Input devices are tools or pieces of equipment to help you put information or data into a computer.

Output devices are tools or equipment that help you to see and use the processed information.

The IT technician at Kanzil Construction has asked you to name the following input and output devices

	Device Name: Example of its use:
	Device Name: Example of its use:
Canon	Device Name: Example of its use:
	Device Name: Example of its use:

TASK 1.1B(A)



TASK 1.1C

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п	laroware	ano	-2011	ware

From the list of items below, can you identify which ones are hardware and which ones are software? Use the table to record your answers

(Hint: **Hardware** is anything you can touch. **Software** is what is inside your computer that allows you use it to do different tasks. Software makes your computer work so you can see everything on the screen. A computer cannot work without software).

Activity: Lets practice			
Printer	Word processing application	Screen (or monitor)	Web browser
Keyboard	Spread sheet application	Mouse	Scanner
Hardware		Software	
Can you list 2 so	ftware programs installed on the co	omputer you use at work?	

TASK 1.1C

Using the keyboard and mouse

Your keyboard contains approximately 104 keys. Most are letters and numbers but others help you to move around the screen. Some keys you will use a lot, and there are others that you will use less often, or some you may never use at all. A list of the keys you are likely to use, with an explanation of what they do, is included below.

Entor	Droop the ENTED key when you went to start a new paragraph
Enter	Press the ENTER key when you want to start a new paragraph, or to go to the next line of text you are writing.
Enter	of to go to the hoxt into of text you are writing.
Home	The Home key is used when you want to go back to the beginning of the
Home	line you are working on.
End	The End key will take you to the end of the line you are working on.
End	
Cursor	You will find these four keys towards the bottom – middle of your
	keyboard. Using these will move your cursor ' ' on the screen one letter or number at a time in the direction of the arrow.
Shift	There are two SHIFT keys, one on the left and one on the right of the main keyboard. Using these will make a letter appear as a capital. This is also known as upper case. The SHIFT key is also used if you want to type any of the symbols at the top of each number, for example, if you hold down the SHIFT key and at the same time type '5' the '%' symbol will appear.
Caps lock	The CAPS LOCK key is found on the left of the keyboard. If this is pressed once, all letters will appear as capitals, or upper case. You can
Caps Lock	do this with the SHIFT key as well. It is better to use this key if you want to type more than one capital letter in a row. Press this once more to turn it off.
Delete	This key will delete information to the right of the cursor.
Delete	

TASK 1.1C

Backspace key	This Backspace key allows you to move back to information you have already typed in. It lets you erase letters or numbers to the left of the cursor.
Page up	The Page Up key lets you move up a page at a time.
Page Up	
Page down	The Page down key lets you move down a page at a time.
Page Down	

Activity: Lets practice

Can you find the following keys on your keyboard?

- 1. Enter
- 2. Home
- 3. %
- 4. 9
- 5.)
- 6. Num Lock
- 7. End
- 8. Ctrl
- 9. Shift
- 10. Backspace
- 11. /
- 12. ?
- 13. <
- 14. Caps
- 15. *

TASK 1.1C

Use this keyboard for your reference



TASK 1.1C

The Mouse

The mouse allows you to carry out many commands on your computer, for example;

- Opening a program.
- Closing a program.
- Copying and pasting text.
- Re-positioning an image.



You will recognise the position of the mouse on your screen by its graphical mouse pointer also known as the mouse "cursor" on the screen "!".

When you select a menu command with the mouse the cursor will turn form a straight I into a white arrow shape.

In this resource pack we will use the abbreviation **(LMC)** to mean Left mouse click and **(RMC)** to mean Right mouse click.

You will also see the accompanying images.

Left mouse click (LMC)



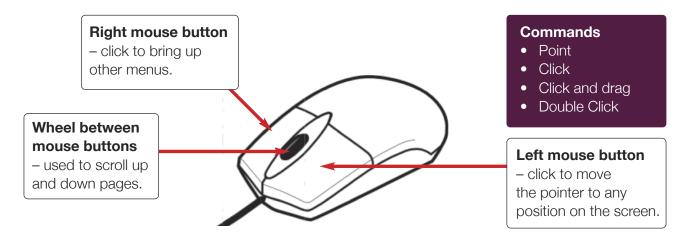
Right mouse click (RMC)



Activity: Lets practice (Holding the mouse correctly)

When using the mouse your index finger should sit on the left mouse button and your middle finger rests on the right mouse button. You can use either your index finger or your middle finger to move the centre scroll wheel.

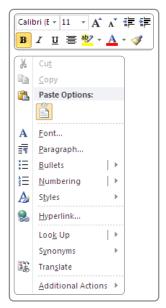
TASK 1.1C



Mouse Terms

Here are some of the more basic mouse operations, you will see many of these terms used in the instructions and activities in this resource pack.

- **Point:** "Pointing the mouse," means you move the mouse so that the \bigcirc points to something on the screen, for example a menu command such as **Save.**
- Click: Clicking the mouse means a press of either one of the mouse buttons when you press
 and release of the button you will hear a light clicking sound. You would usually click to select
 something or to identify a specific location on the screen. In this resource we will refer to the leftmouse click as LMC.
- **Click and drag:** This lets you move things around the screen such as an image. You would move the pointer to where you want it such as on the image, then click the left mouse button and keep your finger on the button, then move or drag the pointer to a different part of the screen and the image will now be placed in the new location.
- **Double Click:** This lets you open files and folders as well as other operations. You would position the mouse cursor on top of the file or folder then click the left mouse button twice very quickly (double click) and the file or folder will open up.
- **Right Click:** When you have the pointer where you want it on the screen, click the right mouse button and take your finger off the button. A menu box like the one shown here will be on the screen so you can choose different options which apply to the object you have clicked upon. In this resource we will refer to the right-mouse click as RMC.



TASK 1.1D

Recognise and use interface features.

You will need to be logged into your computer for this exercise, and have no other programs running.



Dragging: Dragging means to move something on the desktop.

Try dragging on the My Computer symbol (also called an icon) on your desktop and move it to the right hand side of the screen.

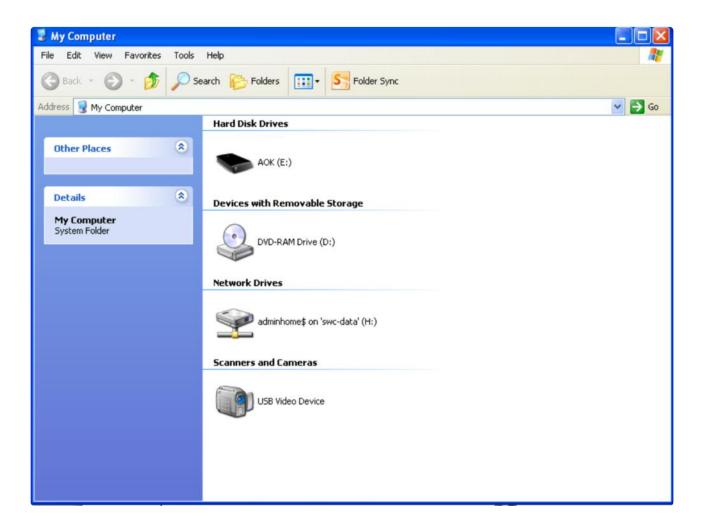
- 1. Point your mouse at the icon.
- 2. Then hold the left hand mouse button down.
- 3. Move the mouse across your mouse pad. Notice how the icon moves across the screen at the same time.



Double clicking: This means clicking the left mouse button twice (very quickly).

- 1. Using the mouse, point to the "My Computer" icon and double click on the Left mouse button.
- 2. This will open the **My Computer** program application. When you double click, a window will open which shows you the storage areas (e.g. hard disk, memory pen, CD) of your computer where your files are stored.

TASK 1.1D



Closing/minimizing programs

You will see three icons on the top right hand side of the **My Computer** program. These standard icons can be found in almost all programs that you have opened. By clicking on these icons, you can make the programs disappear off the screen to a smaller size, restore the program so that it opens up to the full display size on your screen or completely close the program down.



- Minimise the size on screen of the opened program.
- Restore the program to the original size after minimising it.
- Close the program down completely.

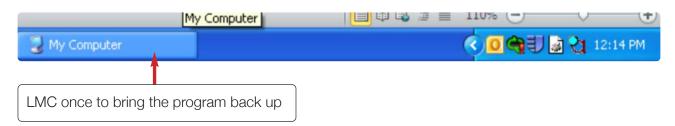
TASK 1.1D

Try the following exercises with the 3 icons that you see at the top right hand side of the My Computer program that you have opened.

1. You can minimise the program by clicking once with the left mouse button on the **Minimise** icon with the left mouse button on the at the top right hand side of the opened program. You will notice the My Computer program will disappear off the screen and has now placed itself along the bottom of your computer screen. Look to the bottom of your computer screen and find the My Computer icon.



2. You can restore the program by clicking once with the left mouse button on the **My Computer** icon at the bottom of the screen.



- 3. To make the My Computer program appear the full size on your screen click on the **Restore** icon.
- 4. You can close down any open program by clicking with the left mouse button on the **Close** icon at the top right hand side of the opened program. Click on this icon to close down the My Computer program.

TASK 1.1D

Opening an application

Your next task is to open up a computer application.

Using a computer you have been provided with, please follow the following instructions to ensure you can open up the Calculator application on your computer.

1. Move the mouse to the **'Start'** button located on the bottom left hand side on your screen. Click on the **'Start'** button using the left hand mouse button. The Start button lets you open the programs on your computer.

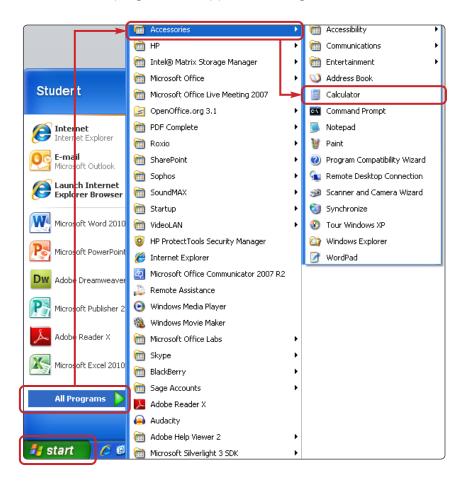


2. Move and hover your mouse pointer over the words 'All Programs'. A list of programs will appear to the right.



3. Move and hover your mouse pointer over the word 'Accessories'.

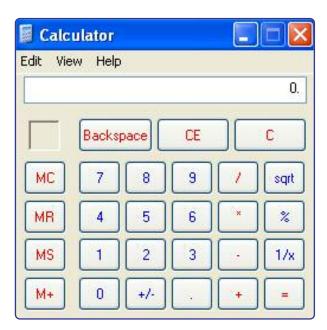
Another list of programs will appear to the right. Find the 'Calculator' and LMC.



TASK 1.1D

4. Move your mouse pointer over the word 'Calculator' and with the left side of your mouse click once. You should have a picture of the calculator on the screen.





5. Click the left side of your mouse on the following buttons on the calculator screen:

- 6. Did you get **19** to appear as the answer in the white box at the top?
- 7. Now try these calculations:

8. In the top right hand side of the calculator screen there are three buttons. Click with the left side of your mouse once. This will close the **Calculator**.



TASK 1.1D

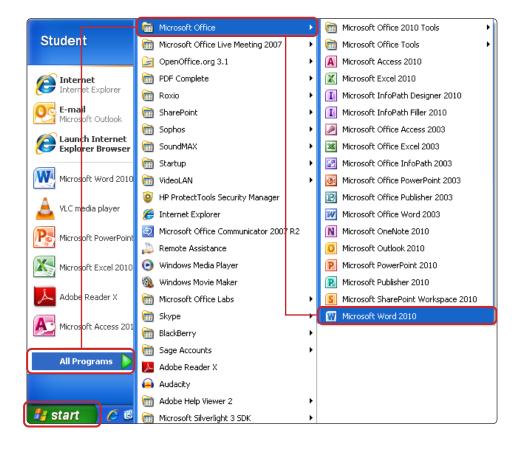
Activity: Lets practice - Opening and closing applications.

Practice opening and closing the Word Processing application from the Microsoft Office ® suite of **applications**.

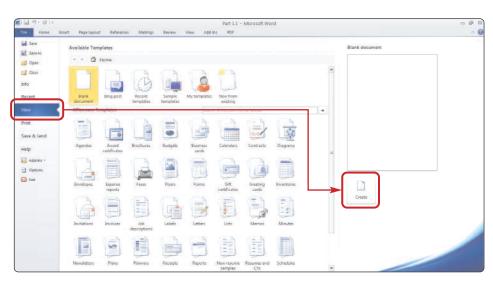
Open up Word

- 1. Left mouse click on **Start.**
- 2. Left mouse click on **All Programs.**
- 3. Left mouse click on **Microsoft Office.**
- 4. Left mouse click on **Microsoft Word.**

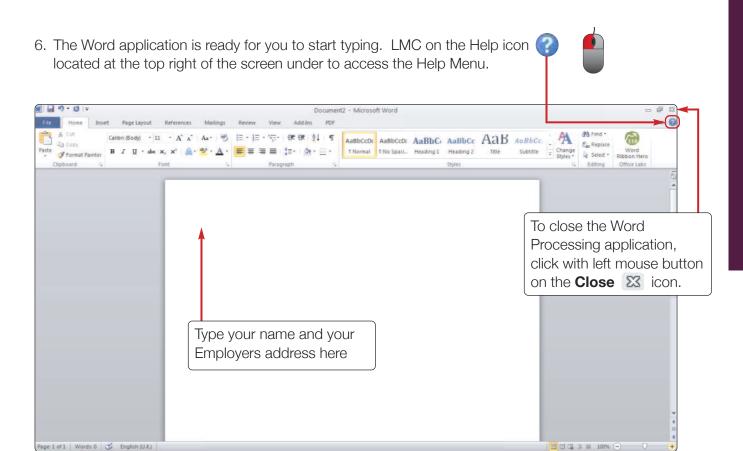




5. Left mouse click on NEW then on Create



TASK 1.1D





Note: You can use the Help facility to search for help on particular tasks.

TASK 1.1E

Understand that settings may need to be adjusted according to individual needs.

Control panel - adjustments

In order to use your computer effectively you may need to adjust some of the settings on your computer. The computers **Control Panel** allows you to adjust settings such as the appearance of the screen or volume settings.



In order to access the Control Panel, click with the left mouse button on;

1. Start.

- 2. Then move the mouse over to the words **Control Panel** and click with your left mouse button.
- 3. The following screen appears you will see that you can adjust many of the computers settings from here.

TASK 1.1E



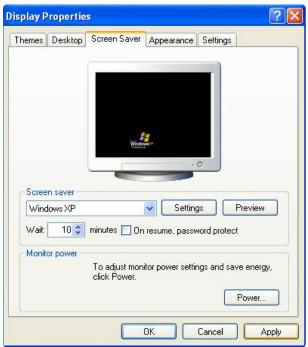
Double click with the left mouse button on the associated **icons of** the settings you may want to change.

Activity: Lets practice (Adjusting the display)

You may want to adjust the background image of your computers desktop or set a screen saver.

- To open Display, click Start, click Control Panel, click Appearance and Themes, and then click Display.
- After you select a screen saver, it will automatically start when your computer is idle for the number of minutes specified in **Wait**.
- To clear the screen saver after it has started, move your mouse or press any key.
- To view possible setting options for a particular screen saver, click **Settings** on the **Screen Saver** tab.
- Click **Preview** to see how the selected screen saver will appear on your monitor. Move your mouse or press any key to end the preview.





TASK 1.1F

Work with files and folders to enable storage and retrieval of information.

The IT technician in Kanzil construction has advised you that you should set up folders on your computer to help organise your work. To help you understand files and folders, you are asked to read the information below before setting up your own folders.



What is a file?

Each document, e.g. a letter you create using Microsoft Word is called a file.

Files can be stored on a hard drive, a floppy disk, memory pen or a CD. Everything that a computer does is based on data stored in files. You can do lots of things with files - create them, name them, rename them, save them, or delete them.



What is a Folder?

Files are grouped together in folders.

With so many thousands of files stored inside a computer, it is very important to keep them organized. Folders, keep files organized by grouping them together.

Where your files are stored

Drives are named with letters.

The hard drive is usually referred to by the letter "C".



Your CD drive uses the first letter after the hard drive, so it could be D.



Network drives are usually further down the alphabet, like H: or K:.



USB drives and other removable drives are assigned a letter when they are connected. Those letters can be reused by a different device as you plug in and remove various storage devices.



TASK 1.1F(A)

Activity: Lets practice (Working with files and folders)

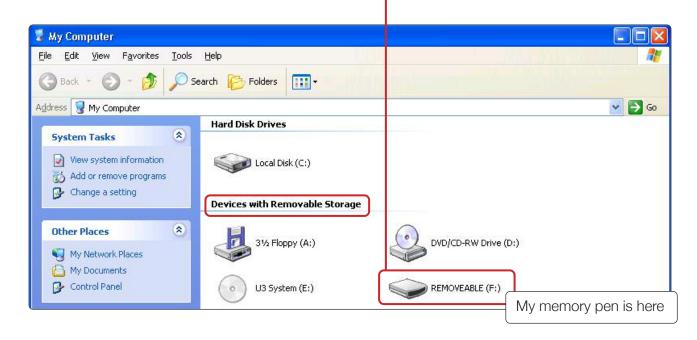
Locate your USB pen / memory pen.

To view the files on your computer, memory pen, CD or floppy disk you need to access the **My Computer icon** from your desktop. If the program is not already open, double click on the **My Computer** icon to open the program. Using this program you can cut, copy, paste, rename, and delete folders and files.



To access your memory pen/ USB pen drive double click on your memory pen. You will find your pen listed in the area underneath "Devices with removable storage" See example.





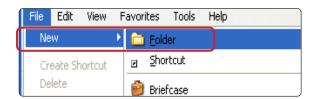
TASK 1.1F(B)

Create a new folder

Click on File at the top of the screen with the left mouse button, choose New and then **Folder**, and click with the left mouse button on the word Folder.



To Create a New Folder to organise and store your files on your memory pen, carry out the following steps;



Click On







3. Folder.

You will then have to give the folder a name – e.g. Word processing

To give the folder a Name

When the following appears vertype the text we follow with Kanzil Word Processing (or any other name you want to call the folder). Just start typing 'Kanzil Word Processing' and press the Enter Key. You should then see the following folder you have just created with the name you have given it.



Kanzil Word Processing

USE ICT SYSTEMS TASK 1.1f(c). Rename a folder

To change the name of a folder. You can give a folder a different name after you have created it. In this exercise you are asked to add your initials onto the Kanzil Word Processing folder you created.

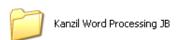
1. Select the **Kanzil Word Processing** folder you just created on your memory pen by clicking on it once with the left mouse button (LMC).

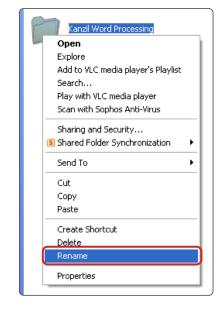


- 2. Then click on the name of the yellow folder with the right mouse button (RMC) so that a menu appears, and Click on Rename.
- 3. The folder name will now be highlighted and you can type in your initials, then press the Enter key after you have renamed it. Your new folder should now have your initials after the name

Kanzil Word Processing.

For example:

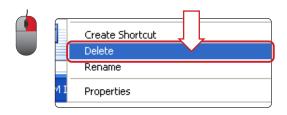




TASK 1.1F(D)

Delete a folder

Click with the right mouse button on the folder or file you wish to delete and then click on **Delete** with the left mouse button from the menu that appears.



When the following menu appears, click on Yes, with the left mouse button, if you are sure you want to delete the file or folder.

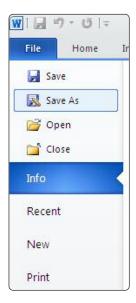


[Click on No – if you change your mind and don't want to delete the file or folder]

Activity: Lets practice

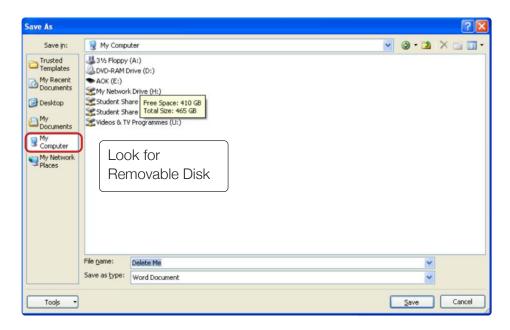
Open up Microsoft Word and create a new document and type the words **"Delete me".** Save this file to the **Kanzil Word Processing** folder you have created on your memory pen.

Choose File> Save As

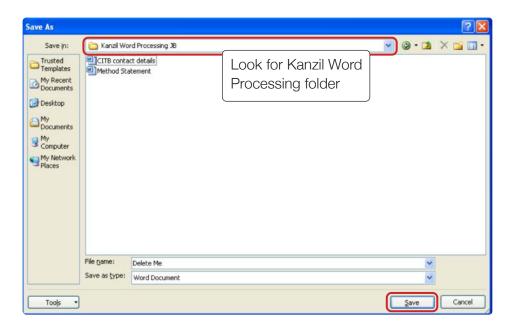


TASK 1.1F(D)

Then click with the left mouse button **My Computer** > then left click on the Removable Disk (your USB pen).



Then double click on the Kanzil Word Processing folder and left click on Save.



The file is now stored in the Kanzil Word Processing folder. Finally close the 🔼 document.

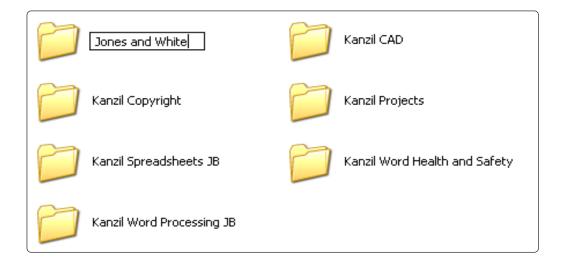
Now, using My Computer, look for the **Kanzil Word Processing** folder and delete the file called "Delete me".

TASK 1.1F(E)

Create folders

Set up the following folders on your memory pen (include your initials after the file name). (The Word Processing folder has already been created).

- Kanzil Spreadsheets
- Kanzil Copyright
- Kanzil Health and Safety
- Kanzil CAD
- Kanzil Projects
- Create a folder with your Employers business name



TASK 1.1F(F)

Move a File into a folder

You are asked to move a document from its current location into a separate folder. Using the files provided by your instructor can you place a copy of the file **Kanzil meetings template** into the **Kanzil Word Processing folder.**

Once your tutor has instructed you where the current file is, (Using My Computer application) LMC lick on the file called **Kanzil meeting template** so that the name of the folder turns blue.



Then RMC "Cut"



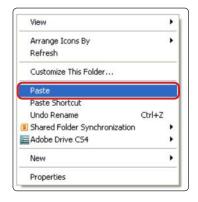


The file has been removed from its current location ready to be placed in the location you specify. We want to put the file into the **Kanzil Word Processing folder**.

Locate the Kanzil Word Processing folder.

When you find the folder, LMC the folder so that the name of the folder has a blue background, then double click the folder using the LMC. The folder now should open. RMC and from the menu that appears click on "Paste".







The file is now moved from its original location into the Kanzil Word Processing folder.

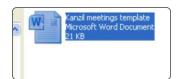
TASK 1.1F(G)

Copy Files from one place to another

You are now asked to place a copy of the **Kanzil meeting template** document into the **Kanzil Projects folder** – therefore the original **Kanzil meeting template** document will still stay in the **Kanzil Word Processing folder** and a new copy of the file will also be in the **Kanzil Projects folder**.

Using My Computer application, LMC lick on the file called **Kanzil meeting template** which is in the **Kanzil Word Processing folder** so that the name of the file turns blue.





Then RMC "Copy"





TASK 1.1F(G)

Locate the Kanzil Projects folder.

When you find the folder, LMC the folder so that the name of the folder has a blue background, then double click the folder using the LMC. The folder now should open.

RMC and from the menu that appears click on "Paste".



The file is now copied into the **Kanzil Projects folder** and the original copy is still in the **Kanzil Word Processing folder**.

TASK 1.1F(H)

The Windows Explorer views

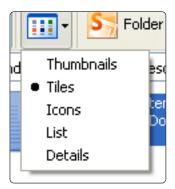
Windows Explorer displays information in the right pane. Windows Explorer provides you with the following choices for displaying files: **Thumbnails, Tiles, Icons, List, and Details.**



- **Thumbnails** view displays images. These images represent the contents of folders and files. For example, if a folder contains pictures, up to four of the pictures in the folder will be displayed on the folder icon.
- **Tiles** view and Icons view display icons to represent drives, folders, and the contents of folders. The icons displayed when you choose Tiles view are larger than the icons that display when you choose Icon view.
- List view displays all of the files and folders without supplying the size, type, or date modified.
- **Details** view displays the size, type, and date modified.

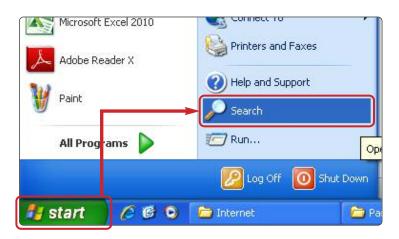
To change the view.

- 1. Click on the **Views** icon.
- 2. Select the view you want from the drop-down menu.

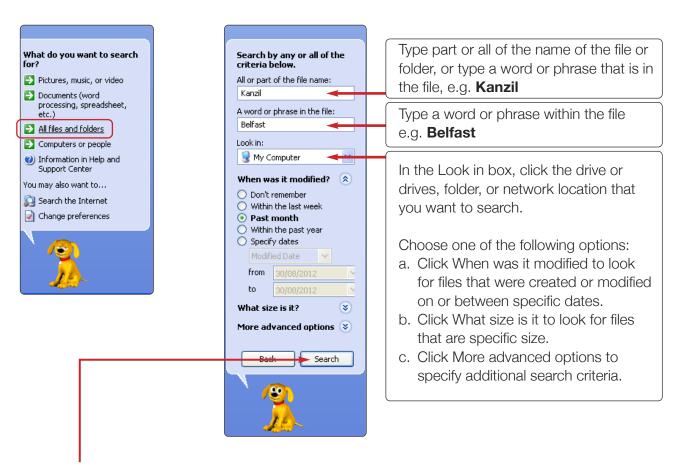


TASK 1.1F(I)

How to search for a file or folder and please add a full stop at end. Click **Start**, and then click **Search**.



In the Search Companion dialog box, click All files and folders.



Click **Search** – the search will return all the files containing *Kanzil* within the file name, and with the word *Belfast* located within the document which were modified in the last month.

Using the files provided by your tutor can you search your computer the 2 files named "Material Requirements" and "Insulation types"?

TASK 1.1G

Memory Pens (USB pens)

A memory pen also known as a USB (Universal Serial Bus) pen is a portable device where you can save many files, including photographs to which can easily be carried around and used in different computers. USB flash drives are often used for the same purposes for which floppy disks or CD-ROMs were used. They are smaller, faster, have thousands of times more capacity, and are more durable and reliable. For the purpose of the following

exercises, we will save files to a memory pen.

To use the USB pen, you must first insert it into one of the USB ports available on your computer or laptop. It will only fit in one way – don't force the pen, just turn it around if it doesn't fit easily into the USB port.





The first time you use the Flash USB pen you will get a message saying that new hardware has been found and installed. If the USB Drive window does not open automatically, double click on the My Computer icon on the desktop to access the memory pen ("Removable Disk").



Note: Before removing the Flash Drive / USB pen close the file you have saved to the flash Drive and close the Flash Drive window. To remove the Flash Drive from the USB port, click the Flash Drive icon in the system tray (at the far right of the Windows taskbar), the following message will appear:





It is then safe to remove the USB Pen from the USB port.

TASK 1.1G

CD's

A compact disc, also known as a CD, is a plastic optical disc with a metalized surface that is used for digital audio and data storage.



There are various types of CD's;

CD-ROM - A data disc format designed for Read-Only use in computer storage applications. CD-ROM stands for Compact Disc Read-Only Memory. It functions as a CD that stores computer data of graphics, text and audio.

CD-R - The write-once recordable CD is a type of compact disc that can be written by a computer user using disc recording hardware

CD-RW - Compact Disc-ReWritable, is a CD format that provides flexible recording options. This format permits data to be written, re-written, read and erased multiple times.

Backing up Data

Data loss can happen in many ways. One of the most common causes is physical failure of the media the data is stored on. Most computer users have everything saved on the computers hard drive. Data can also be accidentally deleted or damaged by a virus.

Having a backup of your important data means storing the data in two separate locations, for example, on the computers hard disk and also on a USB Pen or CD.

Туре	Pros	Cons
USB Memory Pen	 Inexpensive at lower capacities (<32GB) Faster than CD More rugged than other media Easily portable Readable on a variety of computers 	 Expensive at higher capacities (>32GB) Slower than hard disks Easily lost Long-term reliability unknown
CD's	InexpensiveMore rugged than hard drivesEasily portable	 Can be expensive Require human intervention May require additional software Long-term reliability unknown

TASK 1.1G

Answer 'True' or 'False' to the following questions which relate to data storage devices.

	True/False
You should try and force your USB pen, memory card or memory stick into your computer.	
You should try to keep the cap on your USB pen when it is not in use.	
Avoid dropping your flash storage device / USB pen on hard surfaces as this can also cause damage.	
All memory cards and memory sticks can only be inserted into your computer one way. Forcing your card or USB drive can damage the connectors in your USB pen.	
Most USB pens and digital cameras or card readers have a blinking light which indicates when a write process is being performed, when the light ceases to flash it is safe to remove your memory card.	
CD-RW stands for Compact Data-ReWritable.	

TASK 1.1H

Understand and follow recommended safe practices.

New employees to Kanzil Construction Ltd receive a briefing on the organisations health and safety code of practice which also includes a health and safety demonstration on using computers. This is important so that new employees can understand and follow recommended safe practices when working with the computer.

Activity: Lets practice

Can you discuss with colleagues and record below 4 health risks you believe could be associated with using a computer for long periods of time?

1.	
2.	
3.	
4.	

TASK 1.1H

Activity: Lets practice

Below is an extract taken from the Kanzil's Construction Ltd. Health and Safety handbook outlining details on some health issues associated with using a computer which you are asked to read.

RSI

One of the most common health risks is Repetitive Strain Injury (RSI) which results from performing repetitive movements, e.g. using the mouse, for a long period of time. The following tips are among many that will help computer users to avoid RSI.

- Organise workloads to avoid using the computer for extended periods of time.
- The computer monitor, keyboard and mouse should be placed directly in front of you.
- Try to use document holders to avoid having to lean over and bend your neck while looking at paperwork.
- There should be plenty of space underneath your desk so that your legs have room to move.
- Place your mouse as close to the keyboard as possible.
- Adopt good posture while at the computer.
- Adjust your chair to the most comfortable position.
- Minimise head and neck movements by altering the height of your monitor.
- Wrist rests should not be used use while typing, but for resting the wrists between spells of typing.

Strained Eyes

Using the computer for a long period of time can strain your eyes or can worsen existing eye conditions. Common symptoms include eye discomfort, headaches, itchy eyes and difficulty in

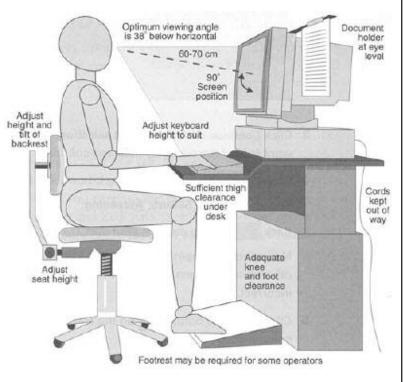
focusing. It is important to rest the eyes while working at the computer. While working you should regularly focus at more distant objects, e.g. look out of the window, and take frequent breaks from computer work. Visit the optician for regular eye check-ups and make sure you tell them if you are a frequent computer user.

Stress

Computer work can be stressful. Take frequent breaks and avoid work overload.

Epilepsy

Although this is a small risk, epileptic seizures can be triggered by computer work, usually through excessive screen flicker.



Source: http://www.fahcsia.gov.au

TASK 1.1H

Please mark 'True' or 'False' beside each statement to indicate whether you agree or disagree with each statement.

	True/False
As an employee you should agree to an organisations Health and Safety code of practice.	
You should not adjust seating or angle of display of screen of your employers computer equipment.	
You should check your working area for hazards (e.g. trailing leads).	
You should take regular breaks from using the ICT equipment.	
'RSI' is an acronym for Repetitive stress injury.	
A document holder is useful to avoid bending your neck when using the computer.	

TASK 1.11

The need for Internet Security: The IT technicians at Kanzil Construction Ltd have written the following documents to help employees become familiar with the issues regarding viruses. Although the company have very secure anti-virus procedures in place, you are asked to be mindful of the issues surrounding avoiding viruses.

Symptoms of a computer virus

- Windows opening on their own You are browsing the Internet and extra windows for advertisements or different Web sites suddenly appear.
- Performance degradation Computer slows down.
- Sudden pop up error messages When many messages begin to appear out of memory, disk space, it fails in application, etc., is a clear sign that a virus may be behind them.
- Home page of the browser (e.g. Internet Explorer) is changed - Pay attention when the home page of your favorite browser is changed for no apparent reason, as many spyware do this.

- Your E-mail account automatically sends messages with the virus to your contacts.
 If your friends start to complain that they are getting your messages with viruses, it is certain that your computer is infected.
- The command CTRL+ALT+DEL no longer works - In any version of Windows, one of the simplest ways to check for viruses is simultaneously pressing the CTRL+ALT+DEL, as the most important virus disables this command to initiate the task manager.
- Antivirus no longer updates If your anti-virus begins to acknowledge failure update, even if its connection to the Internet is operating normally, is a great sign of a virus installed.

TASK 1.11

Viruses and Trojan viruses

- Both viruses and Trojan viruses can be obtained the same way: both are normally attached to a program or an email or can be contracted through direct download by an unsuspecting user.
- Identification: Viruses usually appear as an executable file with an ".exe" extension. By contrast, a Trojan can appear as actual files from widely used applications such as your favorite word processor, music program or video player. Trojans, as the historical reference implies, can be more difficult to identify since the intent is to trick the user into opening the file. Trojans do not reproduce by infecting other files nor do they self-replicate.
- Impact: Once a virus or Trojan is opened, the impact on your computer can range from an annoyance to a total crippling of your machine. Examples of viruses include

- rendering your icons unusable or placing pop-ups in your Internet browser, mass emailing your entire list of contacts with the same type of Trojan that impacted you, and a mass deletion of your entire hard drive.
- Removal: Once infected with a virus or Trojan, getting rid of the program can be tricky and time-consuming. It's designed that way. There are many programs (a few are free) that will keep a library of known viruses in its database. This list is used to scan your hard drive and identify malware for deletion.
- Warning: Trojans can not only cause problems for your computer after running the program, they can also create a "back door" that will give the programmers continued access to your computer. This access may allow them to access confidential or personal information left on your hard drive such as credit card information or website passwords.

TASK 1.11

Prevention

You can protect yourself from virus and Trojan attacks by installing and maintaining an antivirus programs such as Symantec® or Norton Antivirus®. These programs will protect your data.

How to avoid viruses

Be cautious about what disks and files you accept from other people.

Don't reuse disks that have been in other computers, don't download files from insecure sites, and don't open e-mail attachments unless you are expecting them. Be wary of messages and attachments, even from people you know, with vague subject lines and contents, such as 'Check this' or 'See these pics!!!'

Obtain an antivirus program to more safely share disks, download files from the Internet and open e-mail attachments.

If your system gets a virus, visit your virus-scan software manufacturer's Web site and install any virus updates that are available. Then run the software. The software may not be able to delete the virus, but it may be able to identify it.

Search the Web for information regarding your specific virus by typing the name of the virus or its associated file into a search engine, followed by the word 'virus.' For example, 'Melissa virus,' 'BubbleBoy virus,' and so on.

Download and install any software patches or other programs that will help you eliminate the virus. Or follow any instructions you find on deleting the virus manually.

Run another virus scan to make sure the virus was dealt with properly.

Employ extra caution when you receive attachments that end in the commonly used extensions .doc, .exe, .com, .xls or .ppt. Never open attachments that end in .vbs or .js, since a typical user would never have a reason to open these files.

TASK 1.11

Can you answer the following questions in relation to computer security?		
1.	Name 3 things which could happen to your computer which could indicate that your computer may have a virus.	
2.	Can viruses and Trojan viruses be downloaded directly to your computer? Yes or No	
3.	How can you protect your computer from virus and Trojan attacks?	



1.1 USE ICT SYSTEMS: INTERACT WITH AND USE ICT SYSTEMS INDEPENDENTLY TO MEET NEEDS

Answers



This section mainly addresses the curriculum areas specified, although to allow a more realistic setting for each task, some elements from other curriculum areas may also be mentioned. This section has been prepared for use with Microsoft Office ® 2010 software.

TASK 1.1A

Tutor checked

TASK 1.1B(A)

Name of Input Devices	Example where used
Keyboard	Tutor Checked
Mouse	Tutor Checked
Camera	Tutor Checked
Microphone/earphones headset	Tutor Checked
Scanner	Tutor Checked

Name of Output Devices	Example where used
Printer	Tutor Checked
Monitor	Tutor Checked
Speakers	Tutor Checked

TASK 1.1B(B)

Tutor checked

TASK 1.1C

Hardware	Software
Printer Screen (or monitor) Keyboard Mouse Scanner	Web browser Word processing application Spread sheet application

TASK 1.1D

5 + 8 + 3 + 2 + 1 =	19
5 * 5 * 2 =	50
10 + 6 + 10 + 4 - 20 =	10
50 / 5 =	10

TASK 1.1E

Tutor checked

TASK 1.1F

Tutor checked

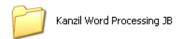
TASK 1.1F(A)

Tutor checked

TASK 1.1F(B)



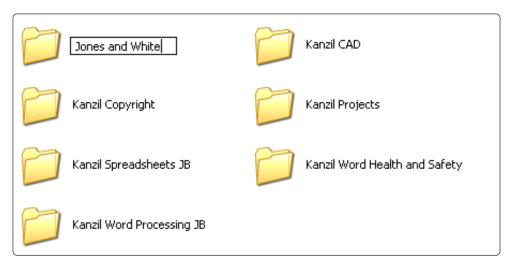
TASK 1.1F(C)



TASK 1.1F(D)

Tutor checked

TASK 1.1F(E)



TASK 1.1F(F)

Tutor checked

TASK 1.1F(G)

Tutor checked

TASK 1.1F(H)

Tutor checked

TASK 1.1F(I)

Tutor checked

TASK 1.1G

	True/False
You should try and force your USB pen, memory card or memory stick into your computer.	False
You should try to keep the cap on your USB pen when it is not in use.	True
Avoid dropping your flash storage device / USB pen on hard surfaces as this can also cause damage.	True
All memory cards and memory sticks can only be inserted into your computer one way. Forcing your card or USB drive can damage the connectors in your USB pen.	True
Most USB pens and digital cameras or card readers have a blinking light which indicates when a write process is being performed, when the light ceases to flash it is safe to remove your memory card.	True
CD-RW stands for Compact Data-ReWritable.	False

TASK 1.1H

	True/False
As an employee you should agree to an organisations Health and Safety code of practice.	True
You should not adjust seating or angle of display of screen of your employers computer equipment.	False
You should check your working area for hazards (e.g. trailing leads).	True
You should take regular breaks from using the ICT equipment.	True
'RSI' is an acronym for Repetitive stress injury.	False
A document holder is useful to avoid bending your neck when using the computer.	True

TASK 1.11

- 4. Name 3 things which could happen to your computer which could indicate that your computer may have a virus.
 - Extra windows for advertisements or different Web sites suddenly appear
 - Computer slows down.
 - Sudden pop up error messages
 - Home page of the browser is changed.
 - Email account automatically sends messages with the virus to your contacts.
 - The command CTRL+ALT+DEL no longer works.
 - Antivirus no longer updates.
- 5. Can viruses and Trojan viruses be downloaded directly to your computer? Yes
- 6. How can you protect your computer from virus and Trojan attacks?
 You can protect yourself from virus and Trojan attacks by installing and maintaining an antivirus software.