LEARNER'S GUIDE

OPERATE A PERSONAL COMPUTER

Published by

HEART TRUST/NATIONAL TRAINING AGENCY

Produced by

Learning Management Services Department
Gordon Town Road
Kingston 7
Jamaica W.I.

***** 2004 *****

Version - 1 LRDU – MAR .04

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LG-ITICOR0231A
OPERATE A PERSONAL COMPUTER

INTRODUCTION

Welcome

Welcome to the Learner's Guide for Unit of Competency "**Operate a Personal Computer**". This is just one of a number of Learner's Guides produced for the Data Operations Skills stream of the Information Technology and Communications Industry, and it is designed to guide you, the learner, through a series of learning processes and activities that will enable you to achieve the specified learning outcomes for the competency unit.

The content of this guide was developed from the Competency Standard **ITICOR0231A**, which is one of the basic building blocks for the National Vocational Qualification of Jamaica (NVQ-J) certification within the industry. Please refer to your *Learner's Handbook* for a thorough explanation of standards and competencies, and how these relate to the NVQ-J certification.

You are also advised to consult the Competency Standard and Assessment Instrument for a better understanding of what is required to master the competency.

This Competency Unit

"**Operate a personal computer**" addresses the knowledge and skills requirements for effectively operating a personal computer. There are six main areas or elements:

Element 1: Initiate computer system

Element 2: Use keyboard and equipment

Element 3: Navigate and manipulate desktop environment

Element 4: Organise directory and folder structures

Element 5: Organise files for user and/or organisational requirements

Element 6: Correctly shutdown computer

As you go through each element, you will find critical information relating to each one. You are advised to study them carefully so that you will be able to develop the necessary knowledge, skills and attitudes for operating a personal computer.

Before you start

Before you start this Learner's Guide, you need to:

a. Obtain a *Learner's Logbook.* You will use it to record evidence of your new skills/competence. As you demonstrate your new skills, record your activities and have your learning facilitator sign off on them. This will allow you to provide evidence of your competence when you are being assessed against the competency standard.

b. Ensure that you have access to the facilities and equipment necessary for learning.

c. Ensure that your learning resources are available.

d. Ensure that you are wearing suitable clothing, that tools and equipment are safe, and that the correct safety equipment is used.

e. Plan your learning programme (see below)

f. Understand how to use this Learner's Guide (see below)

Planning your learning programme

The self-assessment checklist on the following page will assist you in planning your learning programme and it will help you to think about the knowledge and skills needed to demonstrate competency in this unit. As you go through the checklist you will be able to find out what elements you have already mastered and which ones you will need to pay more attention to as you go through the learning process.

To complete the self-assessment checklist, simply read the statements and tick the 'Yes' or 'No' box. You should do this exercise now.

Self-Assessment Checklist
Operate a personal computer

Element 1	**Initiate computer system**	**Yes**	**No**
1.	I can check equipment and work environment correctly for readiness to perform scheduled tasks	( )	( )
2.	I can identify the hardware components of the computer and their functions correctly	( )	( )
3.	I can power up equipment correctly	( )	( )
4.	I can apply access codes correctly	( )	( )
5.	I can examine system information closely to accurately identify functions and features	( )	( )
6.	I can customise desktop configuration in a manner suitable to meet individual requirements and/or special needs in accordance with organisational guidelines	( )	( )

Element 2	**Use keyboard and equipment**	**Yes**	**No**
1.	I can follow Occupational Health and Safety regulations for correct posture, lighting and length of time in front of computer	( )	( )
2.	I can carry out keyboarding according to organisation guidelines on sped and accuracy	( )	( )

Element 3	**Navigate and manipulate desktop environment**	**Yes**	**No**
1.	I can follow the correct and appropriate procedures for the selection, opening and closing of the correct desktop icons o access features	( )	( )
2.	I can use different roles and parts of the desktop window correctly and appropriately for particular functions	( )	( )
3.	I can follow the correct procedures for the opening, resizing and closing of desktop windows for navigation purpose	( )	( )
4.	I can create shortcuts from the desktop following the correct procedures	( )	( )
Element 4	**Organise directory and folder structures**	**Yes**	**No**
1.	I can create directories/folders with subdirectories/subfolders and name according to established guidelines	( )	( )
2.	I can identify directory/folder attributes accurately	( )	( )
3.	I can move subdirectories/folders between directories/folders following the correct and appropriate procedures	( )	( )
4.	I can rename directories//folders as required	( )	( )
5.	I can access directories/folders and subdirectories/folders correctly via different paths	( )	( )

Element 5	**Organise files for user and/or organisational requirements**	**Yes**	**No**
1.	I can access the most commonly used types of files correctly in a directory/folder	( )	( )
2.	I can select, open and rename groups of files correctly according to procedures as required	( )	( )
3.	I can copy files to disk correctly	( )	( )
4.	I can restore deleted files accurately as necessary	( )	( )
5.	I can use software tools correctly and appropriately to locate files	( )	( )
Element 6	**Shutdown computer**	**Yes**	**No**
1.	I can close all open application using correct procedures	( )	( )
2.	I can shutdown computer	( )	( )

How did you do?

If you ticked all or most of the 'Yes' boxes then you might not need to go through the entire guide. Ask your learning facilitator to assist you in determining the most appropriate action you should take.

If you ticked a few of the 'Yes' boxes or none at all then you should work through all of the guide, even though some of the material may be familiar to you.

Plan your learning based on your answers. Be sure to involve your learning facilitator in the planning process.

How to use this Learner's Guide

This Learner's Guide is designed to assist you in working and learning at your own pace.

We suggest that you:

- Go through the sections/elements as they are presented (starting at Section 1)
- Check your progress at each checkpoint to ensure that you have understood the material
- Observe the icons and special graphics used throughout this guide to remind you of what you have to do and to enhance your learning. The icons and their meanings are as follows:

Complete Assessment Exercise
This exercise requires you to think about the knowledge and skills that you have or will develop in this competency unit.

Definition Box
Words/phrases are defined or explained in this box. The words/phrases being explained are in bold print.

Checkpoint
This denotes a brain teaser and is used to check your understanding of the materials presented. No answers are provided for the questions asked.

Activity
This denotes something for you to do either alone or with the assistance of your learning facilitator.

Reference
Points you to the reference materials and other support documents or resources used in compiling the unit content.

- Ask your learning facilitator for help if you have any problems with the interpretation of the contents, the procedures, or the availability of resources.

- Complete each activity as you come to it. If the activity requires you to perform an actual task, be sure to tell your learning facilitator when you get to that activity so that he/she can make any arrangements, if necessary.

- Get your learning facilitator to sign and date the Learner Logbook when you have completed an activity.

- Complete the self-assessment checklist at the end of each section or element.

When you have worked through all elements of the guide, and when you can tick every 'Yes' box, you are ready for assessment and should ask your learning facilitator to assist you in making the arrangements to have your performance assessed.

Using the Computer and Other Resources

Where your activities refer you to the library, computer and/or Internet resources, ask your learning facilitator to assist you in locating these resources. If you are getting your training in an institution, there may be a library and a computer laboratory. If this is not the case, visit the local library and find out what resources are available.

If you are new to the computer and the Internet, someone in the computer room should be able to show you how to use these resources.

Please note that in many of your activities you have been referred to information on the Internet. This is because the Internet has a vast amount of information that can help you in acquiring the particular competencies. We would like to advise you, however, that we cannot guarantee that all the sites will be available when you need them. If this happens, ask your learning facilitator to assist you in locating other sites that have the information you require.

Method of Assessment

Competency will be assessed while you are actually performing the tasks related to this competency This may be done in a real workplace or a simulated situation that accurately relates to the work situation. You are advised to consult the associated competency standard and assessment instrument for further details relating to the assessment strategies.

You may now start your learning. Have fun while you work!

ELEMENT 1: INITIATE COMPUTER SYSTEM

LEARNING OUTCOMES

As you go through this element you will acquire the knowledge, skills and attitudes necessary to initiate computer system. Your learning facilitator is there to assist you as you with the various activities, so that on completion you should be able to:

1. Check equipment and work environment for readiness to perform scheduled tasks
2. Identify the hardware components of the computer and their functions
3. Power up equipment
4. Apply access codes
5. Examine system information closely in order to identify functions and features accurately
6. Customise desktop configuration in a manner suitable to meet individual requirements and/or special needs in accordance with organisational guidelines
7. Use available help functions when required

Introduction to computers

Computer - a programmable electronic machine that:

- takes in data and instructions (input)
- works with the data (processing)
- puts out information (output)

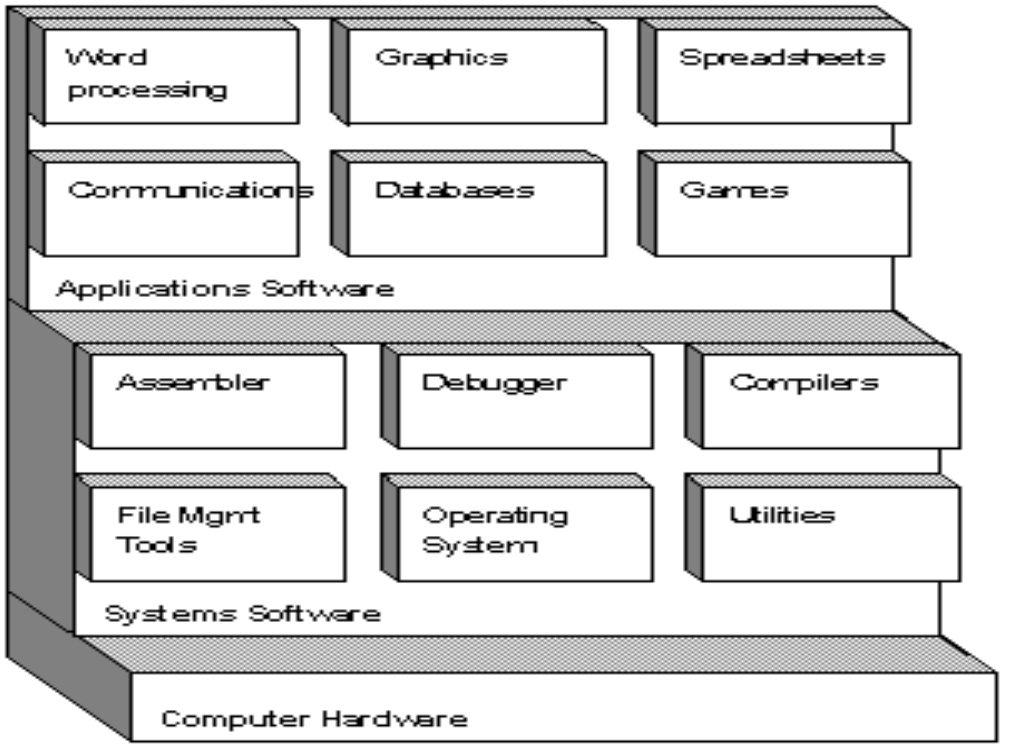
While the computer has been with us for only about half a century, its use dates all the way back to the fourth Century B.C. The first known apparatus was a simple counting aid called the abacus, and may have been invented in Babylonia (now Iraq). Throughout the centuries, computers have changed the way we act, think and view the world. In short, it has revolutionized the world. Today's personal computer, which has been around for only fifteen years, has surpassed its earlier predecessor.

Although computers are used to schedule airlines, predict the weather, play music, control space stations and keep the wheels of the world economy turning; essentially computers do only four things:

- Receive input
- Process information
- Produce output
- Store information

These four basic functions are responsible for everything computers do.

Computer System:



There are three essential ingredients of any computer system:

- Hardware
- Peripherals
- Software

Hardware **-** Consists of the microprocessor (the computer's brain), the memory and the input or output connections which get data in and out of the microprocessor.

Peripherals - Are the devices that allow us to communicate with the computer. . Peripheral devices can be external -- such as a mouse, keyboard, printer, external zip drive or scanner -- or internal, such as a CD-Rom, CD-R or internal modem. Internal peripheral devices are often referred to as integrated peripherals

Software – Also called computer program, is essential to make the system work. Without software a computer can do nothing

Software is often divided into two categories:

- **Systems software**: Includes the operating system and all the utilities that enable the computer to function.

- **Applications software**: Includes programs that do real work for users. For example, word processors, spreadsheets and database management systems.

NOTE: ***It is very important to distinguish between the Operating System and Application Software. Refer to the following resource for further information:***

Refer to:

Turner, David, (1994), *Core Skills in Information Technology – Level 2,* Stanley Thornes (Publishers), pages 3-4

http://www.webopedia.com/TERM/O/operating_system.html and /TERM/A/application.html

CHECKPOINT

- What is meant by the term process information?
- What is the difference between an operating system and applications software?
- Can you list the most popular applications software and their functions?

ACTIVITY

- Develop a glossary of basic computer terminology.

Ask your learning facilitator to provide you with a list of terms.

CHECK EQUIPMENT AND WORK ENVIRONMENT FOR READINESS

Checking your equipment and work environment for readiness to perform scheduled tasks involves checking that your computer and its peripherals are installed and functional. Your check must also include ensuring that the layout of your work space minimizes potential hazards. You should note the following:

- The lighting must be sufficient for the task and there should be sufficient contrast between the screen and the background
- Distracting noises should be minimized
- There should be sufficient leg room for you to change positions easily
- Windows should have blinds or curtains
- The software should be appropriate for the task
- The screen must have a stable image, without glitter, glare or reflections
- The keyboard must be usable, adjustable, detachable and legible
- The work surface must allow a flexible arrangement of objects, with sufficient space for documents, keyboard, etc
- The chair should be adjustable in height and have an adjustable backrest in both height and tilt
- Cables should be properly installed that is, they should be kept as short as possible and be fastened in place or routed through cable ducts. Check to make sure the system is safe before you turn it on
- The power supply must be adequate. Is there Uninterrupted Power Supply (U.P.S.)?

TIP: Advise the computer technician or another responsible person if you find faults with your system. Do not poke around inside the system as this may cause serious damage to both you and your computer.

When working with computers, seating is particularly important. Your seat must provide the following posture requirements:

- Adjustable back support
- Good lumbar support
- Adjustable seat height
- No excess pressure under the thighs or back of the knees
- Space to change position when needed
- Adjustable screen position in height and angle to allow a comfortable head position
- Spaces in front of the keyboard to support the hands and wrists during pauses in work

CHECKPOINT

- What are the peripherals connected to your computer system.
- Describe the use of each.
- What is the importance of a U.P.S.?

IDENTIFY HARDWARE COMPONENTS AND THEIR FUNCTIONS

Every computer system contains hardware components that specialise in each of these four functions:

- ***Input devices -*** feed data into the computer. The keyboard is the most common input device. Other input devices include pointing devices like the mouse and trackball.
- ***Output devices -*** produce output through two main types of devices: *monitor* screens for immediate visual output and *printers* for permanent paper output.
- ***A processor or central processing unit (CPU) -*** processes information, performs all the necessary arithmetic calculations and make decisions based on information values. The CPU is, in essence, the computer's "brain."

- ***Memory and storage devices -*** used to store information, but they serve different purposes. The computer's memory (sometimes called *primary storage*) is used to store programmes and data that need to be instantly accessible to the CPU. Storage devices (sometimes called *secondary storage),* including disks and tape drives, serve as long-term repositories for data. A storage device such as disk drive can be considered as a combination of input and output device because the computer sends information out to the storage device (output), and later retrieves that information from it (input).

These four components, when combined make up the hardware of the computer system.

Refer to:

Beckman, George, (1999), *Computer Confluence,* Addison Wesley Longman, Inc., pages 46-69

Turner, David, (1994), *Core Skills in Information Technology*, Stanley Thornes (Publishers) Ltd., pages 9 - 14

CHECKPOINT

- Can you name the different functions that can be accomplished with the mouse?
- Describe at least three alternative devices.

ACTIVITY

Ask your learning facilitator for an unlabelled diagram of the computer hardware then label it correctly.

POWER UP THE COMPUTER SYSTEM

To power up the computer simply means to turn it on. You may also see the word 'initialize' which refers to the process of starting up a program or system. The key word is **process.** Computers first need time to warm up before they are put to use. Once the power switch has been activated, the computer will automatically go through a series of "self-checks". These are critical before the system is booted so that the computer operates efficiently. Once the checks are complete, you may be prompted for login details. After this, the next screen you will see, featuring a number of ***icons,*** is called the ***desktop***

TIP: Ensure that you use the correct start up and shut down procedures that are recommended by your computer manufacturer.

APPLY ACCESS CODE

If you are connected to a network, you are likely to need a password which allows you access when you type it in using the keyboard. If this is the case, ensure that you log on using the correct username and password.

Refer to:

Turner, David, (1994), *Core Skills in Information Technology, Level II,* Stanley Thornes (Publishers) Limited, pages 15-16

http://www.webopedia.com/TERM/n/network.html

(for more information on network connections)

CHECKPOINT

What is the purpose of an access code?

ACTIVITY

- Practise powering up your equipment.
- Ask your learning facilitator to configure your computer such that you need an access code, then practise keying it in.

EXAMINE SYSTEM INFORMATION

When a computer is switched on, one of the first things it does is to read instructions from one of its disks. These instructions tell it how to operate and are known as the Operating System (OS). This process happens quite quickly and is called booting up.

Information about your computer system (processor speed and amount of installed memory), are available on the system itself. Ask your learning facilitator to show you how to access this information.

CUSTOMISE DESKTOP CONFIGURATION

Desktop - in graphical user interfaces, a desktop is the area on the display screen where pictures, called icons, are grouped to show cabinets, files, folders and various types of documents (letters, reports, pictures)

Simply put, your desktop is what you are looking at when your computer is on and no programs are open. You can arrange the icons on this electronic desktop just as you can arrange real objects on a real desktop. You can:

- Move them around
- Put one on top of another
- Reshuffle them
- Throw them away

This flexibility allows you to customise your desktop to suit your individual requirements and/or special needs in accordance with organisational guidelines.

The advantages of customising your desktop configuration is that the most used programs are easily accessible in one area, and if you plan to run more than one program at a time, it is better to have them in the same group window.

Each programme, such as word processor, spreadsheet or database appears as an icon with its name under it, and many computers already come with some of these icons already loaded.

CHECKPOINT

What does the term graphical interface mean?

ACTIVITY

With the assistance of your learning facilitator:

- Customise your desktop

USE HELP FUNCTIONS

Many programs come with the instruction manual, or a portion of the manual, integrated into the program. Should you encounter a problem or forget a command while running the program, you can bring up the documentation by pressing the ***Help key*** or entering a ***HELP command***. In Windows, the ***Help*** key is the function key labelled ***F1***.

Once you summon the Help system the program often displays a menu of Help topics. Choose the appropriate topic for the problem you are experiencing. The program will then display a ***help screen*** that contains the desired documentation.

Some programs are more sophisticated, displaying different Help messages depending on where you are in the program. Such systems are said to be context sensitive

READY TO TEST YOUR COMPETENCE?

Now that you have completed this element, check to see whether you have fully grasped all the components by doing the following self-assessment:

Checklist 1		**Yes**	**No**
1.	I understand how to check equipment and work environment for readiness to perform scheduled tasks	( )	( )
2.	I know how to identify hardware components and their functions	( )	( )
3.	I understand how to power up equipment	( )	( )
4.	I know how to apply access codes	( )	( )
5.	I understand how to examine system information to accurately identify functions and features	( )	( )
6.	I understand how to customise desktop configuration to suit individual requirements and/or special needs in accordance with organisational guidelines	( )	( )
7.	I understand how to use help functions correctly when required	( )	( )
Checklist 2		**Yes**	**No**
1.	Equipment and work environment are correctly checked for readiness to perform scheduled tasks.	( )	( )
2.	Hardware components and their functions are correctly identified	( )	( )
3.	Equipment is correctly powered up	( )	( )
4.	Access codes are correctly applied	( )	( )
5.	System information is closely examined to accurately identify functions and features	( )	( )
6	Desktop configuration is customised in a manner to suit individual requirements and/or special needs in accordance with organisational guidelines.	( )	( )

ELEMENT 2: USE KEYBOARD AND EQUIPMENT

LEARNING OUTCOMES

As you go through this element you will acquire the knowledge, skills and attitudes necessary to use keyboard and equipment. Your learning facilitator is there to assist you with the various activities, so that on completion you should be able to:

1. Follow Occupational Health and Safety Regulations for correct posture, lighting, and length of time in front of computer
2. Carry out keyboarding according to organisational guidelines on speed and accuracy

Keyboard - an input device consisting of a set of typewriter-like keys that enables you to enter data into a computer.

Computer keyboards are similar to electric typewriter keyboards except that they contain additional keys. The keys are often classified as follows:

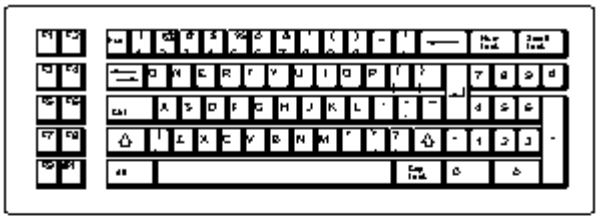
- Alphanumeric keys – letters and numbers
- Punctuation keys – comma, full- stop, semicolon, etc.
- Special keys – function keys, control keys arrow keys, cap lock keys, etc.

The standard layout of letters, numbers and punctuation is known as QWERTY keyboard - so named because the first six keys on the top row of letters spell QWERTY. Another keyboard which has letters positioned for speed typing is known as the *Dvorak* keyboard.

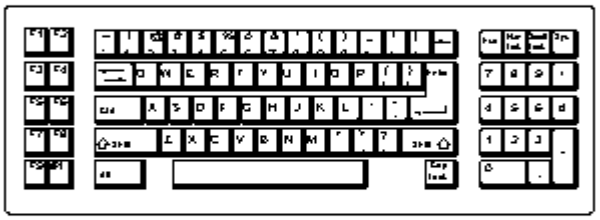
There is no standard computer keyboard, although many manufacturers imitate the keyboard of PCs. There are three different keyboards: the original PC keyboards with 84 keys, the AT keyboard also with 84 keys and enhanced keyboard with 101 keys. . The three differ somewhat in the placement of function keys, the Control key, the Return key and the Shift keys

The diagram below illustrates the three different types of keyboard.

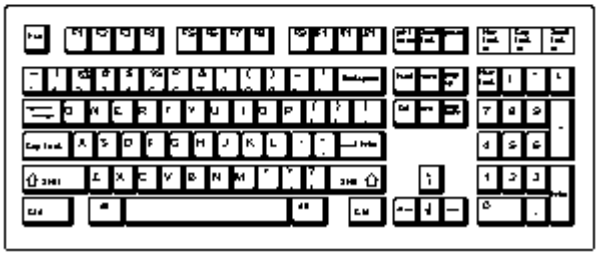
3 types of keyboard



XT Keyboard



AT (Standard)



AT (Enhanced)

If you work long hours at the computer you run the risk of computer-related health problems. There are three main problems:

- Pain and discomfort in the arms and hands
- Fatigue and stress
- Eye-sight related disorders

Keyboarding has been linked to occurrences of repetitive-stress injuries, such as carpal tunnel syndrome, a painful affliction of the wrist and hands that comes from repeating the same movements over long periods.

ERGONOMICS

Ergonomics – a science that is concerned with designing work environments that allow people and things to interact efficiently, safely and comfortably.

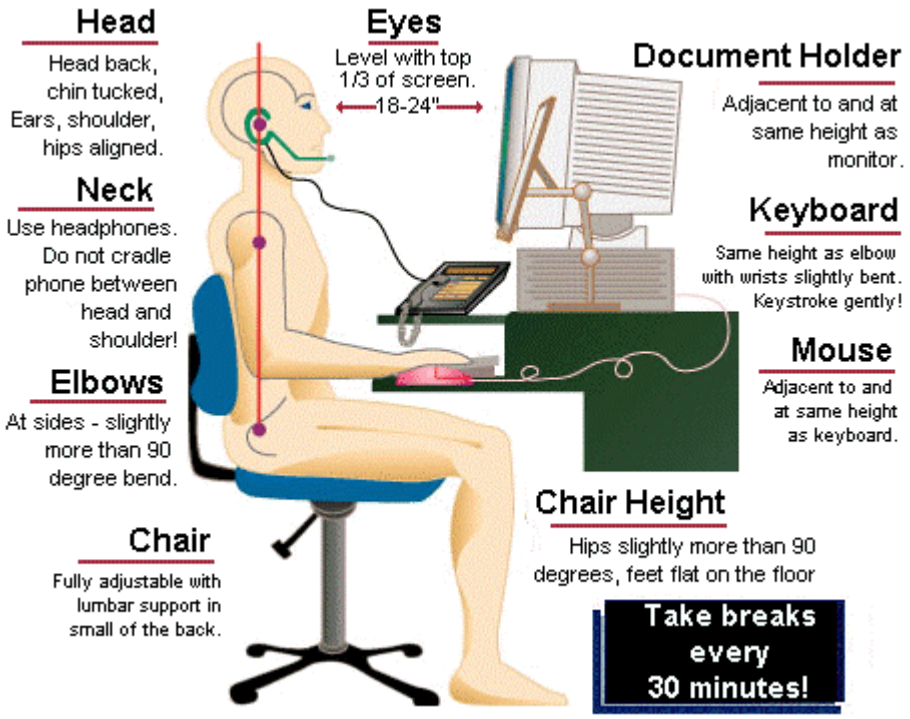
One branch of ergonomics deals with designing furniture that avoids causing backaches and muscle cramps. In the computer industry, ergonomics plays an important role in the design of monitors and keyboards. Ergonomic studies suggest preventive measures you can take to protect your health as you work with computers. Another term for ergonomics is *human engineering.*

- Ergonomically designed keyboards- Split angled keyboards are specifically designed to reduce the risk of injuries.

Ergonomically designed keyboard

- Healthy workspace- Keep the paper copy of your work close to the height as your screen. Position your monitor and light to minimize glare. The screen should be 3-4 times brighter than the room. Sit at arm's length from your monitor and about 15° to 30° below line of sight to minimize radiation risks.
- Flexible work environment - As far as possible work with an adjustable chair, an adjustable table, and adjustable monitor and a removable keyboard. Change your work position frequently. Re-read element 1 for guidelines on correct posture.
- Rest your eyes - Look away from the screen periodically and focus on a far-way object or scene. You may blink frequently and take a 15- minute break from the monitor every two hours or a smaller one every 30 minutes.
- Stretch - Use the rest break to do some simple stretches to loosen tight muscles.
- Pay attention to your body signals - If you feel uncomfortable take a break. Do not ignore the message your body is sending.

The diagram below illustrates an ergonomic work centre



Refer to: http://www.fin.ucar.edu/sass/safety/ucar_sass/ergo/index.html
(for more information on ergonomics)

CHECKPOINT

- What is ergonomics?
- Can you name ten precautions you should take to prevent health problems?

ACTIVITY

- Practise conforming to ergonomic guidelines while using your computer, paying particular attention to your posture.
- Ask your learning/facilitator to assess you.

CARRY OUT KEYBOARDING ACCORDING TO ORGANISATION GUIDLELINES

Learning to type correctly is extremely important because the keyboard is likely to be the main device that you will use to enter data into the computer. Most people manage to type with one finger at a time while looking at the keyboard, but this is a slow method of typing. Many methods exist to help you to learn to type. Your computer comes with a special typing tutor program; it is worth your while to develop the discipline of learning to type both accurately and speedily. The importance of this is that many organizations will require you to have a typing speed of between 40-60 w.p.m. (words per minute) with an accuracy of 85-100%.

READY TO TEST YOUR COMPETENCE?

Now that you have completed this element, check to see whether you have fully grasped all the components by doing the following self-assessment:

Checklist 1		**Yes**	**No**
1.	I can follow occupational health and safety regulations regarding correct posture, lighting and length of time in front of the computer	( )	( )
2.	I know how to carry out keyboarding in accordance with organisational guidelines on speed and accuracy.	( )	( )
Checklist 2		**Yes**	**No**
1.	Occupational health and safety guidelines regarding correct posture, lighting and length of time in front of the computer are followed	( )	( )
2.	Keyboarding is carried out in accordance with organisational guidelines on speed and accuracy	( )	( )

ELEMENT 3: NAVIGATE AND MANIPULATE DESKTOP ENVIRONMENT

LEARNING OUTCOMES

As you go through this element you will acquire the knowledge, skills and attitudes necessary to navigate and manipulate desktop environment. Your learning facilitator is there to assist you with the various activities, so that on completion you should be able to:

1. Select, open and close the correct desktop icons to access features using the appropriate procedures
2. Use different roles and parts of the desktop window correctly and appropriately for particular functions
3. Open, resize and close desktop windows for navigation purposes following the correct procedures
4. Create shortcuts from desktop using the appropriate procedures

ACCESS FEATURES

You learnt how to customize your desktop configuration in element 1; it's now time to launch a program from the desktop. This is a fairly simple procedure, which is done by pointing to an icon with the mouse and then double clicking the left mouse button. This starts the program operating or opens up a window.

CHECKPOINT

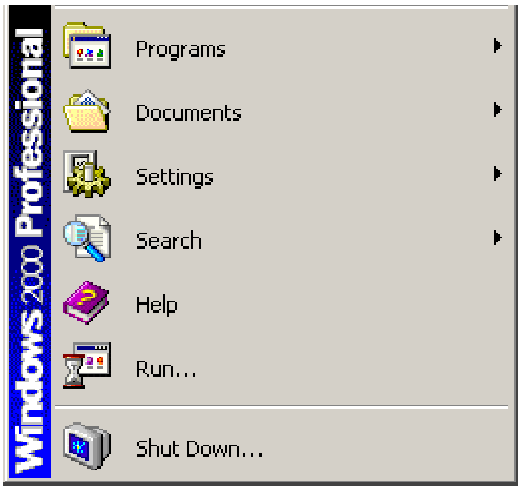
- Can you define the term 'window'?
- Where would you find the following, on a Desktop or Menu Bar?
  - My Briefcase format
  - Internet Explorer Tools
  - Recycle Bin
  - Edit

ACTIVITY

- Copy type the learning outcomes for this element.
- Launch the appropriate program for accomplishing this task from the desktop.

IDENTIFY ROLES AND PARTS OF THE DESKTOP

It is common to make the computer start with all the most frequently used programmes running as icons at the bottom of the screen. This makes it very easy to start them up with a double click of the mouse.
Components of the desktop include the Start button, the Taskbar, and Shortcut or program icons.



Start Button

The Start button is located on the Taskbar, usually in the lower left corner of your monitor. Clicking it displays the Start Menu, a portion of which is shown below.

The Start Menu consists of a list of commands and shortcuts. Remember you can use these commands and shortcuts to do any of the following tasks:

- Start programs
- Open documents
- Customize your system
- Get Help

Search for items on your computer, and more. Some items on the Start menu have an arrow, which faces right. This means that there are additional choices available for you on a secondary menu, called a *submenu*. When you place your pointer over an item with an arrow, the submenu appears.

The Taskbar

The taskbar, shown above is usually located at the bottom of the desktop, but you can drag it to any edge of the desktop. You can also widen or narrow the taskbar.

Shortcuts or Program Icons

Shortcuts or program icons will direct you to specific objects. Double-clicking a short cut or program icon very quickly opens the file or program it represents. You can customize your desktop by creating shortcuts for the files and folders that you use most often.

TIP! A shortcut doesn't change the location of a file or folder, nor is it a copy—it's a pointer you use to open the file or folder quickly.

ACTIVITY

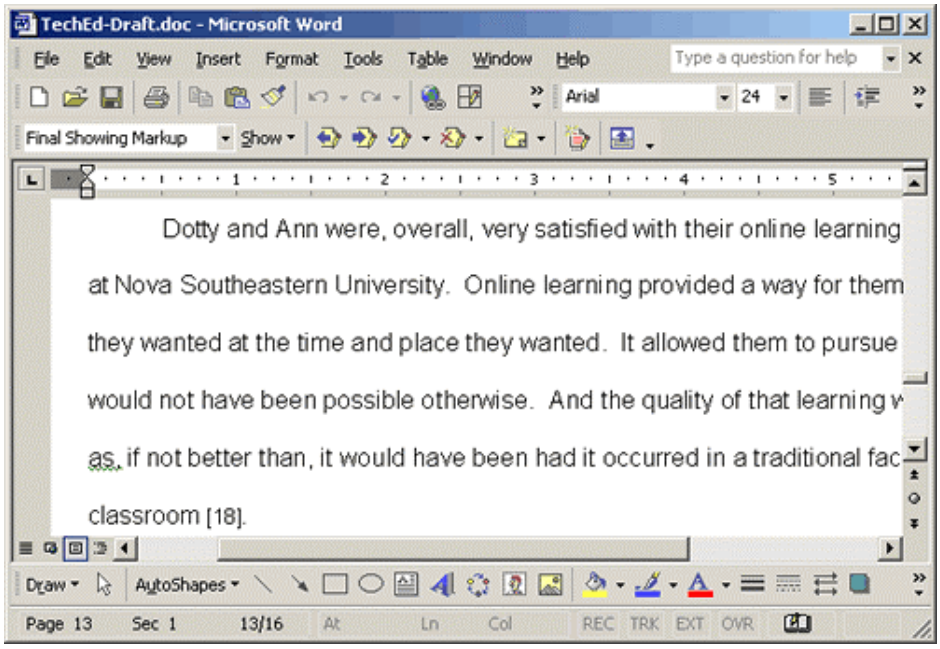
Practise the operations that have been described above.

CHECKPOINT

- Where is the start button located?
- Define term "***task bar***" and cite an example.

OPEN, RESIZE AND CLOSE DESKTOP WINDOWS FOR NAVIGATION PURPOSES

Everything opens in a window. Your application programs open in windows, your documents open in windows, and even your messages open in windows. Windows have standard features or elements that allow you to adjust and resize them to suit your needs, as well as switch between open application windows. An example of an open window is shown below.



Elements of a Window

Before you start, it is important to note the elements of a window. Every window includes some or all of the following elements:

Element	Description
Title bar	Horizontal bar at the top of a window that holds the window's name.
Menu bar	Bar located directly under the title bar that lists the available menus.
Control menu button	Icon at the left side of the title bar that opens the Control menu. The Control button icon matches the icon for the program or object that is open in the window.
Minimize button	Button on the left of the three buttons located at the right side of the title bar. When clicked, it reduces your window to a button on the task bar.
Maximize button	Button in the middle of the three buttons located at the right side of the title bar. Once this is clicked, it enlarges a window to its greatest possible size. When a window is maximized, the Maximize button is replaced by the Restore button.
Restore button	Button in the middle of the three buttons located at the right side of the title bar. It returns a maximized window to its previous size. When a window is restored, the Restore button is replaced by the Maximize button.
Close button	Button located at the far left of the title bar. When clicked, it closes the window and whatever application was running in that window.
Scroll bar(s)	Bars located at bottom or side of window, used to move document up or down through the window. Scroll bars do not usually appear, unless the content does not fit.
Window border	Each edge of the window has a border that can usually be dragged to change the size of the window.
Window corners	Each window corner can usually be dragged to resize the window. Dragging the corner resizes two sides at a time.
Insertion point	Arrow, blinking line or cursor, which shows your location in the window or document.

Maximize, Minimize and Restore Windows

When you minimize a window, it shrinks the window to a button on the taskbar. Even though you can't see the window anymore, the application is still inside the computer's memory. When you click on the task icon on the taskbar, the window is restored to its previous size and appearance. Any open application is exactly where you left it when you minimized the window.

You can maximize a window so that it fills the entire screen. This is especially useful if you want to see a document in its largest size. Once a window is maximized, the Maximize button turns into a Restore button and reverts to the Maximise button once it has been restored.

Move and Resize Windows

Moving and changing the size of windows enables you to see more than one application window at a time, which can be useful for things like cutting and pasting between two windows. This is accomplished by doing the following:

Window Operation	Description
Move a window	1. Position the mouse pointer in the title bar of the window to be moved. 2. Click the left mouse button and continue to hold it down. 3. Move the window outline to the desired location. 4. Release the left mouse button.
Resize a window	1. Position the mouse pointer over any corner or edge of the window. The mouse pointer will appear as a double-headed arrow. 2. Click the left mouse button and hold it down, drag the edge or corner of the window to the desired size and then release the mouse button.

CHECKPOINT

Can you list at least four (4) features that are to be found when a window is open?

CREATING SHORTCUTS FROM THE DESKTOP

Desktop shortcut - a desktop shortcut, usually represented by an icon, is a small file that points to a program, folder, document, or Internet location.

Clicking on a shortcut icon takes you directly to the program or file to which the shortcut points. These could be located somewhere else on your hard drive or even on another computer. Shortcut icons contain a small arrow in their lower left corner. Shortcuts are merely pointers, deleting a shortcut will not delete the item to which the shortcut points.

(For a step-by-step procedure)

Refer to:

Basic Computer Skills Tutorial for a Windows Environment: University of Maryland University College @http:// www.umuc.edu/distance/odell/ctla/basic_skills

CHECKPOINT

Can you list three (3) advantages of creating shortcuts from the Desktop?

ACTIVITY

Follow the instructions found in the reference noted above to create a shortcut on your desktop. Ask your learning facilitator to supervise you.

READY TO TEST YOUR COMPETENCE?

Now that you have completed this element, check to see whether you have fully grasped all the components by doing the following self-assessment:

Checklist 1		**Yes**	**No**
1.	I understand how to follow the appropriate procedures for selecting opening and closing desktop icons	( )	( )
2.	I know how to use different roles and parts of the desktop window correctly and appropriately	( )	( )
3.	I can explain the correct procedures for opening, resizing and closing the desktop windows for navigation purposes	( )	( )
4.	I understand and can explain the correct procedures for creating shortcuts from the desktop	( )	( )

Checklist 2		**Yes**	**No**
1.	Procedures for selecting , opening and closing desktop icons in order to access features are correctly followed	( )	( )
2.	Different roles and parts of the desktop window are correctly and appropriately used for particular functions	( )	( )
3.	Correct procedures for opening, resizing and closing of desktop windows for navigation purposes are followed	( )	( )
4.	Correct procedures for creating shortcuts from the desktop are followed	( )	( )

ELEMENT 4: ORGANIZE DIRECTORY AND FOLDER STRUCTURES

LEARNING OUTCOMES

As you go through this element you will acquire the necessary knowledge, skills and attitudes to organize directory and folder structures. Your learning facilitator is there to assist you with the various activities, so that on completion you should be able to:

1. Create and name directories/folders with sub-directories/sub-folders according to established guidelines
2. Identify directory/folder attributes
3. Move sub-directories/folders between directories/folders following the correct and appropriate procedures
4. Rename directories/folders as required
5. Access directories/folders and sub-directories via different paths

CREATE AND NAME DIRECTORIES WITH SUBDIRECTORIES

Directory/Folder - a organizational unit or container, used to organize folders and files on your drives into a hierarchical structure. The files that make up a program are stored together in their own set of folders

Hierarchical Structure - systems that are organized in the shape of a pyramid, with each row of objects linked to objects directly beneath it. A hierarchical system in computers is a file system in which directories have files and sub-directories beneath them. Such a file organization is called a *hierarchical file system*

The simplest way to think of a directory is as a file cabinet that contains folders that contain files. You will want to organize the files you create in folders and to store related files in a single folder/directory; this saves time when you want to locate a file.

Each computer has a root directory, which is the father of all other directories. All other directories that are created under this root directory are subdirectories.

NOTE: ***When creating directories/folders with sub-directories/sub-folders ensure that you name them according to your organisation's guidelines.***

CHECKPOINT:

- Where do you store files?
- What is a root directory?
- Cite an example.

ACTIVITY:

Following the directions given at # 5 @ the website http://www.umuc.edu/distance/odell/ctla/basic_skills, create a new directory to hold the files for a special project. Practise creating sub-directories for your original folder. Ask your Learning Facilitator to assist you.

IDENTIFYING DIRECTORY/FOLDER ATTRIBUTES

It is possible to view information about your directories or selected files. File information often will include the following:

- The name of the file
- The size of the file
- The date and title of the last modification
- The file attribute abbreviation

To identify the directory/folder attributes:

- Click on the Start Menu
- Select "My Computer"
- Open My Computer and Select "My Documents"
- Open My Documents and select a Folder you want view
- On the File Folder Task scroll to "Details" and view the information on the File you have selected

CHECKPOINT

- What are some of the reasons why it is important to know what the attributes for your files are?

Discuss with your Learning Facilitator.

ACTIVITY

- Use your computer and a Floppy disk with several files on it
- Identify the attributes for the files.
- Share this information with your Learning Facilitator.

Refer to:

Walnum, Clayton, (1994), *Office Max: Using Your PC*, Que Publishers

Gardner, David C. and Joely Beatty, Grace (1995), Windows *3.1: The Visual Learning Guide,* Prima Publishers

MOVE SUBDIRECTORIES/FOLDERS BETWEEN DIRECTORIES

Windows make it very easy to move between open applications. There are several ways to do this. The fastest way to move to a different application or windows is to click its button on the task bar.

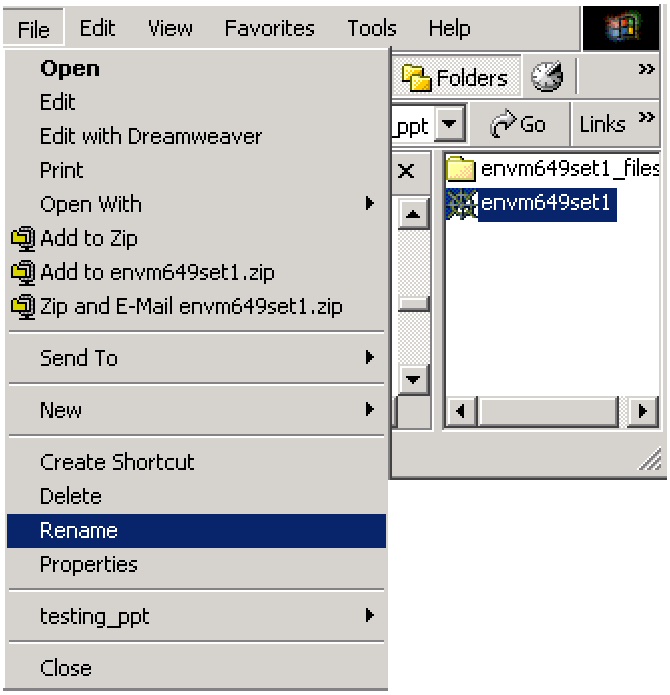
You can also move between applications by simultaneously and repeatedly pressing the ALT and TAB keys on the keyboard. Stop when you reach the desired application.

RENAME DIRECTORIES AND FOLDERS

Once you have saved a file or folder, you can rename or delete that Folder or File. To do this you can use the Windows Explorer program to rename or delete a file or folder.

To ***rename*** a file or folder:

- First find then select the file or folder you want to rename from the proper drive (c, a).
- Next go to the ***File*** menu and select ***Rename***
- The file name will be highlighted and blinking in the right corner waiting for you to type the new file name ***(See Diagram below)***



CHECKPOINT

Why would you need to rename a folder?

ACTIVITY

- Create a small directory on your Floppy Disk.
- Give it a name.
- Practise creating other directories on your Hard Drive and then rename them.

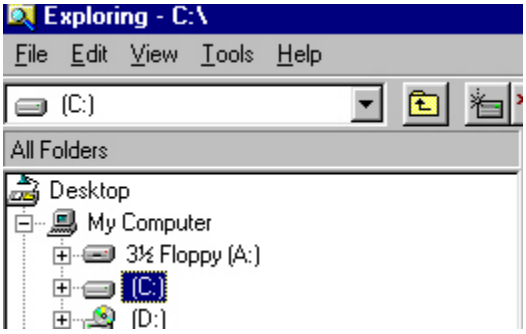
Ask your Learning Facilitator to help you.

ACCESS DIRECTORIES AND SUBDIRECTORIES VIA DIFFERENT PATHS

In order to get into files stored inside a directory, you have to first open it. In Windows, you double-click to open a folder and see its files. However, there are other ways to access the contents of a folder or directory.

One way is going through Windows Explorer:

- First open Windows Explorer by Clicking on the Start menu
- Next find the Windows Explorer program and click once



Then click on the ⊞ next to (C:). The contents of the root directory will be displayed under (C:).

To go to one of the directories under C: e.g. Program Files, merely click on Program Files

Under Program Files, you might have another directory called Netscape. To display the contents of this Netscape subdirectory, click on the ⊞ next to it.

Refer to: **http://www.baycongroup.com/win98/windows_98.htm**

CHECKPOINT

- What is Windows Explorer?
- What are two ways of accessing a directory/folder?

ACTIVITY

- Practise accessing directories and files using different methods.
- Ask your Learning Facilitator to assist you with this exercise.

READY TO TEST YOUR COMPETENCE?

Now that you have completed this element, check to see whether you have fully grasped all the components by doing the following self-assessment:

Checklist 1		**Yes**	**No**
1.	I understand how to create and name directories/folders with sub-directories/sub-folders according to established guidelines	( )	( )
2.	I can explain how to identify directories/folders attributes	( )	( )
3.	I can demonstrate how to move sub-directories/folders between directories/folders following correct and appropriate procedures	( )	( )
4.	I understand how to rename directories/folders as required	( )	( )
5.	I understand how to access directories/folders and subdirectories/folders via different paths	( )	( )
Checklist 2		**Yes**	**No**
1.	Directories/folders with sub-directories/subfolders are created and named according to established guidelines	( )	( )
2.	Directory/folder attributes are accurately identified	( )	( )
3.	Sub-directories/folders are moved between directories/folders following correct and appropriate procedures	( )	( )
4.	Directories/folders are renamed as required	( )	( )
5.	Directories/folders and sub-directories/folders are correctly accessed via different paths	( )	( )

ELEMENT 5: ORGANIZE FILES FOR USER AND/OR ORGANISATIONAL REQUIREMENTS

LEARNING OUTCOMES

As you go through this element you will acquire the knowledge, skills and attitudes necessary to organize files for use. Your learning facilitator is there to assist you with the various activities, so that on completion you should be able to:

1. Identify the most commonly used types of files in a directory/folder
2. Select, open and rename groups of files according to procedures as required
3. Copy files to disk
4. Restore deleted files as necessary
5. Locate files using software tools

ACCESS MOST COMMONLY USED FILES IN A DIRECTORY/FOLDER

Accessing the most commonly used files in a directory/folder is a simple procedure. You will recall that directories are made up of files, therefore once you have located the directory/folder, select and open the file you wish to work in.

SELECT, OPEN AND RENAME GROUPS OF FILES

You may be required to rename directories from time to time. When this happens, follow the same procedures as outlined in the previous element.

ACTIVITY

Practise renaming folders.

Refer to:

David C. Garner and Joely Beatty, Grace (1995), *Windows 3:1 The Visual Learning Guide,* Prima Publishers

Williams Delize and Delroy, *Microsoft Word 2000 and Windows* (CXC Excel Series), LMH Publishing House

COPY FILES TO DISK

When a file has been selected, it can be moved to any other directory or another disk
The web page noted below outlines the procedure for accomplishing this task.

Refer to:
Basic Computer Skills Tutorial for a Windows Environment: University of Maryland University College at http:// www.umuc.edu/distance/odell/ctla/basic_skills

CHECKPOINT

- Why is it necessary to copy files from one disk to another?
- List the steps for copying to a floppy disk.

ACTIVITY

Referring to the Web Page cited above:
- Practise copying portions of a saved document to another disk.

Ask your learning facilitator to guide you.

RESTORE A DELETED FILE

When you delete a file from your computer's hard drive, it is removed to the folder called *Recycle Bin,* from which it is still available for restoring unless emptied.

To restore the files:

- Open the Recycle Bin folder by double-clicking the icon on your desktop
- Select the file
- Then select ***Restore***

NOTE: ***The recycle bin does not apply to the contents of a floppy disk. If you delete a file from a floppy disk, it is permanently deleted, and you cannot restore it.***

CHECKPOINT

Can you list some possible reasons why someone would want to restore a deleted file?

LOCATING A FILE USING SOFTWARE TOOLS

Software or programs are instructions that tell a computer what to do. An Operating System is the software that is automatically loaded when a computer starts up, and it controls the overall behavior of the computer.

While your computer is on, the Operating System is always running. Other programs or applications use the operating system to provide basic services.

There are many ways to locate files using the software tools that your computer has. These tools are:

- Mouse, pointers, cursors, clicking, double-clicking, dragging and dropping
- Desktop, icons
- Windows and their parts -- title bar, menu bar, control boxes
- Dialog boxes, buttons

ACTIVITY

Do the following exercises using your software tools:

- Copy a file from your Hard drive (Drive C) to your Floppy Disk (Drive A)
- Delete this file from your Hard Drive
- Restore the file you deleted

READY TO TEST YOUR COMPETENCE?

Now that you have completed this element, check to see whether you have fully grasped all the components by doing the following self-assessment:

Checklist 1		**Yes**	**No**
1.	I know how to access the most commonly used types of files in a directory/folder	( )	( )
2.	I understand how to open and rename groups of files according to procedures as required	( )	( )
3.	I can demonstrate how to copy files to disk correctly	( )	( )
4.	I can explain how to accurately restore deleted files	( )	( )
5.	I know how to use software tools appropriately to locate files	( )	( )

Checklist 2		**Yes**	**No**
1.	Most commonly used types of files in a directory/folder are accessed	( )	( )
2.	Groups of files are selected, opened and renamed according to procedures as required	( )	( )
3.	Files are correctly copied to disk	( )	( )
4.	Deleted files are accurately restored and necessary	( )	( )
5.	Software tools are correctly and appropriately used to locate files	( )	( )

ELEMENT 6: SHUT DOWN COMPUTER

LEARNING OUTCOMES

As you go through this element you will acquire the knowledge, skills and attitudes necessary to shut down your computer. Your learning facilitator is there to assist you with the various activities, so that on completion you should be able to:

1. Close all open applications using the correct procedures without loss of data
2. Shutdown the computer

CLOSE ALL APPLICATIONS AND SHUT DOWN THE COMPUTER

After you have finished saving your work, close the application or program by clicking on the File Menu. Select Exit to close the application. If you were working in more than one window do the same for all of them. Once all the applications are closed, it is now safe to shut down your computer. The following sequence must be used to properly shut down your computer:

Click Start → Click Shut Down → Shut down the computer option appears → Select Yes (Windows)

Your computer may display an extra screen, but will ultimately do one of two things:

- Turn itself off (including the power)
- Display a screen saying it's ok to turn the power off (or shut down). Go ahead and turn the power off.

NOTE: ***In either of the two cases noted above, you will need to turn any devices off such as, printers, monitors, speakers, etc. This will complete the shutting down procedure.***

CHECKPOINT

What can happen if you do not shut down the computer in a sequential order?

ACTIVITY:

Practise closing down all open applications using the correct procedures

READY TO TEST YOUR COMPETENCE?

Now that you have completed this element, check to see whether you have fully grasped all the components by doing the following self-assessment:

Checklist 1		**Yes**	**No**
1.	I know how to close all open applications using correct procedures without loss of data	( )	( )
2.	I understand how to shutdown the computer correctly	( )	( )
Checklist 2		**Yes**	**No**
1.	Correct procedures are used to close all open applications without loss of data	( )	( )
2.	Computer is shutdown correctly	( )	( )