

Unit 1

Basic Operation

At the end of this chapter students should be able to:

- 1.1 Describe the functions of the computer and identify examples of computers in use.**
- 1.2 Identify the features that make the computer a powerful tool**
- 1.3 Identify the four types of computers**
- 1.4 Describe the different types of computer hardware and classify them according to their functions**
- 1.5 Distinguish between system software and application software**
- 1.6 Describe types of storage media and identify its features**
- 1.7 Use the mouse as an input device**
- 1.8 Use the Keuboard as an input device**
- 1.9 Use the windows icon**



Output Devices.



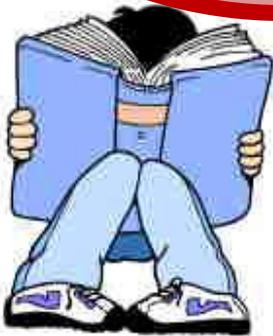
Input Devices.

Parts of the Computer System

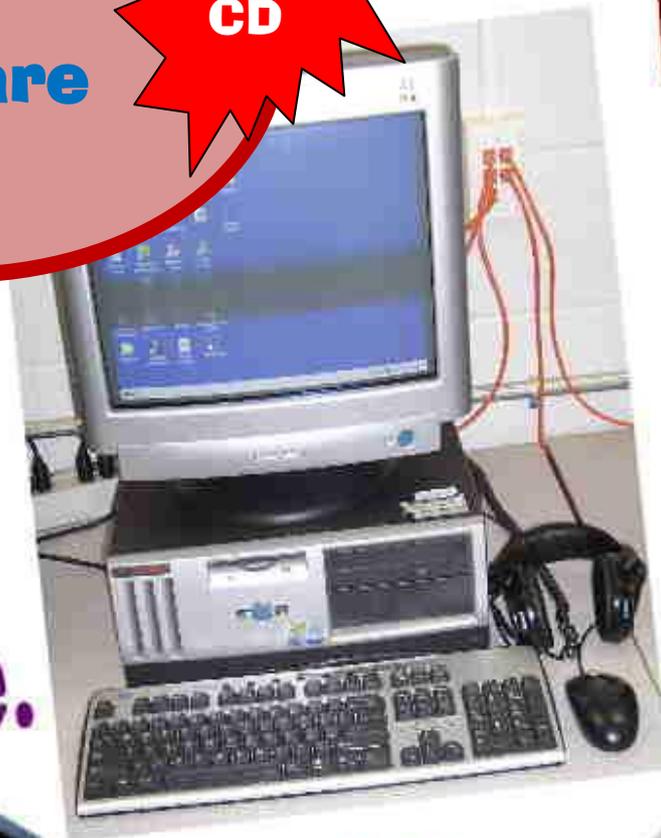
Application Software

USB
CD

Hardware.



Software.



1.1 Describe the functions of the computer and identify examples of computers in use

I. FUNCTIONS OF THE COMPUTER

What is a computer?



A **computer** is an electronic device that will carry out instructions in a program.

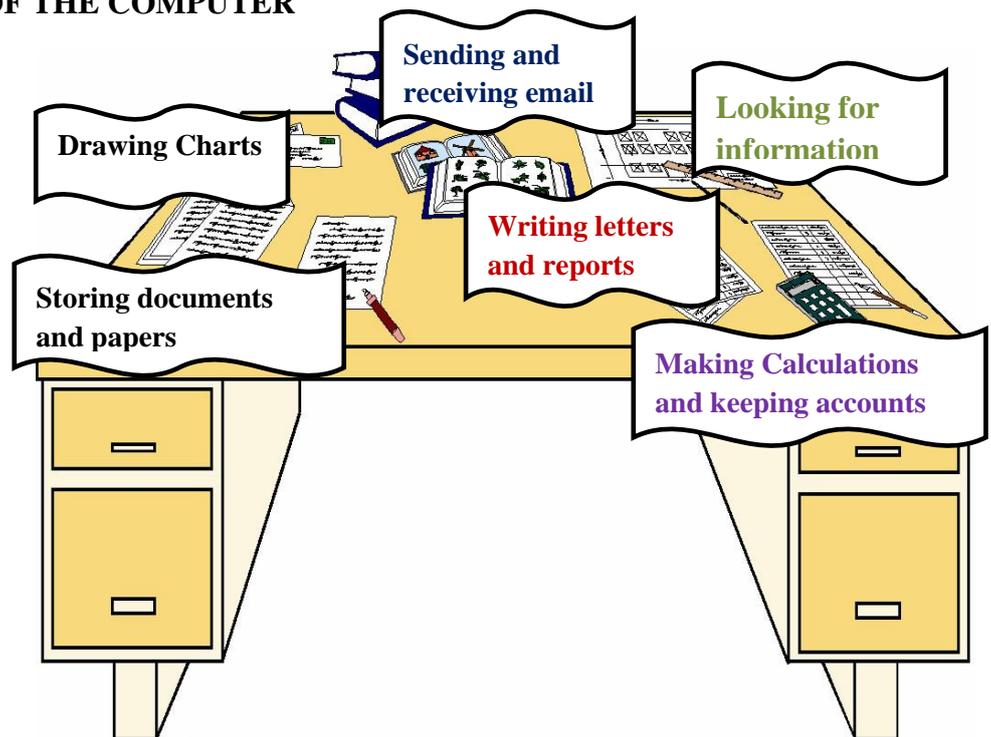
It has 4 functions:

- i. Accepts data (**INPUT**)
- ii. Processes data (**PROCESSING**)
- iii. Produces output (**OUTPUT**)
- iv. Stores results (**STORAGE**)

II. USES OF THE COMPUTER

What is a computer used for?

Like you use a knife and chisels for creating wood carvings, you use a computer for creating documents: letters, drawings, etc.



You can use the computer to do work that you would do behind a desk

EXERCISE 1

1. List the four functions of the computer
2. List at least 3 things you could do on the computer.



1.2 Identify the features that make the computer a powerful tool

So why do we use a computer for these things?



So what makes a computer powerful?

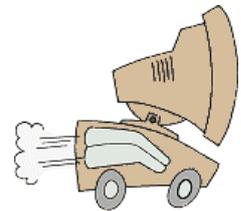


Compared to manual deskwork, a computer can be a great advantage. Learn to use it and it will help you to:

- work faster and more accurately
- use one piece of information again in different documents
- make calculations without mistakes and correct your English spelling
- store and keep track of your (electronic) documents
- send (electronic) mail and documents to distant relatives, and businesses relations within a matter of minutes
- find information you need, available on one of the millions of computers that are connected to the internet, world wide

i) **SPEED**

A computer can do billions of actions per second.



ii) **RELIABILITY**

Failures are usually due to human error, one way or another

(iii) **STORAGE abilities**

A computer can keep huge amounts of data.



EXERCISE 2



1. Identify at least 3 places where you have seen computers being used?
2. Who were the people using the computers?
3. For what purpose were the computers being used for?
4. List down some ways in which computers have made our work easier.
5. Can you think of any reasons where computers are a hazard to society?

1.3 Identify the four types of computers



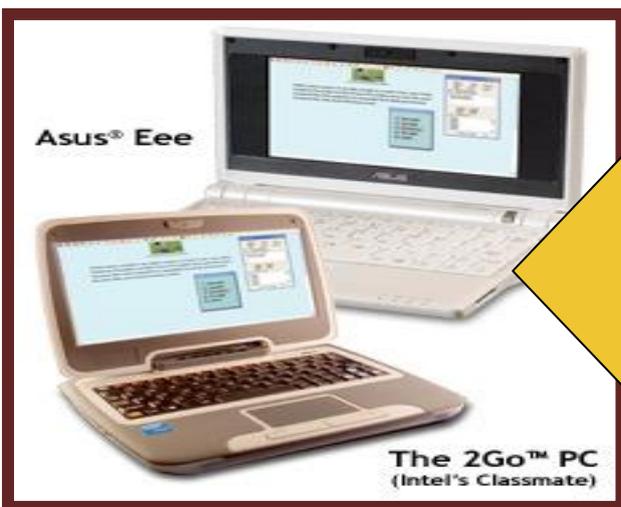
SUPER COMPUTERS

- Fastest computer in the world (can process information very quickly)
- Very expensive (can cost many millions of dollars)
- Have to be housed in special rooms (no dust and with own electricity generator)
- Give out a lot of heat when working
- Used in weather forecasting, space exploration



MAINFRAME COMPUTERS

- They are slower than a supercomputer but they are far less expensive
- They are used by large companies such as water, gas and electricity suppliers to calculate customer bills.
- Mainframe computers need to be operated by specialist, trained staff.
- They are usually kept in air-conditioned rooms away from the office or factory floor.



MICRO COMPUTERS

- Small and portable
- E.g.s include Laptops and desktop PC
- Laptops can operate on battery
- Found in many homes, offices and schools
- Cheap to buy
- Does not require special environment



PERSONAL DIGITAL ASSISTANT (PDA)

- Small enough to hold in the hand
- Cheaper than micro computers
- Have built in keyboards with small screens so not suitable for a lot of entering of data
- Cannot store too much data (small memory)
- Features include email, contacts and addresses

EXERCISE 3



1. Answer the question by placing a tick (s) in the correct box

Type Of Computer	Which type of computer has the fastest Processing Speed	Which type of computer is the Most Expensive	Which type of computers need special Conditions to House it ?	Which type of computer is the commonly found in homes and is portable?
Super Computer				
Mainframe Computer				
Microcomputer				
Personal Digital Assistant				

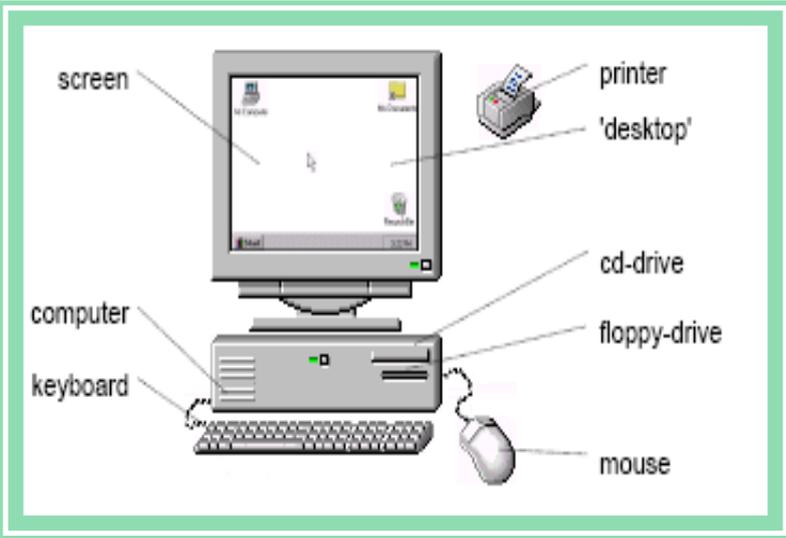
2. Identify **1 similarities** and **1 difference** between Supercomputers and Mainframe Computers.
3. Identify the type of environment that needs to be set up to ensure that a supercomputer and minicomputer can work properly.
4. Identify 1 organization that might use supercomputers.
5. Why do you think only a few organizations have a supercomputer?
6. Explain why laptops have increased in popularity over the past few years.
7. Identify who might use microcomputers and what 3 things they might use it for?

1.4 Describe the different types of computer hardware and classify them according to their functions

I. TYPES OF COMPUTER HARDWARE

When people talk about a computer, they usually mean a complete system: the computer itself, the screen (monitor), the keyboard and the mouse.

The computer in front of you may look slightly different from the picture on the right. Here we explain the most important components (hardware)



Screen



The screen shows you what is going on in the computer. A computer screen is like a TV, with the difference that you decide what happens. The screen is switched on by pressing the on/off button in the front. It is also called 'monitor' or 'display'.

Tower Case



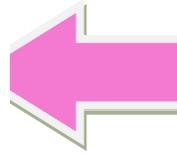
The tower case is box shaped and inside it is the Central Processing Unit (CPU) which is sometimes referred as the "brain" of the computer. It is here that all the processing of data takes place.

Keyboard



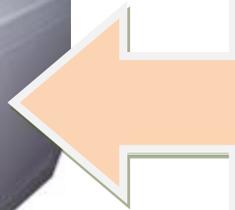
The keyboard is used for typing documents. By combining different keys, it is also used for functions. It is an electronic device, so be careful not to spill soda or other liquids on the keyboard.

Mouse



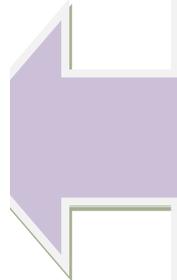
The mouse is used for telling the computer what to do. You move it on the table with your hand and click the left and right buttons with your fingers.

CD drive



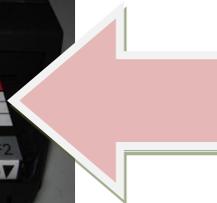
In the CD-drive you can insert a CD or Compact Disc. This is a metallic looking disk which has a big amount of space. It is used for putting new programs on the computer and transporting large documents. You can also use it for playing music CD's.

Printer



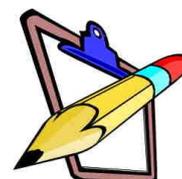
The printer is used for putting documents on paper. Most documents are printed on a 'black & white' printer. For documents with colored pictures, you can use a color printer. If you have no printer, you can take your document to another computer having a printer.

Floppy Drive



In the Floppy-drive you can insert a 'Floppy-disk' or diskette. This is a small plastic disk which you use to transport documents from one computer to another. It has a fairly limited amount of space, but enough for twenty normal letters..

EXERCISE 41



A. LABEL THE PARTS OF THE COMPUTER IN THE SPACE PROVIDED

Scanner	Tower Case	Monitor	Mouse	Digital Camera
Printer	Keyboard	Trackball	Speakers	

1) _____



2) _____



3) _____



4) _____



5) _____



6) _____



8) _____



9) _____



10) _____



B. FILL IN THE BLANKS

Complete the following sentences using each of the words provided ONCE only.

KEYBOARD	STORES	COMPUTER	MONITOR
DESKTOP	PRINTER	MOUSE	CD DRIVE
PRINTER	TOWER CASE	CENTRAL PROCESSING UNIT	

- 1) A _____ is an electronic device that _____, retrieves, and processes data.
- 2) The _____ shows you what is going on in the computer.
- 3) The _____ is the first image you see on your screen when the computer is switched on.
- 4) The _____ is used for telling the computer what to do.
- 5) The _____ is used for typing documents.
- 6) The _____ is used for putting documents on paper.
- 7) In the _____ you can insert a CD or Compact Disc.
- 8) The _____ is box shaped and inside it is the _____.

C. LABEL THE PARTS OF THE COMPUTER



1.5 Describe the different types of computer hardware and classify them according to their functions (ctd).

II. CATEGORIZING COMPUTER HARDWARE AS INPUT AND OUTPUT

So, what are
OUTPUT
devices?



OUTPUT DEVICES receive information from the computer CPU (brain) and translate it into sounds and images we can understand

**OUTPUT
DEVICES**



PRINTER - They are used to create a 'hard' copy of your work i.e. something that you can hold, hand to someone else or file away.

Most printers produce their output on paper . Some printers are ink jet type of printers (they use ink cartridges). These type of printers are cheap to buy and is ideal for use in homes



MONITOR or screen is a piece of electrical equipment which displays images from computers referred to as "soft copy"



LASER PRINTER - another type of printer where the ink is sprayed onto paper by heat. It is fast and used a lot in the work place



SPEAKERS - An output device that gives out sound from the computer. Can be used to play music or spoken words and useful for people who are blind

So, what are
INPUT
devices?



INPUT DEVICES allow us to send information to the CPU to tell the computer what to do. Examples include:

INPUT DEVICES



Microphone – Input sound, or turn speech into text



Scanner – Used to input pictures and text into computer by passing light over the image to be copied



Digital Camera – takes pictures and stores it. Changes can be made to the pictures on the computer



Touch Screen – the user touches the screen when wanting to send instructions to the computer

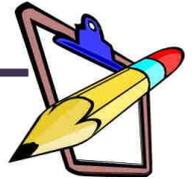


Keyboard – It is the most common input device e.g the QWERTY keyboard



Pointing Devices – Eg.s include mouse, trackball, touchpad

EXERCISE 4B



A. OPEN ENDED QUESTIONS

1. Where does the name QWERTY keyboard come from?
2. Why do you think the QWERTY keyboard is the most popular form of data entry?
3. Explain why a mouse is often called a pointing device.
4. Describe the difference between a mouse and a tracker ball.
5. Describe one advantage of a digital camera.
6. How would a scanner be used in the production of a school magazine?
7. Where might you find a touch screen?
8. What input device would you use for a person with arthritic hands wishing to type a letter?
9. Conduct a research on the types of PRINTERS and complete the following table.

B. FILL IN THE BLANKS

PRINTER TYPE	FEATURES (X2)	ADVANTAGE	DISADVANTAGE
Dot Matrix			
Ink Jet			
Laser			

C. Write INPUT or OUTPUT next to the components listed.

1. **MONITOR:** _____
2. **MOUSE:** _____
3. **KEYBOARD:** _____
4. **SCANNER:** _____
5. **LASER PRINTER:** _____
6. **SPEAKERS** _____
7. **DIGITAL CAMERA** _____
8. **INKJET PRINTER** _____

D. MATCHING

Match Column I with Column II by writing the letters of the correct answers in the given space

COLUMN I

COLUMN II

- | | | |
|---|-------|---------------|
| 1. This type of printer produces the highest quality printouts | _____ | A. Printer |
| 2. A commonly used output device used to produce a hard copy of your work | _____ | B. Laser |
| 3. An output device that allows you to view your work | _____ | C. Microphone |
| 4. A useful output device for listening to music | _____ | D. Scanner |
| 5. An input device used for playing games | _____ | E. Keyboard |
| 6. A pointing and clicking device | _____ | F. Mouse |
| 7. Used to type data into the computer | _____ | G. Joystick |
| 8. Useful input device for transferring and exact copy from Paper to computer | _____ | H. Speaker |
| 9. Input devices used to capture sound and voices | _____ | I. Monitor |

Draw outlines around and label the following section of this **KEYBOARD** to show the:

- Function Keys
- Alphabet Letters
- Numeric Keyboard
- Cursor Movement and editing Keys



What is the difference between hardware and software?

Hardware

These are the physical parts of the computer i.e the parts of the computer that you can actually touch and feel. Examples include all those input and output devices that we have been talking about in the previous lessons.



Software

Another name for software is programs. Programs are the instructions that tell the computer how to make changes to the data in the way that we want it.

What are the different types of SOFTWARE?

1.6 Distinguish between system software and application software

There are two major kinds of software: system software and application software

TYPES OF SOFTWARE

I. SYSTEM SOFTWARE
 These are a collection of programs used by the computer to:

- control the hardware
- enable the hardware to work with the Application Program. E.g. Windows XP

II. APPLICATION SOFTWARE
 These are the programs that you and I will use to do various tasks on the computer. Application programs can include word processors, spreadsheets, presentations and databases

USER
 You and I using the computer

APPLICATION SOFTWARE
 (Software that you and I use to get the computer to do different tasks)

SYSTEM SOFTWARE (allows the application software to work with the hardware)

COMPUTER HARDWARE
 (Parts of the computer that we can touch – these parts are being managed by the system hardware)

What are the features of common application software?



There are many different kinds of Application Software that will allow you to do your work.. We will discuss the following common applications:

II. EXAMPLES OF APPLICATION SOFTWARE

1) WORD PROCESSORS such as Microsoft Word

Word processing helps us prepare written documents.. Examples of word processing programs: Microsoft Word, WordPerfect. It has replaced the typewriter as the main way words are put on paper.

Purpose: To help us design, create and type our written documents

Main

Advantage:

Documents can be changed and corrected before they are ever printed.

Users don't have to recreate documents from scratch each time as they can reuse previous documents and make the changes they want.

nursery rhymes

1) DR.FOSTER

Doctor Foster is a good man
He teaches children all he can;
Reading, writing, arithmetic,
And doesn't forget to use his stick.
When he does he makes them dance
Out of England into France,
Out of France into Spain
Round the world and back again.



2) COMPARATIVES

Good, better, best
Never let it rest,
Till your good is better
And you're better is best.



3) SWEET DREAMS

Matthew, Mark, Luke and John,
Bless the bed that I lie on,
If I should die before I wake,
I pray the Lord MYSOULHETAKE|

- NAME: Tjerj Seinicharle
- CLASS: 7
- SCHOOL: Babasjga Primary School

An example of a document created in MS Office Word

2) SPREADSHEETS such as Microsoft Excel

- A **spreadsheet** program helps us to summarize our numerical data like budgets, financial statements, grade sheets, and sales records.
- A spreadsheet can perform simple or complex calculations on the numbers you enter in rows and columns
- .Examples of spreadsheet programs: MS Excel, Lotus 1-2-3

	A	B	C	D	E	F	G	H
1	Excel Basics							
2								
3		HW 1	HW 2	Test 1	Test 2	Paper	Exam	Total
4	Jane Doe	81	78	74	78	88	87	486
5	Mary Lou Johnson	95	83	91	85	92	90	536
6	John Smith	89	80	77	75	72	78	471
7	<i>Class Average</i>	<i>88.33</i>	<i>80.33</i>	<i>80.67</i>	<i>79.33</i>	<i>84.00</i>	<i>85.00</i>	<i>497.67</i>
8								

An example of a workbook created in Ms Office Excel

Purpose: Organizing numbers

Major Advantages: Can calculate for you using formulas
Can display data in graphs and charts

3) PRESENTATIONS such as Microsoft Office PowerPoint

- A presentation program, also known as presentation graphics allows us to communicate a message or to persuade people.
- It links together a number of slides containing text and graphics.
- A slide show might be used for a sales presentation or for training or to help in a speech



An examples of singles slides created on MS Office PowerPoint which can be put into a slide show (like a movies)

Purpose: Make information look attractive

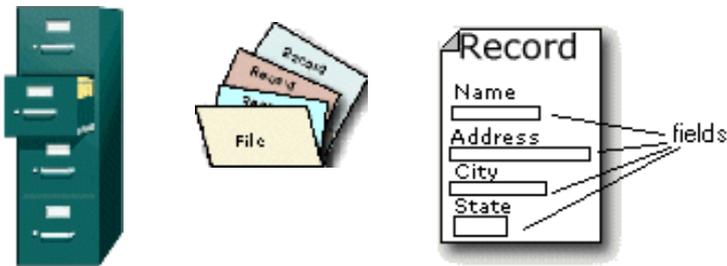
Advantage: Helps us to make an idea sound and look attractive (a visual aid)

4) DATABASES such as Microsoft Access

- A database is a collection of data that you want to manage, rearrange, and add to later

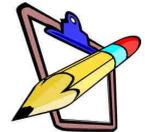
Purpose: To organize and to Managing data

Advantage: Can help organize our data efficiently and change way data is sorted and displayed



A database contains files which contain records which contain fields

EXERCISE 5



A) FILL IN THE BLANKS

Hardware are the things you can 1)_____ and pick up, for e.g the
2)_____, mouse and 3) _____. Software are the
4)_____ which tell the computer what to do .

B) OPEN ENDED

- 1) Write down 2 functions of System Software.
- 2) Give an example of System Software
- 3) Identify the function of the following types of application software
 9. Word Processing
 10. Spreadsheet
 11. Presentation

12. A

Database

One of advantage of the computer is that it is able to **save and store information**.



How is data stored by the computer?

Information can be stored either in the '**internal memory**' or on a '**storage device**'.

- The amount of data and instructions that can be stored is measured in '**bytes**'.
- We normally refer to the capacity of a storage device in terms of Kilobytes (KB), Megabytes (MB), Gigabytes (GB) - or even Terabytes!

Storage sizes	
Quantity	Information
Bit	Smallest unit of data, either a 0 or 1
Byte	8 bits
Kilobyte (Kb)	Assumed to be 1,000 bytes. In reality, it is really 1,024 bytes.
Megabyte (Mb)	1,000 , 000 bytes
Gigabyte (Gb)	1 billion bytes

1.7 Describe types of computer storage and identify its features

I. TYPES OF COMPUTER STORAGE

There are 2 types of **COMPUTER STORAGE**

PRIMARY STORAGE

In this type of storage the RAM (Random Access Memory) found in the Central Processing Unit (CPU), holds and stores data and programs that is currently processing.

This type of storage is temporary and not permanent. i.e. when there is a power failure all the data is lost

SECONDARY STORAGE

This is permanent storage i.e. even when the power is switched off, the data is not erased. E.g. of this type of storage include CDs, USB, Floppy Disk and Hard drive



What are some features of different storage media?

II.

EXAMPLES OF STORAGE MEDIA AND ITS FEATURES

1. HARD DISK

- The hard disk is the main storage device in your computer. It is a bit like a filing cabinet: all of your data files and applications software are stored on it.
- Very Big memory (**about 120 GB**)
- It is possible to also have an external hard disk which can be plugged into the computer and used to back up your data and then stored in a different place to keep it safe.



a) Advantages

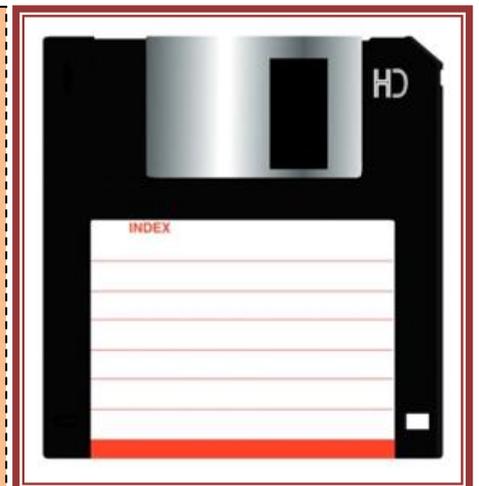
- Main Backing storage for files and programs
- Can store lots of data compared to the floppy disc

b) Disadvantage

- The part of the hard disk that reads the data (the read/write head) is very sensitive and when fingerprints, dust or hair come into contact with it, the hard disk could spoil or “crash” causing all stored data in hard drive to be lost

2) FLOPPY DISK

- Very small memory (**about 1.44.MB**)
- Floppy disks are one of the oldest types of portable storage devices still in use, having been since the 1980s.
- However, they are gradually becoming obsolete and some manufacturers are now starting to build their PCs without floppy disk drives.
- A floppy disk can store up to 1.44 Mb of data which is equivalent to around 300 pages of A4 text. They used to be the ideal storage device for transferring small files from home to work/school or from one office computer to another.
- But nowadays, many files contain graphics and are larger than the size of the floppy disk.



a) **Advantages**

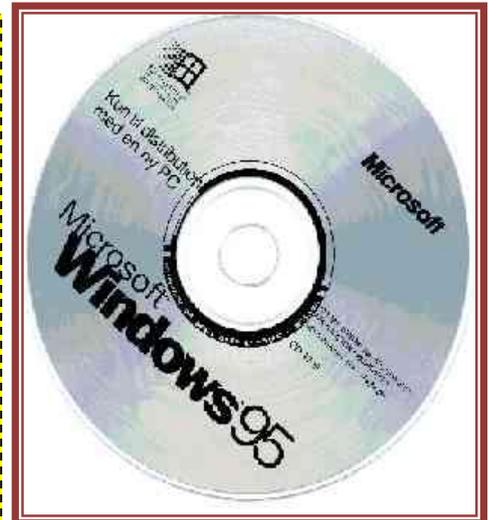
- Small thin and lightweight so easy to carry round
- Can be reused

b) **Disadvantage**

- Can't store that much and one Big picture will take up a lot of room
- Slow to access data from the floppy disk

3) **COMPACT DISK – CD**

- These are identical in appearance to audio CDs
- are popularly used to distribute computer software, including video games
- Some CDs hold both computer data and audio
- Compact disks are known as optical storage devices.
- Data is burned onto the surface of the disk using a laser beam in the CD drive. A laser beam is also used to read the data stored on the disk.
- A typical CD can store around **650 Mb of data** - equivalent to 450 floppy disks. The entire contents of four text based encyclopedias (no images) could be stored on a single CD.



a) **Advantages**

- Small and portable
- Very cheap to produce
- Most computers can read CDs.
- If there is no CD drive, a DVD drive can usually read them
- Fairly fast to access the data – compared to floppy disks

b) **Disadvantage**

- Disk Surface can scratch easily – this effects the data when the laser reads it

4) **Removable Hard Disk Drive (“USB STICK”)**

- usually small, light in weight, can be used to write over.
- Memory can differ (**1GB to 8GB**)
- They usually have a removable cap which covers and protects the part of the stick which is inserted into a USB



a) **Advantages**

- They are more compact and portable than floppy disks or CDs
- They hold more data than a floppy disk and nowadays often more than a CD.
- They are being developed with fashionable looking outer casings and are almost becoming a 'fashion accessory'

b) **Disadvantages**

- At the moment, the cost per megabyte of storage is more expensive than floppy disks, CDs or DVDs.
- They can be easily lost
- The metal part which is inserted into the USB port can be snapped off if they are handled roughly

EXERCISE 6



1. What is an important characteristic of secondary storage?
2. How much data can a 3.5 inch floppy disk hold?
3. Why a floppy disks not a commonly used nowadays as a secondary storage device?
4. What does CD stand for?
5. What type of storage device is usually used to distribute software programs and why do you think this is so?
6. Compare and contrast the types of storage media discussed.

Storage Device	Amount of data it can store	Cost of storage device	Is this storage device easy to carry around i.e how portable is it?
Floppy Disk			
Compact Disk			
Flash Drive			
Hard Disk			

7. Which storage device would you prefer to use for storing all your school notes, exercises and assignments and give a reason for your choice?

GROUP WORK



Your teacher will divide you into groups to create on wall charts on the topics enclosed below.

A. PARTS OF THE COMPUTER

- Draw and label the different parts of the computer
 1. Monitor
 2. Keyboard
 3. CPU
 4. Mouse
- Also list the different functions of each computer part listed above

B. COMPUTER HARDWARE AND SOFTWARE DEFINED

- Divide you chart into 2 columns
- The first column head “COMPUTER HARDWARE”
- The second column head “SOFTWARE”
- In each column define the two terms
- Draw e.gs of hardware and software in the appropriate columns

C. COMPUTER INPUT AND OUTPUT DEFINED

- Divide you chart into 2 columns
- The first column head “COMPUTER INPUT”
- The second column head “COMPUTER OUTPUT”
- In each column define the two terms
- Draw e.gs of INPUT and OUTPUT in the appropriate columns

D. COMPUTER STORAGE DEVICES

- Identify and draw the different types of computer storage devices available
- For each storage device ensure that you list its advantages and disadvantages (talk about storage capacity and cost)

USING THE COMPUTER

1.7 MOUSE TECHNIQUES



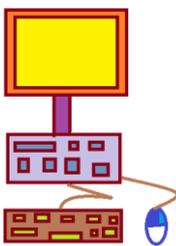
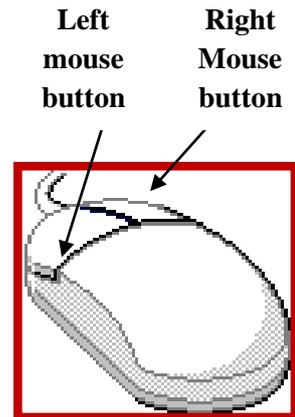
By the end of this topic students should be able to use the MOUSE to:

- I. Point to objects
- II. Left mouse click
- III. Double Left mouse click
- IV. Click and drag

About the mouse

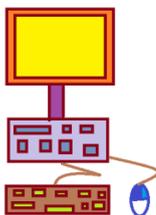
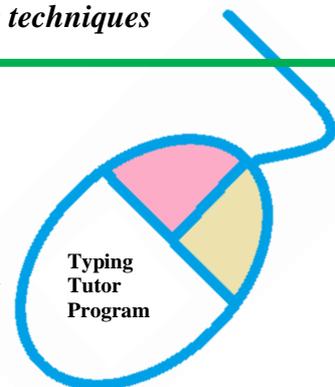
When you move the mouse on the table, you will see the Cursor moving on screen.

Put your hand on the mouse so you can move it around on the table and also click the buttons with your fingers. By clicking the buttons you carry out basic computer functions on the desktop.



TASK 1 - Practice the following mouse techniques

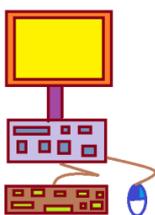
- (i) Mouse Pointing
- (ii) Left Mouse Click
- (iii) Double Left Mouse Click
- (iv) Click and drag



TASK 2 – Drawing using your mouse

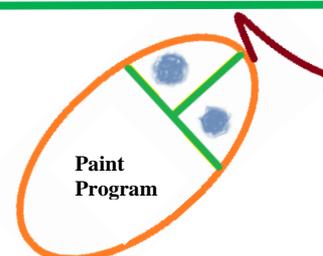
Use the Tux tools to create the following:

- (i) Draw and color a space rocket.
(do not save when you quit)
- (ii) Create and color a drawing using the different shapes and figures
(do not save when you quit)

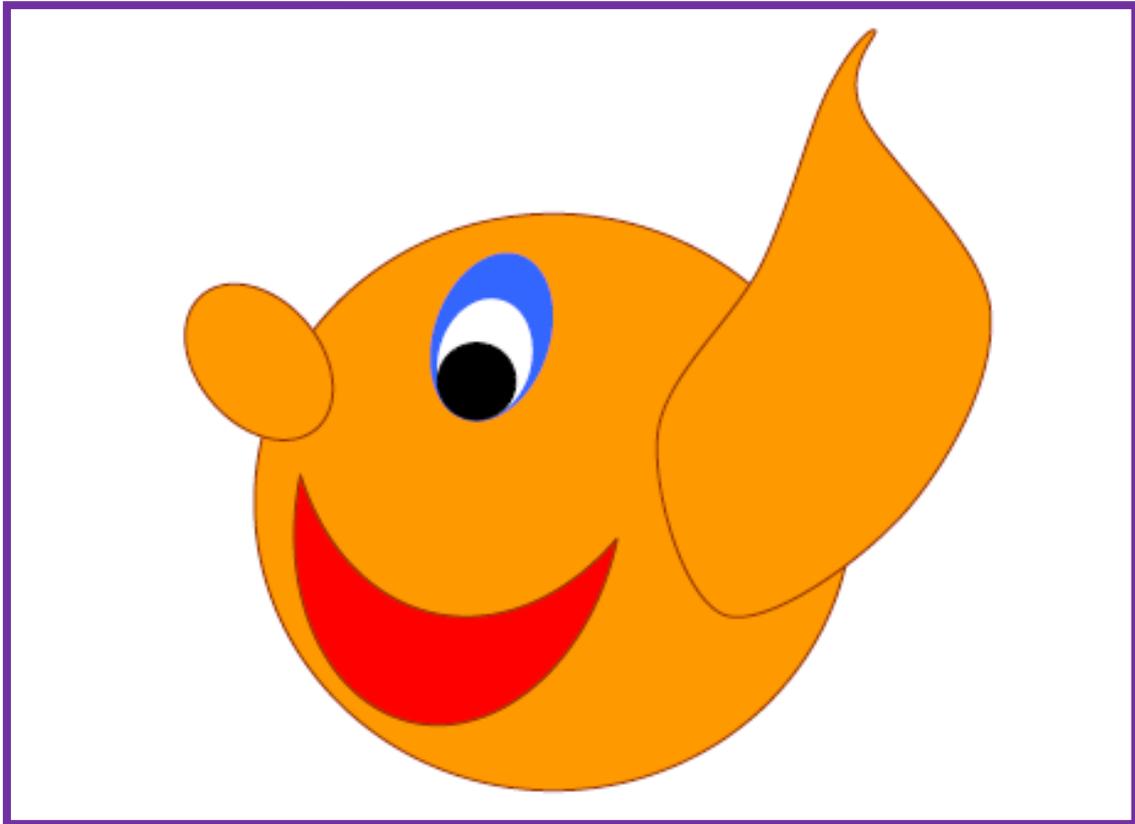


TASK 3 – More Drawings using your mouse

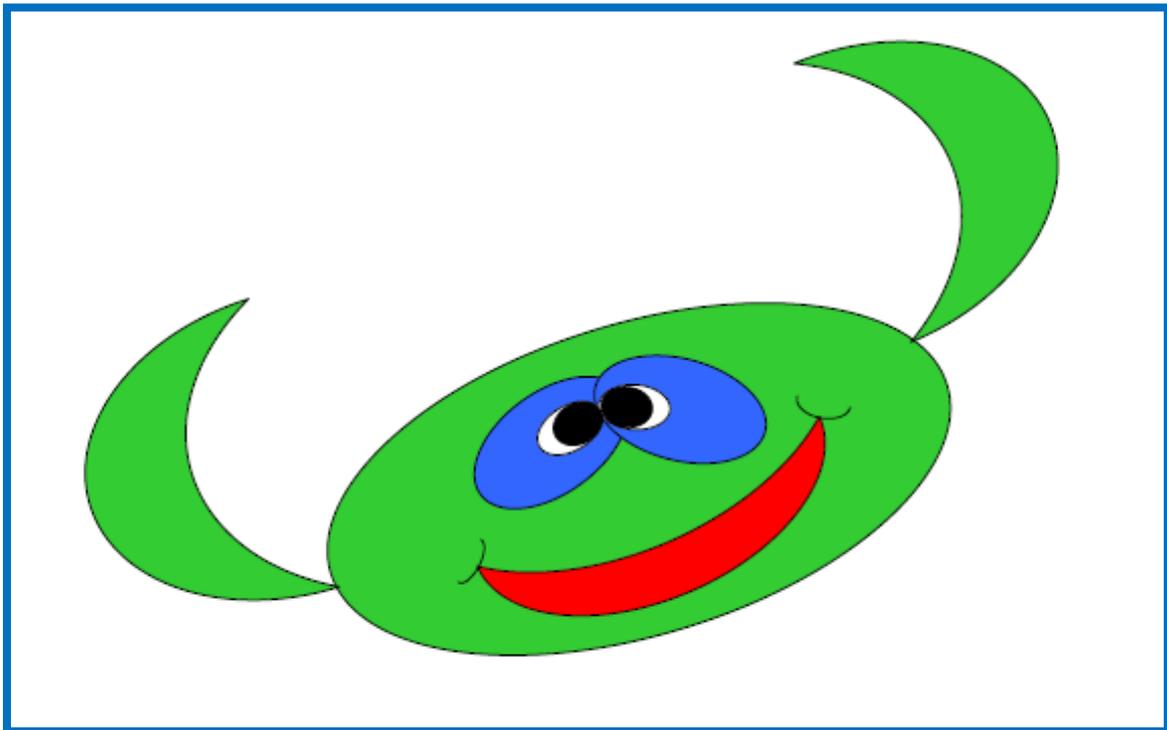
- (i) Use the Paint program to draw any one of the exercises on the following pages



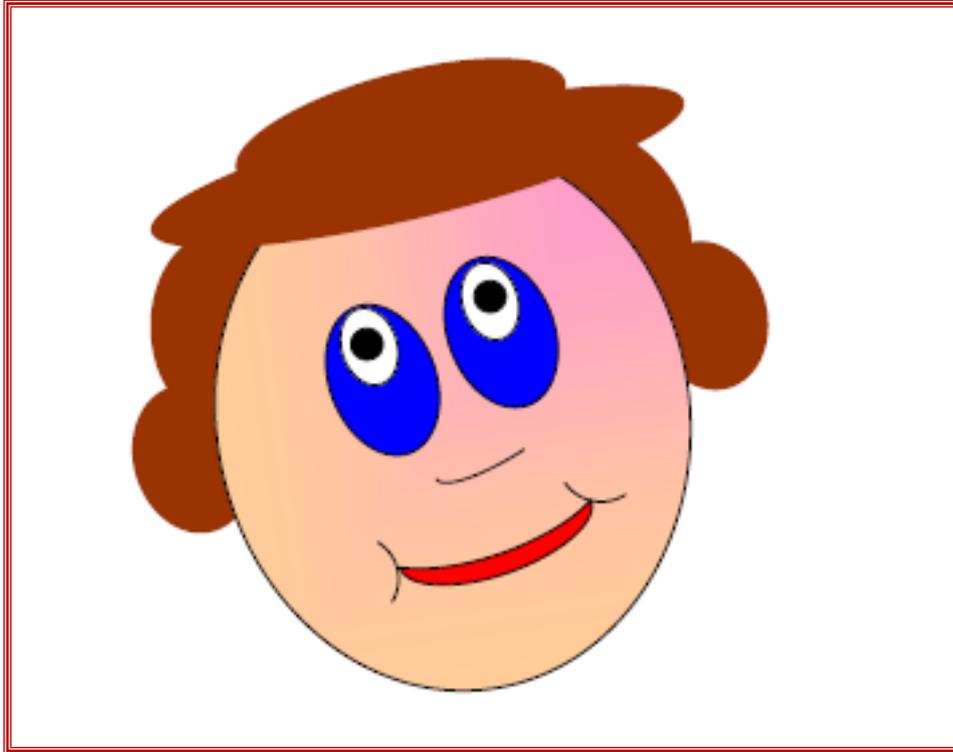
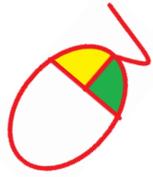
Drawing Exercise 1



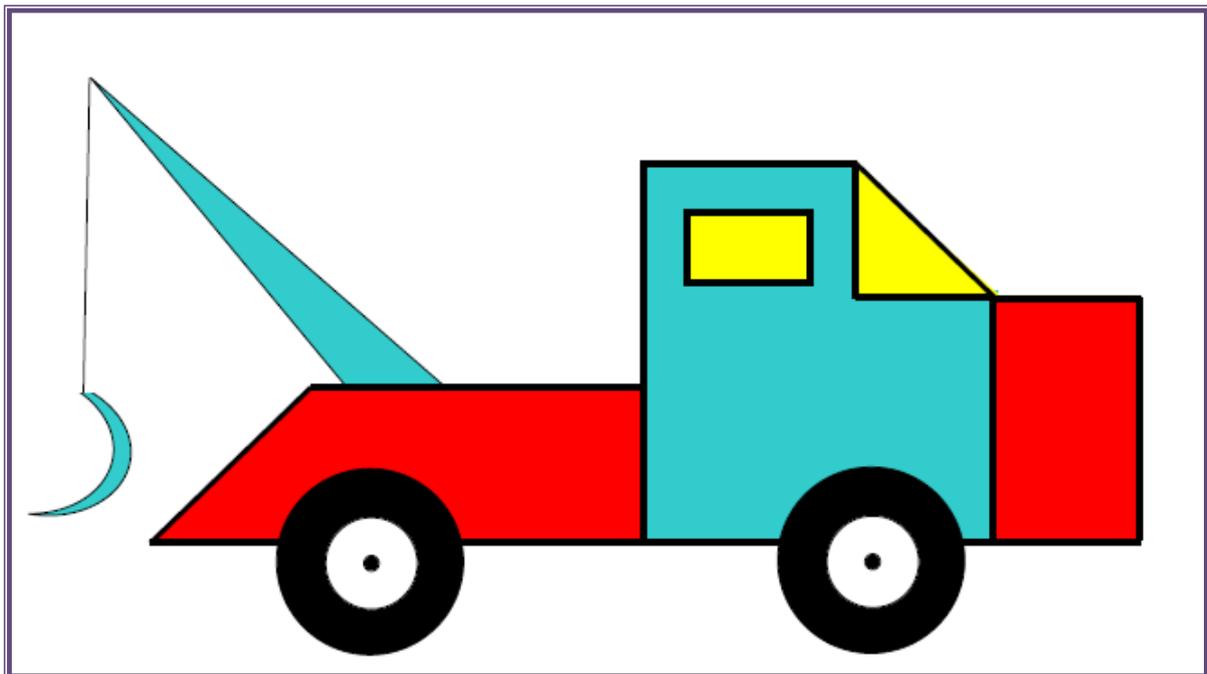
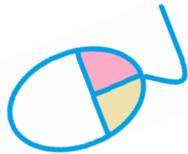
Drawing Exercise 2



Drawing Exercise 3

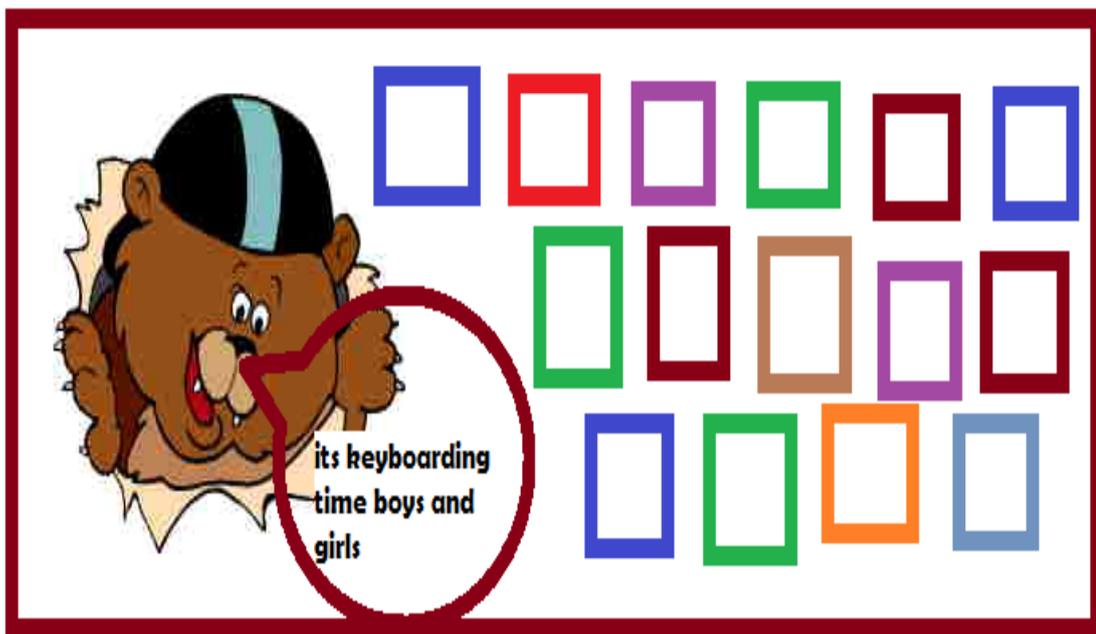


Drawing Exercise 4



USING THE COMPUTER

1.8 KEYBOARDING TECHNIQUES



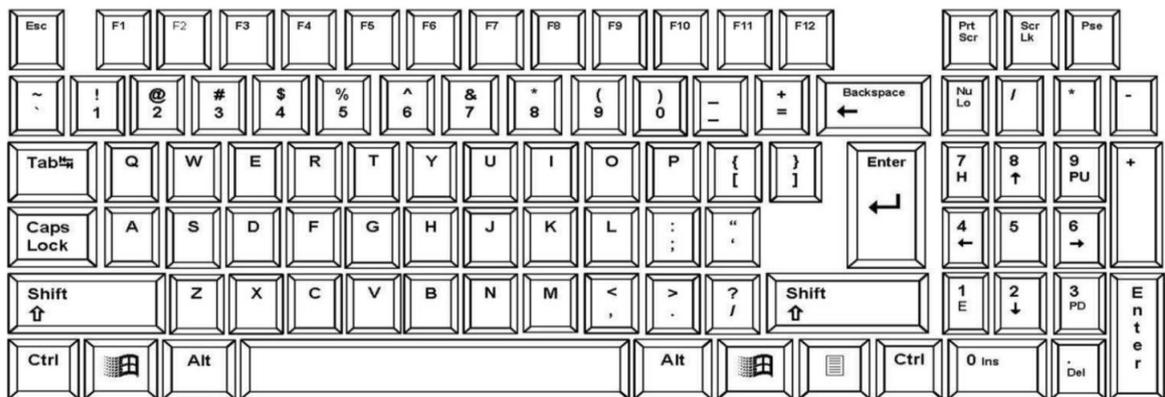
By the end of this topic students should be able to use the **KEYBOARD** to:

- I. Use the keyboard to type in alphabets
- II. Use the SPACEBAR key to separate words
- III. Use the ENTER key to begin typing on a new line
- IV. Use the BACKSPACE key to delete characters backwards
- V. Use the SHIFT key to capitalize alphabets

About the Keyboard

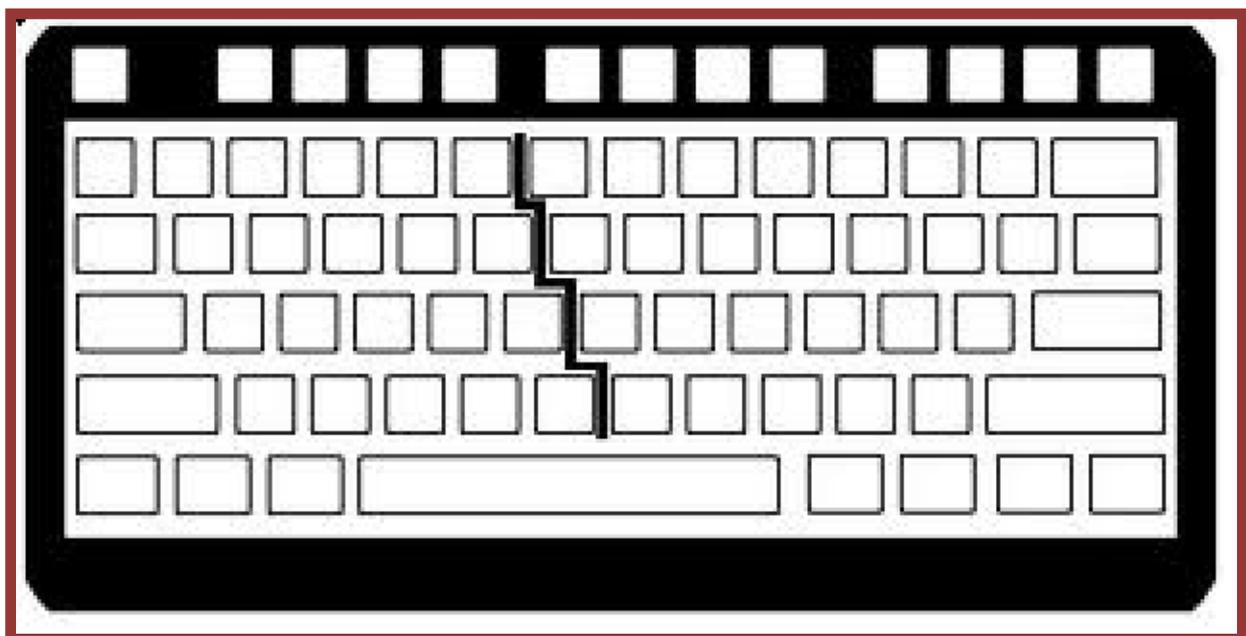
The keyboard is the most widely used input device and is used to enter data or commands to the computer. It has a set of :

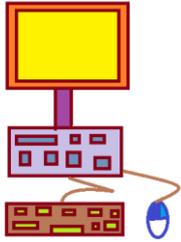
- alphabet keys,
- a set of digit keys,
- and various function keys



The layout of the letters on a keyboard is same across many countries and is called a **QWERTY keyboard**. The name comes from the first six keys on the top row of the alphabetic characters.

TASK 4 – Fill in the keys



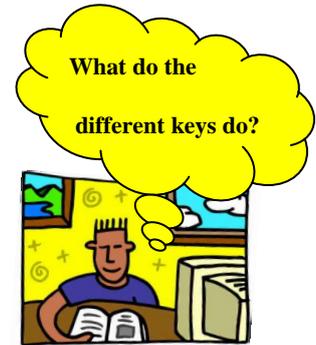


TASK 5 – Use the keyboard to type alphabets

Use the **Tux Typing Program** to type in the “falling “ alphabets.



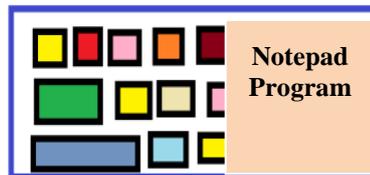
Keyboard Key	What is it used for?
SPACEBAR	Puts a space after each character or word
ENTER	Brings the cursor to a new line
BACKSPACE	Erase the characters backwards
SHIFT	Used together with the alphabet key to type in Capital



Use the keyboard to type words and sentences

TASK 6 –

Use the **Notepad Program** to type in the following sentences.



Remember:

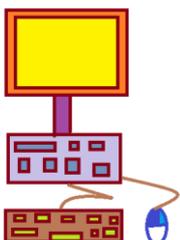
- Put **one** space between words (Press the SPACEBAR only once)
- Put **no** space before a punctuation mark
- Put **one** space between sentences.
- The **INSERTION POINT** is a blinking vertical bar (I) that indicates where text will be inserted as you type. As you type the insertion point moves to the right, and when you reach the end of the line, it moves downward to the start of the next line

Typing Ex.1



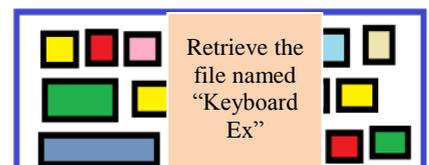
Good, better, best, Never let it rest,

Till your good is better, And you're better best.



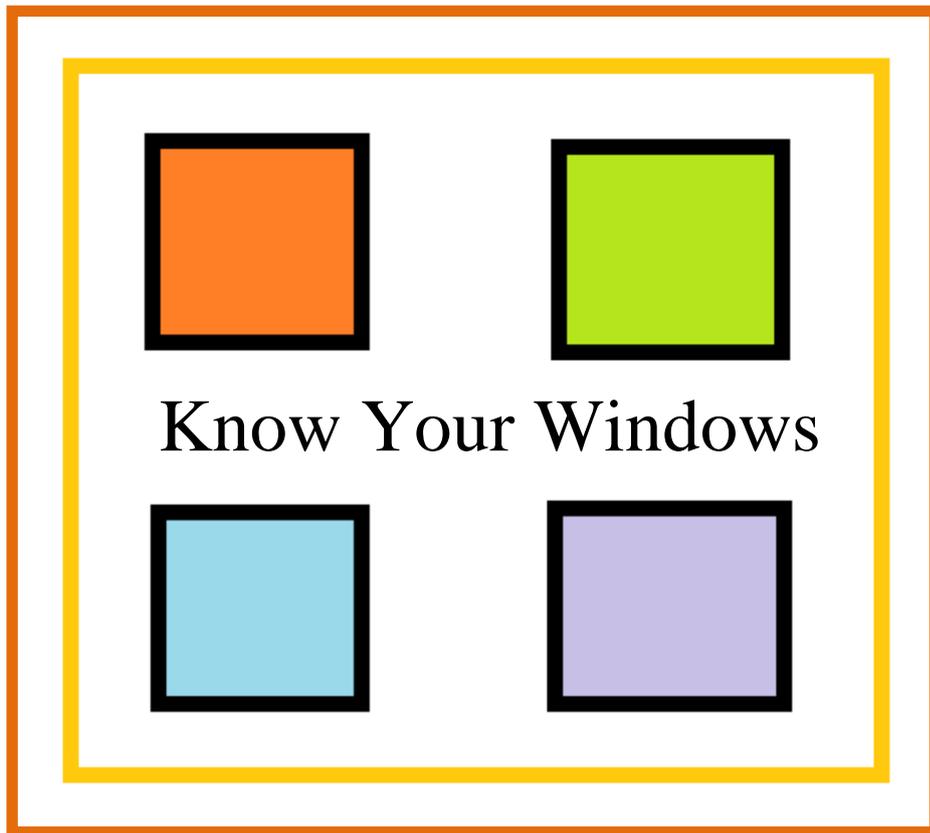
TASK7 – Use the correct keyboard keys to correct the following sentences

Look inside the folder named “**Student Files** “ and retrieve the file named “Keyboard Exercise” and make the necessary corrections



USING THE COMPUTER

1.9 WINDOWS



By the end of this topic students should be able to:

- I. recognize and use the icons on the DESKTOP
- II. manipulate the WINDOW
- III. work with FILES and FOLDERS

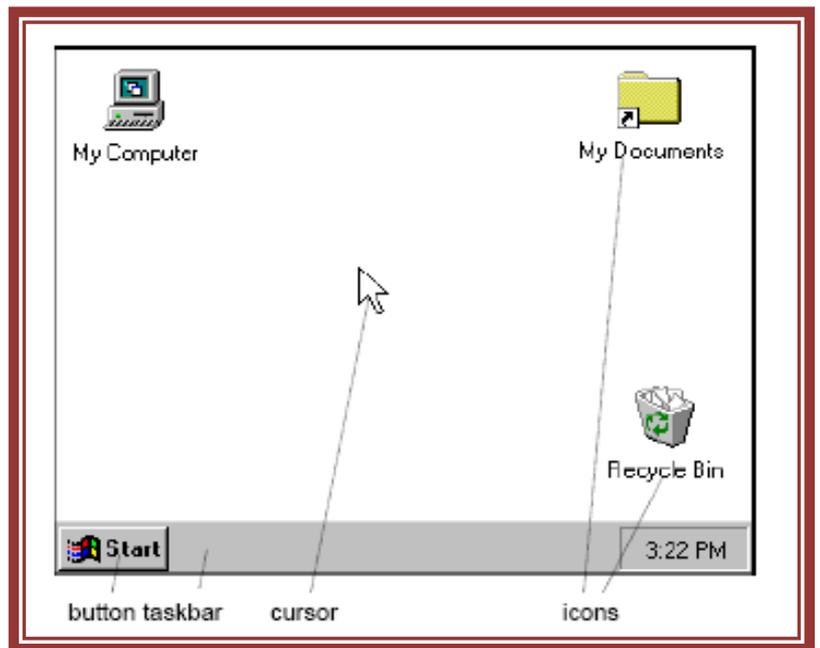
I. THE DESKTOP

The image of a desktop was invented to make computers easier to use.

Each desktop may look slightly different and show different objects (icons and buttons).

Look on your screen and see if you can find the three icons on the right. Each object on screen represents a function.

You are able to use these icons when you touch them with the mouse and cursor. Here we introduce the most important icons of the desktop.



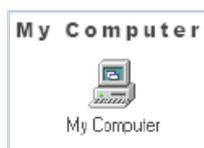
The white arrow is the '**cursor**'. You use it to tell the computer what to do. You can move it on the screen by moving the mouse with your hand. Try to move it to all four sides of your screen.



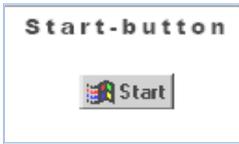
The yellow icon is a '**Folder**'. Like a real folder or cabinet, you can use it to store things on the computer. You can create your own folder(s) for your documents.



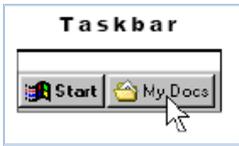
The '**Recycle Bin**' is a special folder. Like a real waste basket, you can use it to dispose of things you no longer need. You can put documents in it and take them out again, until you empty it.



This icon symbolizes **your computer**. You use it to get access to documents or programs on a Floppy-disk or a CD. 'My Computer' also gives access to the 'hard disk': the place within the computer where the programs and documents are kept.



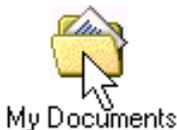
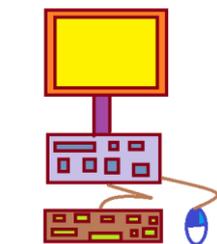
The '**Start**'-button gives you access to different functions, like starting programs and shutting down the computer. When a document is lost, you can use the Start-button to help you find it.



The Start-button is part of the '**Taskbar**'. For each program you start, a button is added to the Taskbar. This means you can open and use more programs at the same time. When you want to switch between programs you only click on its button in the Taskbar. Move your cursor on the Start-button and click with the left mouse button. See what happens!

Also take note of the following:

- **MOUSE POINTER**- The shape and the location of the mouse pointer changes depending on the task you are performing and the pointers location on the screen. The pointer has the shape of an I – beam when you are pointing to the document area. When you point to other features such as the scroll bar, the pointer has the shape of the arrow.
- **RULERS**-The horizontal ruler that is located on the top edge of the document window is used to set tab stops, indent paragraphs, adjust column widths and change page margins. A vertical ruler will sometimes be displayed at the left edge of the window when you perform certain advanced features
- **SCROLL BARS** - Scroll bars located on the bottom and right side of the window are used to display different portions of your document in the document window. The position of the scroll box reflects the relative location of the position of the document displayed in the document window..



TASK 8 - Working with Icons

- *Selecting Icons*

To select one icon:

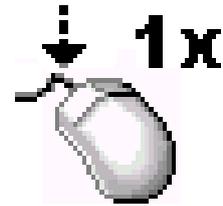
1. Move your cursor to the middle of the folder
2. Click the left mouse button



To select more icons:

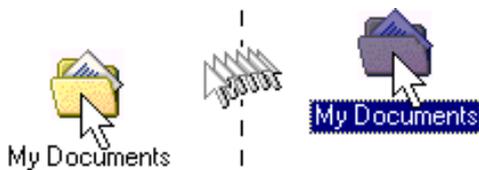


1. Select the first icon (see above)
2. Press the Ctrl-key on your keyboard and hold it down
3. Move to the next icon and click the left mouse button

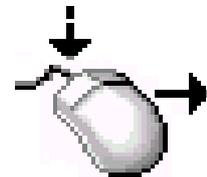


• **Dragging or moving icons**

To move an icon to another place:



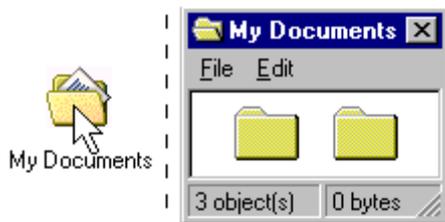
1. Click the left mouse button on an icon and keep the button pressed down



2. Move the mouse to 'drag' the icon elsewhere

• **Opening icons**

You can always open and look inside an icon. To open a folder for example:



1. Move your cursor to the middle of the folder
2. Double-click the left mouse button: two quick clicks



3. A 'Window' appears to show its contents

• **Using the right button**

The right button always gives access to functions:



1. Select an icon and keep your cursor on the folder
2. Click the right button: A function menu appears



3. Move the cursor to choose an option and click again

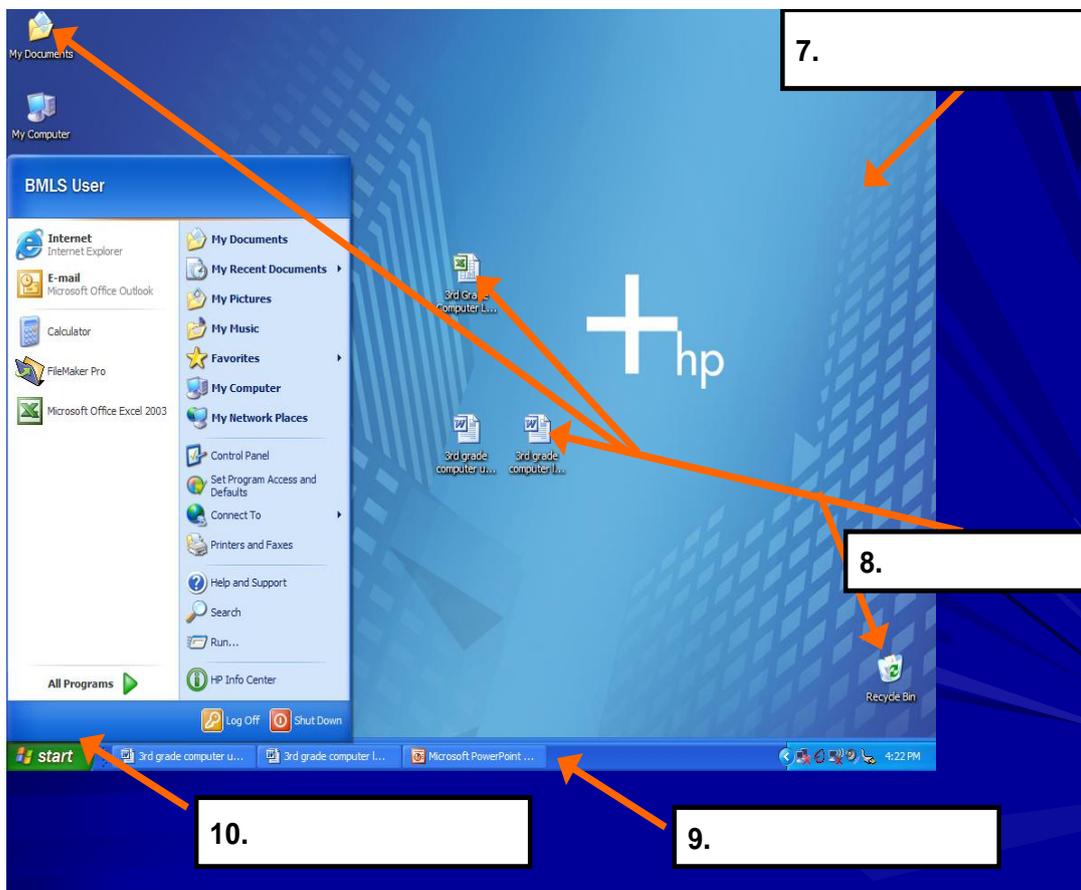


TASK 9 – In your exercise book:

A) Complete the following table

Icon Name	What does it look like ? (draw the icon)	What does it do?
Cursor		
Folder		
Recycle Bin		
My Computer		
Start Button		
Taskbar		

B) Draw and Label the parts of the Window



C) **Vocabulary** – Fill in the blanks with the vocabulary words from the box below. Use each word only one time.

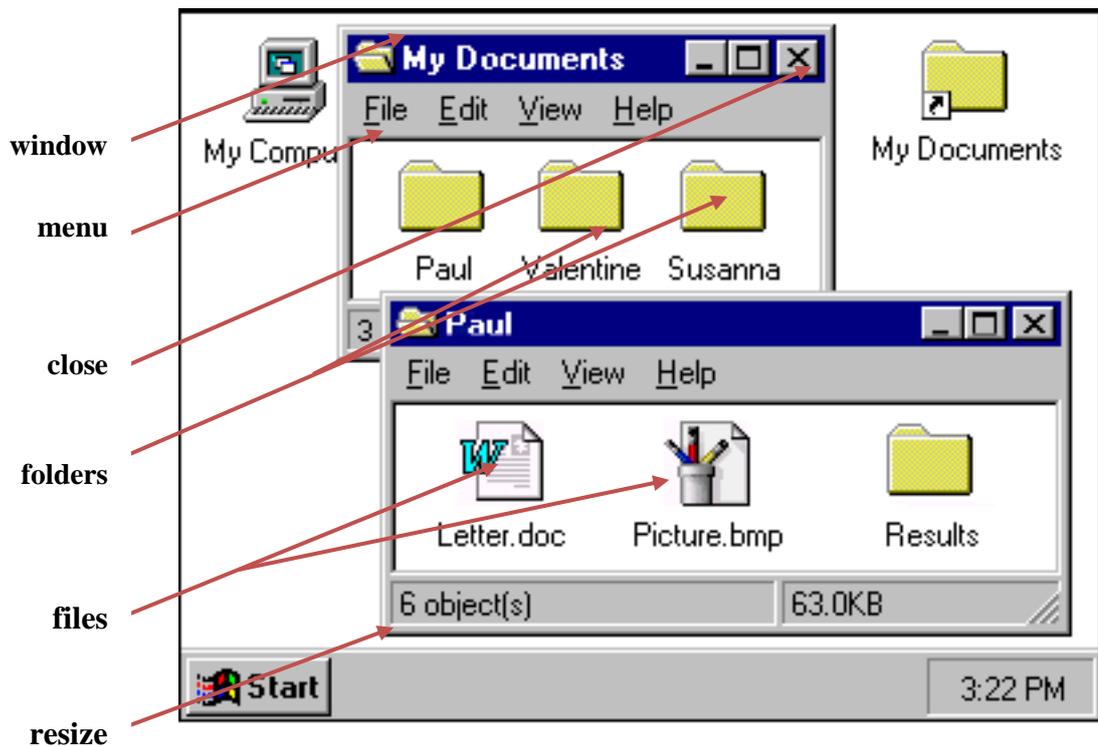
Desktop **GUI** **icon** **Recycle Bin** **Start**
Menu **Control Panel** **Task bar** **title bar** **windows**
toolbar **scrollbar** **wallpaper**

1. You put things in the _____ that you no longer need or want.
2. A _____ uses graphics or pictures to help the user navigate and access programs.
3. The Start Menu and clock are found on the _____
4. The _____ is the background screen for all programs and contains the commands needed to access them.
5. An _____ is a small picture that links to a file or program.
6. At the top of each window, the _____ contains the title and buttons to close, minimize and resize.
7. Moving the _____ up or down allows you to see all the information in the window.
8. Programs and applications run inside _____ that can be opened, closed and resized.
9. The _____ is like a backdrop on your screen that can be changed.
10. Found below in some windows, the _____ contains icons or options that allow you to perform specific tasks.
11. The _____ contains basic operations such as run, shut down and find.
12. The _____ contains important system controls.

D. MATCHING - Match Column I with Column II by writing the letters of the correct answers in the given space

COLUMN I	COLUMN II
_____1) Point to an item and press and hold the left mouse button while moving the mouse.	A. <i>CURSOR</i>
_____2) This blinking indicator shows where you are in your file.	B. <i>CLICK AND DRAG</i>
_____3) Point to an item and press and release the right mouse button.	C. <i>ICONS</i>
_____4) Symbols used to represent applications or items	D. <i>RIGHT MOUSE CLICK</i>
_____5) The electronic work area what you see on the computer screen.	E. <i>DESKTOP</i>
_____6) The types of menus, usually found in a bar at the top of the window.	F. <i>DOUBLE LEFT MOUSE CLICK</i>
_____7) Point to an item and press the left mouse button twice quickly.	G. <i>MENU BAR</i>
_____8) On the side and bottom of a window, you use these to move through a document larger than the monitor screen.	H. <i>LEFT MOUSE CLICK</i>
_____9) Point to an item and quickly press and release the left mouse button.	I. <i>SCROLL BAR</i>
_____10) Changes the window to fill the whole screen.	J. <i>MAXIMIZE</i>
_____11) Move the mouse so that the pointer touches the item you choose.	K. <i>MOUSE</i>
_____12) The hand held device you use to select and open items and programs.	L. <i>MOUSE POINT</i>

II. THE WINDOW

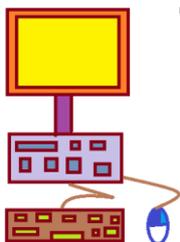


When opening a FOLDER, a WINDOW appears to show the folder's contents. A window may show other folders or files such as a letter or a picture.

Each window has a MENU gives you a choice of options. You can move a window on your screen in the same way you move a folder.

The size of a window can be adjusted or 'Resized'. When you are finished with a window, you CLOSE it. When you want a window to disappear temporarily, you MINIMIZE it.

The following basic tasks show you how.



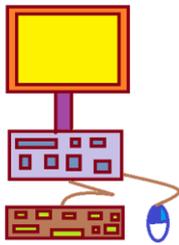
TASK 10 - Using the Menu



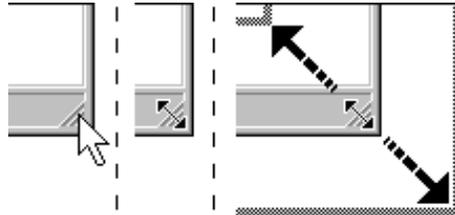
First open a FOLDER to get access to the functions:

1. Move your cursor over the MENUS : 'File', 'Edit' or 'Help'
2. Notice that the item becomes a button

3. Click the left mouse button to open the menu
4. Move the cursor down to choose an option and click again

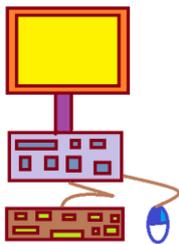


TASK 11 - Resizing a window



To change the window size:

1. Move the cursor to the bottom-right of the window
2. The cursor should first change shape
3. Click the left mouse button and hold the button down
4. Move the mouse to change the size and release the button

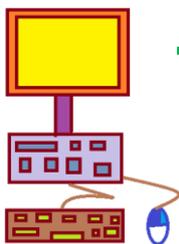


TASK 12 - Minimizing a window



To make a window disappear temporarily:

1. Go to the 'Minimize'-button on the top-right of the window
2. Click the button to make the window disappear
3. To get it back, click the button in the taskbar



TASK 13 - Closing a window



To make a window disappear:

1. Go to the small button on the top-right of the window
2. Click the left mouse button

III. FILES AND FOLDERS

We use the computer to work with different types of FILES and it is important to put them in a good place (like a filing cabinet).

File: Each document (plain text file, a letter in Word, music or the directions for a Program) is called a file.

Folder: Files are grouped together in folders, also called directories.

Disk/ Drive: Your files and folders are stored on a hard disk on your computer or on a network drive, or on some kind of removable media like a floppy disk, a CD or DVD, a USB drive or other removable disk.

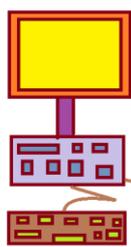
Path: The drive and folders you must go through to get to the folder or file that you want is called the path. A path always starts with a drive letter. The path C:\Program Files\Internet Explorer leads to the folder that holds Internet Explorer's program files.

Folder tree: The folder tree shows all of the computer's drives and folders in a nested arrangement, plus some special areas like the Control Panel and Recycle Bin. A small symbol, or , marks drives and folders which contain other folders.

Clicking this symbol expands this branch of the folder tree. Another symbol, or , marks something that is already expanded to show its contents. Clicking the symbol will collapse this branch of the folder tree.

We create “FOLDERS” to organize and store our files. Practice the following tasks and teach yourself how work with folders.

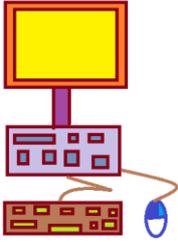
TASK 13 - Creating a new FOLDER



We will create a new folder on the Desktop.

1. Right Click on the mouse to get your shortcut menu
2. Left Mouse Click on the “New” option
3. Left Mouse Click again on the “Folder” sub option.
4. Type “SCHOOL WORK” and press ENTER



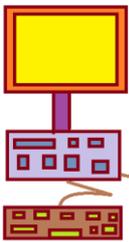


TASK 14 - Renaming a FOLDER



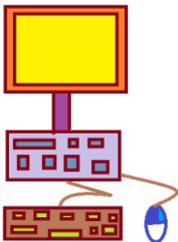
To change the name of an icon:

1. Right Click on the “SCHOOL WORK” folder
2. Left Click on the “Rename” option
3. Now type the new folder name “MATHS”



TASK 15 - Putting a FILE into a FOLDER

- 1) Look to the Desktop and choose a file to be “transported”
- 2) Point to the file with your mouse and “Click and Drag” the file to the “MATHS folder.
- 3) Once the file is above the folder, and you see a button appear, “Move to MATHS”, Release the left mouse click
- 4) Double Click on the Maths folder to open it and view its contents



TASK 16 - Student Activity 1

- 1) Create 3 folders on desktop
 - i. yr school
 - ii snow
 - iii rain
- 2) Delete ‘rain” folder
- 3) Rename ‘snow” folder – “yr class”
- 4) Put 2 files into the two remaining folders
- 5) In the “yr class’ folder, create another subfolder and name it “HOMEWORK”

Unit 2

Word Processing

At the end of this chapter students should be able to:

- 2.1 Use the MS Office Word 2007, menu and tool bar functions**
- 2.2 Check their work (proofread) and make corrections writing using appropriate resources**
- 2.3 Use the formatting toolbar**
- 2.4 Copy and paste text and images within a document, as well as from one document to another.**
- 2.5 Demonstrate use of intermediate features in word processing applications**

Creating a
"box" around
your text -
BORDER

Make Text Dark
- **BOLD**
Slant the text
- *ITALIC*

Use Pre- saved
Art design with
text - WORD
ART

Insert Graphic
into document

nursery rhymes

1) **DR.FOSTER**

Doctor Foster is a good man
He teaches children all he can;
Reading, writing, arithmetic,
And doesn't forget to use his stick.
When he does he makes them dance
Out of England into France,
Out of France into Spain
Round the world and back again.



2) **COMPARATIVES**

Good, better, best

Never let it rest,

Till your good is better

And you're better is best



3) **SWEET DREAMS**

Matthew, Mark, Luke and John,
Bless the bed that I lie on.
If I should die before I wake,
I pray the Lord **MY SOUL HE TAKE.**

- **NAME:** Tjeri Seinicharle
- **CLASS:** 7
- **SCHOOL:** Babasiga Primary School

Styles of Writing
- FONT

Use Bullets to
emphasize text

Insert
Shapes
into
document

Position the
text to appear
on the right

What is Word Processing



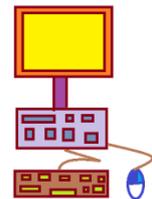
Word processing or Desktop Publishing, involves the use of a computer to create, edit (make changes) and print text (words, sentences, paragraphs).

Letters, reports, outlines, and research papers are examples of documents created with a word

Microsoft Office Word (MS Word) is the word processing program that you will be using to type letters, reports, and other documents.

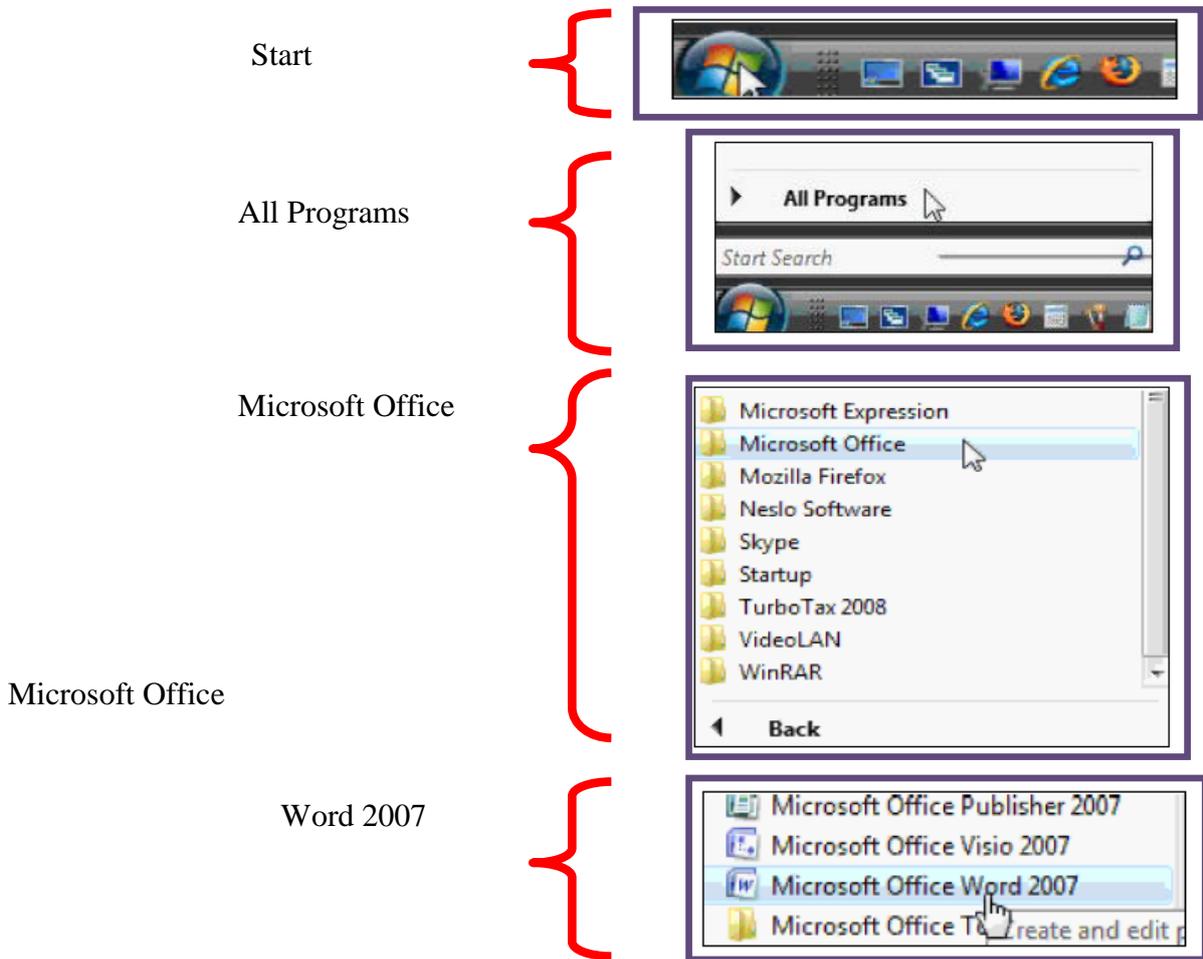
The next lesson will introduce you to the MS Word window.

2.1 Use the MS Office Word 2007, menu and tool bar functions

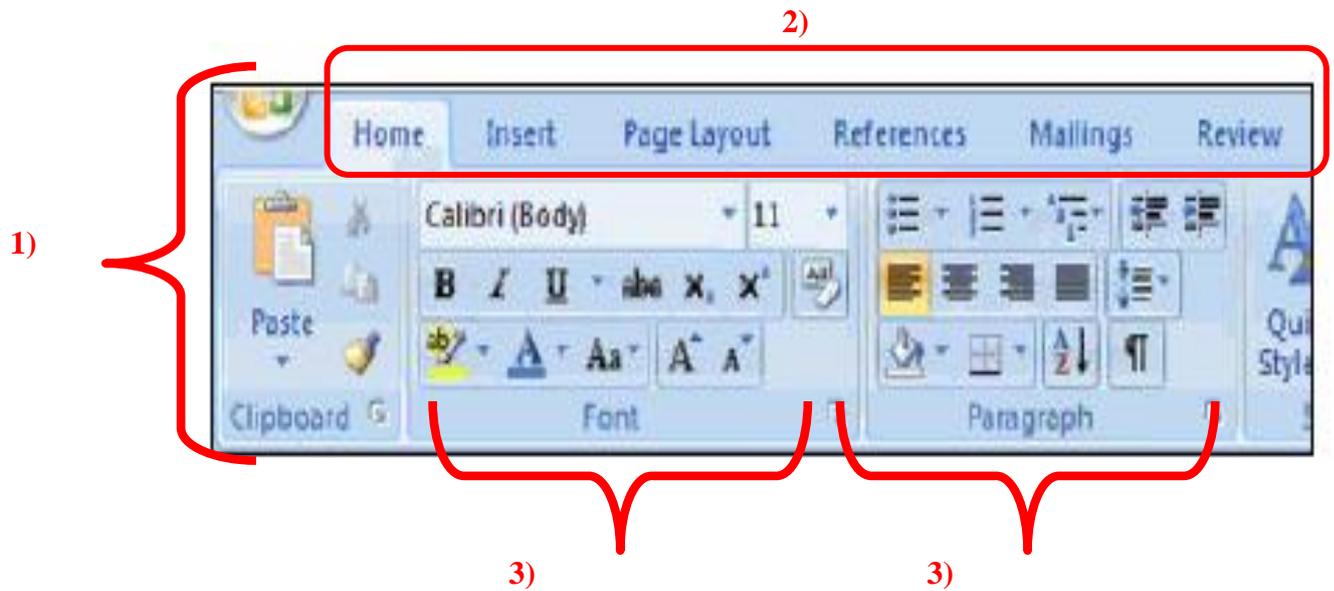


I) START MS OFFICE WORD 2007

To begin this lesson, open Microsoft Word 2007



II) INSIDE THE MICROSOFT OFFICE WORD 2007 WINDOW



1) The Ribbon

- Across the top of the page is the Ribbon which will help you to use the “tools” provided in MS Office Word 2007

2) Tabs

- Inside the Ribbon we have Tabs e.g. the Home tab. You will use the tabs to give instructions to the computer in the program you are using.
- Q. How many tabs can you see in the above figure?
- Q. Which tab is currently selected in the above figure? How can you tell?
- Q. How many tabs in total can you see in the ribbon?

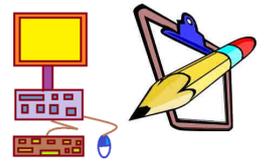
3) Groups

- Each tab will have groups inside them e.g. groups in the Home Tab include Clipboard, Font, Paragraph etc

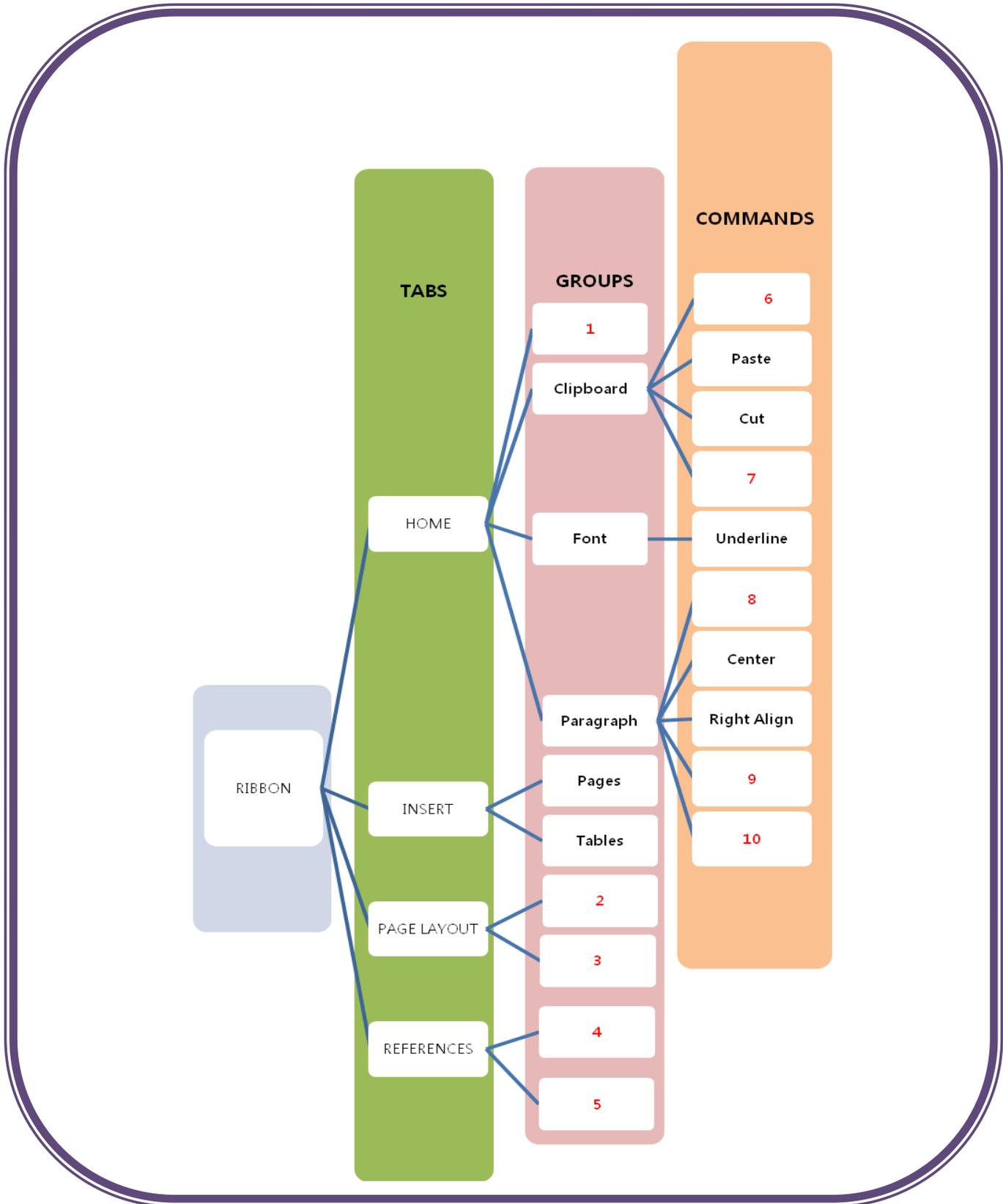
4) Commands

- Inside each group you will have command buttons or “tools” that will help you with your document. E.g. . Inside the Font group we can find the following commands, Bold, Italic, Underline etc

EXERCISE 1 – Exploring the Ribbon



Click on Tabs and Groups to write down missing Groups or Commands in your Computer Lab Book



5) The Title Bar



The Title bar is located at the very top of the screen. Displayed here is the:

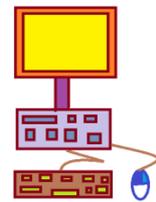
- Name of the document on which you are currently working. (you should see "Microsoft Word - Document1" or a similar name shown)



- Minimize, resize and Close, icons at the top right of the title bar

EXERCISE 2 - Do the following exercise.

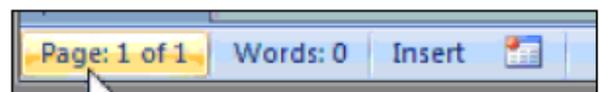
- Click on the Minimize button to make the window smaller
- Click on Resize Icon to enlarge the window
- Click on the Close icon to exit the window
- Do not save



6) Quick Access Toolbar



On the upper left hand corner next to the Office button is the **Quick Access Toolbar** which only has a couple of buttons on it such as: save, repeat, and undo.



7) Status Bar

The status bar shows you things like what page you are currently on and how many pages there are, how many words you have in your document, and so on

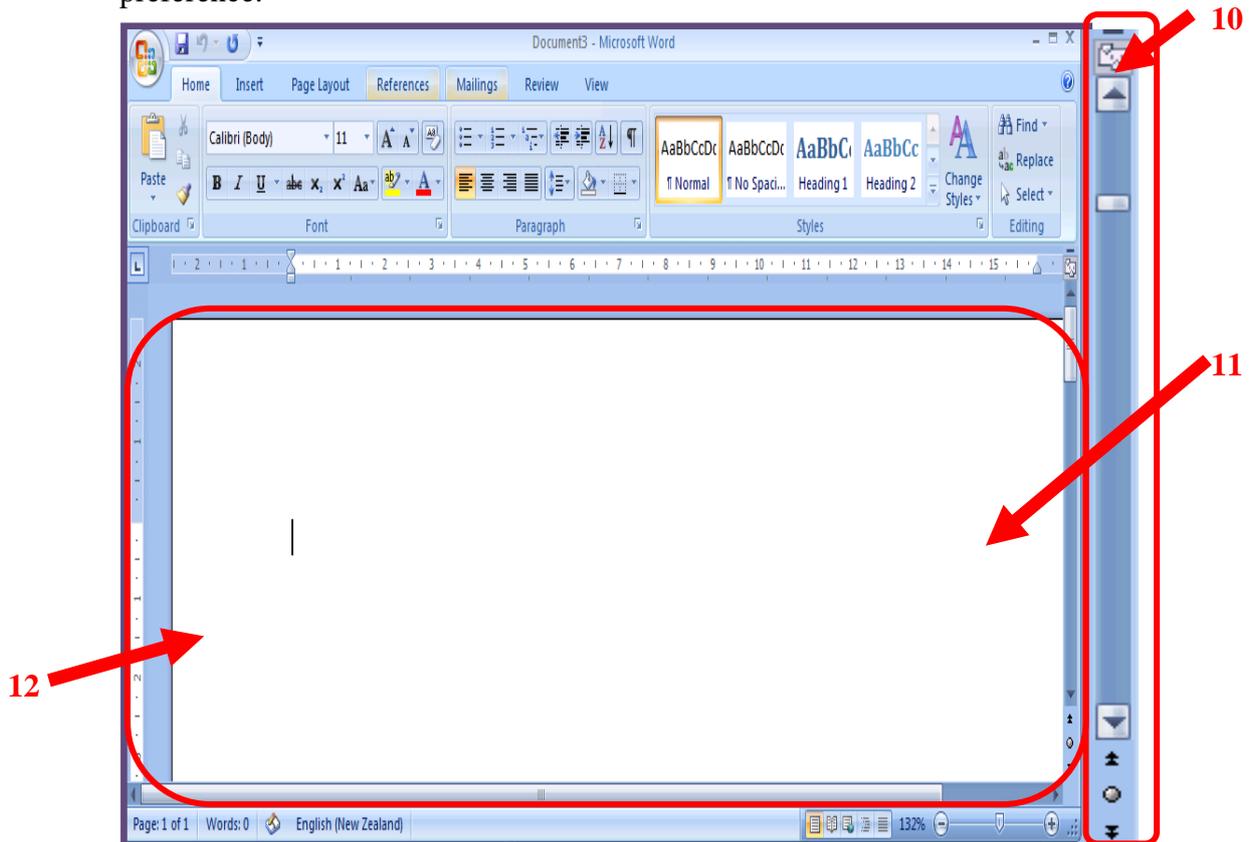


8)

9)

8) **View Buttons** - Next to the Status Bar are the Views Buttons. The views buttons allow us to change how we view our document. We can either: view the document as you would a printed paper, as a web page, a draft, etc.

9) **Zoom Control** - Next to that we have our Zoom Controls. You can use these controls to either zoom into your document or zoom out, depending on your personal preference.



10) **Scroll Box** - The scroll box allows you to move up or down your document. This is helpful when you have more than one page.

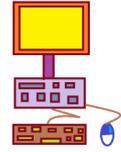
11) **Document Area** - Finally in the middle of your window you have a document area. This is where all your text, pictures, etc. will go.

12) **Insertion Pointer** - The flashing line on your screen is called the Insertion Point or Cursor. That is where the text is inserted into the document when you type.

III) CREATE AND SAVE NEW DOCUMENTS

EXERCISE 3- Create and Save

- 1) Type your First name and Last name on the first line
- 2) Type your Class on the second line
- 3) On the third line type your school
- 4) You will now exit Word and Save your work

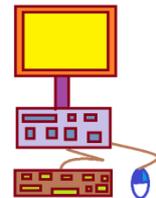


- Close the Window
- If you have entered text, you will be prompted: "Do you want to save changes to Document1?" To save your changes, click yes.
- Save your work onto the Desktop
- Name your file by typing "U2-ex3-yrfirstname.doc" in the File Name field.
- Click Save.
- Check on the desktop to see if your "U2-ex3-yrfirstname.doc" file is there

(IV) RETRIEVE AND EDIT A NEW DOCUMENT

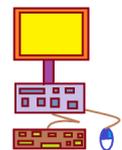
EXERCISE 4 – Retrieving and Editing

- 1) Retrieve "U2-ex3-yrfirstname.doc" by pointing to it and double-clicking on it
- 2) After the last line type "I love computer learning"
- 3) Save the changes to this file by clicking on the file menu and typing "U2-ex4-yrfirstname.doc" and selecting the "save option"
- 4) Close your window
- 5) Retrieve the "U2-ex4-yrfirstname.doc" file to see if the changes made to the document has been saved



EXERCISE 5- Retrieving and Editing

- 1) Retrieve the file titled "EX5.doc" from the student folder
- 2) Make the necessary changes and save changes as



2.2 Check their work (proofread) and make corrections writing using appropriate resources

I. CHECK SPELLING AND GRAMMER (DICTIONARY)

When words are incorrectly spelt, they will have a red line beneath it

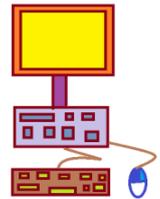
When there is incorrect grammar the words have a green line beneath

To correct these errors you will need to right click on the incorrect word to see a list of correct options.

Then click on the correct option

EXERCISE 6 – Grammar and Spelling

Retrieve the following “EX6” from the **STUDENT FILES** Folder
And make the correct changes to the Grammar and Spelling
Save your work as “U2-ex6-yrfirstname.doc”



An **earthquake** occurs when the crust of the earth trembles **or** shakes. Where the earth’s tectonic plates **collide**, huge amounts of energy push **rock** against rock. In some places the plates slide over each other **little** by little, but in other places they get stuck.

For years, and even decades, the pressures pushing the plates build up. Then, quite suddenly, the pent-up energy **is** released. The plates slip over each other sending shock waves of energy in all directions. When these waves reach the surface there felt as earthquakes.

The force of an earthquake is measured on the Richter scale. Every point on the scale is a 10 fold increase on the point below. The Mercalli scale can also be used to **measure** earthquakes but rather than force it measures the effects. The force of an earthquake is recorded on a seismometer.

II. USE WORDS WITH THE SAME MEANING (SYNONYM)

We will use the Thesaurus to find alternative words with the same meaning.

To use an alternative word, point to the word and right click on it

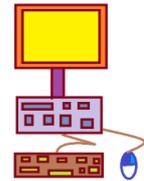
Click on the “synonym” option.

A list of alternative words will display. **CLICK ON THE WORD OF YOUR CHOICE**

EXERCISE 7 – Using Synonyms

Retrieve the following “EX7” from the STUDENT FILES folder and choose a word with similar meanings to the words FORCE, INCREASE, MESURES.

Save your work as” **U2-ex7-yrfirstname.doc**”



“The force of an earthquake is measured on the Richter scale. Every point on the scale is a 10 fold increase on the point below. The Mercalli scale can also be used to measure earthquakes but rather than force it measures the effects. The force of an earthquake is recorded on a seismometer.”

III. MAKING CORRECTIONS TO YOUR WORK

We will now practice using the Backspace key and the Delete Key to delete text.

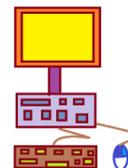
EXERCISE 8 – Backspace Key

1. Type the following sentence:

Luke has a very large house.

2. Now delete the word "house." Using either the arrow keys or the mouse, place the cursor between the period and the "e" in "house."

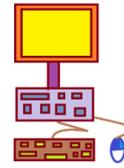
3. Press the Backspace key until the word "house" is deleted.



4. Type **boat**. The sentence should now read: "Luke has a very large boat."
5. Save as " **U2-ex8-yrfirstname.doc**"
6. We will continue now with Exercise 9

EXERCISE 9 - *The Delete Key*

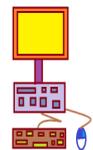
You can also delete text by using the Delete key. First, highlight the text you wish to delete; then press the Delete key.



1. Delete the word "very" from the sentence you just typed.
2. Highlight the word "very." Place the cursor before the "v" in the word "very" and click and drag across until the word "very" is highlighted.
3. Press the Delete key. The sentence should now read:
"Luke has a large boat."
4. Save as " **U2-ex9-yrfirstname.doc**"

EXERCISE 10 – *Practice*

1. Retrieve from the student file folder "Ex10"
2. Delete the dotted lines before you type in your answers to the profile question
3. Make corrections to the words with incorrect spelling
4. Save your work as "**U2-ex10-yrfirstname.doc**"



EXERCISE 11 – *More practice*

We are now going to now type nursery rhymes. Open up a new document and type the following three rhymes.

1) DR.FOSTER

Doctor Foster is a good man

He teaches children all he can;

Reading, writing, arithmetic,
And doesn't forget to use his stick.
When he does he makes them dance
Out of England into France,
Out of France into Spain
Round the world and back again

2) **COMPARATIVES**

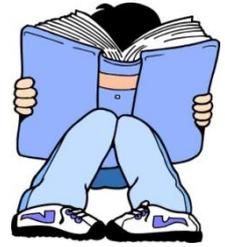
Good, better, best
Never let it rest,
Till your good is better
And you're better is best.

3) **SWEET DREAMS**

Matthew, Mark, Luke and John,
Bless the bed that I lie on.
If I should die before I wake,
I pray the Lord the soul I take.

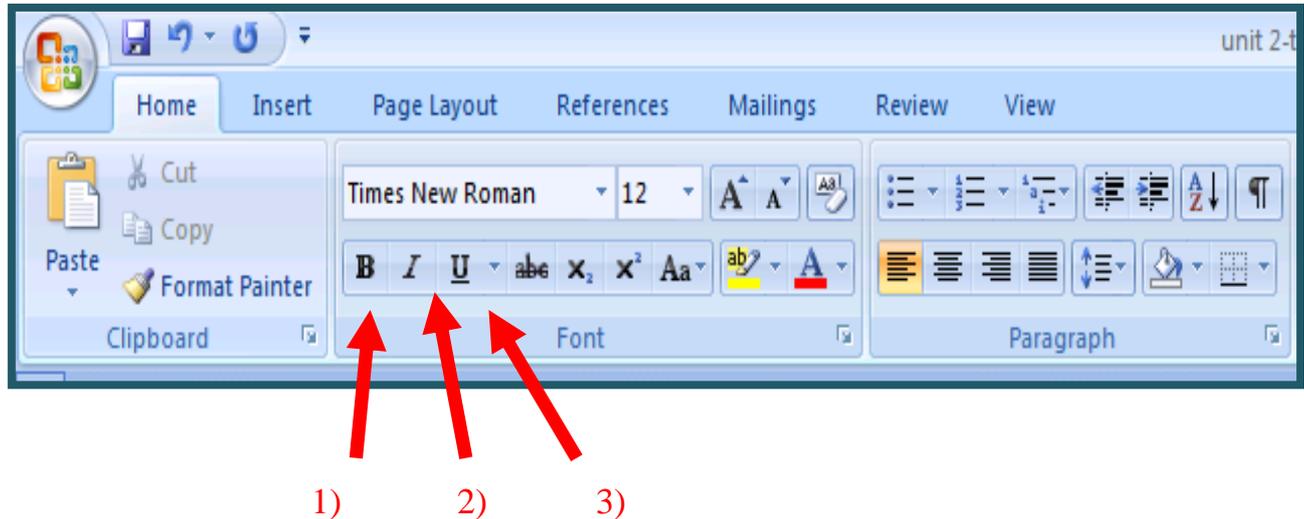
4) Save your work as" **U2-ex11-yrfirstname.doc**"

2.3 Use the formatting toolbar



To format your text means to change the appearance of your text e.g to make the text dark, underline or change its style of writing Etc

The formatting tools are found in the **Home Tab** in the **Font Group**.



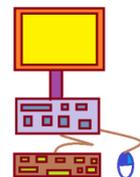
I. BOLD, UNDERLINE AND ITALICIZE TEXT

- 1) To Bold text means to make the text appear darker in color
- 2) To italicize text is to make your text appear slanted.
- 3) To Underline text is to put a line under the text

In the exercise that follows, you will learn to Bold, Italicize and Underline when using the icons shown above..

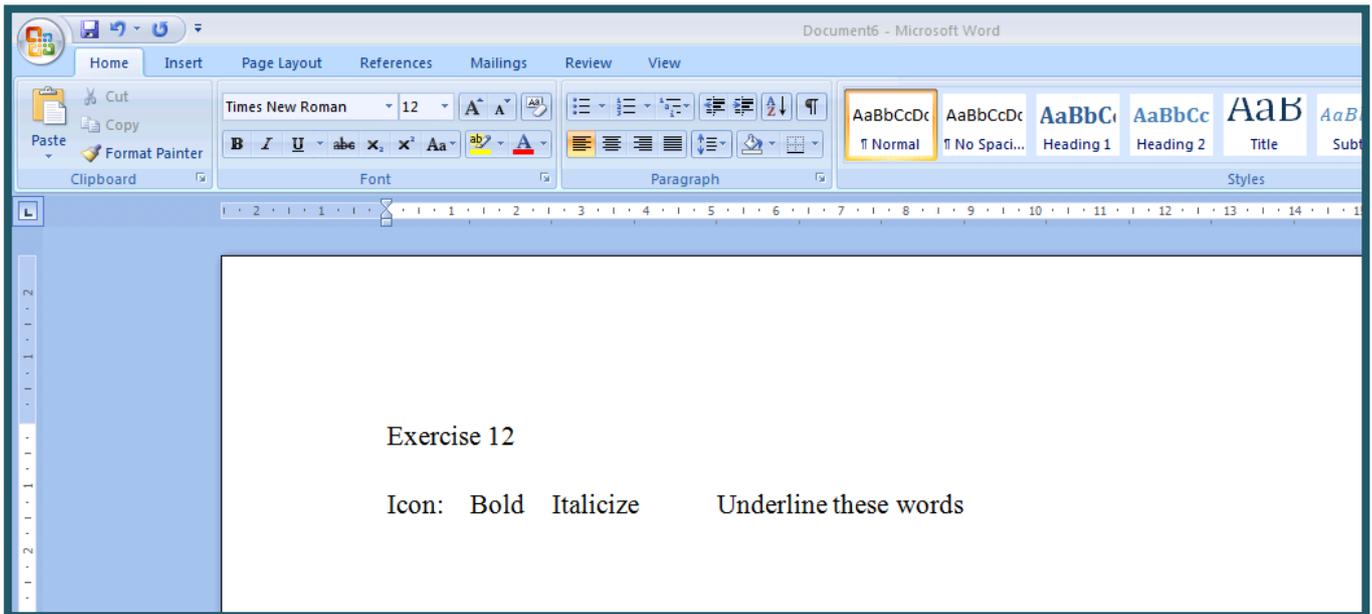
EXERCISE 12 – Bold, Underline and Italicize

Type the following. Only type the text in red and don't forget to press the tab key once as instructed.



Exercise 12

Icon: (press Tab once)**Bold** (press Tab once)*Italicize* (press Tab once) Underline these words



Your screen should look similar to the one shown above

a) Bold by Using an Icon

1. On the line that begins with "Icon," highlight the word "Bold." To do so, place the cursor before the letter "B" in "Bold." And drag across until the entire word is highlighted.
2. Click the Bold icon  on the toolbar.
Note: To turn off bold, highlight the text and press the **bold** icon again.
3. Click anywhere in the Text area to remove the highlighting.

b) Italicize by Using an Icon

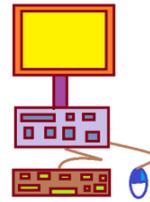
1. On the line that begins with "Icon," highlight the word "Italicize." To do so, place the cursor before the letter "I" in "Italicize." Press the F8 key; then press the right arrow key until the entire word is highlighted.
2. Click the Italic icon  on the toolbar.
Note: To turn off italics, highlight the text and press the Italic icon again.
3. Click anywhere in the Text area to remove the highlighting.

Underline by Using the Icon

1. On the line that begins with "Icon," highlight the words "Underline these words."
2. Click the Underline icon  on the toolbar. You will get a single underline.
Note: To turn off underlining, press the Underline icon again.
3. Click anywhere in the Text area to remove the highlighting.
4. Save your work as "U2-ex12-yrfirstname.doc"

EXERCISE 13 – Practice

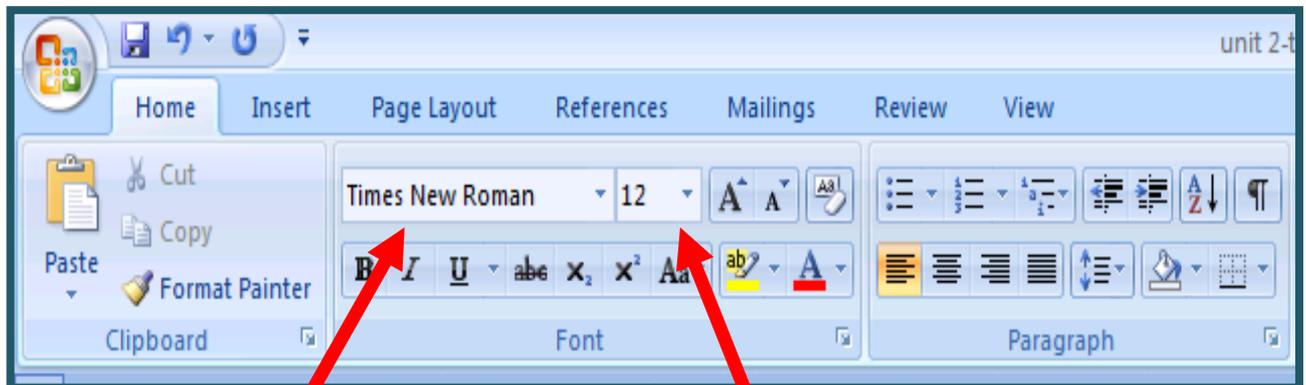
1. Retrieve "EX13" and make appropriate changes and save your work as "U2-ex13-yrfirstname.doc"



II. CHANGE FONT SIZE AND FONT

a) Font Size

In Microsoft Word, you can change the size of your font (text). The following exercise illustrates changing the font size.



Font

Font Size

EXERCISE 14 - Change Font Size by Using the Toolbar

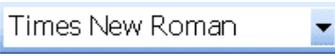
1. Type
"I am the smallest. I am a little bigger. I am the biggest."
2. Highlight "I am the smallest."

3. In the Font Size box  on the toolbar, type **8**.
4. Press Enter.
5. Highlight "I am a little bigger."
6. In the Font Size box  on the toolbar, type **14**.
7. Press Enter.
8. Highlight "I am the biggest."
9. In the Font Size box  on the toolbar, type **24**.
10. Press Enter.

b) Fonts



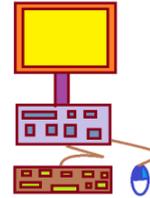
We will now change the style of the text by using the Font tool

1. Highlight "I am the smallest."
2. Click to open the Font pull-down menu  on the Formatting toolbar.
3. Click "Arial."
4. Next, highlight "I am a little bigger."
5. Click to open the Font pull-down menu  on the Formatting toolbar.
6. Click "Courier."
7. Next, highlight "I am the biggest."
8. Click to open the Font pull-down menu  on the Formatting toolbar.
9. Click "Times New Roman."

10. Save your work as **U2-ex14-yrfirstname.doc**

EXERCISE 15

1. Retrieve **EX15** and make the necessary changes and save your work as **U2-ex15-yrfirstname.doc**

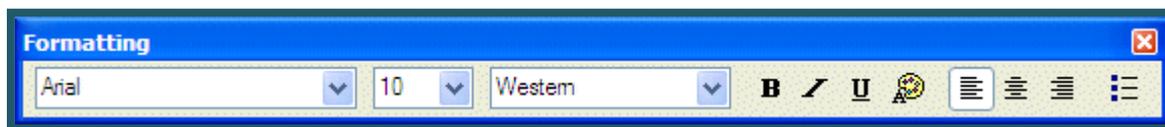


EXERCISE 16 – *The Formatting toolbar*



In your exercise book answer the following formatting questions:

1. Label the following formatting tools



- (a) (b) (c) (d) (e) (f) (g) (h)

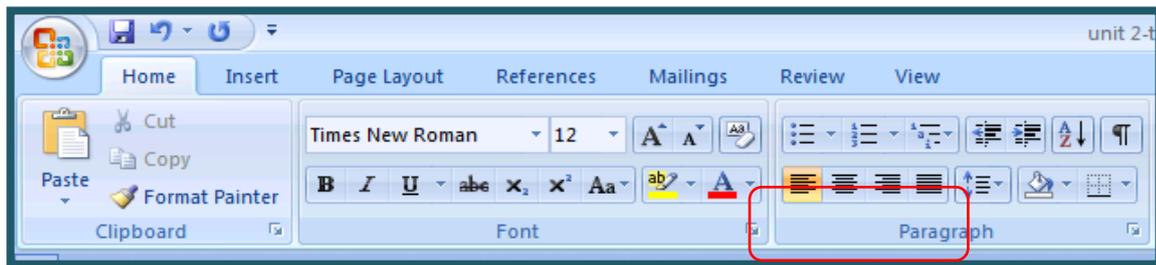
2. Explain the function of each formatting tool identified above
3. List at least 3 different font styles you have learnt in class
 - a)
 - b)
 - c)
4. If you have already typed your words and then you want to format, what is the first thing you must do before clicking on the formatting tools?

ALIGN TEXT

To align our text is to position our text and Microsoft Word gives us three alignment tools



Left, Right, Center and Justify. Microsoft Word uses left aligned text by default



a) Left Aligned Text



An earthquake occurs when the crust of the earth trembles or shakes. Where the earth's tectonic plates collide, huge amounts of energy push rock against rock. In some places the plates slide over each other little by little, but in other places they get stuck.

b) Right Aligned Text



For years, and even decades, the pressures pushing the plates build up. Then, quite suddenly, the pent-up energy is released. The plates slip over each other sending shock waves of energy in all directions. When these waves reach the surface they are felt as earthquakes.

c) Centered Text



The force of an earthquake is measured on the Richter scale. Every point on the scale is a 10 fold increase on the point below. The Mercalli scale can also be used to measure earthquakes but rather than force it measures the effects. The force of an earthquake is recorded on a seismometer.

d) Justified Text

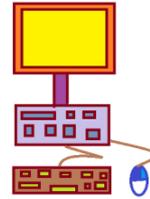


The force of an earthquake is measured on the Richter scale. Every point on the scale is a 10 fold increase on the point below. The Mercalli scale can also be used to measure earthquakes but rather than force it measures the effects. The force of an earthquake is recorded on a seismometer.

IV COLOUR TEXT

You will use the Font Color Icon to color add color to your words. Can you identify this icon on the formatting toolbar?

EXERCISE 17 – Font Color and Aligning Text



- Type the following sentences and**
- Use the Font Color to apply colors to the words purple and red.
 - Right Align the first sentence
 - Center the second sentence
 - Save your work as **U2-ex17-yrfirstname.doc**

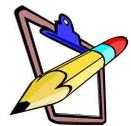
The yellow house is very large.

The purple coat is very pretty.

There is a black cat on the blue chair.

I have red hair.

EXERCISE 18 – Vocabulary



Use the words in the Word Bank to complete each definition.						
Create		Edit	Format	Print	Alignment	Select
Text	Font	Bold	Page Set Up	Save	Overtyping Mode	Line Spacing

1. _____ Making changes to a document
2. _____ The term given to the words on a page
3. _____ The way the text is set up (justification) on a page
4. _____ To store information on a disk, CD or hard drive for later use
5. _____ To make a hard copy of a document
6. _____ To set the margins, font, tabs or spacing in a document
7. _____ To set up the document to look a certain way

8. _____ To choose a part of the document to work with by dragging over it with the mouse to highlight the words
9. _____ To makes a word or part of a document stand out from the other text
10. _____ The distance between lines of text
11. _____ The name given to the different kinds of text looks
12. _____ Allows the user to delete and replace text in a document at the same time

- ***Alternate Method -- Cut by Using the Icon***

- 1) Type the following:
I want to move. I am content where I am.
- 2) Highlight "I want to move."
- 3) Click the Cut icon .
- 4) Your text should now read:
" I am content where I am."

- ***Alternate Method -- Paste by Using the Icon***

- 1) Place the cursor after the period in the sentence
"I am content where I am."
- 2) Press the spacebar to leave a space.
- 3) Click the Paste icon .
- 4) Your text should now read:
"I am content where I am. I want to move."
- 5) Save your work as **U2-ex18-yrfirstname.doc**

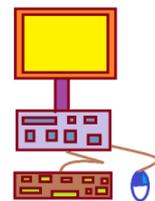
II. COPY AND PASTE

In Microsoft Word, you can copy text from one area of the document and place that text elsewhere in the document. As with cut data, copied data is stored on the Clipboard.

EXERCISE 19 – Copy and paste text

- ***Copy - Using the Mouse Shortcut***

- 1) Type the following:
You will want to copy me. One of me is all you need.
- 2) Highlight "You will want to copy me."
- 3) Right Click on your mouse and click on Copy option



- ***Paste - Using the Mouse Shortcut***

- 1) Place the cursor after the period in the sentence: "One of me is all you need."
- 2) Press the spacebar to leave a space.
- 3) Right Click on your mouse and click on Copy option
- 4) Your text should now read:
"You will want to copy me. One of me is all you need. You will want to copy me."

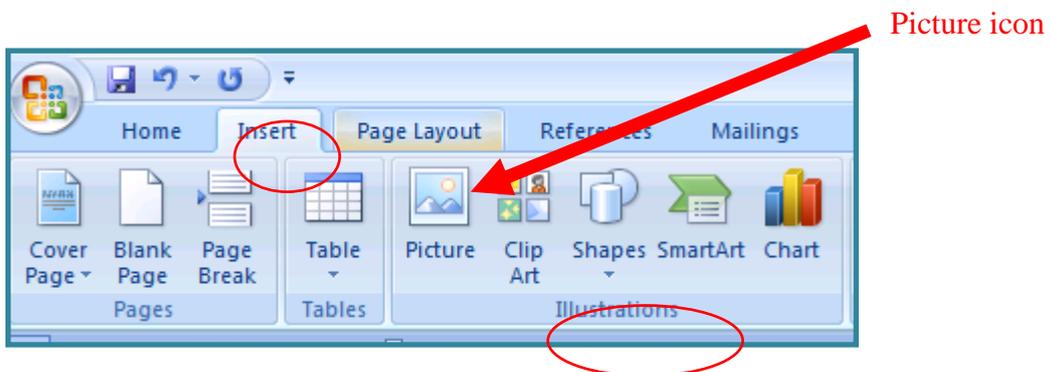
- ***Alternate Method -- Copy by Using the Icon***

- 1) Type the following:
You will want to copy me. One of me is all you need.
- 2) Highlight "You will want to copy me."
- 3) Click the Copy icon .

- ***Alternate Method -- Paste by Using the Icon***

- 1) Place the cursor after the period in the sentence: "One of me is all you need."
- 2) Press the spacebar to leave a space.
- 3) Click the Paste icon .
- 4) Your text should now read:
"You will want to copy me. One of me is all you need. You will want to copy me."
- 5) Save your work AS **U2-ex19-yfirstname.doc**

III INSERTING PICTURES

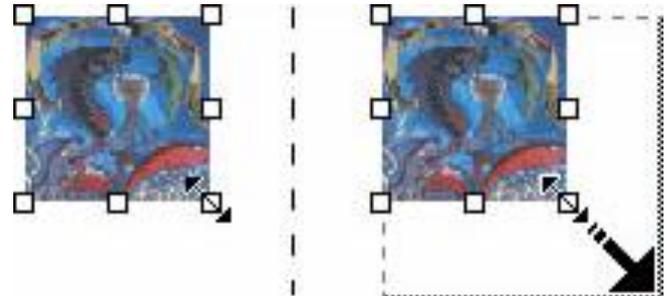


EXERCISE 20 – Inserting Pictures

- 1) Open a new word document
- 2) To put a picture in your document: Put the cursor where you want the picture
- 3) From the Insert-TAB, choose ‘Picture’ and ‘From File’
- 4) Select a picture and click the ‘Insert’ -button
 - a. Note: Your pictures are in the “Pictures “ folder found in the” Student File “Folder
 - b. Insert 5 different pictures
- 5) Save your work as **U2-ex20A-yrfirstname.doc**
- 6) **Do not close your document**

III. CHANGING THE SIZE OF PICTURES

- 7) Click on the picture to select it: the ‘handles’ appear
- 8) Put your cursor on one of the ‘handles’ until it changes shape
- 9) Click and drag the handle until the picture is the size you want



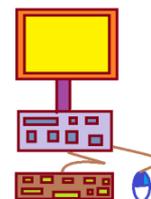
Note: To move a picture, select it and drag to another place. For exact

positioning, use the cursor-keys while pressing the Ctrl-key

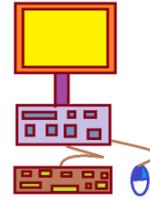
- 10) Change the size of the 3 pictures on your document from biggest to smallest and position in a straight line
- 11) Save your work as “**U2-ex20B-yrfirstname.doc**”

EXERCISE 21 - Copy and Paste Graphics

Retrieve Ex21 from the **Student Files Folder** and complete the exercise



EXERCISE 22- Practice



Retrieve the following Ex22 from Student Files Folder and type in your answers and apply the necessary formatting changes

MY FAVOURITE THINGS

1. Favorite Color:
2. Favorite thing to e
3. Favorite flavor of ice-cream:
4. Favorite TV show:
5. Favorite actor:
6. Favorite actress:
7. Favorite singer:
8. Favorite singing group:
9. Favorite movie:
10. Favorite Book:

INSTRUCTIONS

- First THREE lines
 - Bold / Underline / Center
 - Font size – Size 14
- Each number to have a different font
- For each number, you are to bold the word before the colon
- Italicize AND bold the last three lines
- Copy and paste three pictures from the PICTURE folder to your work
 - 1) Save your work as **U2-ex22-yrfirstname.doc**

EXERCISE 23-Fill in the blanks



Choose the correct word from the list given below. Use each word only once.

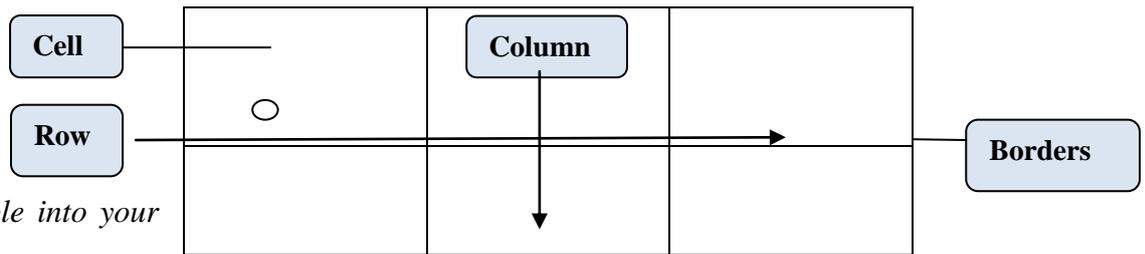
NT	FONTS	CUT
IMPORTING	WORD-WRAPPING	CLIPART
SPELL CHECK	JUSTIFICATION	THESAURUS

- 1) There are many different styles of text which you can choose from. These are called _____
- 2) The size of the text can be made larger or smaller, this is known as its _____ size'
- 3) You can use a built-in dictionary to check whether you have spelt your work correctly. This is known as a _____
- 4) You can look for alternative words in the built-in _____
- 5) You can move text around by using the _____ and paste facility.
- 6) Graphics and text from other software can be included in your work by _____ them.
- 7) Most word processing packages have a built-in library of pictures which are called _____
- 8) When you get to the end of the line you are typing, the word processor automatically puts the next piece of text onto a new line. This process is called _____
- 9) Your text can be aligned to the left, right, centre or down both sides by adding extra spaces to the text. This is called _____

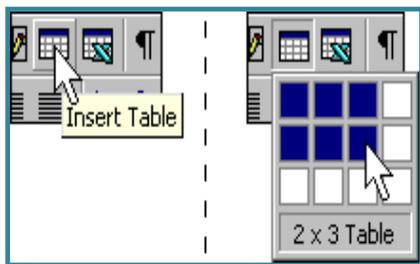
2.5 Demonstrate use of intermediate features in word processing applications

I. CREATING TABLES IN MS WORD

A table consists of cells, rows, columns and borders. The table below has 2 rows and 3 columns. The borders are visible because of lines. You can also create tables without or with only a few lines.



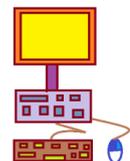
To insert a table into your document:



1. Click the cursor on your page where you want the table
2. Click and hold down the button 'Insert Table'
3. Drag the cursor; see that the text specifies the size of the table

4. Choose the right size and release the button to insert the table

EXERCISE 24-Creating tables



1) Create the following table

- Note the number of columns (x6) and rows (x6) needed when creating this table.
- Use the Insert/Table option

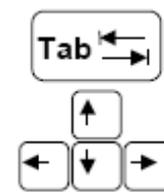
Marks	English	Math	Social Science	Health Science	Elementary Science
TERM 1					
TERM 2					
TERM 3					
TOTAL					

2) Type in the text as seen above

- To put text into a table - Click the cursor inside a cell and start typing

3) To put text into another cell:

- Click the cursor inside the new cell and start typing
- **or** Use the Tab-key for going to the next cell
- **or** Use the 'Cursor'-keys to move from cell to cell



4) Remember to apply the necessary formatting changes (Bold)

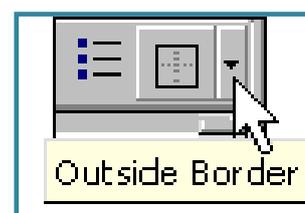
- To change the format of text in a cell, first select the text – Click and drag or click 3 times in the cell
- Now you can change the format: Font, Font Size, Bold, etc

5) Align the text

- To put text on the right side, first select the text or column:
- Put your cursor in one cell and drag down to select more cells
- Now you can use the buttons 'Align Right' or 'Align Center'

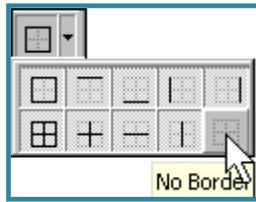
6) Changing borderlines

- Select one cell or a whole column (Choose 'Select Column' in the Table-menu)
- Press the small arrow next to the button 'Outside Border':



MARKS	<i>ENGLISH</i>	<i>MATHS</i>	<i>SOCIAL SCIENCE</i>	<i>HEALTH SCIENCE</i>	<i>ELEMENTARY SCIENCE</i>
<i>TERM 1</i>					
<i>TERM 2</i>					
<i>TERM 3</i>					
TOTAL					

- A new menu appears



in the menu that appears, choose the button 'No borders'
 Try other buttons in the menu to create the look you want

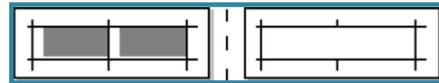
Note: When a table has no border-lines, you still can see them on your screen!

7) Changing Cell and Column Size

- Move the cursor on a border and wait until it changes shape
- Click and drag until the cell is the size you want and release

Note: To make all cells the same size, select the cells and choose 'Distribute Columns evenly' in the Table-menu.

8) Merging Cells

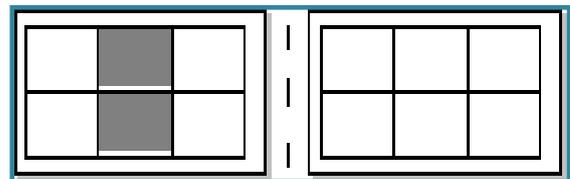


- Select the cells in the last row
- Choose 'Merge Cells' in the Table-menu

9) Adding and Deleting Cells

Insert a Column and then delete it

- Select the 6th column
- From the Table-menu choose 'Insert Column'
- The same goes for rows!

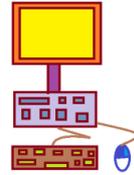


Note: if you want to delete a column or row, you will first select the column/row you wish to delete then from the Table-menu choose "Delete"

- Delete the column you just inserted and save your work as **U2-ex24-yrfirstname.doc**

EXERCISE 25-Practise with tables

- 1) Create the following Table to help Tieri write down all her Homework given by the teacher
- 2) Save as **U2-ex25-yrfirstname.doc**

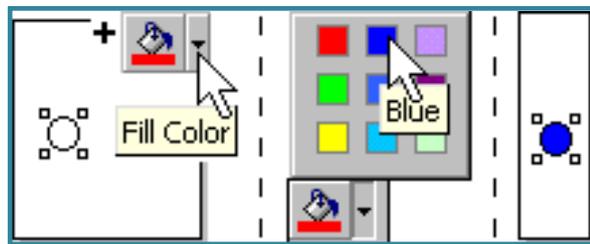
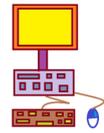


March 2012 – Tieri’s Homework Record

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Date:	Date:	Date:	Date:	Date:
Date:	Date:	Date:	Date:	Date:
Date:	Date:	Date:	Date:	Date:
Date:	Date:	Date:	Date:	Date:
Date:	Date:	Date:	Date:	Date:

II. CHANGING COLORS OF OBJECTS

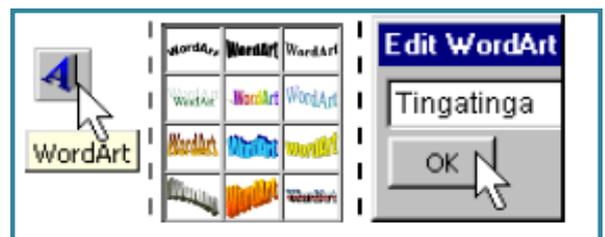
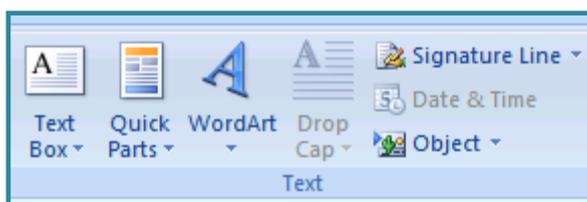
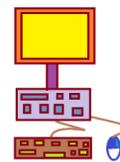
EXERCISE 26 - Colors



- 1) Insert a circle (Insert Tab/ Illustrations Group / Shapes Icon / Circle)
- 2) Click the arrow next to the 'Fill Color'-button
- 3) In the color-menu, click on a color to change the circle's color
- 4) For text: Select text, click the arrow next to the 'Font Color'-button For lines: Use the 'Line Color'-button
- 5) Save Your work as **U2-ex26-yrfirstname.doc**

III. CREATING SPECIAL TEXT EFFECTS

EXERCISE 27 – Text Art

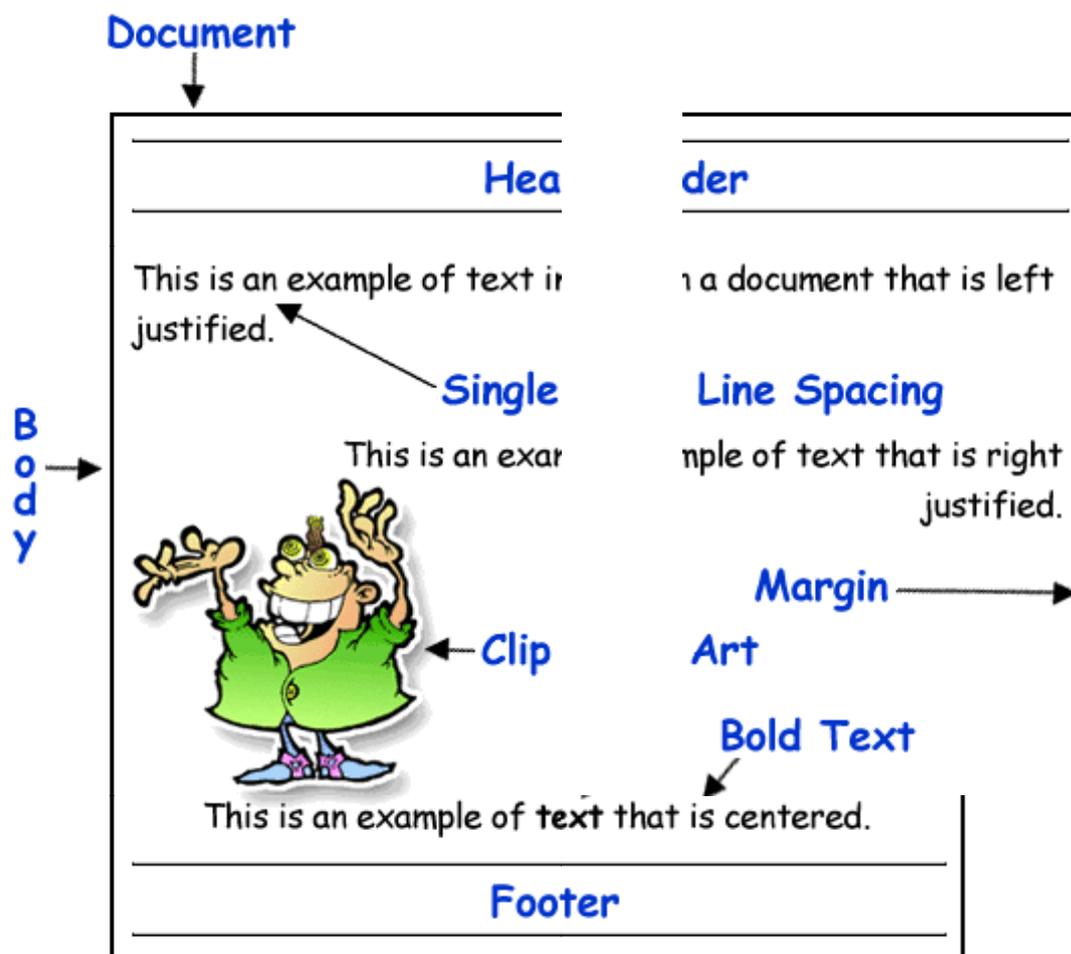


Insert Tab / Text Group / WordArt Command

- 1) **Click the** 'Word Art'-button
- 2) In the dialogue that appears, choose a style and click 'OK'
- 3) In the window that appears, type your text "Term 2 Assignment" and click 'OK'
- 4) Note: You can change the fill and line color of Word Art to make it exactly your style. And you can change the size like a picture.
- 5) Save your work as **U2-ex27-yrfirstname.doc**

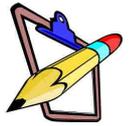


IV. WORD PROCESSING TERMS TO BE FAMILIAR WITH



Edit	To make changes in a document
Save	To store information for later use on a floppy disk, hard drive or CD
Bold	A style of text that makes a letter or word stand out in a document
Select	To choose part of a document to work with by dragging over it with the mouse to highlight the text
Font	The name given to the different ways text can look
Alignment	The way the text is set up (justification) on a page
Format	To set the margins, tabs, font or line spacing in a document
Print	To put what is on the computer screen on paper. It creates a hard copy of the document
Text	The term given to the words on a page
Line Spacing	The distance between lines of text

EXERCISE 30-Fill in the blanks



In the space provided write down the correct word from the word list of words provided in the “word bank”

EDIT CREATE ALIGNMENT TEXT
OVERTYPEMODE FONT LINE SPACING BOLD
SAVE PRINT FORMAT PAGE SETUP SELECT

- 1) Making changes to a document – _____
- 2) Term given to the words on a page – _____
- 3) The way the text is set up (justification) on a page – _____
- 4) To store information on a disk, CD or hard drive for later use - _____
- 5) To make a hard copy of a document - _____
- 6) To set the margins, font, tabs or spacing in a document _____
- 7) To set up the document to look a certain way – _____
- 8) To choose a part of the document to work with by dragging over it with the mouse to highlight the words – _____
- 9) To make a word or part of a document stand out from the other text – _____
- 10) The distance between lines of text – _____
- 11) The name given to the different kind of text (way it looks) – _____
- 12) Allows users to delete and replace text in a document at the same time - _____
- 13) To begin a document from scratch – _____

EXERCISE 31 - Match the following terms with their definitions by drawing a line across



1) Font size

A tool which can check that you have spelt words correctly on your document

2) Bullet points

The character type chosen e.g. Arial, comic sans

3) Cut

To insert a piece of text or object which has been cut or copied?

4) Copy

To remove or take out a piece of text or object from the document

5) Paste

The alignment of the text e.g. right, left, centre, fully

6) Word count

To reproduce a piece of text, an object or some formatting

7) Spell Checker

A tool which tells you how many words are in your document?

8) Thesaurus

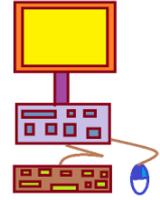
The height of the font character, usually measured in points e.g. 10, 12, 14

9) Justification

Large dots, often circles or squares which appear at the start of each item in a list. Used to add emphasis to a point

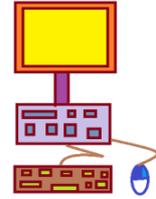
ASSIGNMENT 1

A journalist from the local newspaper had contacts for an autobiography of your life. Word Process the following:



1. Select at least 5 events in your life and list them on separate lines in a word processing program. These lines will serve as headings.
2. Type a few lines below each event to describe it. Type at least 2 lines per paragraph.
3. Create a new paragraph for each description.
4. Format all the text in the document to appear in Comic Sans, size 14, Bold printed.
5. Insert at least one graphic. Format text to wrap tight around the graphic.
6. Type a short description for the graphic at the bottom of the autobiography.
7. Format the graphic's description to appear in Courier, size 10.
8. Add your name and date of birth in WordArt at the top of the document.
9. Run the spell checker and correct any spelling mistakes.
10. Save your work as **U2-A1-yrfirstname.doc**

ASSIGNMENT 2



1. Retrieve your exercise on the Nursery Rhymes that was saved as “ U2-ex11-yrfirstname.doc”
2. You are now required to apply RELEVANT formatting changes to your document and make it look as much as possible as below.
3. Save your work as U2-A2-yrfirstname.doc

nursery rhymes

1) DR.FOSTER

Doctor Foster is a good man
He teaches children all he can;
Reading, writing, arithmetic,
And doesn't forget to use his stick.
When he does he makes them dance
Out of England into France,
Out of France into Spain
Round the world and back again.



2) COMPARATIVES

Good, better, best

Never let it rest,

Till your good is better

And you're better is best.

3) SWEET DREAMS

Matthew, Mark, Luke and John,

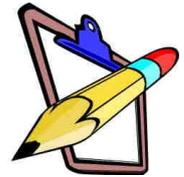
Bless the bed that I lie on,

If I should die before I wake,

I pray the Lord MYSOULHETAKE!

- NAME: Tjerj Seinicharle
- CLASS: 7
- SCHOOL: Babasiga Primary School

ASSIGNMENT 3 - Draw shapes as shown below and answer the questions.



WORD PROCESSING

List examples of word processing software.

Why should you proofread your work and not rely on the spell checker tool?

Features of word processing software?

Give examples of tasks whereby using word processing software would be ideal?

Advantages of using word processing software over handwriting:

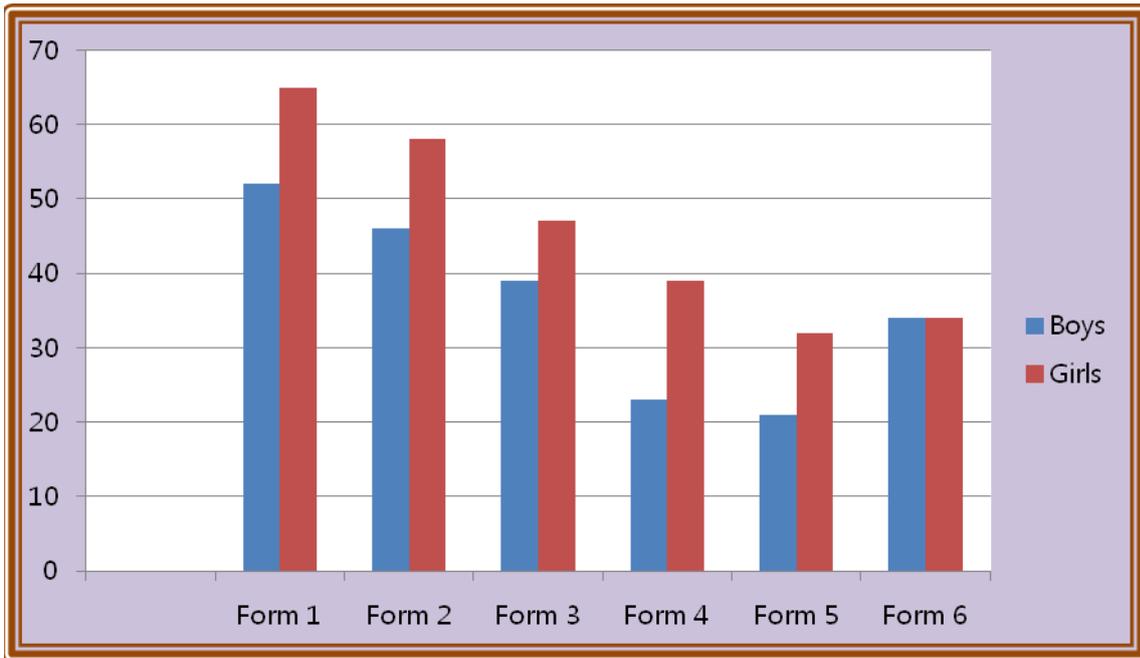
Disadvantages of using word processing software over hand writing:

Unit 3

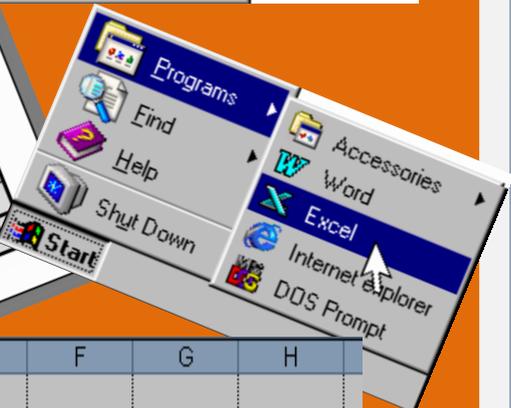
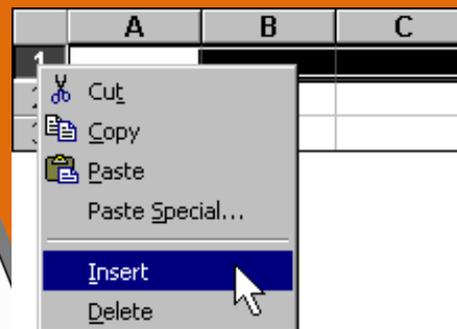
Spreadsheets

**At the end of this chapter,
students should be able to:**

- 3.1 Describe the use of spreadsheets**
- 3.2 Identify the parts of the Excel window**
- 3.3 Understand the differences between a Workbook and a Worksheet**
- 3.4 Understand a cell and its importance to Excel**
- 3.5 Move around a workbook**
- 3.6 Create a Spreadsheet**
- 3.7 Perform calculations using simple formulas**
- 3.8 Produce simple graphs and charts from a spreadsheet**
- 3.9 Use functions to make calculations**
- 3.10 Format Numbers**



Students	English	Kiswahili	Math.	Physics	Biology	History	Average
Makia	89	87	79	74	76	79	81
Maria	82	80	69	82	74	79	78
Douglas	65	79	90	71	72	78	75
James	72	76	57	90	62	71	74
Abeidi	65	76	62	72	85	82	72
Susan	71	62	78	72	90	58	73
Julius	46	82	66	65	71	91	70
William	65	76	56	39	76	65	68
Benjamin	90	78	68	46	71	50	61
Rehema	63	70	68	46	65	61	55
Upendo	44	57	48	65	56	71	71
		76	67	70	72	71	71



	A	B	C	D	E	F	G	H
1	Excel Basics							
2								
3		HW 1	HW 2	Test 1	Test 2	Paper	Exam	Total
4	Jane Doe	81	78	74	78	88	87	486
5	Mary Lou Johnson	95	83	91	85	92	90	536
6	John Smith	89	80	77	75	72	78	471
7	Class Average	88.33	80.33	80.67	79.33	84.00	85.00	497.67



A spreadsheet is a type of program that allows us to work with numbers and to make arithmetic calculations

A spreadsheet offers major advantages over the use of a hand calculator (just as a word processing program offers many advantages over typewriting).

Some advantages of a spreadsheet over a hand calculator include:

A spreadsheet produces a document that can be read, printed, and stored and retrieved.

The numbers that appear in a spreadsheet can be used to create a chart. We can use the spreadsheet to build bar charts, pie charts, line charts, etc.

A spreadsheet can have its calculations done in a fashion by which they may be redone automatically if any of the data values upon which they depend, are changed.

3.1 Describe the use of spreadsheets



Example of a spreadsheet

Say you are the secretary of Babasiga Secondary School and the Ministry Of Education has requested from you, the school's student roll per form according to their gender. They would like this information typed out and faxed to them.

- Doing this without spreadsheet would require you to use the calculator to add up the student numbers from each form and then have this information typed out for it to be faxed.
- However with spreadsheets, you can type in the information into the computer and get spreadsheet to make the calculations for you

The spreadsheet below shows how many boys and girls a school has in each form.

The grey areas show the totals, which have been calculated by Excel.

entering data into cells
(typing text and numbers)

formatting data in cells
(**Bold** and **Align Right**)

Students	Boys	Girls	All
Form 1	52	65	117
Form 2	46	58	104
Form 3	39	47	86
Form 4	42	39	81
Form 5	23	32	55
Form 6	21	34	55
Total	223	275	498

③ adding up two cells in a new cell (52+65=?)

④ copying the same formula to other cells

⑤ calculating a total

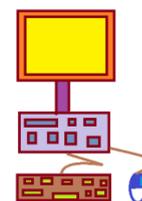
⑥ changing the size of columns

Microsoft Office Excel is one example of a spreadsheet program amongst others like Quadro and Lotus.

In this lesson we will learn to use the Microsoft Excel 2007 to present our information in a neat and structured way and also perform calculations on the data that we use.

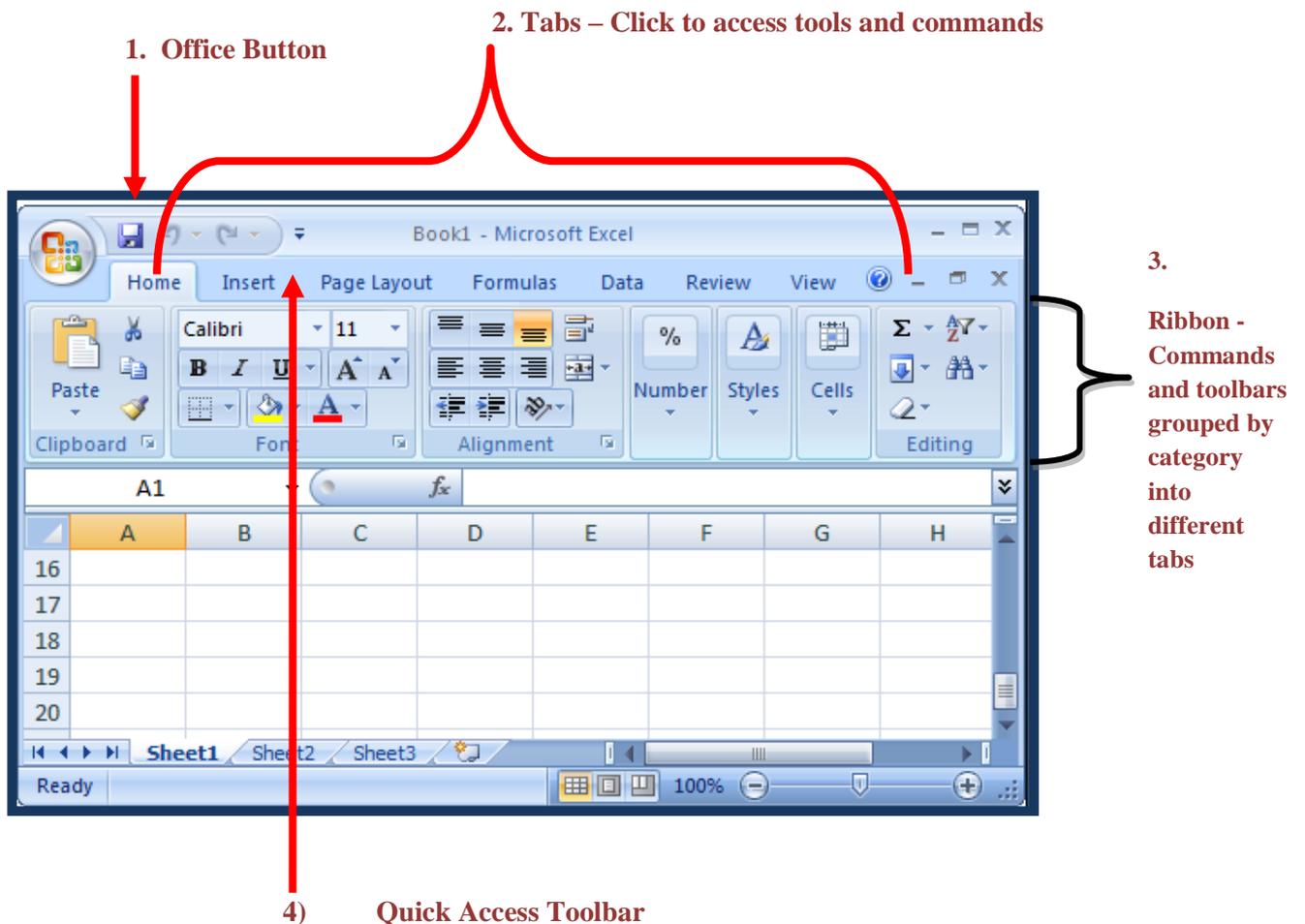
When we start the Microsoft Excel Program, what appears is a workbook, which is a set of worksheets. Each worksheet may be regarded as a separate document.

3.2 Identify the parts of the Excel window



Your teacher will help you start the Microsoft Excel Program.

Once started your window should look like the following:



You are required to identify each tool that is discussed by taking your mouse and pointing and resting your mouse on each tool.

1) Office Button

In Microsoft Excel 2007, the Office button  is located in the upper-left hand corner of the window. This button gives us options on different file commands such as New, Open, Save, Save As, and Print.

2) Tabs

When you start Microsoft Word, the **Standard tabs** will appear. They include

- Home,
- Insert,
- Page Layout
- Formulas
- Data, Review
- View and Add-Ins (optional).

3) Ribbon

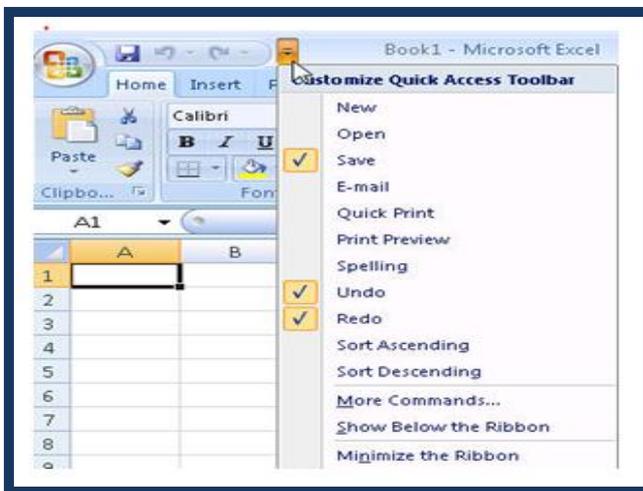
The Ribbon is located at the top of the window and consists of **tabs** that are organized by **tasks**.

Each **tab is organized into groups, or subtasks**, such as the Font or Alignment group located on the Home tab.

Each button within a group is called a command button, as shown below.

4) Quick Access Toolbar

The Quick Access Toolbar appears at the top of the window next to the Office button. It includes most common commands such as Save and Undo. You can customize the toolbar by adding command buttons to it.



To add or remove a button from the Quick Access Toolbar, click the list arrow at the right end of the toolbar to display the pop-up menu.

Then, click the button name from the pop-up menu list.

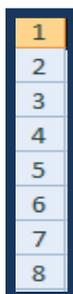
A check next to the name tells you which function will be on the Quick Access Toolbar.

5) Column Headings



- Each Excel spreadsheet contains 256 columns.
- Each column is named by a letter or combination of letters.

6) Row Headings



- Each spreadsheet contains 65,536 rows.
- Each row is named by a number.

7) Name Box



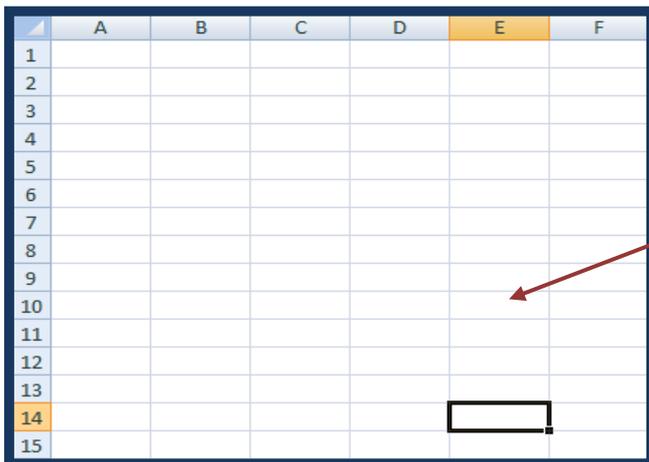
- Shows the address of the current selection or active cell.
- Each address is noted with first the cell's column letter then its row number.
- Columns in a worksheet are vertical and rows in a worksheet are horizontal.

8) Formula Bar



- Displays information entered-or being entered as you type-in the current or active cell.
- The contents of a cell can also be edited in the Formula bar.

9) Cells

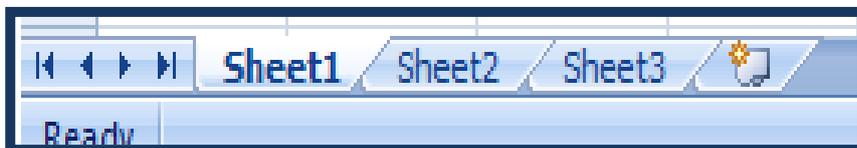


A cell is an intersection of a column and row.

Each cell has a unique cell address. In the picture above, the cell address of the selected cell is B3.

The heavy border around the selected cell is called the cell pointer.

10) Navigation Buttons and Sheet Tabs



Navigation buttons

allow you to move to another worksheet in an Excel workbook.

- Used to display the first, previous, next or last worksheets in the workbook.
- Sheet tabs separate a workbook into specific worksheets.
- A Workbook defaults to three worksheets.
- A Workbook must contain at least one worksheet.
-

3.3 Understand the differences between a Workbook and a Worksheet



A Workbook automatically shows in the workspace when you open Microsoft Excel 2007. Each workbook contains three worksheets.

A worksheet is a grid of cells, consisting of 65,536 rows by 256 columns.

Spreadsheet information--text, numbers or mathematical formulas--is entered in the different cells. Column headings are referenced by alphabetic characters in the gray boxes that run across the Excel screen, beginning with the Column A and ending with Column IV.

Rows are referenced by numbers that appear on the left and then run down the Excel screen. The first row is Row 1 and the last row is named 65536.

Important Terms

- A workbook is made up of three worksheets.
- The worksheets are labeled Sheet1, Sheet2, and Sheet3.
- Each Excel worksheet is made up of columns and rows
- In order to access a worksheet, click on the tab that says Sheet#.

3.4 Understand a cell and its importance to Excel

The Cell

An Excel worksheet is made up of columns and rows. Where these columns and rows intersect, they form little boxes called cells. The active cell, or the cell that can be acted upon, reveals a dark border. All other cells reveal a light gray border. Each cell has a name. Its name is comprised of two parts: the column letter and the row number.

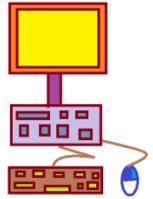
In the following picture the cell C3, formed by the intersection of column C and row 3, contains the dark border. It is the active cell.

A screenshot of a Microsoft Excel spreadsheet. The grid shows columns A through F and rows 1 through 6. Column C and row 3 are highlighted with a dark border, indicating that cell C3 is the active cell. The other cells have a light gray border. The spreadsheet is enclosed in a dark blue border.

Important Terms

- Each cell has a unique cell address composed of a cell's column and row.
- The active cell is the cell that receives the data or command you give it.
- A darkened border, called the cell pointer, identifies it.

3.5 Moving around a worksheet

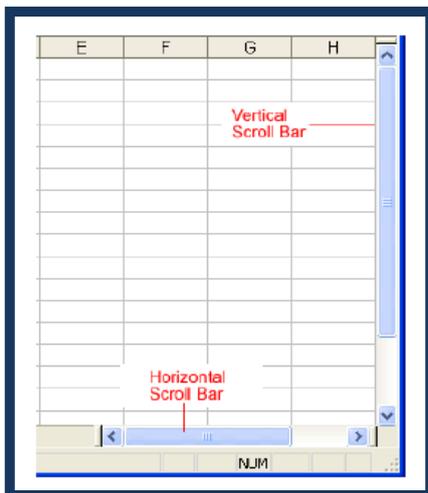
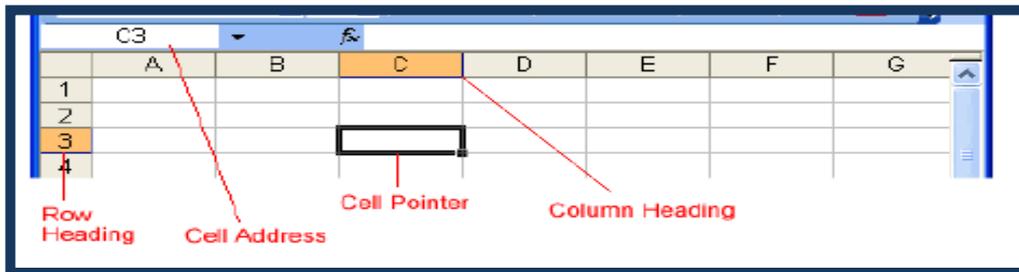


You can move around the spreadsheet in several different ways.

I. TO MOVE THE CELL POINTER

To activate any cell, point to a cell with the mouse and click.

To move the pointer one cell to the left, right, up, or down, use the keyboard arrow keys.



II. TO SCROLL THROUGH THE WORKSHEET

The vertical scroll bar located along the right edge of the screen is used to move up or down the Spreadsheet. The horizontal scroll bar located at the bottom of the screen is used to move left or right across the spreadsheet.

The PageUp and PageDown keys on the keyboard are used to move the cursor up or down one screen at a time. Other keys that move the active cell are:

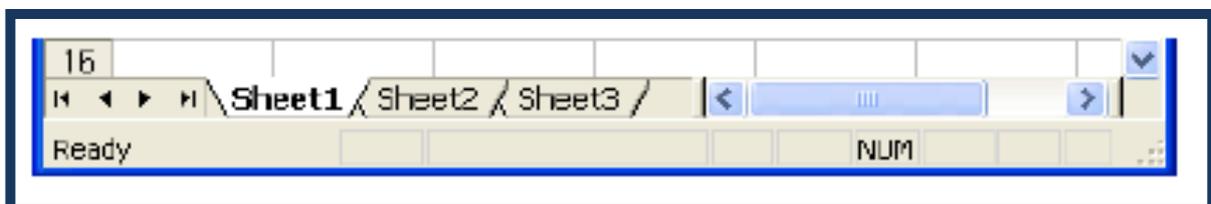
- Home, which moves to the first column on the current row, and
- Ctrl+Home, which moves the cursor to the top left corner of the spreadsheet or cell A1.

III. TO MOVE BETWEEN WORKSHEETS

As mentioned, each Workbook defaults to three worksheets. These worksheets are represented by tabs named Sheet1, Sheet2 and Sheet3-that appear at the bottom of the Excel window.

IV. TO MOVE FROM ONE WORKSHEET TO ANOTHER WORKSHEET

Click on the sheet tab (Sheet1, Sheet2 or Sheet 3) that you want to display



EXERCISE 1A – *Know your MS Office Excel window*

A. MULTIPLE CHOICE

1. What is the cell you are working on called?

- A an active cell
 - B the value
 - C the autosum
-

2 What is an individual box on a spreadsheet called?

- A a row
 - B a column
 - C a cell
-

3 What is a group of worksheets called?

- A worksheets
 - B a spreadsheet
 - C a workbook
-

4 What is a grid that organizes data?

- A a sheet
 - B a spreadsheet
 - C a formula
-

5 What is one page of a worksheet?

- A a value
 - B a sheet
 - C a workbook
-

6 What is a formula that will add up the column of numbers?

- A a value formula
 - B auto-go
 - C autosum
-

7 What is a number that can be entered into a cell?

- A a value
- B a fill

C a name

8 What is something that can be used to compute?

A a formula

B a label

C a tab

9 What is a grid that contains cells?

A a sheet tab

B an autosum

C a worksheet

10 What is the column number and the row letter?

A a cell reference

B autosum

C grid

11 What is the dot at the bottom of a cell when it is active?

A sheet tab

B row

C A fill handle

12 What are horizontal references?

A worksheets

B rows

C columns

13 What is a tab that identifies a worksheet in a workbook?

A a value

B a sheet tab

C an active cell

14 What are vertical references?

A columns

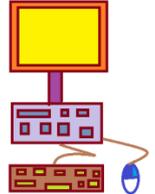
B rows

C value

15 What do you call it when you highlight a set of cells?

- A sheet tabbing
- B filling
- C selecting

EXERCISE 1B– Practice moving around the workbook



Retrieve the file “ **U3-ex1**” from the Student File Folder.

The workbook retrieved is the class list for the Classes 1 of **Babasiga Primary School**, in Labasa.

Answer the questions that follow in your Computer lab book. To do this you will need to do the following :

- practice clicking on the different sheet tabs and move from sheet to sheet in the workbook
- practice scrolling in the worksheet by using the page up and page down keys
- also practice using the horizontal and vertical scroll bars

1) Identify the names of the 2 sheets in this workbook?

a) _____

b) _____

2) No. of Girls in Class 1 T? _____

3) No. of Boys in Class 1 T? _____

4) How many rows are used in this workbook?

5) How many columns are used in this workbook?

6) Total No. of Students in Class 1M? _____

7) What is the Class Teacher’s name for Class 1M?

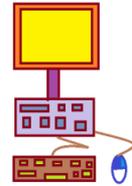
8) What is the name of student No. 11 in Class 1T?

9) What is the name of student No. 14 in Class 1T?

10) Who is student No. 8 in Class

1P? _____

3.6 Create a Spreadsheet



We are now going to create the workbook that will calculate the student numbers boys and for girls for each form (first shown in pg. 4)

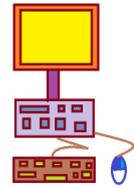
	A	B	C	D	E	F
1	Students	Boys	Girls	Total		
2						
3	Form 1	52	65			
4	Form 2	46	58			
5	Form 3	39	47			
6	Form 4	42	39			
7	Form 5	23	32			
8	Form 6	21	34			
9						
10	Total					

Altogether there are 6 steps to creating this spreadsheet.

- First we will enter all the text and numbers.
- We will then enter a formula in cell D3 to calculate the total boys and girls.
- This formula will then be copied to other cells.

For typing numbers, it is easy to use the 'number'-keys on the right part of your keyboard.

EXERCISE 2 - Creating and formatting a workbook

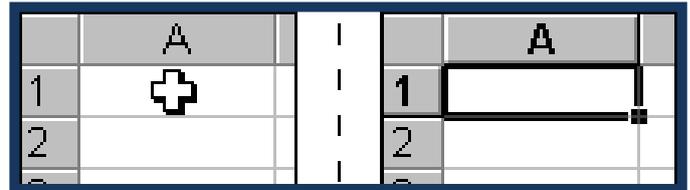


I. CREATING A WORKBOOK

STEP 1 - Entering data into cells

- First select the right cell:

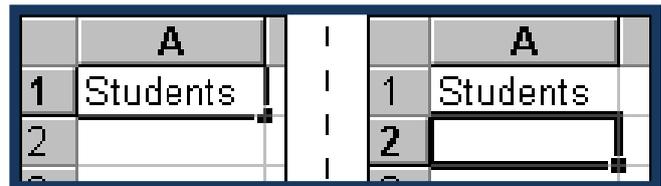
- 1.) Move the cursor on the cell in which you want to enter data
- 2.) Click the left mouse button to select that cell



Note: Try this out and click on different cells to select them!

- Then enter ALL data into the selected cell:

- 1.) Start typing as usual
- 2.) Press the Enter-key to go the cell below



Note: Use the Tab-key for going to the cell on the right or the 'Cursor'-keys to move in all directions

STEP 2 – Saving your work

Saving a workbook for the first time

- 1) Click > File > Save As
- 2) The Save As dialog box will open
- 3) Click > the Save in: pull down arrow
- 4) Choose location to save the file
- 5) Type in a File name “U3-ex2-yrfirstname”
- 6) Click > Save
- 7) After saving for the first time, click > File > Save; click

STEP 2 – Saving your work

- Saving a Workbook After It Has Been Named

Click > File > Save or Click > Save icon

II. FORMAT CELL CONTENTS

- In Excel 2007, formatting may be accessed under the Home tab and using the different groups such as, **Font, Alignment, Number, Styles, Cells, and Editing.**
- To format numbers you can also access the dialog box launcher under on the bottom right hand side of the Number group to allow for more formatting.

STEP 3 – Formatting data in cells

To change the appearance or 'format' of data in a cell:

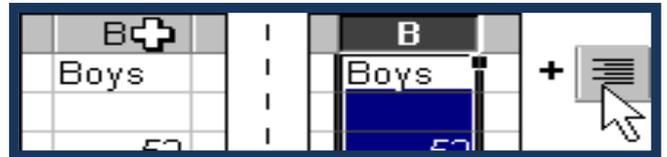
- 1) Select the cell and click the button 'B' to make the data Bold



Note: You can select more cells by clicking in one and dragging

• To format all data in one column:

- 1) Click on the letter on top of a column to select the column
- 2) Click the button 'Align Right' to put all data on the right side



Note: Select more columns by clicking on one and dragging

• To format all data in one row:

- 1). Click on a row number (left of the row) to select the row
- 2). Click the button 'B' to make the data 'Bold'
- 3) Save your work as "U3-ex2-yrfirstname"



Alignment Tools

- 1) The left alignment button will align the cell contents with the left edge of the cell.



- 2) The right alignment button will align the contents with the right edge of the cell.



- 3) The center alignment button will center the cell's contents within the cell.



3.7 Perform calculations using simple formulas

EXAMPLES OF BASIC FORMULAS AND FUNCTIONS

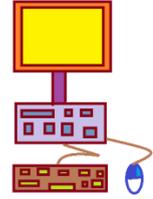
operator	purpose	example
+	Addition	=A5+A7
-	Subtraction or negation	=A5-10
*	Multiplication	=A5*A7
/	Division	=A5/A7
%	Percent	=35%
^ (caret)	Exponent	=6^2 (same as 6 ²)

VIEWING A FORMULA

	A	B	C	D	E
1					
2	Students	Boys	Girls	All	
3	Form 1	52	65	117	
4	Form 2	46	58	104	
5	Form 3	39	47	86	
6	Form 4	42	39	81	
7	Form 5	23	32	55	
8	Form 6	21	34	55	
9					
10	Total	223	275	498	
11					

Formula appears in formula bar

EXERCISE 3 – Using Formulas and simple functions



STEP 4 – Adding and other simple calculations

- To add up two cells (B3 and C3) in a new cell:

Reteive ““U3-ex2-yrfirstname”

=	=B3+C3		
Girls	D	Girls	D
	Total		Total
65	=B3+C3	65	117

- Select the cell in which you want the result (D3 or any other!)
- Type: =B3+C3 and press ‘Enter’ to see the result

Note: Click on D3 again to see the formula in the formula-bar. To change formula, click the cursor in the formula-bar and type.

- To make simple calculations:

- Always start a formula with ‘=’. For example ‘=A1+B1’
- Use ‘-’ for subtracting numbers. For example ‘=A2-B2’
- Use ‘*’ for multiplying numbers. For example ‘=A3*B3’
- Use ‘/’ for dividing numbers. For example ‘=A4/B4’

	A	B	C		C
1	12	9	=A1+B1	→	21
2	17	8	=A2-B2	→	9
3	3	10	=A3*B3	→	30
4	27	4	=A4/B4	→	6.75

Note: Instead of typing ‘A1’, you can also click on A1.

I. COPY AND PASTE FORMULAS

STEP 5 – Copying formulas

In cell D3 you typed a formula to add up cells B3 and C3. It’s easy to copy and use a formula for other cells:

65	117	65	117
58		58	104
47		47	86
39		39	81
32		32	55
34		34	55

- Move the cursor on the small mark of the selected cell (D3)
- The cursor’s white cross turns into a thin black cross
- Click the left mouse button and drag the cursor

down

Note: Click in cell D4 and look in the formula-bar: You see that the original formula '=B3+C3' automatically changed to '=B4+C4'.

- To calculate the total (sum) of many cells:

STEP 6 – Calculating a total or sum

- 1) Click in the cell where you want the total (B10)
- 2) Click the 'S'-button ('AutoSum') on your screen
- 3) Press the 'Enter'-key

Form 1	52		52
Form 2	46		46
Form 3	39		39
Form 4	42		42
Form 5	23		23
Form 6	21		21
Total			=SUM(B3:B9)

Note: The 'AutoSum' function shows what cells it will calculate the total from: B3 to B9. To make another selection, click in the first cell and drag to the last cell. Press Enter to get the result.

223			
223	275	498	

With only three clicks you calculated the total number of boys! Now complete this spreadsheet: Use Step 5 to copy the 'SUM'-formula and calculate how many girls and students there are.

STEP 7 – Changing column size

- To change the size of one column:

	A		A
1	Students	1	Students
2		2	
3		3	

- 1) Move the cursor between two columns at the top: The cursor changes shape
- 2) Click and drag until it is the size you want and release

3) Save your work as "U3-ex3-yrfirstname"

3.8 Produce simple graphs and charts from a spreadsheet

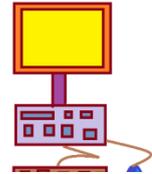
In this lesson, you will learn how to create charts using the data in your workbook.

- A chart is a graphic representation of worksheet data.
- Charts are useful when explaining the data in your spreadsheet in a presentational way.

Excel has several different types of charts to choose from. Some charts are better than others for presenting certain types of information. This lesson will introduce the **Column Chart**

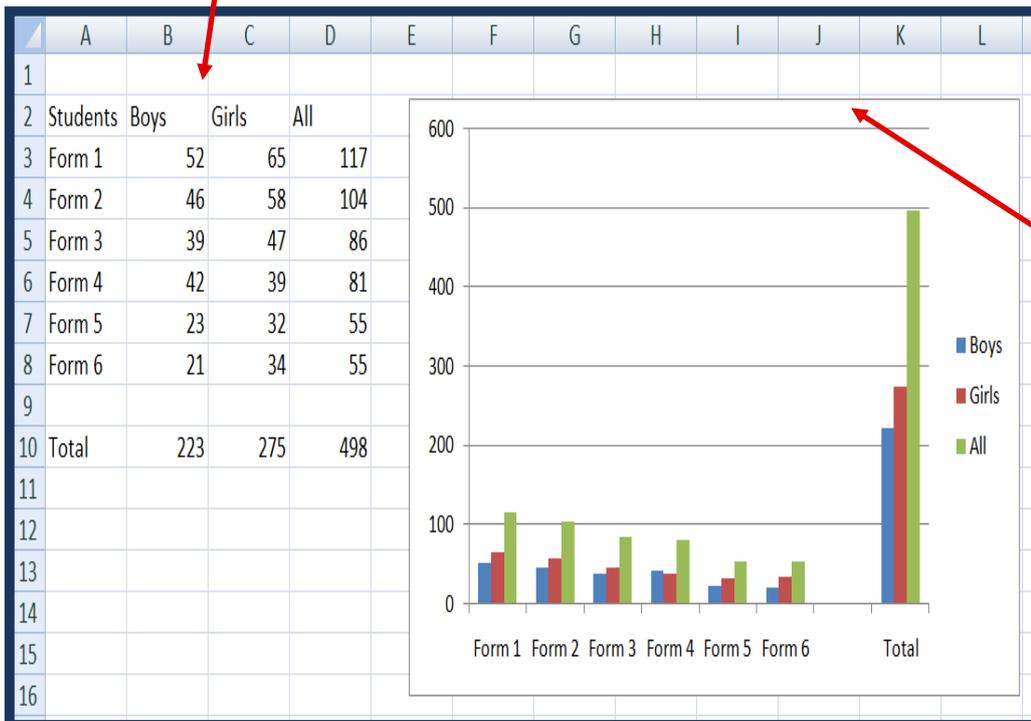
EXERCISE 4 – Creating a Column Chart

- Retrieve “U3-ex3-yrfirstname”



1

First, select the range of cells to be used as the data for the chart.



4

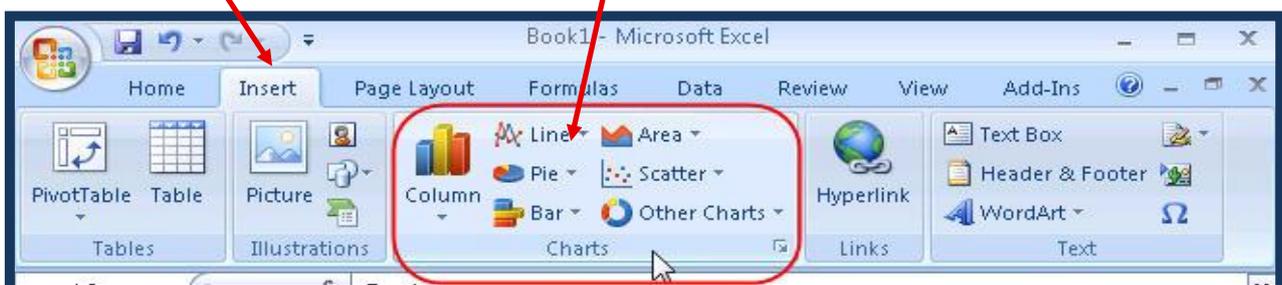
Chart will be displayed

2

Click on Insert tab

3

Select Column Chart



5. Save your work as “U3-ex4-yrfirstname”

3.9. Use functions to make calculations

(I) FUNCTIONS

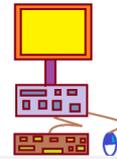
Functions are formulas stored already inside the Microsoft Excel program, some of which include Average, MIN (this function will find the lowest score in a given list) and MAX (this function will find the highest score in a given list) amongst others.

We are now going to calculate the average number of girls, boys and average number of student per class for **Babasiga Secondary School** in Labasa.

EXERCISE 5 – Using the Average Function

1) Retrieve “U3-ex3-yrfirstname”

	A	B	C	D
1				
2	Students	Boys	Girls	All
3	Form 1	52	65	117
4	Form 2	46	58	104
5	Form 3	39	47	86
6	Form 4	42	39	81
7	Form 5	23	32	55
8	Form 6	21	34	55
9				
10	Total	223	275	498
11	Average	37.16667		



4

Click on the Insert function button

3

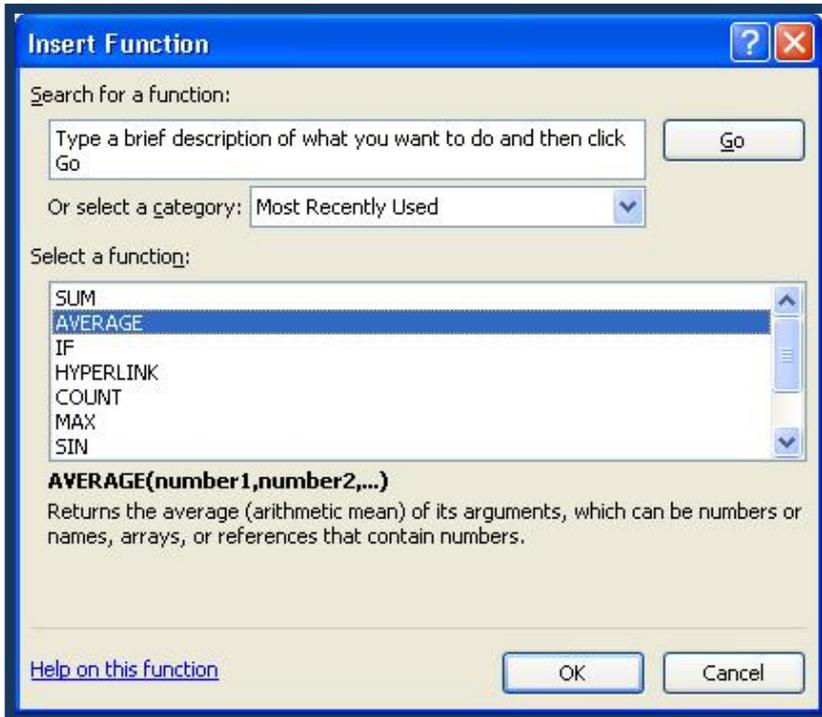
Type the equal sign (=) in cell B11

2

In cell A11 type “Average”

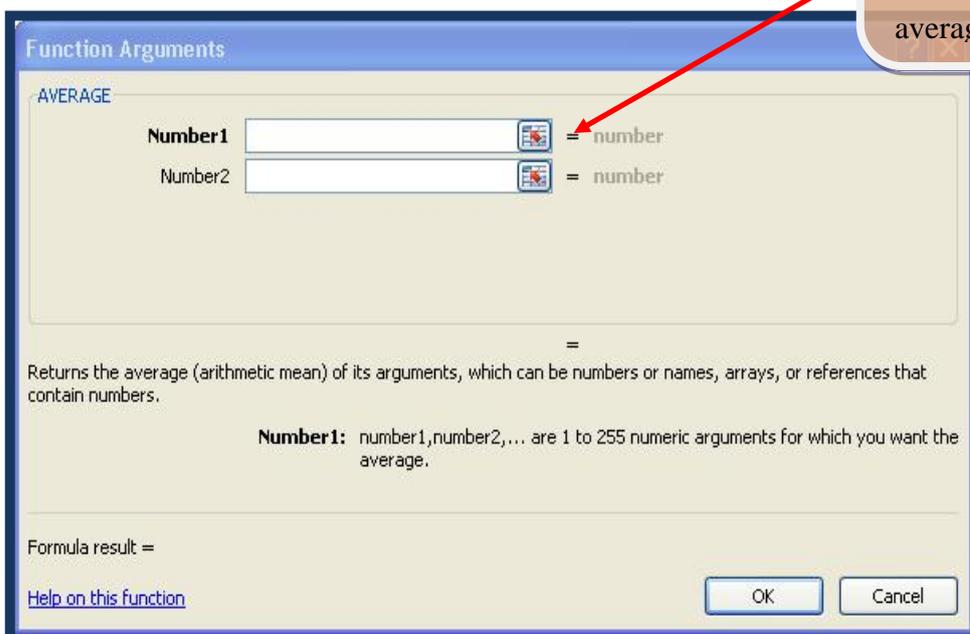
5. Inserting the Average function

- a) The Insert Function dialog box will appear.
- b) From the Select a function: menu, choose the appropriate function.
- c) An explanation of the chosen formula appears at the bottom of the dialog box.



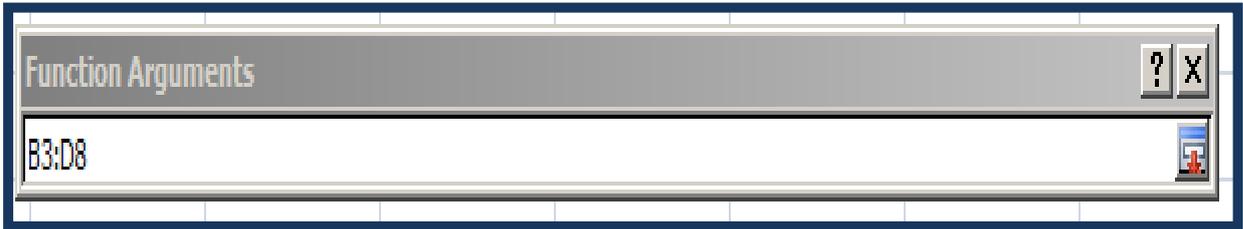
- d) Next, click the OK button.
- e) The Function Arguments dialog box appears.

f) Click on the Collapse box to select the range of cells to be averaged

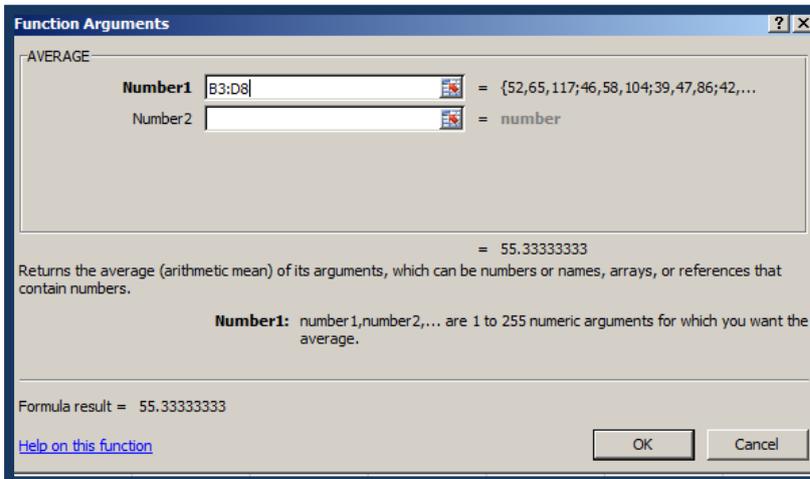


f) You will now select the cells B3 to D8 by highlighting the cells with your mouse

- As you make your selection, the cell addresses of the cells selected will be shown as below in the dialogue box.



- Press Enter key
- The dialog box appears again with the selected range in the Number 1 text box.



Click OK. The value will appear in the active cell.

	A	B	C	D
1				
2	Students	Boys	Girls	All
3	Form 1	52	65	117
4	Form 2	46	58	104
5	Form 3	39	47	86
6	Form 4	42	39	81
7	Form 5	23	32	55
8	Form 6	21	34	55
9				
10	Total	223	275	498
11	Average	55.33333		
12				

h)
Note that the formula appears in the formula bar

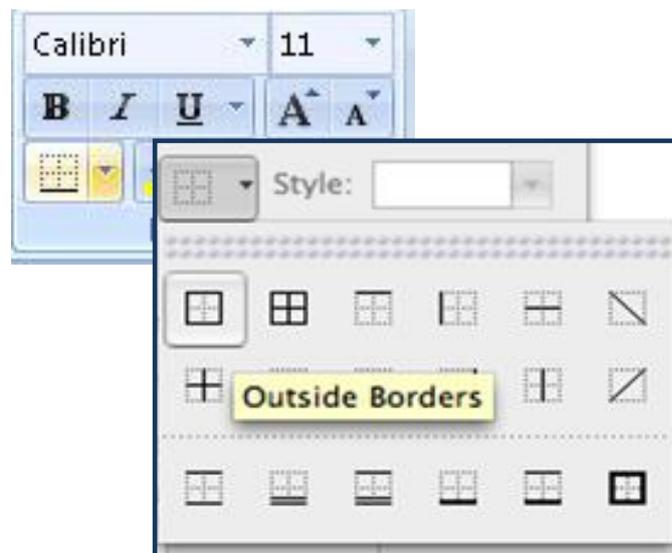
g)
The average will appear in the active cell (i.e cell B11)

6. Copy the formula across to cell C11 and D11
7. Notice that the averages are displayed in **decimal format**. In our next lesson we will learn how to format numbers.

- Before you save you work you will now **apply borders to your workbook**

Borders

- Cell borders are lines you can place on the edges of cells in a worksheet.
- To place border lines and/or underlines on or around your data, select the cell(s) where you want the border
- In Excel 2007 under the **Home tab** click on the **Border** button in the **Font group**.

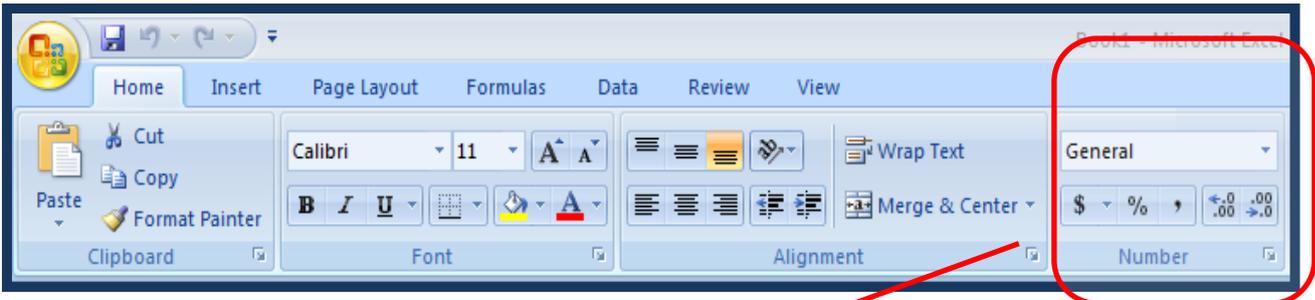


8. Click on the “All borders” option.
9. Save your work as “U3-ex5-yrfirstname”

3.10 Format Numbers

In Excel 2007 formatting may be accessed under the **Home tab** and using the different groups such as, Font, Alignment, Number, Styles, Cells, and Editing.

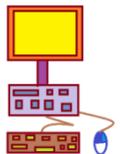
To format numbers in Excel 2007 the number formatting buttons are under the Home tab and then under the number group.



Formatting Button	Style	Characteristics
\$	Currency	Includes 2 decimal places and a dollar sign.
%	Percent	Includes 2 decimal places and a percent sign.
,	Comma	Commas inserted beginning with thousands. Includes 2 decimal places.
+ .0 .00	Increase Decimal	Adds one decimal place.
.00 + .0	Decrease Decimal	Deletes one decimal place.

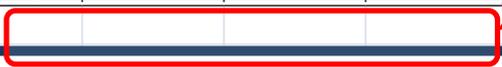
EXERCISE 6 – Formatting numbers

1) Retrieve “U3-ex5-yrfirstname”

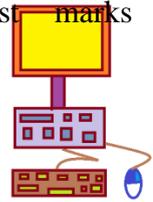


	A	B	C	D
1				
2	Students	Boys	Girls	All
3	Form 1	52	65	117
4	Form 2	46	58	104
5	Form 3	39	47	86
6	Form 4	42	39	81
7	Form 5	23	32	55
8	Form 6	21	34	55
9				
10	Total	223	275	498
11	Average	55	64	83
12				

3) Click on the ” **Decrease Decimal** “ command to decrease the decimal place until you get a whole numbers as shown below



1. You are to create the following workbook that will help the Class 7, teacher Mrs. Lily Fiu to calculate the Average Subject Test marks of her students
2. Remember to:
 - a. Format the headings
 - b. Format the Average marks to two decimal places
 - c. Select “All Borders” to the workbook
3. Save your work as “U3-ex7-yrfirstname”



	A	B	C	D	E	F	G	H
1	CLASS 7 - TERM END EXAM STUDENT MARKS							
2	Students	English	Computer	Maths	Social Studies	Health Science	Elementary Science	Average
3	Luke Tikoinadi	85	92	80	88	73	82	
4	Fuata Ahaehani	88	90	85	65	77	90	
5	Nataniela Tifakto	90	88	72	55	72	88	
6	Tieri Seinicharle	92	90	88	90	100	80	
7	Kepone Eliase	90	95	86	88	88	70	
8	Tarusila Taito	92	90	88	88	90	72	
9	Lapuke	80	90	92	90	88	90	
10	Vaimarasi Emily	82	88		92	90	88	
11	Taniela Taito	80	82	85	65	77	90	
12	Mere Marine	72	90	88	90	85	65	
13	Ripeka Rejjeli	60	52	55	42	44	55	
14	Class Average							

Calculate the average class mar

TERMS TO BE FAMILIAR WITH

Active cell	An active is the cell you are currently working on
Auto sum	A formula that will add up a column of numbers
Cell Reference	The column number and the row letter of a cell
Cell	Each individual box on the spreadsheet
Column	The vertical reference on the spreadsheet
Fill	To fill a cell with color using the paint bucket tool
Fill handle	The dot at the bottom of each cell while it is active
Filter	The procedure to select certain information in a spreadsheet.
Formula	A formula must always starts with “=” signs and what the calculations for each cell
Graph	A visual representation of data
Grid Lines	The horizontal and vertical lines on the spreadsheet
Row	The horizontal reference on the spreadsheet
Selecting	To highlight a set of cells
Sheet	One page of a worksheet
Sheet tabs	Tabs that identify the worksheets in a workbook
Spreadsheets	A grid that organizes data
Value	A number that can be entered into a cell
Workbook	Many worksheets
Worksheet	One page of a spreadsheet

EXERCISE 8- WORD SEARCH

WORD BANK:

Table	Column	Chart	Landscape	Probeware
Cell	Value	Label	Graph	Page Set Up
Row	Portrait	Calculate	Spreadsheet	

FIND THE WORDS IN THE WORD SEARCH THAT MATCH THE DEFINITIONS GIVEN BELOW. WORDS IN THE PUZZLE GO IN ALL DIRECTIONS!!

C	X	A	L	A	R	D	E	V	S	Y	E	A	L	K	H	R	O	W	
B	G	H	K	H	F	T	K	I	H	F	B	J	O	G	N	N	V	O	
V	G	H	Y	I	L	M	B	F	Y	J	K	O	C	J	G	J	U	R	
E	M	K	H	G	C	O	L	U	M	N	F	G	H	H	Y	R	I	O	
U	C	R	E	W	F	B	J	L	J	H	G	F	Y	J	A	J	I	O	
L	C	X	S	A	W	R	G	C	E	L	L	J	I	G	N	R	B	J	
A	I	T	R	F	D	L	V	D	V	G	H	H	B	F	D	S	T	I	
V	M	O	I	J	E	C	D	F	R	C	D	X	P	D	T	Y	H	I	
I	P	R	O	B	E	W	A	R	E	O	J	M	J	A	F	G	H	J	
H	V	B	A	M	L	J	H	Y	I	O	F	D	D	S	R	W	E	A	
O	U	L	G	J	U	F	R	Y	P	E	L	J	H	N	V	G	D	E	
P	O	U	I	Y	R	V	C	X	Q	U	P	L	O	H	M	B	C	D	
P	I	U	Y	T	P	U	T	E	S	E	G	A	P	D	E	T	I	H	
O	U	M	V	C	D	Y	O	Y	U	T	R	B	X	C	O	I	P	M	N
R	U	I	O	L	H	G	R	Y	H	D	S	U	Y	S	F	V	D	E	
T	B	C	A	L	C	U	L	A	T	E	U	I	Y	T	D	V	D	T	
R	R	T	U	O	M	H	F	D	S	I	O	K	H	F	H	N	D	A	
A	E	W	I	U	P	H	J	I	K	O	P	M	D	E	C	A	A	B	
I	P	I	O	K	L	G	D	G	U	I	O	P	G	E	C	V	A	L	
T	S	W	E	T	E	E	H	S	D	A	E	R	P	S	Q	U	A	E	

- Another way to organize information using the data in a spreadsheet program
- A visual representation of the data displayed in a spreadsheet
- The term for a number in a spreadsheet. They can be added, subtracted, multiplied or divided
- These are used to organize information using rows and columns of cells that can be filled with text
- The page setup that allows the document to be printed in a horizontal direction
- The intersection of a row and column
- The working of mathematical equations. These are usually used in spreadsheets and allow the computer to automatically perform these.

- A program that can be used to perform calculations, analyze and present data. Includes tools for organizing, managing, sorting and retrieving data and testing "what if" statements. The chart feature displays numerical data as a graph
- The term given to the way the document is formatted to print
- The term given to the words entered on a spreadsheet. They usually name a column
- The term given to computer assisted data collection tools
- The horizontal divisions in a spreadsheet. They are named with a number
- The vertical divisions in a spreadsheet. They are named with an alphabetical letter.
- The page setup that prints the document vertically, It is the default setup on most printers.

EXERCISE

9-

Label

The

Parts

Spreadsheet- Name the Parts



Fill in each box with the correct term:
Value; Cell; Cell Address; Row; Column; Label; Formula



	A	B	C	D
1				
2	Grocery Shopping			
3				
4	Grocery Item	Quantity	Unit Cost	Total Cost
5				
6	Coffee	3	\$2.99	8.98
7	Candy	5	\$0.25	1.25
8	Milk	1	\$2.50	2.50
9	Cokes	3	\$0.99	2.97
10	Bread	2	\$1.39	2.78
11	Tide	2	\$6.99	13.98
12				
13			Total Grocery Cost	29.58

EXERCISE 10 - Interpreting the spreadsheet

student Name	School Classes	Homework	Watching TV	Playing Sports	Talking on Phone	Total
Juan	5	2	2	1	0.5	10.5
Mary	4	3	2	0	2	11
Maria	5	1	1	1	1	9
Chantel	5	1.5	3	1	1.5	12
Julie	4	0.5	1	0	1	6.5
Mark	5	3	0	0	0	8

- 1) How many hours did Mary spend doing Homework? _____
- 2) Did Mary or Julie spend more hours watching TV? _____
- 3) How many hours did Chantel spend on the phone? _____
- 4) If Mark finished his homework early and got to spend another hour watching TV, what will his total hours change to? _____
- 5) What is the formula used to calculate the total number of hours for Juan?

- 6) According to this spreadsheet, who does not have time to talk on the phone?

- 7) If the number of hours Mary spent playing sports changes to 1 hour, what cell will change as a result? _____
- 8) Which person does the least amount of homework? _____
- 9) Does Juan or Chantel spend more time talking on the phone? _____
- 10) If Julie got sick and left school 2 hours early, what cell would change as a result?

- 11) What will it change to? _____

EXERCISE 11 - Formulas

Your teacher wants you to create a spreadsheet so that you can keep records of students' test marks you need to **design** a spreadsheet which will record:

- Student's name
- Scores of three tests
- Average

Show any formulas that you will use on your design

EXERCISE 12 - Practice with creating spreadsheets

Candy Cane Project

Directions: I am planning to buy candy for my primary school end of the year breakup party.

I need the information below compiled into a format so that I can easily figure out how many of each type of candy cane I need to buy altogether. I will then need to be able to hand out the candy canes to each class.

Your task is to choose the appropriate computer program in order to compile the data and then create a file called **candy cane** in which you have compiled the data for me. Thank you for your help!

Classes Surveyed:

Kindergarten

Class 1

Class 2

Class 3

Class 4

Candy Cane Flavors:

Peppermint

Cherry

Sour Apple

Blueberry

Chocolate Mint

Data Collected:

- Kindergarten = peppermint – 2; cherry – 15; sour apple – 10; blueberry – 5; chocolate mint – 9
- Class 1 = peppermint – 5; cherry – 17; sour apple – 21; blueberry – 12; chocolate mint – 7
- Class 2 = peppermint – 4; cherry – 9; sour apple – 11; blueberry – 13; chocolate mint – 11
- Class 3 = peppermint – 7; cherry – 11; sour apple – 7; blueberry – 16; chocolate mint – 3
- Class 3 = peppermint – 9; cherry – 10; sour apple – 2; blueberry – 10; chocolate mint – 11
- Class 4 = peppermint – 3; cherry – 13; sour apple – 21; blueberry – 19; chocolate mint – 5

EXERCISE 13 - More Practice with creating spreadsheets

Create the following spreadsheet

E16		fx		=SUM(E5:E14)				
A	B	C	D	E	F	G	H	I
1								
2	EASY AS PIE							
3								
4		Type of pie	Total	Customer 1	Customer 2	Customer 3	Customer 4	
5		Apple		30	15	50	30	
6		Cherry		25	20	20	5	
7		Mixed Fruits		45	5	0	5	
8		Steak and Ale		50	5	20	40	
9		Steak and Kidney		50	10	20	20	
10		Chicken and Mushroom		50	20	15	15	
11		Chicken and Leek		50	15	15	20	
12		Chicken Balti		10	5	10	15	
13		Mince		30	5	15	20	
14		Bacon and cheese		20	5	10	5	
15								
16			Total number of pies ordered per month	360				
17								
18			Estimated total per year					
19								
20			Estimated total per week					
21								

In E16 is a formula showing how many pies are ordered to customer 1 each month. Copy this formula across using the fill handle, so that the total of each customer is worked out

In cell C5 create a similar formula that will work out the total of each pie baked. Copy the formula down

In E18 use a simple multiplication formula using * to work out the estimated number of pies baked per year. Copy the formula across.

In e20 use a similar formula to divide the number of pies per month by 4. / is the symbol to divide. Again, copy the formula across

Select cells B5 to c14 to create a pie chart showing the total number of each pie bought. Make sure you add a title.

Save your file as “U3-ex13-yrfirstname”

EXERCISE 14 - Spreadsheet Terms

Fill in the blank with the correct word from the word bank below. Use each word one time only.

_____	The vertical divisions in a spreadsheet. They are named with an alphabetical letter
_____	The page setup that allows the document to be printed in a horizontal direction.
_____	The intersection of a row and column
_____	The horizontal divisions in a spreadsheet. They are named with a number.
_____	The term for a number in a spreadsheet. Values can be added, subtracted, multiplied or divided.
_____	The term given to computer assisted data collection tools.
_____	The page setup that prints the document vertically. It is the default setup on most printers.
_____	The term given to the words entered on a spreadsheet. They usually name a column.
_____	The term given to the way the document is formatted to print.
_____	The working of mathematical equations. Formulas are usually used in spreadsheets and allow the computer to automatically perform these.
_____	A visual representation of the data displayed in a spreadsheet
_____	These are used to organize information using rows and columns of cells that you can fill with text
_____	Another way to organize information using the data in a spreadsheet.
_____	A program that can be used to perform calculations, analyze and present data. Includes tools for organizing, managing, sorting and retrieving data and testing "what if " statements. The chart feature displays numerical data as a graph.

Column	Row	Spreadsheet	Cell Address	Label
Value	Calculate	Probeware	Page Set Up	Portrait
Landscape	Chart	Graph	Table	Cell

UNIT 4: MULTIMEDIA & PRESENTATION TOOLS

At the end of this Unit,
students should be able
to:

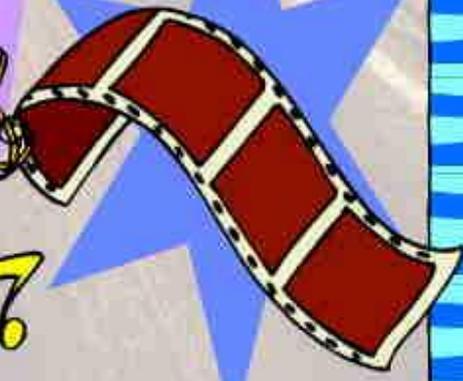
- 4.1 Identify types of Multimedia**
- 4.2 Identify reasons for using Presentation Software**
- 4.3 Use Microsoft Power Point to create a series of slides and organize them to present research or convey an idea.**
- 4.4 Use graphics, sounds and movies in slides.**



Multimedia



Presentation tools
Presentation topics

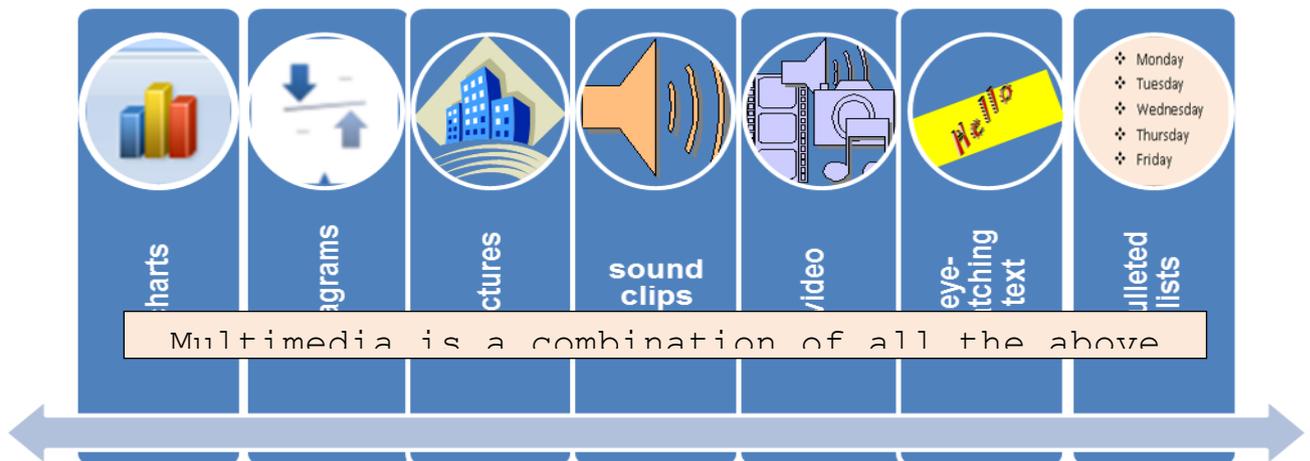


4.2 Identify Types of Multimedia



Multimedia is a combination of text, graphics, animation, sound and video into one presentation.

- ❖ **Graphics** may include drawings, charts, diagrams or photographs
- ❖ **Animation** is when the still images or graphics appear to be moving on the screen
- ❖ **Audio or Sound** may include music, speech or any other sound
- ❖ **Video** consists of full motion or moving images that can be played at various speeds



Exercise 1



- 1) Define the term 'multimedia'
- 2) Match the terms to its definition:

<ol style="list-style-type: none"> a. Video b. Graphics c. Animation d. audio 	<ol style="list-style-type: none"> i. may include drawings, charts, diagrams or photographs ii. text documents iii. may include music, speech or any other sound iv. consists of full motion or moving images that can be played at various speeds v. when the still images or graphics appear to be moving on the screen
---	---

4.2 Identify Reasons for Using Presentation Software



Why do we use
Presentation Software?



Sometimes, reading through lines and lines of black and white text can sometimes be very boring and people who are reading it may lose interest very quickly – even though the information written is very important.

With the use of **multimedia and presentation tools**, presentations can look more **interesting and attractive**.

Try to think about a normal word document that contains only text...does it appear interesting?

Imagine if you added graphics, video and sound...What changes does it make to the presentation?

With Multimedia and Presentation software, instead of just reading lines of text to get the information you want – you can actually **see and hear** the pictures and sound related to what is being presented.

Multimedia helps students integrate text, sound, video and pictures to create presentations that are:

- ❖ **Appealing** – looks attractive and draws people’s attention
- ❖ **Colourful** – has a colorful background, themes and styles of display
- ❖ **Interesting** – contains pictures, animation, music and other forms of sound

It is also important to remember that **to hold or keep an audience interested** in the information or message you are trying to tell them, then the appearance of what you are presenting is very important.

Exercise 2



Look at the two screens below. They contain the same content of the same topic.

- 1) What is the difference between how the information is presented?
- 2) Which of the two appear more interesting to look at?
- 3) Explain why Screen 2 is a much better way of presenting the notes?

<ul style="list-style-type: none"> Types of Computers Unit 1.2 Four Kinds of Computers There are four types of computers: <ol style="list-style-type: none"> Microcomputers Minicomputers 	<ol style="list-style-type: none"> Mainframes Supercomputers <ul style="list-style-type: none"> Microcomputers The most widely uses and the fastest growing type of computer is the microcomputer. There are two 	<p>categories of microcomputers:-</p> <ol style="list-style-type: none"> Desktop & Portable <ul style="list-style-type: none"> Desktop Computer Desktop computers are small enough to fit on top or along the side of a 	<p>desk and yet are too big to carry around.</p> <ul style="list-style-type: none"> Personal computers are one type of desktop. These machines run comparatively easy-to-use application software. They are used by a wide range
<p>of individuals, from clerical people to managers.</p> <ul style="list-style-type: none"> Workstation Workstations are another type of desktop computers. Generally, these machines are more powerful. They are 	<p>designed to run more advanced applications software.</p> <ul style="list-style-type: none"> Engineers, scientists and others who process lots of data use workstations. 	<ul style="list-style-type: none"> The distinction between personal computers and workstations are now blurring. The principal reason is that personal computers are now nearly as powerful as workstations and are 	<p>able to run many of the same programs.</p> <ul style="list-style-type: none"> Portable Computers Portable computers are microcomputers that are small enough and light enough to move easily from

Figure 4.2.1: A document created using a Word processor

Figure 4.2.1: An example of a presentation created using a Presentation Tool

4.3 Creating a series of slides and organizing them to present research or convey an idea.



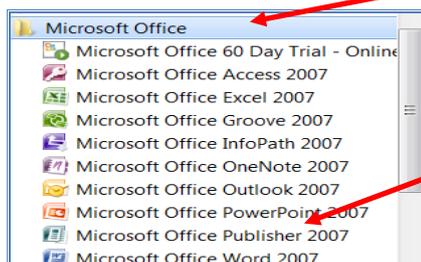
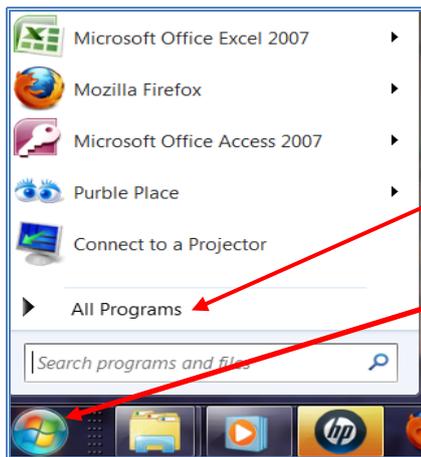
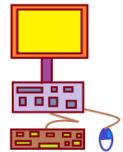
There are many Presentation software tools that we can use to create a multimedia presentation. In this Unit we are going to use Microsoft PowerPoint Presentation program.

Just like a Word document is made up of many pages, each page on a PowerPoint presentation is called a **slide**. So a PowerPoint presentation is made up of a series of slides.

Sainimili who is a class 7 student has been asked by her computer teacher to make a PowerPoint presentation on the topic: 'Types of Personal Computers'. In this Unit, you are going to help Sainimili create the presentation at each stage:-



Firstly, how do we get to Microsoft Office PowerPoint?



1. Click on the start button on the desktop
2. Select 'ALL PROGRAMS'
3. Search for Microsoft Office
4. Microsoft Office PowerPoint should appear when you select Microsoft Office
5. Click on Microsoft Office PowerPoint 2007 to open the program

Figure 4.3.1: Windows 7 Professional\Desktop

4.3.1 Using Screen and Toolbar Elements



It is important to know and familiarize yourselves with the screen and toolbar elements of Microsoft PowerPoint so that you can easily and skilfully create files and presentations.

You will also be aware of the different tools to use for different features that you want on your presentation. As you open Microsoft PowerPoint, a blank MS PowerPoint screen with one slide will appear automatically.

Can you identify the features shown below on your MS PowerPoint screen?

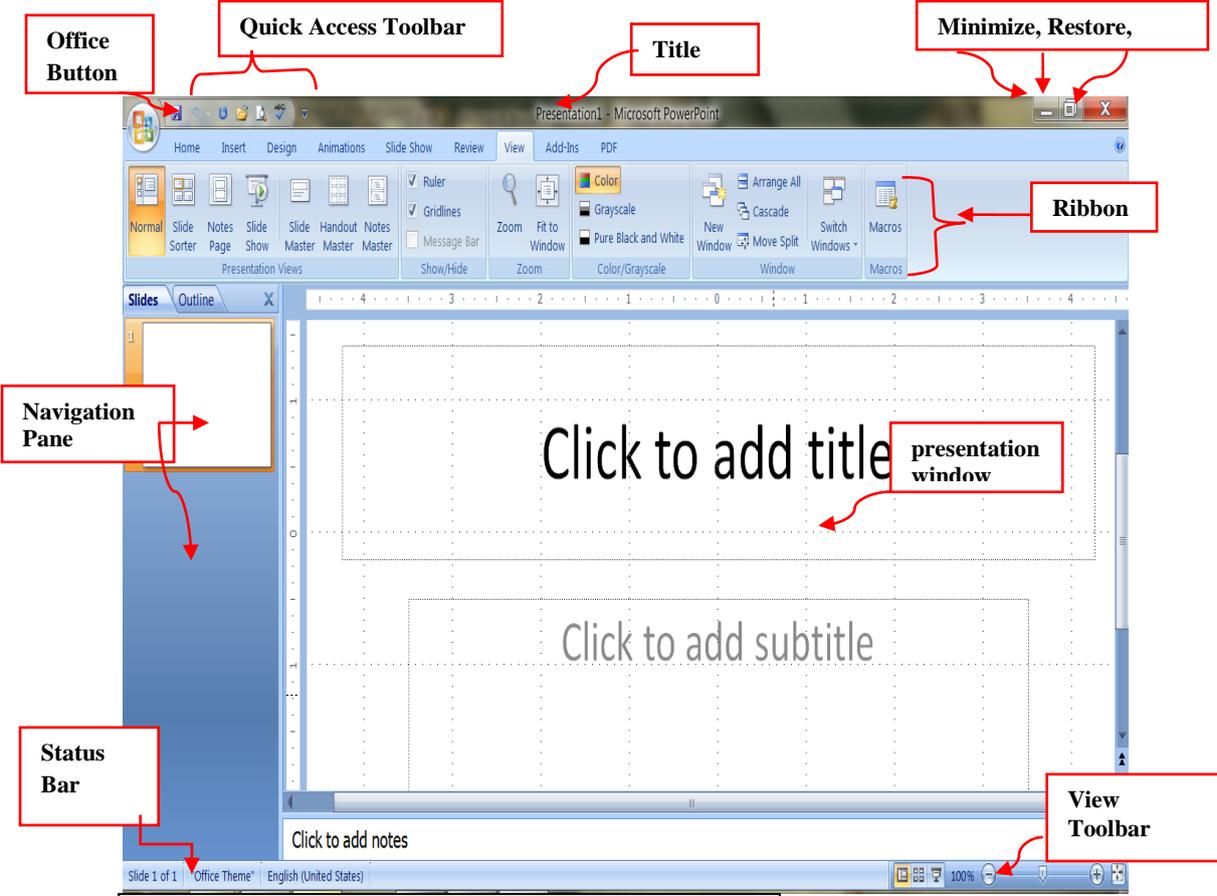


Figure 4.3.1.1 Microsoft Office PowerPoint 2007

As you view the MS PowerPoint window and each part of the screen and toolbar, refer to the table below which outlines the function of each part of the screen and the toolbar.

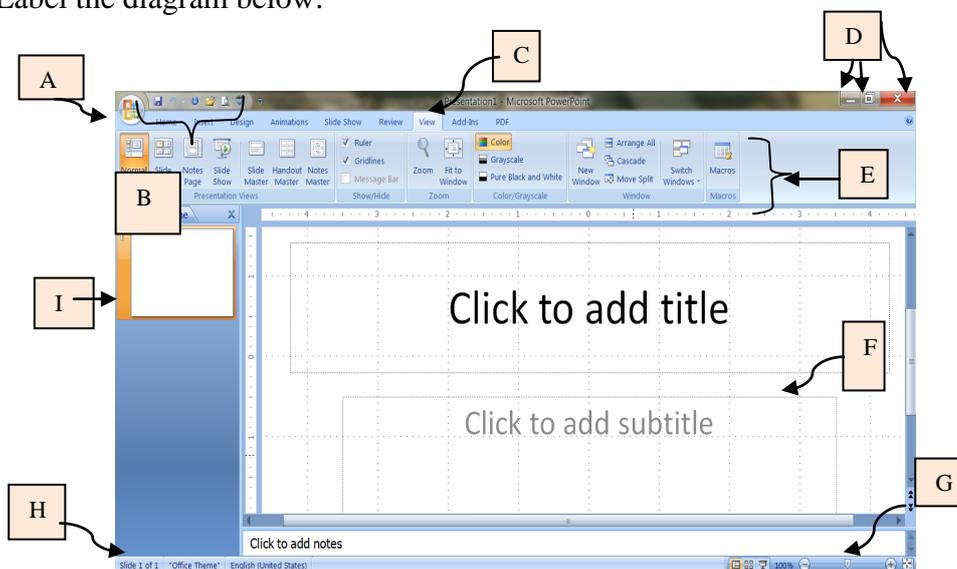
<u>Feature</u>	<u>Use</u>
Office Button	Click on this button to display commands available in PowerPoint.
Title Bar	Displays the name of the presentation that is being viewed
Minimize, Restore and Close Buttons	Located at the right end of the title bar Minimize button causes the window to shrink, Restore button maximizes the window if it has been minimized and Close button closes the application.
Quick Access Toolbar	a small toolbar next to the Office Button which contains some of the most common commands
Slide Navigation menu	Allows the user to easily move from one slide to another
Tabs	Allows users to click on it to access tools and commands.
Ribbon	Commonly used features are displayed on the Ribbon.
Status Bar.	contains certain details about the presentation
View Toolbar	Contains buttons for making the view appear larger or smaller

Table 4.3.1.1: Outline function for the screen and the toolbar

Exercise 3



- 1) Why is it important to be familiar with the screen and toolbar elements of MS PowerPoint?
- 2) Identify the parts of MS PowerPoint Screen on a computer
- 3) Label the diagram below:



4) Define the functions of each part.

5) Match the correct term to its definition

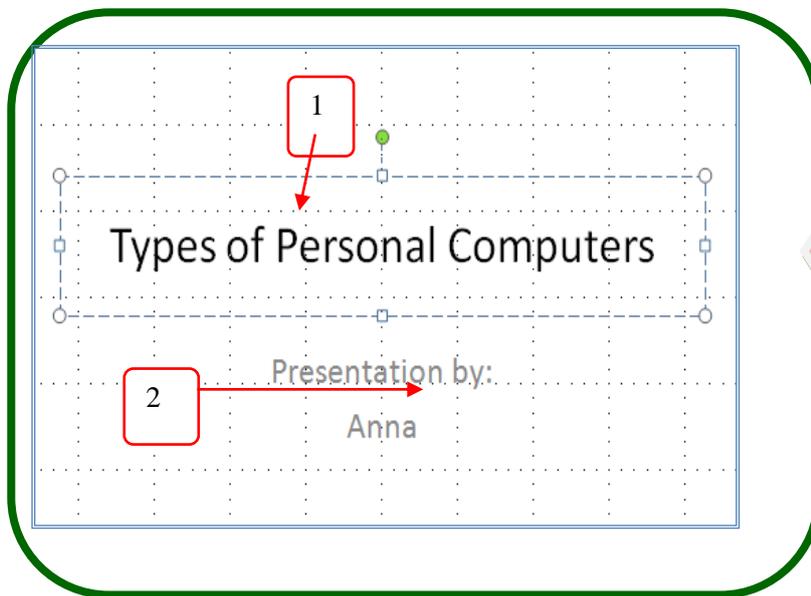
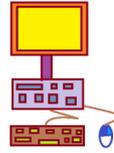
<u>Term</u>	<u>Definition</u>
1) Multimedia	a) displays commonly used features
2) Slide	b) small toolbar next to the Office button
3) Title bar	c) allows users to easily move between slides
4) Quick Access toolbar	d) combination of text, graphics, sound, video
5) Slide Navigation bar	e) displays name of presentation in view
6) Ribbon	f) each page on a presentation

4.3.2 Saving and Retrieving a Presentation

The first slide of a presentation usually contains the topic or title of the presentation and the creator's name

On the first slide of the presentation:

- ❖ type in the text as written below
- ❖ And your name.
- ❖



1. Click on the top text box & Type in the text as shown, the topic to be presented.
2. Click inside the second textbox & type in your name.

Figure 4.3.2.1 : source - Microsoft Office PowerPoint

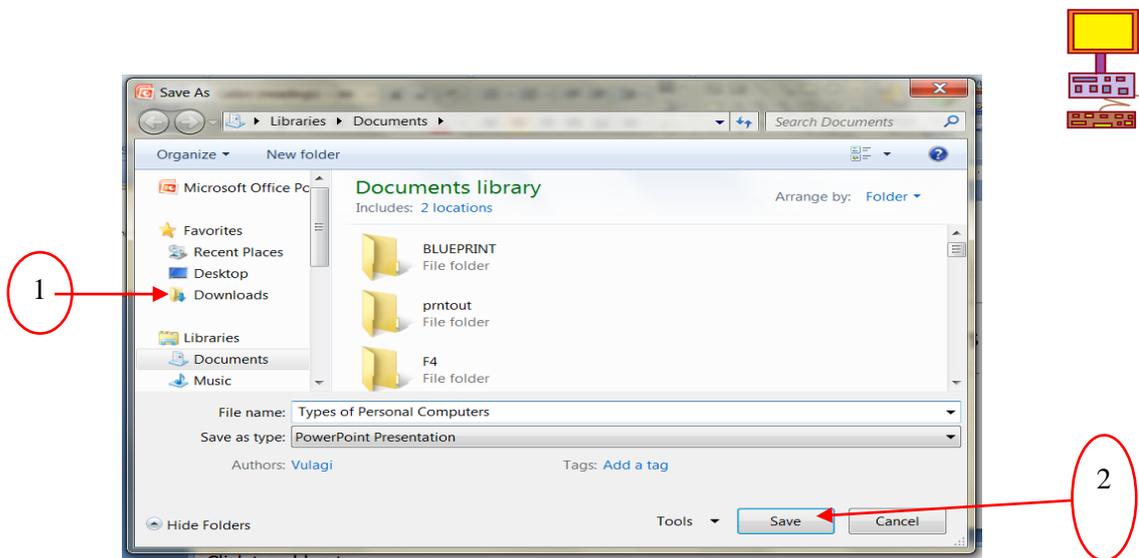


Let's save our first PowerPoint presentation!

Before you continue, let us just first **save** the work we have done so far.

Saving is storing the presentation in a file on the computer or on a USB stick for retrieval later on or whenever other changes need to be made.

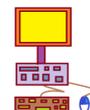
It is very important to save your work every time you create a new file or whenever you make any changes to it to prevent any loss of data or information.



1. Click on the Office button and select Save As to open the top dialog box and Search for the location in which you want to save your presentation
2. Type in the name of the presentation as 'U4-Ex-yourFirstName-LastName' and click Save.
3. To reopen your presentation, click under the Office button , select Open
4. Search for the location of your file, select it and click Open.

Exercise 4

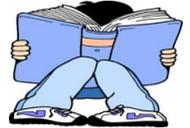
- 1) What is the importance of saving a presentation?
- 2) Go to the students folder for Unit 4 – open the 'Tips' folder and read the document – 'Tips for creating a PowerPoint Presentation'
- 3) Open a new Microsoft PowerPoint Presentation
- 4) On the first slide type in the title for Sainimili's presentation and write her name down as the creator of the presentation
- 5) Save your file as: "U4-Ex1-FirstName"



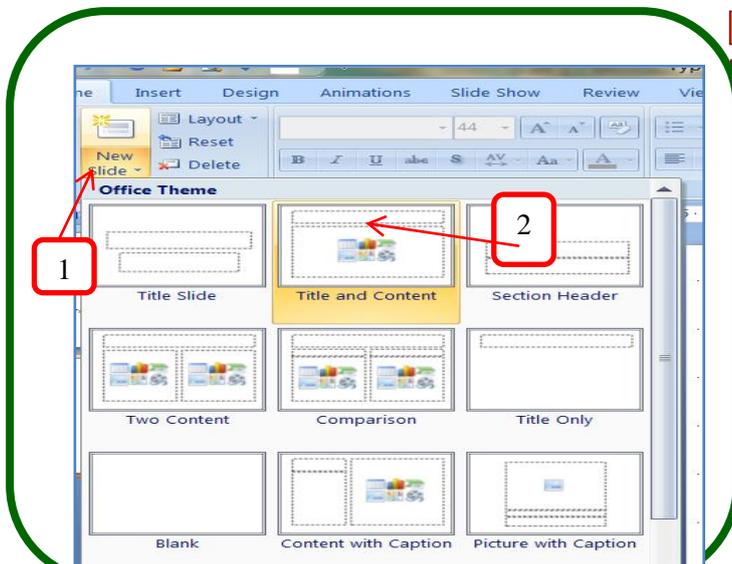
4.3.3 Create Text on a Slide



Let's help Sainimili create the rest of the contents for her presentation.



A presentation must be well organized and set out properly so that the person presenting will be able to get the 'message' across to his/her audience. Before you can continue to help Sainimili with her presentation, you must first find the information which you want to present. So, do a little research work on any three types of Personal Computers and identify their features. This is the information that you will be adding to the presentation. Once you have this information, then you can continue to help Sainimili add various slides to the presentation.



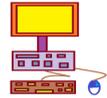
1. First add a new slide by selecting 'New Slide' on the Home Tab
2. There are many types of slides to choose from, but for this presentation select Title and Content.
3. A new slide will be added to your presentation which you can use to enter the rest of the contents of the presentation.
4. The textboxes are used to enter text.

Figure 4.3.3.1: source - Microsoft Office PowerPoint 2007

Always press the Save button whenever you make changes to the presentation!!



Exercise 5



- 1) Open the saved presentation: “U4-Ex1-FirstName”
- 2) Add five slides to the presentation
- 3) Enter text into the slides according to the outline below:
 - slide 1 – Topic: Types of Personal Computers
 - Slide 2 – Title: What is a desktop computer?
 - Slide 3 – Title: What is a laptop computer?
 - Slide 4 – Title: What is a notebook computer?
 - slide 5 – Conclusion
- 4) For each slide of the different Personal Computers write some important points:
 - ❖ Define each type of computer
 - ❖ What is the size
 - ❖ The cost of each type of personal computer.
- 5) Save your work as: “U4-Ex2-FirstName”



- 6) **Select the correct term listed below to fill in the blanks.**

Save	status bar	clip art	animation
Graphics	title bar	sound	audio

- 1) In a presentation window, the _____ usually displays the presentations file name.
- 2) _____ is a collection of photographs, images and other drawings that can be used in a presentation
- 3) The movement of still images in a sequence is known as _____.
- 4) It is important to continuously _____ your work to prevent data loss.
- 5) _____ include charts, tables, Word Art, Drawings, Pictures and any other non-text information which can be viewed on the computer.

4.3.4 Edit Text on a Slide



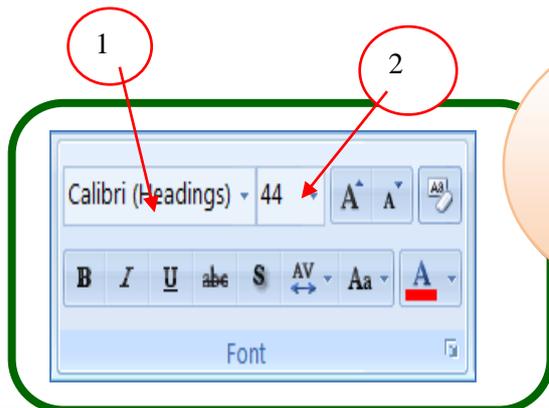
It is important to remember that when creating a presentation, the appearance of the slides must be interesting, attractive and eye-catching.

Although the text and content may be informative, it must be presented in such a way to hold the audience's attention.

The next step is to help Sainimili create an attractive presentation.



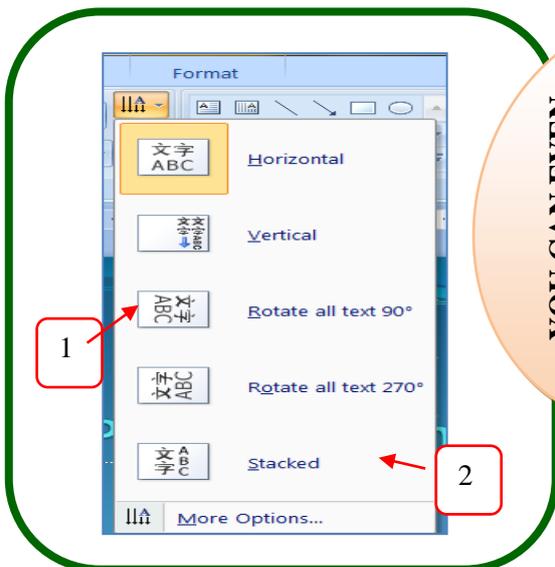
How can we change the appearance of the text on the slides?



On the Font group on the Home tab, you can:

1. Change the font style
2. Change the font size
3. Bold, *Italicize* or Underline the font.
4. Change the color of the text.

Figure 4.3.4.1: source - Microsoft Office PowerPoint

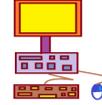


YOU CAN EVEN CHANGE THE DIRECTION OF TEXT!

- First, highlight the text which you have typed.
- 1) Select the Change Text Direction button under the Format tab
 - 2) Choose the text direction you wish to use

Figure 4.3.4.2: source - Microsoft Office PowerPoint 2007

Exercise 6



- 1) Open the presentation which you have saved.
“U4-Ex2-FirstName”
- 2) Follow the guidelines below to change the appearance of the text used for the slides 2 - 4:
- 3) Choose your own font type, size, colors for slides 1 and 5 and apply it to the text you have typed in.
- 4) Save your work as “U4-Ex3-FirstName”

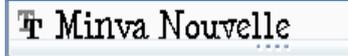
	<u>Font type</u>	<u>Font size</u>	<u>Font color</u>	<u>Other</u>
1		72		Bold, underline
<u>Slide 2 – 5</u>				
Title		66		Bold, underline
Content		48		bold

Table 4.3.4.1: source - Microsoft Office PowerPoint 2007



- 5) Why is the appearance of a presentation so important?
- 6) Explain some features of a presentation that makes it look interesting and attractive?

4.3.5 Change Layout of Slide



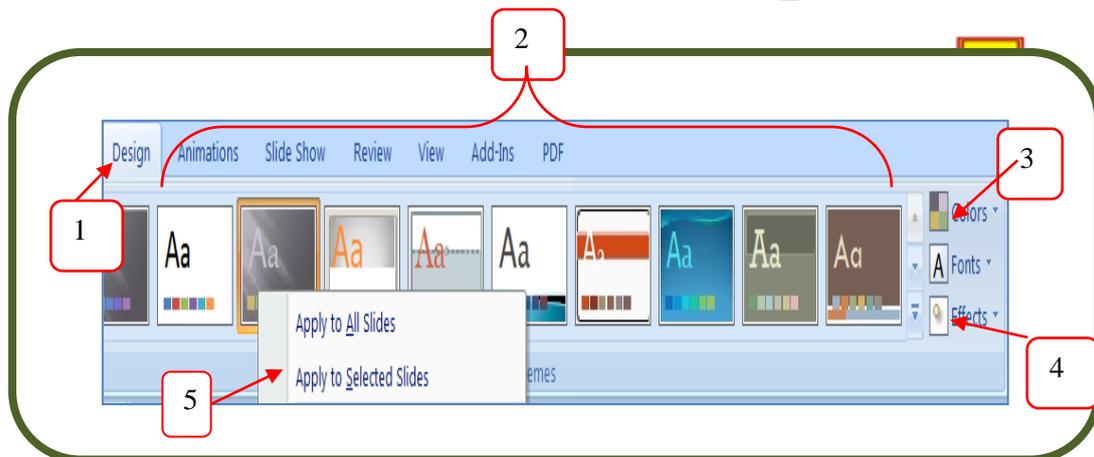
At times, while creating your presentation, you may wish to change the layout and appearance of your slides to make it appear more interesting and appealing.

Themes - are design templates that can be used by an entire presentation. Themes help to create an attractive and colorful presentation. The background styles of a theme can also be changed.

If a presentation uses the blank white slides and doesn't have a theme and a background style, it may appear very boring and it cannot be called a good presentation. It would be similar to any other word document. Therefore, it is important to select a suitable theme and a background style that will make a presentation appear bright, attractive and interesting to look at!



How can we brighten up Sainimili's presentation?



To brighten up Sainimili's presentation:

1. Click the Design tab on the Ribbon
2. Right click on the theme you wish to select
3. Select color effects
4. Select theme colors if you want to change it.
5. Choose the slide you want to use the theme in.

Figure 4.3.5.1: source - Microsoft Office PowerPoint

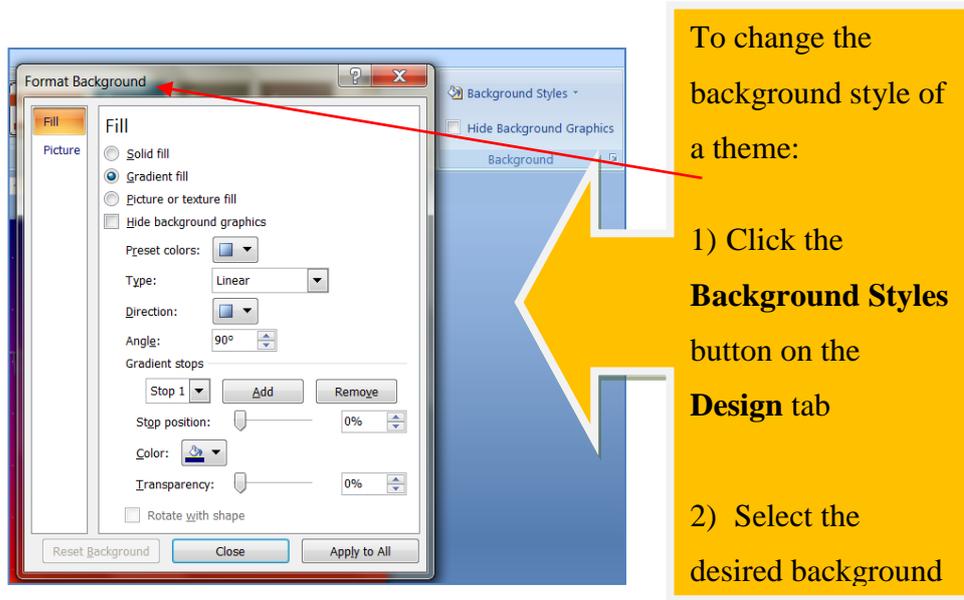
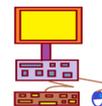


Figure 4.3.5.2: source - Microsoft Office PowerPoint 2007

Exercise 7



1. Open the presentation which you have saved.
“U4-Ex3-FirstName”
2. Choose a theme for the presentation – apply the ‘**flow** theme’ to the slides.
3. Change the color - apply the ‘**metro color**’ to slides 2 – 4
4. Choose your own color for slides 1 and 5.
5. Format the background of the slides – choose a color yellow to fill the background for slides 2-4
6. Choose your own background color for slides 1 and 5
7. Save your work as “U4-Ex4-FirstName”

4.3.6 Insert and Delete Slides

At times, while working on your presentations, you may want to add a new slide or delete an existing slide. However, before you add or delete a slide be sure of what you want to add or delete. Inserting or deleting slides can be done very easily.

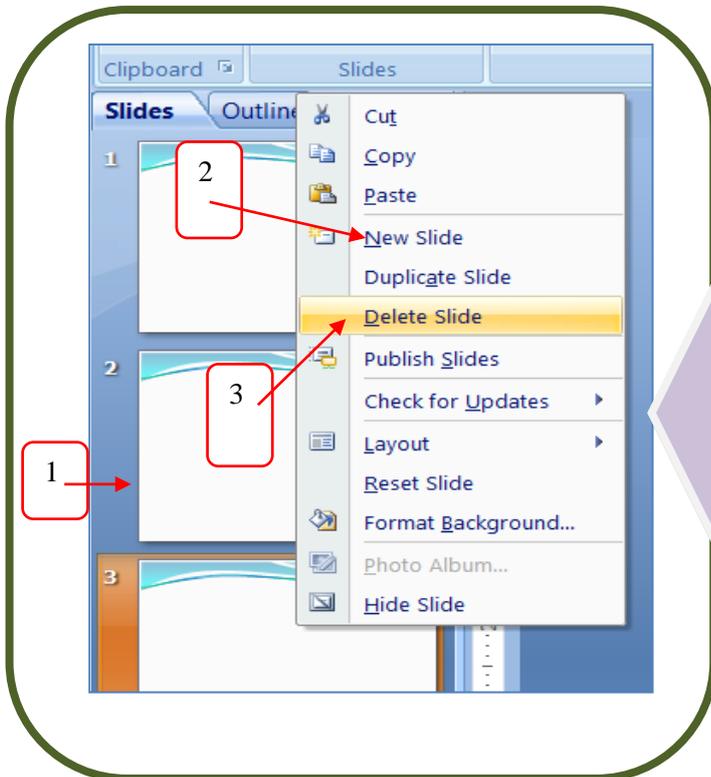
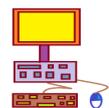


Figure 4.3.6.1: source - Microsoft Office PowerPoint 2007

- 1) To insert a new slide:
On the navigation pane click on the slide right before where you want to insert a new slide
- 2) Right – click on mouse and select New Slide.
- 3) To delete a slide, select the slide from the navigation pane, right-click on mouse and choose Delete Slide

Exercise 8

- 1) Open Sainimili’s presentation which you have saved. “U4-Ex4-FirstName”
- 2) Insert a new slide in between slides 4 and 5.
- 3) Type in the Title: Pictures!
- 4) Insert a new first slide at the very beginning of the presentation.
- 5) Copy and Paste the contents of the second slide onto the new first slide created in 4
- 6) Delete the second slide.
- 7) Save your work as “U4-Ex5-FirstName”



4.3.7 Creating a Slideshow



After preparing all the slides and its contents for the presentation, you can create a **slideshow**.

A slideshow is a collection of slides arranged in a sequence that contain text and images for presenting to an audience.

We will now help Sainimili create a slideshow from the slides that have been created!

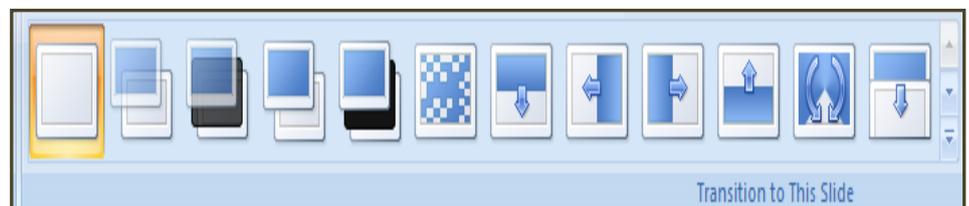


How can we set up the presentation to move from one slide to the next like a show?

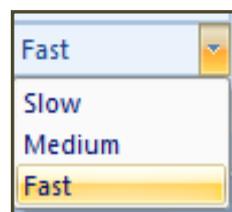
We can do this by adjusting the features of the slide transitions and adding animation. Animation is the movement of still images in a sequence.

Transitions are effects that are in place when you switch from one slide to the next. You can control how the slide show is set up by choosing the:

- ❖ Transition Scheme – how the change from one slide to another takes place



- ❖ Transition Speed – how fast the transition takes place



- ❖ Transition Sound –

What is heard during the transition?



The steps below outline how the transition effects explained above can be included in the presentation.

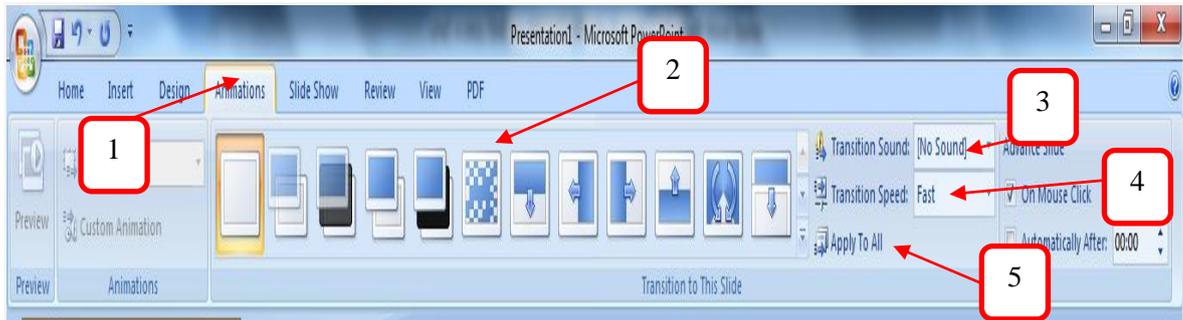
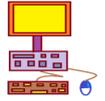
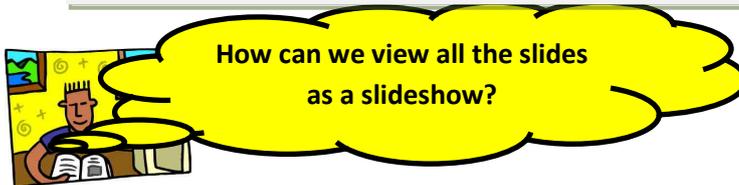


Figure 4.3.7.4: source - Microsoft Office PowerPoint

- 1) Click on the animations tab
- 2) Select a transition scheme
- 3) Select a transition sound
- 4) Select a transition speed
- 5) Apply it to all the slides

Do you think the presentation is becoming more and more interesting?



Finally! You can now view the presentation you have created.

First let's review what you have done so far:-

- ✓ Open and save a new presentation
- ✓ Created a title slide and content slides
- ✓ added and edited text and fonts
- ✓ Change the design , theme and background of the slides
- ✓ Added transition schemes, sounds and speed

Now, you can view the product of your hard work!!!

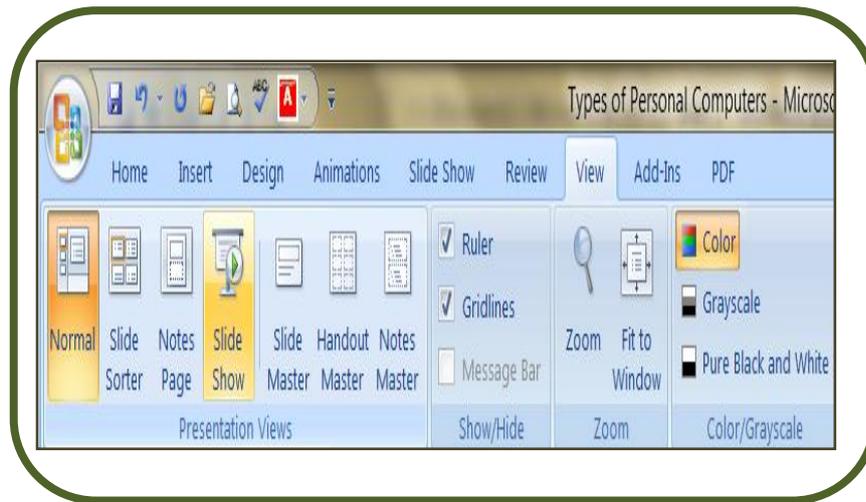


Figure 4.3.7.5: source - Microsoft Office PowerPoint

- 1) Click on the View tab
- 2) Select Slide Show to view the presentation
- 3) After viewing the slideshow, you can further make changes to the presentation features if you want to.

Exercise 9



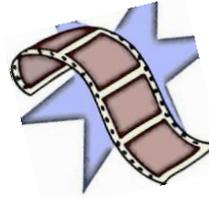
- 1) Explain what transition is & differentiate between transition speed, scheme and sound.
- 2) Open Sainimili's presentation which you have saved. "U4-Ex5-FirstName"
- 3) Apply the following features:
 - Transition scheme – select one from strips and bars
 - Transition sound – applause
 - Transition speed – medium
- 4) View the slideshow
- 5) Save your work as: "U4-Ex6-FirstName"
- 6) List some differences between a PowerPoint Presentation and a simple Word document.

4.4 Use Graphics, Sounds and Movies in Slides.

So far, Sainimili's presentation only contains text information.

It is **a bit** interesting with the themes, color backgrounds and transition features.

However, MS PowerPoint even allows us to make it even **more** interesting and attractive by allowing us to add graphics, sound and movies.



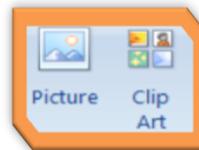
4.4.1 Import Graphics



Graphics are non-text information. Graphics include charts, tables, Word Art,

Drawings, Pictures and any other non-text information which can be **viewed**

on the computer.

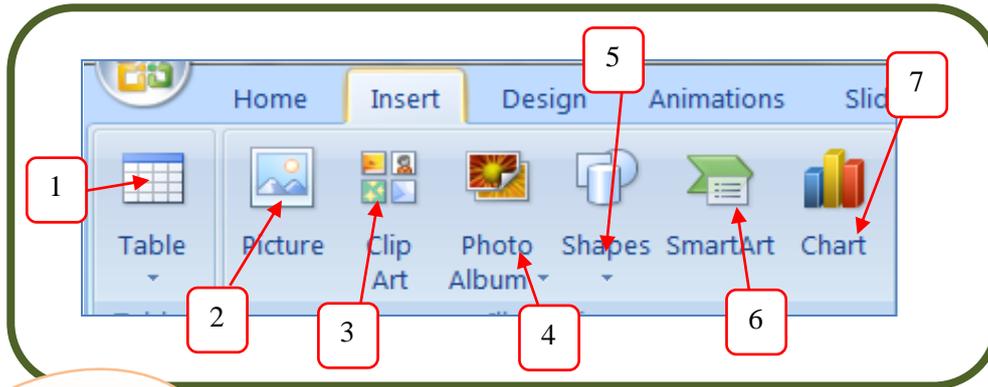


Graphics help viewers of the presentation to actually see pictures and this adds meaning to the text being explained in the presentation.

For example, while Sainimili is explaining the types of Personal computers, she can also add pictures of the computers so that the audience can actually **see** what the computers actually look like!



How can we add Graphics?



Click on the Insert tab to add graphics:

- 1) Tables – choose the number of rows and columns
- 2) Picture – locate any saved pictures which you want to use in the presentation
- 3) Clip Art – readymade drawings, images saved in the Office collection
- 4) Photo Albums – insert any saved photo albums
- 5) Shapes – readymade shapes like triangles, squares, circles, call outs

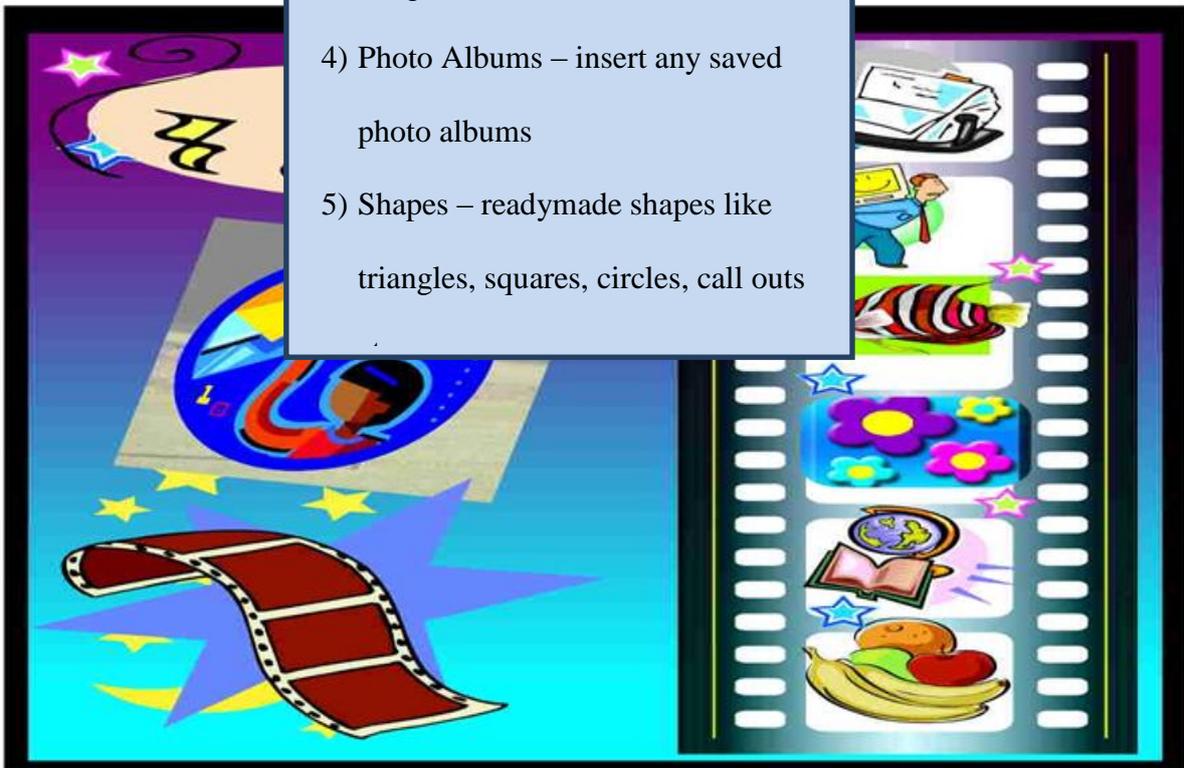
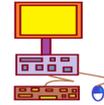


Figure 4.3.7.7 – "\Scrapbook Factory\scrapbk.exe"

Graphics make the presentation more attractive and descriptive... Don't you think so???



Exercise 10

- 1) Open Sainimili's presentation which you have saved. "U4-Ex6-FirstName"
- 2) Add graphics from the student folder according to the following outline:
 - Slide 1 –5 insert picture titled 'COMPIC PPT' into all the slides at the top right hand corner.
 - Slide 2 – 5 insert pictures from the student folder that is related to the personal computer being explained.
 - Add another slide to the presentation and insert the table shown below. List one feature for each type of personal computer.

<u>Computer</u>	<u>Features</u>
• Laptop	•
• Desktop	•
• Notebook	•
• Personal Digital Assistant	•

- 3) Save your presentation as: "U4-Ex7-FirstName"

4.4.2 Import Sounds and Movies

Isn't it amazing how this presentation is progressing? It even gets better because you can easily add sound and movies of your choice. Now, not only will you see the **still** graphics, but you can also **hear** sound related to the presentation and **view** movies related to the presentation.



Sounds may include music, speech, or any other audio effects. This also enhances the quality of the presentation and makes it more interesting. To add sound:-

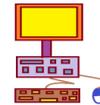
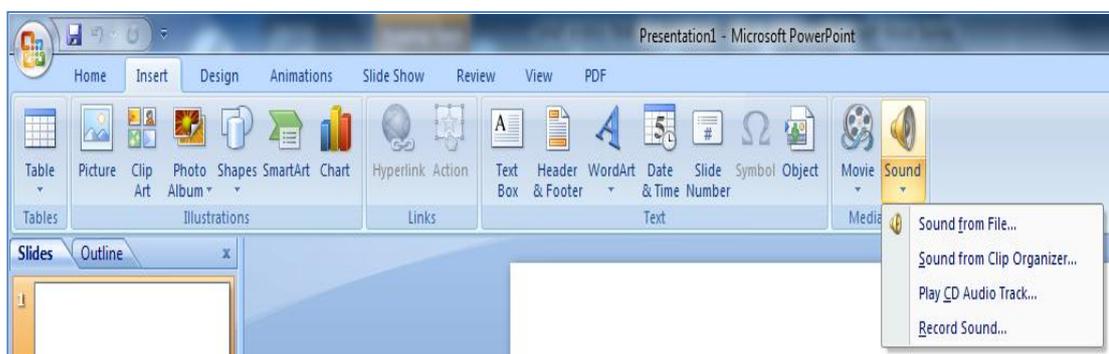


Figure 4.4.2.1 Microsoft Office PowerPoint 2007



1. Click on the Insert tab on the ribbon
2. Under the group Media Clips
3. Click on Sound
4. Choose the location of the sound you want to insert and click on it to insert into the presentation
5. Choose whether you want the sound to play automatically or when clicked.

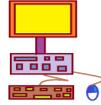
Figure 4.4.2.2 Microsoft Office PowerPoint



1. Click on the Insert tab on the ribbon
2. Under the group Media Clips
3. Click on Movie
4. Choose the location of the movie you want to insert and click on it to insert into the presentation
5. Choose whether you want the movie to play automatically or when clicked.



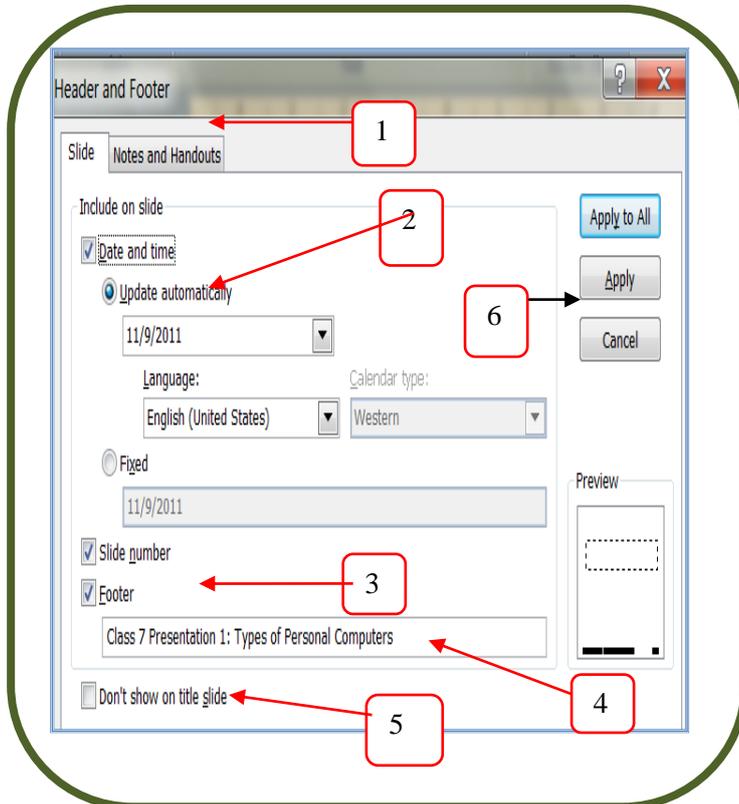
Exercise 11

1. Open Sainimili's presentation which you have saved:
"U4-Ex6-FirstName"
- 
2. Search for the sound stored on the student folder called: 'j0074224' to add to the presentation.
 3. Add a movie from the students folder : 'Types of Computer'
 4. View the whole presentation as a slideshow.
 5. Save the presentation as: "U4-Ex7-FirstName"
 6. Why is this presentation known as a multimedia presentation?

4.5 Headers and Footers



Headers and Footers are useful information containing details about the presentation which is usually located on the topmost (header) section or the bottommost (footer) section on every page of a document or every slide of a presentation. It may include the date, time, name of author, topic, page number etc.



On the Text group under the Insert tab:

- 1) Select Header and Footer to open the dialog box shown.
- 2) Indicate whether you want the time and date to be on the slide
- 3) Select slide number if you want it to be shown on the slides
- 4) Type in text for your footer
- 5) Indicate whether or not you want the footer to appear on the title slide
- 6) Click to apply settings.

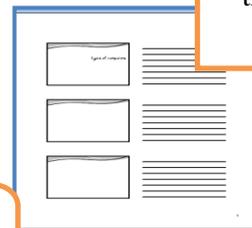
Figure 4.5.1 Microsoft Office PowerPoint 2007

Only footers are shown in the slides, but when you select Notes and Handouts you have the choice of adding both

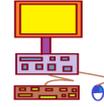


Headers are located at the top of the page

Footers are located at the bottom of the page

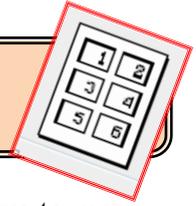


Exercise 12

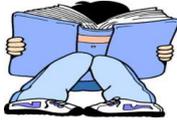


- 1) Open Sainimili's presentation which you have saved.
"U4-Ex7-FirstName"
- 2) Add the following footer to the presentation:
Types of Personal Computers: By Sainimili
- 3) Add the header to the hand outs and notes:
Unit 4: Multimedia and Presentation Tools
- 4) Save your work as: "U4-Ex8-FirstName"
- 5) What is a header and a footer?
- 6) What sort of information does a header and footer usually display?

4.6 PRINTING THE HANDOUTS



Sometimes you may have only a short timeframe to present your work and you have to move quickly from one slide to another. So, it may be wise to print out hand-outs of your presentation which can be given to your audience to read through after the presentation.



Let's start printing!!!

Click the Office button and select Print to Open the dialog box shown

2. Check to ensure the correct printer name
3. Select print handouts
4. Select the number of slides you want to have on each page
5. Click on preview to see what the handouts would look like

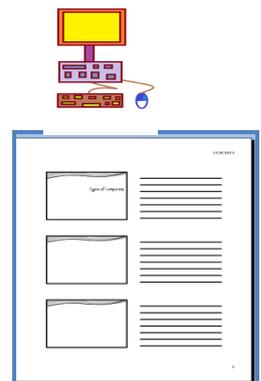
Figure 4.6.1 Microsoft Office PowerPoint 2007

Exercise 13

Open Sainimili's presentation which you have saved.

"U4-Ex7-FirstName"

1. Check through the contents of each slide and make any necessary changes
2. View the slideshow
3. Print the handouts for the presentation – 3 slides per page
4. Discuss 5 tips to remember when creating a Multimedia presentation.
5. Open the students folder , locate the word document titled: 'Unit 4: Review Questions'
6. Answer the Review Questions.

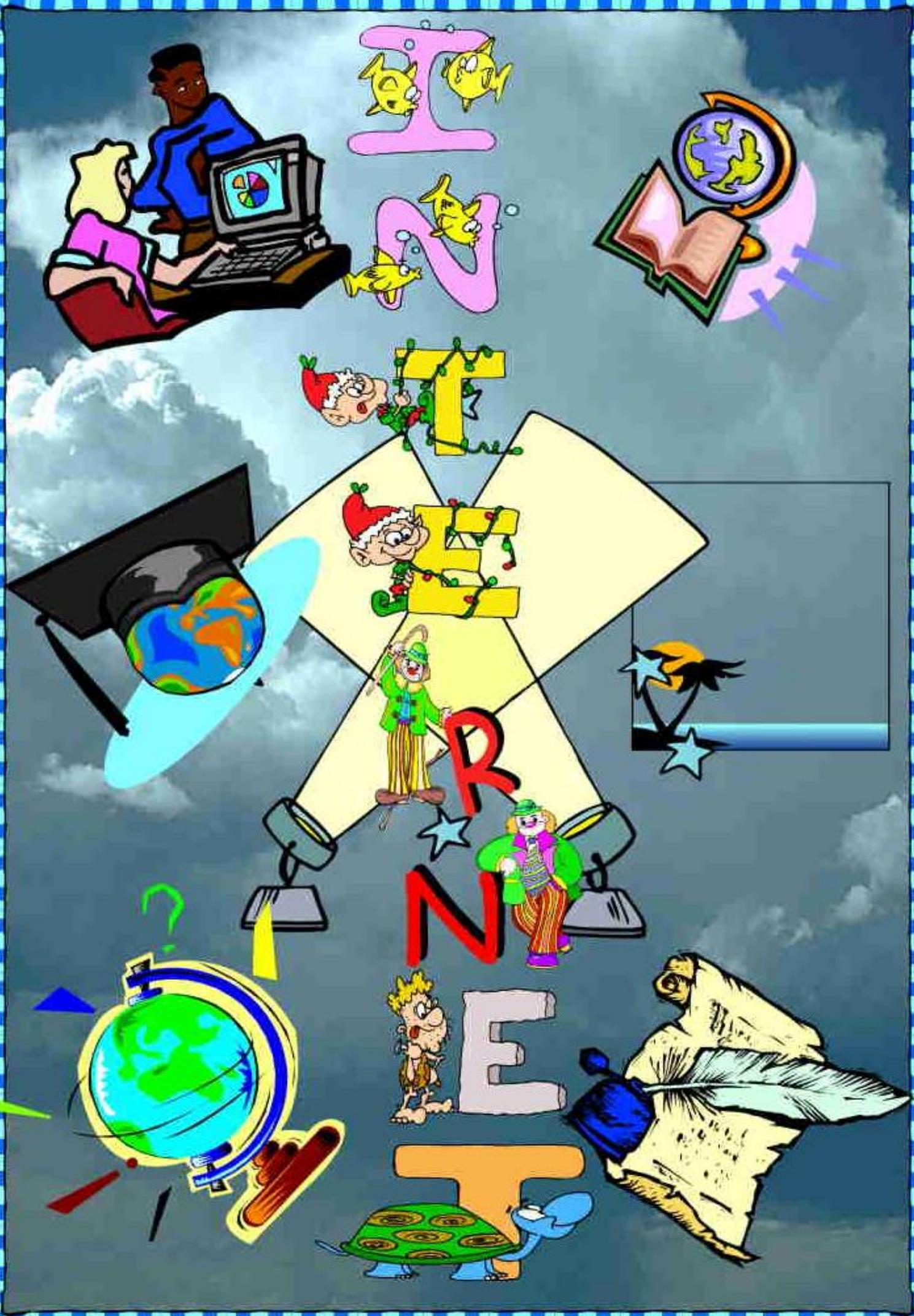


UNIT 5

INTERNET, NETWORKING & ONLINE COMMUNICATION

At the end of this Unit, students should be able to:

- 5.1 Define What a Network is
- 5.2 Identify Types of Networks
- 5.3 Describe the Internet and Its Features
- 5.4 Identify Internet Applications
- 5.5 Familiarize with Forms of Online Communication
- 5.6 Be aware of the DO's and DON'TS of Internet use.



5.1 Identify Types of Networks



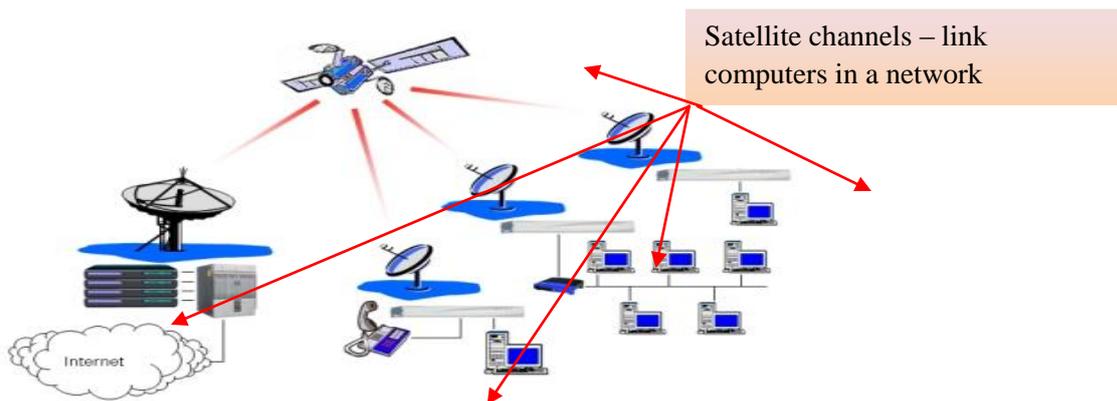
How can computers share information?



A **network** is a group of 2 or more computers that are linked together and can share information and data.

In order for computers to share information with each other they need to be linked. Computers in a network are linked through **communication channels** and **connection devices**. The image below describes how computers in a network are linked in order to share information.

In order to communicate, there will be a computer that sends the message and a computer that receives the message. The **links or channels** and **connection devices** allow the sending and receiving of messages from one computer to another.



How big a network is depends on how close or far apart the computers in the network are located from each other. There are usually three types of networks:

Local Area Network - LANs connect devices that are located close to one another. Often these devices are located in the same office or floor. **Metropolitan Area networks** - Metropolitan area networks or MANs are used to link office buildings within a city. **Wide Area Networks** - WANs are the largest type. They span states and countries, or form worldwide networks. The **Internet** is the largest wide area network in the world.

Exercise 1

- 1) What is a network?
- 2) What does a communication channel do in a network?
- 3) Explain the 3 types of networks.
- 4) Why do you think it is important for computers to share information?
- 5) Give local examples of the three network types.



5.2 The Internet



Internet! Internet! Internet! - A common term nowadays? YES OF COURSE!

Kids are using the internet, Parents use it, teachers use it...everyone is using it! Why??? Because the Internet is a place which provides a huge amount of information, news, music, games, communication and the list is goes on and on...

As discussed in the previous topic, the **Internet** is a type of network, it is the largest Wide Area Network because the internet spans from one country to another over very long distances.

Any person who has access to the Internet can send or receive messages or information from another Internet user who may be millions of miles away in another country.

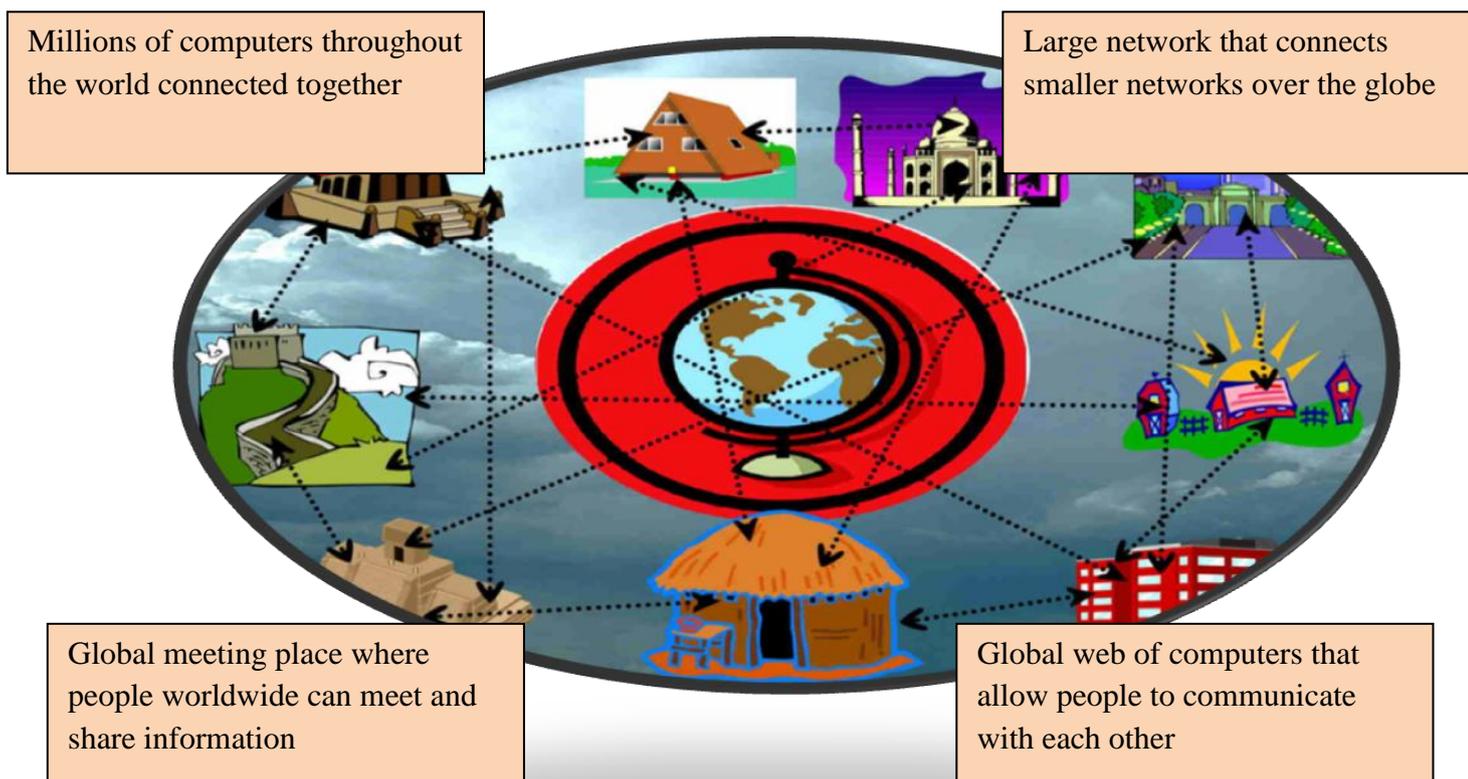


Figure 5.2.1: source - "Scrapbook Factory\scrapbk.exe"



Exercise 2

- 1) What does the term internet mean to you?
- 2) Do you think the internet is useful? Why?
- 3) Briefly describe how the internet is used in your society, at home, school, and country.

5.2.1 Common Uses and Applications of the Internet.

As an internet user, it is important that you know the common terms associated with the Internet, the different uses of the Internet, the screen and toolbar elements of an internet application and how to view, search for and extract information from the Internet. This knowledge will help you become an efficient and SMART internet user!



What is the **INTERNET** used for?

The Internet Connects us with other people around the world, it educates us by providing a huge source of information on a very wide variety of topics and subject areas, and the Internet entertains us by allowing us to access music, games, video and many other things online.

Millions of people around the world use the internet every day for a variety of reasons which may include the following:

- Communication with other people
- Online shopping for goods and services
- Online Education and classes
- Sources of entertainment like games, video, books, video and magazines
- Extract and download information
- Share or upload information to certain sites
- News, research and current affairs

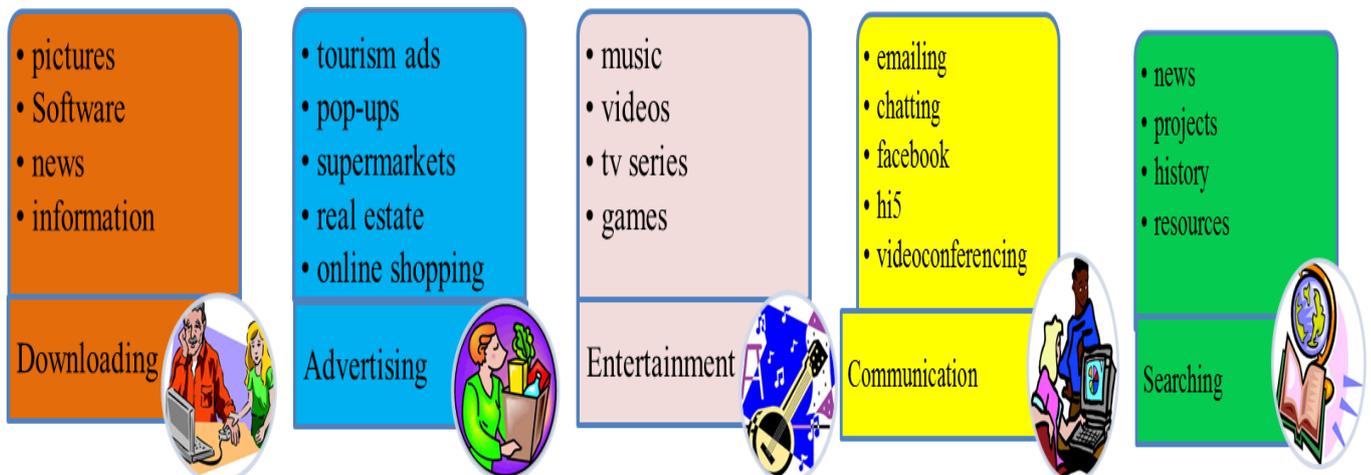


Figure 5.2.1.1: source - "Scrapbook Factory\scrapbk.exe"

The Internet offers various sites for a wide variety of reasons.

News & Information

The Fiji Times ONLINE

Home | Fiji News | Sport | Classifieds | Business | Features | World | Letters | Archive | Gallery

Fiji Time: 12:02 AM on Thursday 24 November

Illegal sale
THERE is an increase in the illegal sale of public service vehicle permits by the holders to people wanting them. And the Land Transport Authority has warned that the holders and buyers of the permits should be severely dealt with if caught. more...

Defying the odds
It has been 22 years since Etere Buturovu was diagnosed with diabetes. more...

Heating risk for diabetics
DIABETIC people have an increased risk for foot ulcers because diabetes increases the amount of time it takes for wounds to heal. more...

Safety plan for drinking water
THERE is hope that a two-city workshop will allow stakeholders to understand and work towards developing a drinking water safety plan for Fiji. more...

8 For 30 Minutes to Select Countries

Illegal permits and metal theft
TWO issues attract attention today. There is the illegal sale of public service vehicle permits and there is the issue of scrap metal dealers. more...

Cheap Japanese Used Cars
Buy the price used cars Direct From Japan, view our stock, sign up now!

Pregnancies up 9 months after festival
MUCHO babies (babies such as caribans) have been identified as a cause of teenage pregnancies in the north. more...

No smoking in village
The summary of waste has become hazardous Village in Busu Vanua Lake a smoke-free zone. more...

Look for education
THE children of Busu Vanua Lake are able to further their education following the Busu Provincial Council's success in raising a total of \$100,000 to finance their studies. more...

Lease distribution system forces budget cut
THE B4 Provincial Council reduced its 2012 and 2013 budget by more than 50 per cent compared to the 2010 allocation of \$600,000. more...

Get it right!
The Digital Fiji seems keen to focus on getting the facts right about the Gold Coast 7's tournament this weekend. more...

Civonneva wants to make right
BRISBANE - Age is yet to weary Petros Chloridopoulos will decide in March whether to play on for Queensland in the hope of a second straight State of Origin success. more...

Six Nations duty forces Cipriani to
LONDON - Flamingo Melbourne Rebels player Danny Cipriani could miss the opening month of the Super rugby season if he earns a call-up for his side's Six Nations. more...

Education

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FNU in the Media
Workshop on Treatment of HIV November 21, 2011
Team - The Pacific Islands AIDS Foundation (PIAF) has embarked on a participatory...
Coulter Company wins award November 21, 2011
NACUO's University Day, Express was awarded the President's Award during the Fiji National University's 2011...
New chef goes local November 21, 2011

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Lali
Lali is made of hardwood that has been aged to the earth called 'vesi'. It is shaped and hollowed out to produce a deep resonance, which can be heard from a distance.
They were formerly a means of communication, announcing births, deaths, wars, victories, etc. each of...

Communication

KidsCom.com

Sign Up For FREE! New? Create Your Character User Name & Password Now!

Log in to chat and play games!
USER NAME: _____
PASSWORD: _____
Remember Me
Log In Login as a different user
New User? Click Here. Get Help. Safety Rules.

Chat with your friends and explore a universe of fun!

Help save animals! Join a team!

Entertainment

Disney

Games | Activities | Characters | Travel | Live Events | Search | Movies | TV | Music | Mobile | Join Up

What's Hot
Shop Online
Disney Live!
The Wiggles

Now playing **Disney Magazine**
Disney Magazine is a family-friendly read that's packed with goss on all things Disney. With stacks of puzzles, quizzes, comics, posters and giveaways, Disney Magazine has got something for everyone to enjoy.

Online Games
More games

Figure 5.2.1.2 source – variety of internet site

Exercise 3



- 1) Explain at least four uses of the Internet in your society.
- 2) Have you ever used the Internet? If so, explain for what purpose and how the internet was useful to you.
- 3) For each type of website below:
 - a) Identify what the internet site may be useful for:
 - b) How are the two sites different from each other in terms of appearance and content?
 - c) Why do you think there is a difference in the appearance of the sites?
 - d) Why do you think some internet sites are colorful and contain pictures?

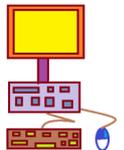


Figure 5.2.1.8: source – www.fijitimes.com



Figure 5.2.1.4: source – www.courtsfiji.com

5.2.2 Use Terms related to the Internet

Have you ever heard of the terms:-*web page, WWW, Website, and Browser...before?* Do you know what they mean? Well, they are examples of common internet terms. It is important as an internet user to know the meaning of these internet terms!



WWW – World Wide Web- a service of the internet that contains worldwide electronic documents that can contain text, graphics, audio and video

Browser –a program that enables internet users to view web pages e.g. Internet Explorer, Mozilla Firefox

URL –Uniform Resource Locator, a unique address given to each web page e.g. www.kidsclick.org

Online –When a user is actively connected to and using the internet

Web site –a collection of web pages that are related to each other

Webpage –an electronic document on the Web, many web pages make a website

Surfing –slang or term given to internet users who browse through the internet

Search Engine –special programs that allow users to search for specific information on the internet

ISP – Internet Service Provider, a company that provides access to the internet for a fee

Favorites –list made by an internet user containing links to favorite or most visited sites.

Keyword –a word or term that is typed into the search engine for it to search for related information

Email –Electronic mail, messages sent and received over the internet

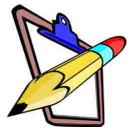
History –list of sites that an internet user had previously visited

Hyperlink –highlighted or underlined text that when clicked will automatically take you to another webpage or site

Subject Directory – search tool that provides a list of subject areas to select from to search for information

Exercise 4

1. Word Finder – search for the words from the list on the right and circle them in the word maze below.



<p>G Q A R L J G A R I A W O E M G B D I R E C T O R Y E I B S Q N L N B C L N F P J B S R U U A S A W E B S I T E P P O R X G E O N L I N E T F A B W F D I A U G P Q S V N K G X S I K N R R L T D Q I Y O E D E N D T C L F A V O R I T E S R G U E H A Y K E Y W O R D S X P O R E W O R L D W I D E W E B K N N I H N M L O Q J W T J E C E G J O I Y U K T W O F C P A T I W M R S Q F O N T P N M W X N T E X H R J I J H H L M X F E J D X A N C B E M A I L</p>	<p>URL EMAIL HOME ONLINE ISP INTERNET KEYWORD BROWSER FAVORITES SEARCHENGINE WEBSITE WEBPAGE SURFING DIRECTORY WORLDWIDEV</p>
--	---

Complete the Crossword Puzzle below



Across	Down
<p>1 Programs that allow users to look for information on the internet</p> <p>3 Electronic document on the web</p> <p>6 Program that allows access to the web</p> <p>8 Looking through web pages</p> <p>10 Electronic mail</p> <p>12 Terms typed into a search engine</p> <p>13 List of web pages previously visited on the web</p>	<p>1. search feature that provides a list of subject areas to search from</p> <p>2. Takes a user automatically to another page or site when clicked</p> <p>3. World Wide Web</p> <p>4. Uniform Resource Locator</p> <p>5. Connected to the internet</p> <p>7. Collection of web pages</p> <p>9. well liked sites</p> <p>11. Internet Service Provider</p>

5.2.3 Use Screen and Toolbar Elements



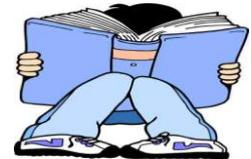
Let's now explore the common screen and toolbar elements of an internet page!

As defined previously, a **web browser** is a particular program that allows users to access web pages. Some examples of common web browsers are:

Internet Explorer



Mozilla Firefox.



Although there are many different web browsers with different screen and toolbar elements, there are many features which are common in all Internet browsers.

These common features of the screen and toolbar of an Internet page will be identified and explained here.

First of all, when you open an internet browser like Internet Explorer, the name of the website or the title of the web page you are seeing is at the top left hand corner.

This is known as the **Title bar**.

For example



Immediately after the title bar is the address **bar**. The URL or the address of the website is typed into the address bar.

For Example



Another section of an Internet page is the **Tool Bar**.



Basic Toolbar Functions

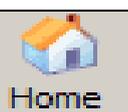
Toolbar Feature	Function
	<ul style="list-style-type: none"> • The back button allows you to go back to a few pages you had already visited • The forward button allows you to move forward to the page you were in before you clicked the back button
	<ul style="list-style-type: none"> • The stop button will immediately stop a page from loading – maybe you clicked the wrong page or if it is taking too long to load then click the stop button • The Refresh button reloads the most latest version of the web page you want to go to - it is important that you are accessing the latest information on the internet
	<ul style="list-style-type: none"> • The home page icon on the toolbar takes you to the page that loads up whenever you open the internet browser. The home page icon on the webpage takes you to the first page of that website only.
	<ul style="list-style-type: none"> • The search feature allows users to type in keywords in order to find information on a wide variety of topics. • Users simply have to type in keywords related to the information they want to find on the internet and within seconds results are given.
	<ul style="list-style-type: none"> • Star icon refers to your favorite sites that you usually like to visit • When you visit and like a website you can easily add them to the favorites list • This helps you to access your favorite sites easily and faster
	<ul style="list-style-type: none"> • The History feature allows you to revisit sites by date – it gives a history of sites that as visited yesterday, last week, last month etc..
	<ul style="list-style-type: none"> • The Print feature allows you to print out the web page you are on

Table 5.2.3.1, Tool Bar function

Try to familiarize yourself with the table above and when you start browsing the Internet, locate and click on the toolbar options explained and see for yourself what happens!

Once you become used to the toolbar options and know what they stand for then you will be an efficient internet surfer!!!



Given below is an example of a webpage. Try to identify the features explained above.



<u>Tool</u>	<u>Feature</u>
1	The web browser used here is Internet Explorer
2	Title Bar – <i>FunBrain.com –The Internet’s #1 Education site for K-8 kids and teachers.</i>
3	Forward and Back buttons
4	URL or Website address – <i>http://www.funbrain.com</i>
5	Favorites button
6	Refresh button – reloads the page
7	Stop button
8	Search feature
9	Home page button
10	Print button
11	Features of the site, underlined words are the <i>hyperlinks</i>

Table 5.2.3.2, Feature

Exercise 5

1. What is a web browser?
2. List two common web browsers.
3. Looking at the screen below:
 - a. What is the browser used here?
 - b. Name of the website
 - c. The address of the website
 - d. Some features that are offered on this site.
 - e. What is the purpose of this site?
 - f. Who is the site for?



Figure 5.2.3.2: source –www.abcya.com

4. Identify key terms in the puzzle below and write their functions. Also use the terms below to label the parts of the screen above.



5.3 Use Age-appropriate Internet based Search Tools to locate and extract information.

Since the Internet is a huge source of information on a very wide variety of topics and subject areas, it can be overwhelming and tiresome trying to locate the information that you want!



Some internet users spend so many hours online trying to find the necessary information that they want.

5.3.1 Internet Browsing and Navigation



You must know your way around the Internet in order for it to be useful to you!

Internet Uses and Applications have been highlighted in Unit 5.1.2. You will actually browse through web pages in this unit and try to identify the different applications and uses explained earlier.

In general, internet users browse through a site first before saving or downloading information from it.

Different sites have different purposes which has been explained the previous section. Hyperlinks are clicked to browse through web pages.

Browsing or navigating means going through the different web pages of a website and just viewing what the Internet has to offer.



Let's now browse through a web page!

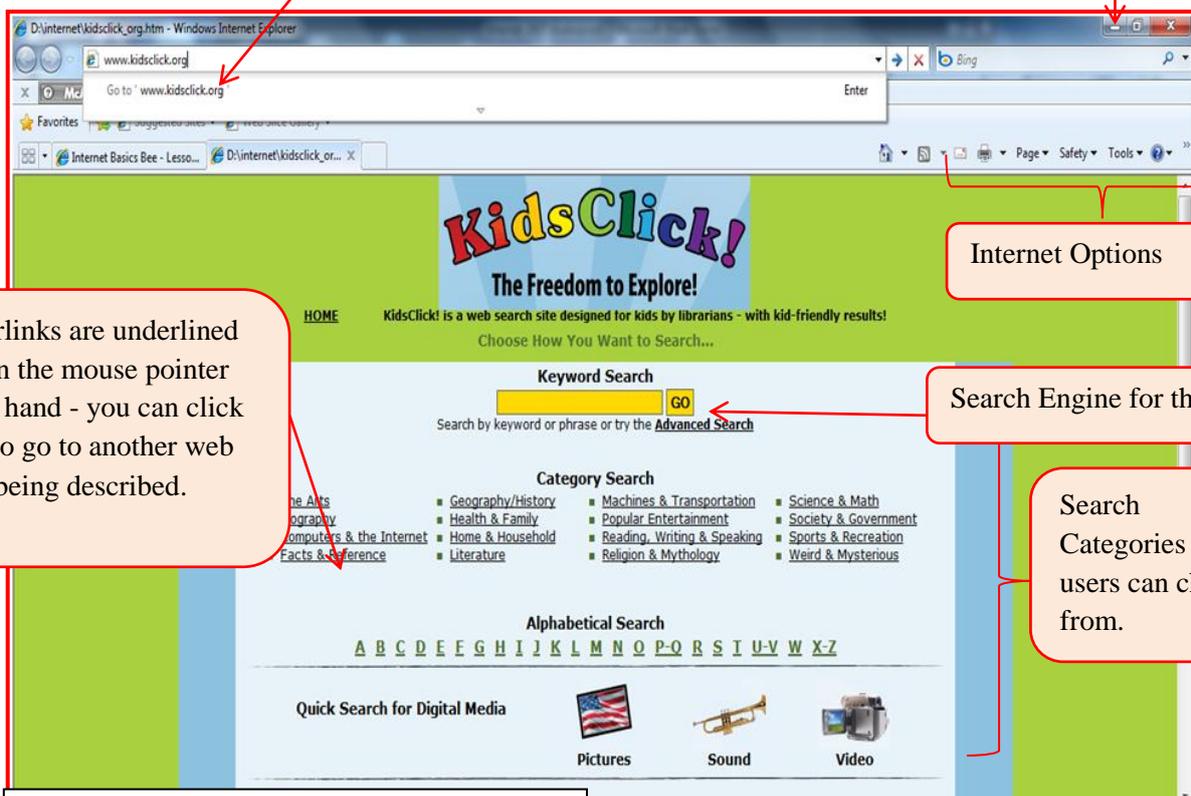
The Address Bar is an excellent tool that can be used for navigating the Web. If you know the address of a page you want to visit:

- 1) Type the URL in the Address Bar.
- 2) Press Enter on the keyboard or
- 3) Click on the word Go on the right side of the Address Bar.

Shown below is the homepage for the website from www.kidsclick.org. This website is a search web site for kids where they have access to massive resources from different subject areas.

Type in the address www.kidsclick.org in the address bar and click Go

Search Engine for the browser



Internet Options

Search Engine for the site

Search Categories which users can choose from.

Hyperlinks are underlined or turn the mouse pointer into a hand - you can click on it to go to another web page being described.

Figure 5.3.1.1: source –www.kidsclick.org

While accessing the web site try to always keep the following Questions in mind:

- Name** and **Address** of the website?
- Who** created the website?
- What** features did you discover on the site?
- When** the site was last updated? And **Why** should we use the site?
- Where** is the web site created? Nature of the site?

Add this website to Favorites:

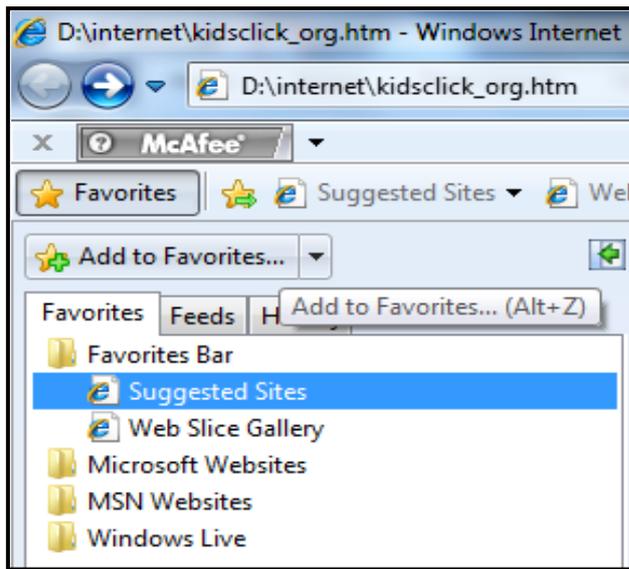
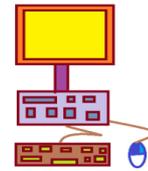
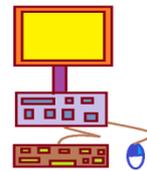


Figure 5.3.1.2: source – "Internet Explorer\iexplore.exe"



1. Click on the Favorites icon
2. Select Add to Favorites
3. You can also view the other sites on the favorites bar



View the History:

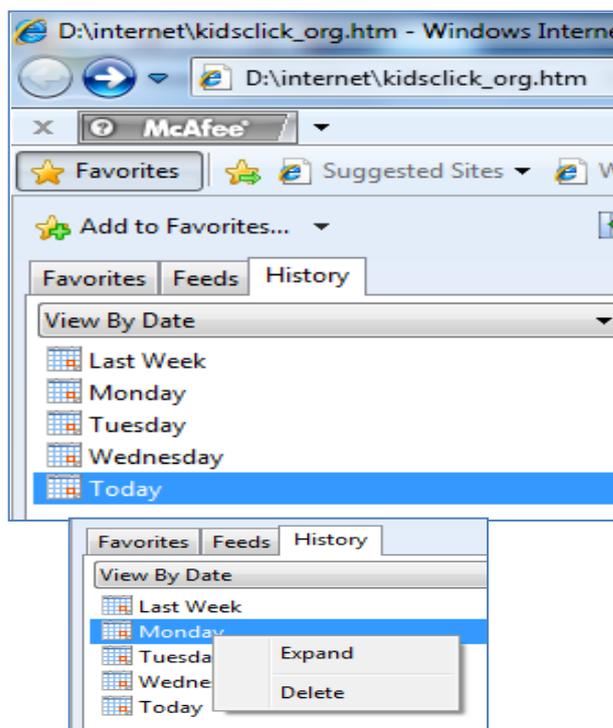


Figure 5.3.1.3: source – "Internet Explorer\iexplore.exe"

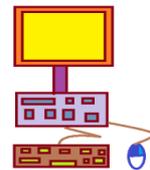
1. Click on the Favorites button
2. Select the History tab
3. You have View by Date options to select from depending on how much History you want to view.
4. You can also expand or delete the History
5. Right click on a History option and select Expand to view all the sites accessed on that day or Delete to remove it from the History list.

Exercise 6



1. What is Internet browsing?
2. What feature of the internet allows users to easily browse from one page to the next automatically?
3. Looking at the screen below, how many hyperlinks can you see?
4. What type of information would you be able to get by browsing this website?
5.
 - (a) Open a web browser
 - (b) Type in the address: www.kidsclick.com
 - (c) Click on the at least 3 hyperlinks, browse through the web pages and see what the site has to offer.
6. Go to any 3 websites from the list in 7 below and fill in the table below:

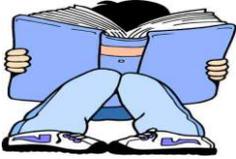
	Website 1	Website 2	Website 3
Name and Address of the website			
Who created the website?			
What features did you discover on the site?			
When the site was last updated?			
Where is the web site created? Nature of the site?			
Why should we use the site?			



7. Below is a list of appropriate websites for your age group which you can browse through:

-  www.gamequarium.com
-  www.iknowthat.com
-  www.starfall.com
-  www.mathcats.com
-  www.mathplayground.com
-  www.funbrain.com
-  www.dancemat.com
-  www.ajkids.com
-  www.yahooligans.com
-  [www.sunsite.berkeley.edu/KidsClick/!](http://www.sunsite.berkeley.edu/KidsClick/)

5.3.2 Searching for Information on the Internet



One of the main uses of the Internet is to search for information. Everyone requires some sort of information. Most times the internet provides a very fast, easy to use and large volume of information at any one time and on any topic.

As a student, you may want to gather information on certain school projects – the internet comes in very useful here!

However, one very important reminder to students is that although the internet provides all this information very easily, students must read it and then write it in their own words for their projects – it is **WRONG** to completely Copy and Paste information directly from the web and suggest it is your own work. This is known as **Plagiarism**.

Another great feature of the Internet is that it doesn't only produce information in the form of text only but it also provides images, videos and graphics related to the searched item.

Fortunately, there are two main search tools known as **search engines and subject directories** that allow users to easily search for information online.

1) Search Engines

- ❖ Special program that require the user to enter a keyword or phrase related to what they are searching for
- ❖ Helpful in locating specific information about certain topics
- ❖ Useful when you don't know the specific web address of the website

2) Subject Directories

- ❖ Lists web pages in a categorized manner
- ❖ Users locate information by clicking on the links of the directory
- ❖ Once clicked this link will take you to a subdirectory
- ❖ Users click on the links moving from the main directory to subdirectories
- ❖ As the user moves to the subdirectories, information level moves from General to specific bringing the user closer to the specific information that they are looking for.

There are many different types of search engines, however, for your age group it is appropriate to use search engines that are specifically designed for kids your age, examples are :-

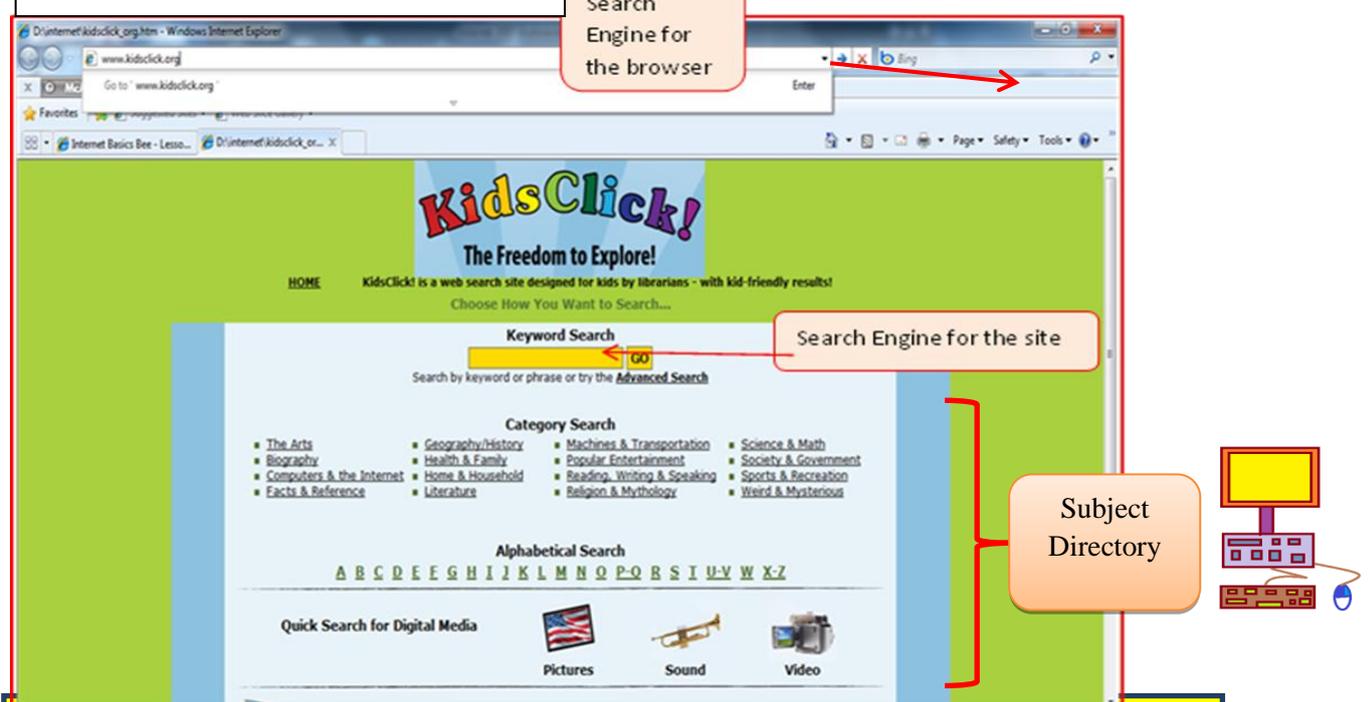
- Yahoo kids
- Fact Monster
- Kids Click



Get ready to use the **SEARCH TOOLS!!!** Think up of some information you would like to search

In order to carry out a successful search it is important that you know what you are searching for. First, identify the main idea of the topic you are searching for. Determine the keywords, phrases related to what you are looking for then decide which search tools to use.

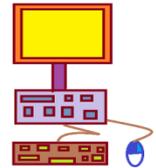
Figure 5.3.2.1: source –www.kidsclick.org



- 1) First identify the words or information that you are searching for
- 2) Decide which search tools you want to use – the search engine or the subject directory
- 3) You can use both tools if you want to and if the website offers it
- 4) For a subject directory – click on the link that is most closely related to what you are Searching for. For example, if you want to search for the Internet Safety, you may want to select the link Computers/Internet.
- 5) This may take you to another subdirectory or another link until you reach the actual information you are searching for. Subject directories break down information from general to detailed.
- 6) Using the search engine - you can type in the keywords or phrases related to your search and press enter or click Go
- 7) While using the search engine try to use specific nouns and use the most important terms first in the search
- 8) If the search is not successful or doesn't give you the information you are looking for, then try using another search engine.

Exercise 7

1. Open an internet browser
2. Type in the following internet address: www.yahookids.com
3. Browse through the website and list some features of the site i.e. what does the site offer you
4. Use the sites search engine type in the keywords: Fiji map. How many results are there to your search?
5. Browse through the links until you find a suitable **map of Fiji**
6. Click on the link to open the website and do the following:
 - What is the name of the website
 - What is the URL address
 - Is the information relevant to what you are searching for
 - What can you do if the information by a certain site is not enough for you?
 - List at least 3 other sites that also offer information on your search topic



Given below is a picture of the yahoo kid's homepage which you will use for the search above.

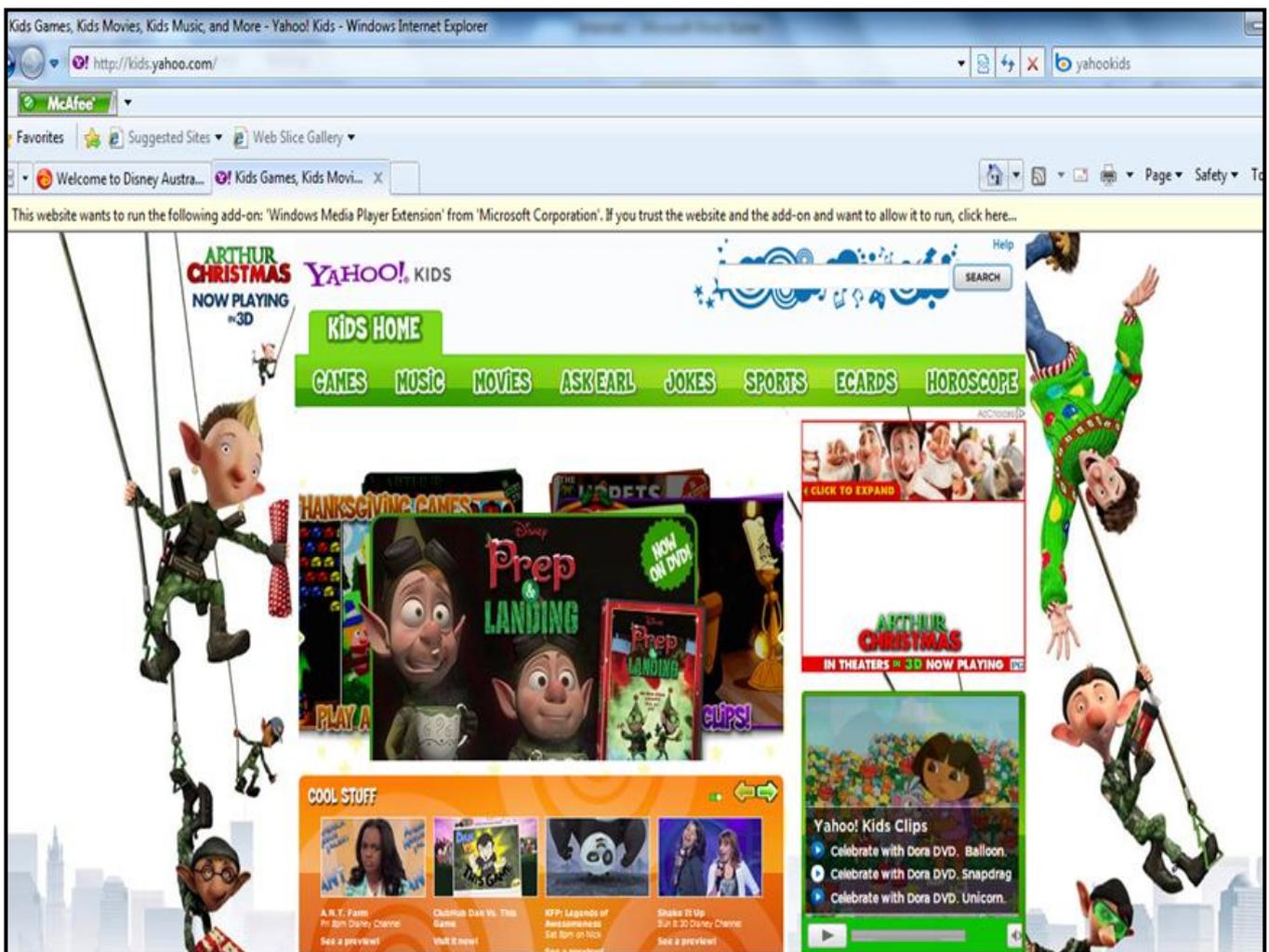


Figure 5.3.2.3: source –<http://kidsyahoo.com>

5.3.3 Extract Information from the Internet



Sometimes as we surf through the internet, we tend to run out of time and cannot sit at the computer and read everything at one time. The cost of using the internet may be too high so we don't have enough time and money to browse through each type of information offered. The internet offers us a way of saving our information to the computer and we can take a look at it later.



Not only can we search for information on the Internet and view it, we can also save it to our computer! It's called **DOWNLOADING!**

Before you decide to download information from the internet, try to make sure that it is the information that you were looking for and it is up to date and authentic/true. Some questions you need to ask yourself while browsing for information on the internet are:

- ❖ **WHO** created or wrote the information on the site?
- ❖ **WHAT** kind of information is offered? Educational? Business? etc...
- ❖ **WHEN** was the information put up? Updated?
- ❖ **WHERE** is the web page located? Is it local?
- ❖ **WHY** would you use the site? Is it credible? Information authentic/true?

As you answer the above questions when looking for information, you can also follow the guideline below.

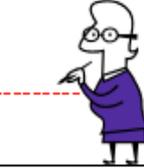
	Read and think about what's being said
	Search for something on the World Wide Web
	Record your findings. Be specific!!
	Stop, reflect and write!

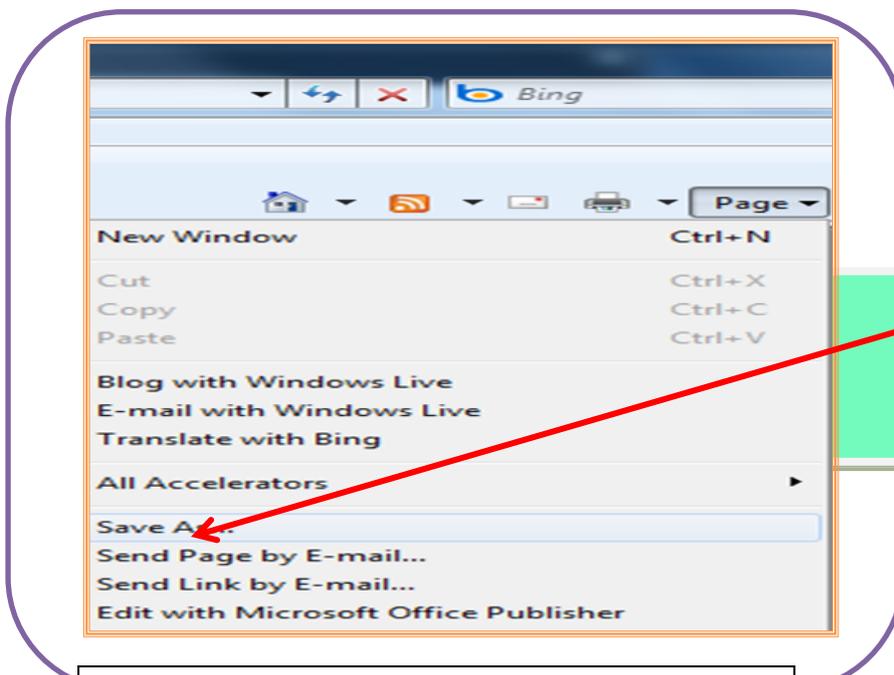
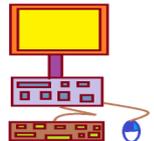
Table 5.3.3.1: "Scrapbook Factory\scrapbk.exe"

Once you are satisfied that the internet site offers the information that you are looking for, then you can save it.

You can:

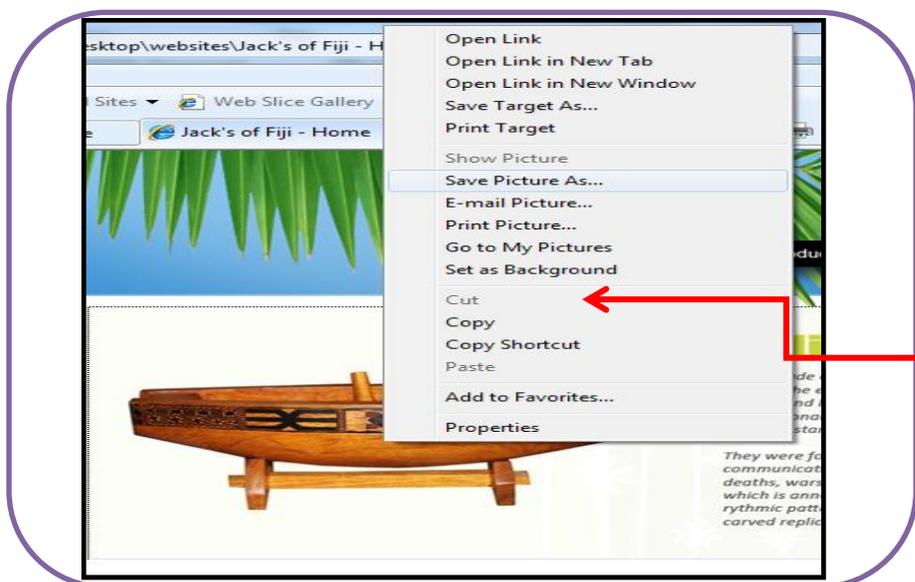
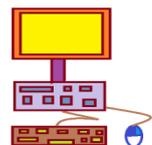
- ✚ save the whole page,
- ✚ just copy and paste the information you want
- ✚ Or you can print it out.

However, you must remember that the information you download was not created by you, so it is part of netiquette or internet ethics and rules that you **must** acknowledge the persons or organization responsible for putting up the information on the internet.



- To Save a Webpage**
1. Open the webpage
 2. Click on Page
 3. Scroll down and select Save As
 4. Search for the location you want to save your file in
 5. Type in a filename
 6. Click on save button.

Figure 5.3.3.1: source – "Internet Explorer\iexplore.exe"



- To save a picture:**
1. Right click on the picture or image
 2. Select Save As
 3. Select a location for your picture
 4. Type in the filename
 5. Click on Save button

Figure 5.3.3.2: source – "Internet Explorer\iexplore.exe"



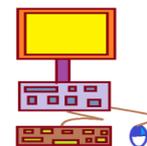
- To Print:**
1. Go to the web page you want print
 2. Click on the Print icon on the toolbar
 3. Or you can select PRINT from the file menu
 4. Select your print options and click Print.

Figure 5.3.3.3: source – "Internet Explorer\iexplore.exe"

Exercise 8



1. What is downloading?
2. Why do users download information from the internet?
3. Use two different kids search engine to look for the 'Map of Fiji'
4. Save:
 - the web page as a file in the computer
 - the map of Fiji as a picture
5. Print the page that has the map and information on the map
6. Compare the two search sites you have used:
 - Which search site is easy to use?
 - Which produces the information faster?
 - Which site better offers the information you are searching for?
 - Has the information which you have downloaded useful to you?



Another **VERY IMPORTANT** point to remember when downloading information from the internet, you must acknowledge who created the information. It is a crime to **PLAGIARISE!!**

5.4 Online Communication

Communication is one of the major functions of the Internet. Friends, families, business partners and stakeholders can stay in constant contact with each other even though they may be many miles apart.



Communication is simply the sending and receiving of messages or conversation.

Just simply ask Internet users on how fast, easy and simple it is to send a message over the internet rather than having to pay for transport to deliver a message to another person, or to pay postal fees to send mails from one place to another, or even the length of time it takes for a letter to reach its destination by postage compared to sending a letter or message over the internet.

More people, businesses and workers are getting connected to the internet because it is easier, faster and a more convenient way of communication.

One thing that all internet users must remember is that even though the internet allows us to perform many tasks and communicates online, we must always use it in a safe and considerate way causing no harm to others and ourselves.

The general behavior regarding the use of Internet is known as *Netiquette* – which stands for *Internet Etiquette*.

5.4.1 Forms of Online Communication

1. Emailing

- Email or Electronic Mail is the exchange of electronic messages over the internet. Before emails could only be used to send text messages but nowadays, it can also be used to exchange photos, graphics and file attachments.
- The use of Email has greatly enhanced efficiency and speed in many areas especially in the areas of communication. For example, instead of walking all the way from one office in town to another to deliver a message or letter, one can simply email.
- Another example is when you want to send a letter to a relative in overseas, before with the use of Post mail, it would take a very long time for the letter to reach, today it only takes a few minutes to send and receive an email.
- In order to send an email you need an email account, an internet connection and an email program. Examples of commonly used email programs are yahoo mail and Google mail but there are many more.
- Given below is a description of some basic email functions that are available when you log into your email account.



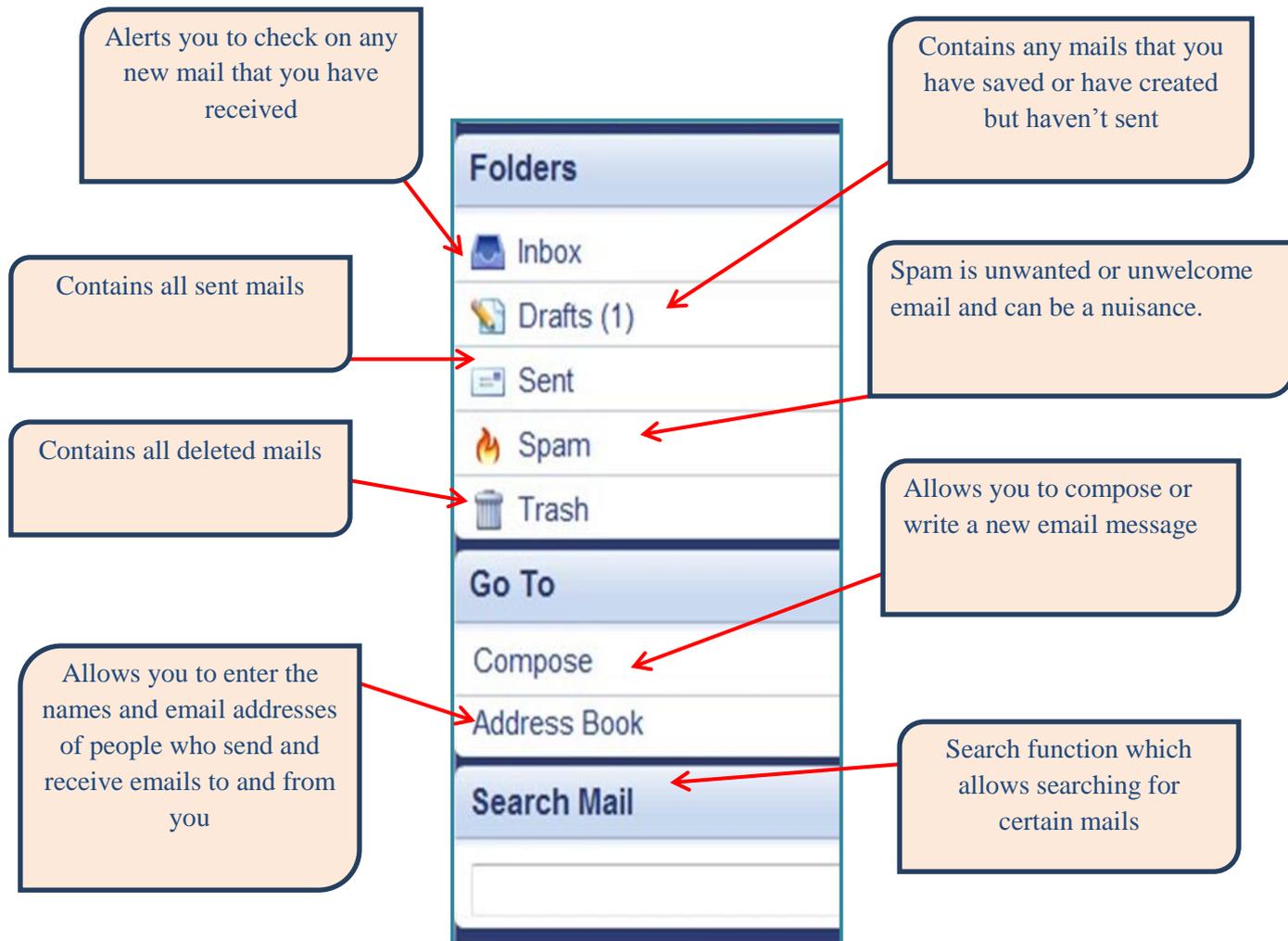


Figure 5.4.1.1 source –www.yahoomail.com

2. Social Networking

- An online community of members who can share ideas, stories, interests, hobbies, photos, music and videos
- Social networks are mainly used for reuniting people who have lost contact with each other, get friends of friends, and to allow people who share a common interest to exchange views and ideas.
- People are required to register when being part of a social network
- Examples include Facebook and Hi5 and locally are Faces of Fiji.



Figure 5.4.1.1 source –www.facesoffiji.com

DO's AND DONTs OF SOCIAL NETWORKING



Social Networking can be an advantage and disadvantage to the society. There have been cases whereby families get reunited through the use of Facebook. But for some other reasons there were incidents stating that people went missing, kidnapped or killed through using social networking websites. Therefore it is a need for users of a social network to know how to use and keep himself safe in the website. The Dos and Don'ts' of social networking is used to protect its users.

DO's

1. **Know who your friends are:** you should know who your friends are and be mindful not to expose your information to just anyone who requests you to be a friend on the social network. There is an application in **facebook** that usually request for friends. Once you accept the friend invitation your information will be exposed to his/her account.
2. **Have different passwords for your social network as you do for other accounts.**
3. **Have knowledge of where you access your social network sites from.** Sometimes our account is hacked by some people from other places. Facebook have security applications that can notify you that your account was hacked. For this they will send you an email that someone had tried to open your account from another place.
4. **Know how to protect your Information. This is a number one bullet!** For example, in facebook there is an increase in SPAM applications from friends such as **“Check out this interesting/funny video clip”**. If you click on the message the next thing that will appear is a screen that asks you to enter your personal information. Therefore, it is recommended that you should have more knowledge on how to use a social network site before you join.

Don't s

Cyber-stalking-Do not annoys or irritates someone who had no interest in talking to you over the network. If you see someone you recognize, send them a friend request. If they don't accept, leave it alone. If they do accept, a simple Hello message is enough.

1. **Hammer or strike friend with updates:** it is good if you update your account once or twice a day but not every hour. It might irritate your friends since they will be updated also of the changes made in your account.
2. **Uploading photos unnecessarily:** A picture tells a thousand words that is why you should be careful when posting photos online.
3. **Follow strange links:** there are updates that looks like videos or news articles and say things like “shocking video ”or “crazy story” when you click on the link, you will get another window which then links you to a different page and so on.

Exercise 9

1. What is online communication?
2. List 3 ways in which users can communicate through the Internet?
3. Differentiate between social networking and emailing?
4. Explain the following email terms:
 - Inbox
 - Spam
 - Compose
 - Trash
 - Address book
5. Which of the two above would be better suited for keeping in contact with friends and families?
6. Which of the two in 5 would be better suited for online discussions on certain subject areas or interests e.g. kids who are working on similar school projects?
7. In what ways is online communication better than the older forms of communication like telephones, Post, Radio Telephone etc...?



You need to prepare a write up for the following topics.

1. Introduction to social networking – what it is
2. What people do on social-networking web sites and how much time they spend on them (you, bands, celebrities)
3. Disadvantages of social networking (including examples – e.g. news stories)
4. The possible future impact of social networking web sites
8. Safety tips for teens when using social networking sites & the dangers of giving away personal information

5.4.2 Advantages and Disadvantages of Internet

Although the Internet has so much to offer in terms of providing information, news, enhancing communication, there are also certain dangers that users need to take heed of when using the Internet. It is very important that you use the internet with your Parent's supervision or their knowledge.



Remember the Internet is not always a SAFE place; you need to be a cautious and wise user. Let's first look at the advantages.

- ✓ Allows people to access information whenever needed – the Internet is available 24/7
- ✓ Alerts people to the latest news e.g. Weather, sports, local and world news
- ✓ Search engines allow users to search for any topic whenever needed.
- ✓ Unlimited information is readily available and easy to access and can be saved or downloaded

- ✓ Helps people from all over the world to communicate easily
- ✓ Allows for emailing which is faster and cheaper than Post
- ✓ Connects families, friends, businesses keep in touch.
- ✓ Allows real time chatting and video calls

ADVANTAGES OF THE INTERNET

- ✓ Businesses have gained from the internet because time is saved in carrying out certain tasks
- ✓ Students and users can get more knowledge and broaden their skills
- ✓ Countries are more aware of the latest technology and want to develop with this pace
- ✓ In general, everyone is better informed and thus can make better decisions

- ✓ Shopping can now be done online without all the hassle of travelling to supermarkets, lining up etc.
- ✓ You do not need to leave the comfort of your homes
- ✓ With this businesses are also growing and customers shop with convenience
- ✓ Many businesses are advertising online and can reach more people in less time



As you discuss the disadvantages try to be more aware as you use the Internet. Be an alert and wise internet surfer!



- ☒ Once you are online there are very smart computer users who can easily hack into your computer and steal information so do not share information with people you do not know online
- ☒ Many crimes are being done online because they can be done easily with just a mouse click e.g people are stealing money easily from other peoples accounts and putting it into their own accounts

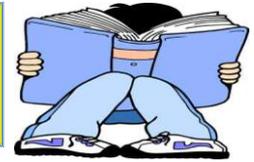
- ☒ Since the internet provides users with so many things to do, some people get addicted to using the internet and forget their roles e.g many kids in Fiji tend to hang around internet shops for hours just surfing the net or chatting with friends
- ☒ Some students miss school to visit internet shops and stay there all day

DISADVANTAGES OF THE INTERNET

- ☒ The internet is available to everyone regardless of age, ethnicity or religion, so people can download or upload any information that they may want. This may not be good at times because young people may get access to sites and information that is unsuitable for their age group
- ☒ Cyberbullying – the use of internet to threaten, embarrass, harass other people e.g sending cruel or threatening messages to other online users or posting up pictures without the person's consent.

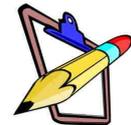
- ☒ Plagiarism – the copying of resources created by another person without acknowledging them, many people use the internet to plagiarize. Since information can be downloaded easily on any topic, users who research online tend to get lazy and copy other peoples work.
- ☒ People have become lazy to think and create their own work because almost everything is available on the internet

Tips to Remember when Online!!!



1. Always have good manners and be polite when talking to someone else online.
2. Ask your parents to spend time with you while online so that you can show them some of the neat things you can find online.
3. Only use the Internet when your parents tell you it's OK, and only for as long as you are supposed to.
4. Don't give out personal information like your address, telephone number or school name to anyone unless you have permission from your parents.
5. Never meet with a cyber-friend or key pal unless your parents go with you or you have their permission to go alone.
6. Don't break copyright rules by taking words, pictures or sound from someone else's Web site without their permission.
7. Don't respond to any e-mail messages you get if they are strange, mean or upsetting to you, and tell your parents or teachers right away.
8. Don't send pictures of yourself or your family to anyone unless you have permission from your parents.
9. Stop right away if you see or read something on a Web site that upsets you and tell your parents or teachers about it.
10. Don't put words, pictures or sounds on other people's Web sites without their permission.

Exercise 10



- 1) Is the Internet always safe?
- 2) Explain your answer above.
- 3) What are some good effects or advantages of the Internet?
- 4) Explain at least 3 advantages and get 3 examples from what you have observed in your school or society.
- 5) What are 3 disadvantages of the Internet?
- 6) Explain the disadvantages in relation to what you have observed yourself in school or your society.
- 7) Of the ten points to remember when using the Internet which is outlined above, list at least 3 which **you** think is the **most** important.
- 8) Explain your reasons for the above.
- 9) What are some features or effects of the internet which you think is bad for school children.
- 10) List some possible ways students can be made aware of the proper use of internet so that they are not affected by it in a bad way.
- 11) Open the students' folder for Unit 5 and locate the Folder: 'Review Question' – Answer the Unit 5 Review Questions.

Unit 6

Database

At the end of this chapter students should be able to:

6.1 Define the Term Database

6.2 Identify Features of a Database

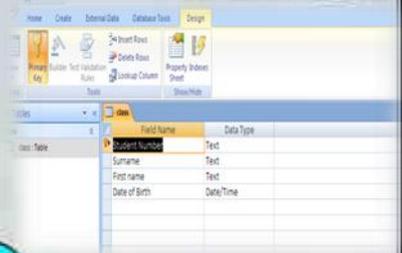
6.3 Identify Advantages of a Database

6.4 Provide Examples From Everyday Life.

6.5 Create a Database Using MS Access

6.6 Search an Existing Database

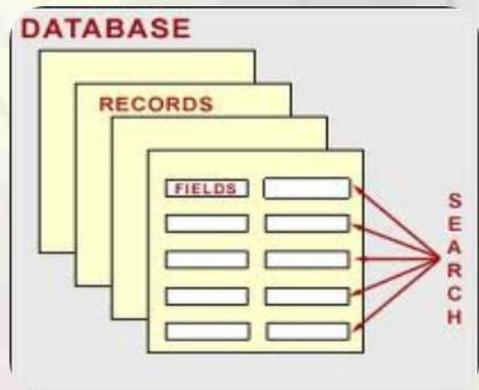
Database



Record	Datavalue		
Roll No	Name	Course	Address
01	Ram	B.Tech	Delhi
02	Syam	B.Tech	Mumbai
03	Sita	B.Tech	Kanpur
04	Ora	B.Tech	Patna
05	Raju	B.Tech	Kolkata

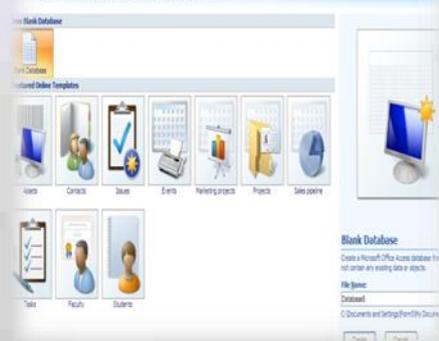
Labels: Table (under the table), Field (under the columns)

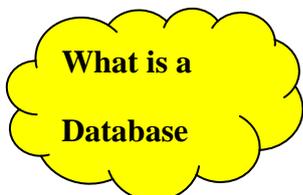
I need a database



RECORDS

Getting Started with Microsoft Office Access





A **database** is a collection of related information stored in tables .A database can have more than one tables, all linked together.

It enables us to store and manage large amounts of data electronically. Whether it is storing information about students, customers, employees or even patients, developing a database would be the best solution.

Microsoft Office Access (MS Access) is the database program that you will be using to create and search databases.

The next lesson will introduce database and MS Access.

6.1 Define the term database



A database operation is similar to filing cabinets where information is stored in cards in alphabetical order. With database all you need to do is put in your data and it will automatically create your table of information. Database allows us to quickly find and bring together information you want from the tables of data.

In this unit we will be using Suva Primary School Database to help us understand the different concepts. Given below are two tables from Suva Primary School Database. Suva Primary use database to store all the students’ details in their school. The first table is an extract from their Student Details table showing information of 8 students while table 2 shows information of only the class 8 students.

Carefully study the table and identify the similarities and differences between the two tables.

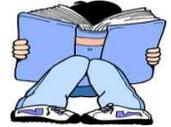
Student Details				
Student ID	Name	Age	Gender	Class
01	Alipate M	12	M	7
04	David T	12	M	7
03	Iva Mere	13	F	8
06	Pratik D	13	M	8
05	Sharon K	14	F	8
10	Jese R	6	M	1
23	Isoa N	7	M	2
02	Catherine M	8	F	3

Table 1

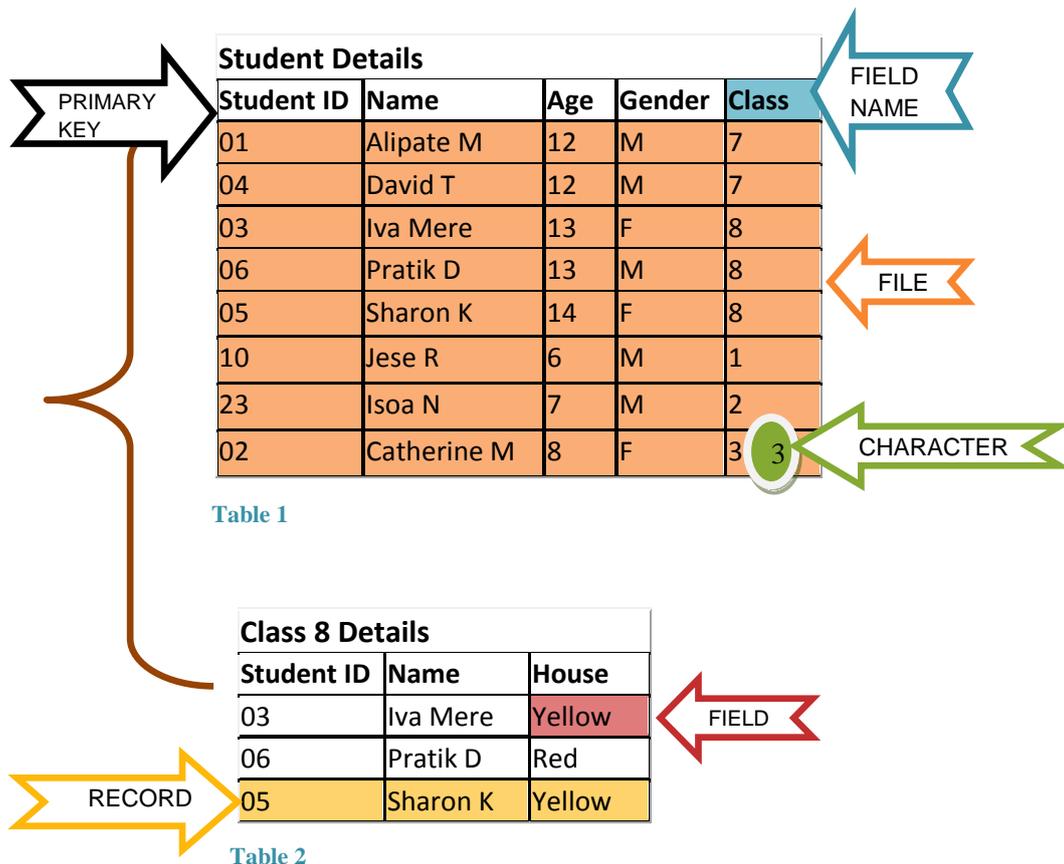
Class 8 Details		
Student ID	Name	House
03	Iva Mere	Yellow
06	Pratik D	Red
05	Sharon K	Yellow

Table 2

6.2 Identify the features of a Database



There are different features that make up a database. We will now look at some of these features:



- i) **Character** - is a single symbol such as a digit, letter, or other special character.
E.g. 3 Or 01. 0 and 1 are two characters that make up the student ID for Alipate.

How many characters make up the field gender for Iva Mere?

What is the maximum number of characters for Name in Table 1?

- ii) **Field**- a set of related characters. Example Jese R or M or 2

How many fields are in table 1?

- iii) **Record** – a collection of related fields. It is a row of related data about a person or product. E.g a person's student ID, Name and House.

How many records are in table 1 and 2?

- iv) **File** - Is a collection of related records. E.g. in table 1 : 8 records make up a file .
- v) **Table** -Data are organized in rows (records) and columns (fields). A database can have more than one table.
For Suva Primary, two tables are shown and these tables are labeled.

What are the names of the two tables?

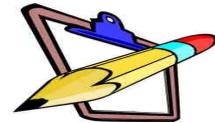
- vi) **Primary key (key field)**- A field that can be used to locate one particular record and it is a unique identifier. Student Id would be the best primary key because it is unique to that particular record and no student can have the same ID. Name cannot be a key field because you can have people with the same name.

Primary key are used to link tables in a database.

- vii) **Field name** - Used to identify the fields in the table. Example Student ID, its contains ID numbers of students.

How many field names are in table 2?

EXERCISE 1 - Database.

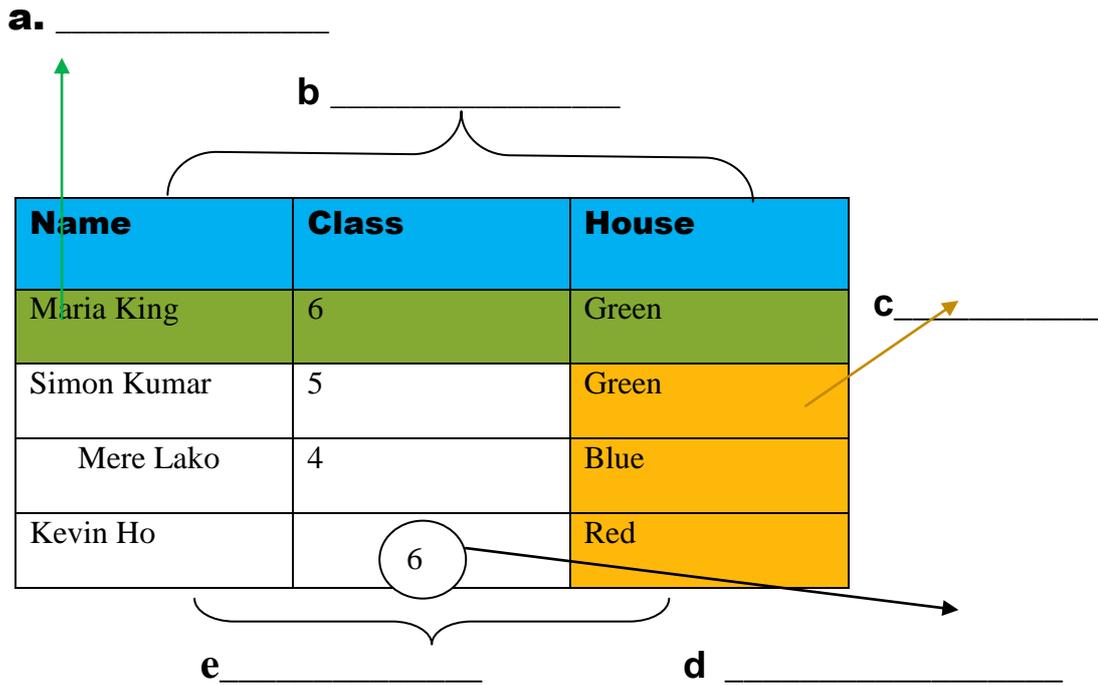
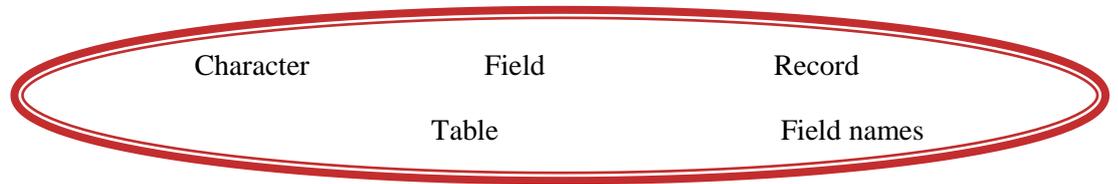


1) Matching :

Match the terms in column A with their description in column B

Column A	Column B
1. MS Access	i. A collection of related tables
2. Database	ii. A program used to create a database
3. Field name	iii. Used to identify fields
4. File	iv. Used to organize data
5. Field	v. Unique identifier
6. Record	vi. A single letter
7. Character	vii. Set of related characters
8. Table	viii. Collection of related fields.
9. Primary key	ix. Collection of related records

2) Label the parts of the database given below:



3) **FILL IN THE BLANKS**

Choose the correct word from the list given below. Use each word only once.

Field	Record	Table
Character	File	Columns
Database	Rows	Primary key

- A group of related fields make up a _____.
- A unit of data is called a _____.
- Records make up a _____.
- A collection of related information is called a _____.
- Tables are made up of _____ and _____.
- A unique identifier _____

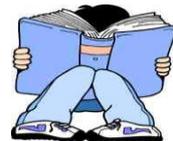
- 4) Given below is a printed database of 26 secondary schools in Fiji. It shows the type of school whether it's a mix or a single gender group school, where they are located and the island they are on. Use the database to answer the questions that follow.

Schools in Fiji				
School number	Name	Type	Location	Island
002	Adi Cakobau	Girls	Nausori	Viti Levu
020	Adi Maopa Secondary	Mix	Lomaloma	Vanua Balavu
003	Ballantine Memorial School	Girls	Suva	Viti Levu
027	Bua College	Mix	Bua	Vanua Levu
014	Delana High School	Mix	Levuka	Ovalau
001	Jai Narayan College	Mix	Suva	Viti Levu
005	Jasper High School	Girls	Lautoka	Viti Levu
015	Khalsa College	Mix	Ba	Viti Levu
021	Koro High	Mix	Nasau	Koro
012	Labasa College	Mx	Labasa	Vanua Levu
026	Labasa Sangam	Mix	Labasa	Vanua Levu
004	Marist Brothers	Boys	Suva	Viti Levu
016	Nadi College	Mix	Nadi	Viti Levu
017	Nakauvadra College	Mix	Rakiraki	Viti Levu
006	Natabua High School	Mx	Lautoka	Viti Levu
022	Queen Victoria School	Boys	Tailevu	Viti Levu
010	Rampur College	Mix	Navua	Viti Levu
011	Ratu Finau Secondary	Mix	Tubou	Lakeba
023	Ratu Kadavulevu School	Boys	Tailevu	Viti levu
024	Ratu Navula Secondary	Mix	Nadi	Viti Levu
013	Savusavu Secondary	Mix	Savusavu	Vanua Levu
025	Sigatoka Andhra High	Mix	Sigatoka	Viti Levu
009	Sila Central	Mix	Nausori	Viti Levu
018	Tavua College	Mix	Tavua	Viti Levu
019	Tilak High	Mix	Lautoka	Viti Levu
007	Xavier College	Mix	Ba	Viti Levu
008	Yat Sen Secondary	Mix	Suva	Viti Levu

- i. What is the **name** of the database?

- ii. State the **field names**.
- iii. The Name column is arranged in order, name what order it is in (ascending/descending)?
- iv. State the number of fields and records that make up the table.
- v. List the schools that can be found on **Vanua Levu**.
- vi. How many **characters** make up the field school number?
- vii. How many schools are shown on this database?
- viii. If the table is to be rearranged, school number in ascending order, what school will be first on the list?
- ix. Name the school located on the island of Lakeba.
- x. Name the school with the number 006.

6.3 Advantages of a Database



With the introduction of computers, individuals and organizations are moving away from storing information manually on files and cabinets. Today people are using database for various reasons:

Fewer Files- database do not take up a lot of storage space. With the old method of recording, cards has to be filled and put in cabinets for storage thus taking up a lot of storage space. This is true when we walk in offices and see rooms filled with cabinets full of files. A single database can be created and used by everybody in the organization. As a result there are fewer files and they can be stored in USBs or CDs as backup. For Suva primary they can create just one database to store all the information about their students and to be used by all teachers rather than each class teacher to have their own students' record which prevents **data redundancy**.

Data integrity- changes made in one department will automatically be updated in the rest of the files. With the manual system if a student's phone number is changed this can be corrected only in the student file where as the other files could still have the old number. With computerized database the phone number once changed in a file , it will be automatically be updated in the rest of the files.

Data sharing - in organizations information from one department can be readily shared with others. For example in the case of the students' database, all teachers can share the one database created so data is shared.

Data security – database is more secure than the manual system. With the manual system files can just be left on shelves so anybody can access the information. On the other hand

database, users are given passwords to access only the kind of information they need to know. For example in schools only teachers can be given passwords to access the data they should access.



EXERCISE 2 – Advantages of database.

1) Matching

Match the terms in column A with their descriptions on column B.

Column A	Column B
1. Data security	i. Less data redundancy
2. Data sharing	ii. A change will automatically be updated
3. Data integrity	iii. Passwords will only be provided to certain people
4. Fewer Files	iv. Data can be shared with other departments.

2) Briefly explain a situation in a hospital where data sharing can be applied.

3) State two reasons why customers will need to change their information (e.g. address).

6.4 Examples of Database



The main purpose of a database is to store information. Listed below are three common examples of database that we often use in our daily lives.

i) Library catalogues

Stores the name of the books, publisher and author according to the surnames of the author.

Figure 6.4. 1 library catalogue source: usp)

We can easily find any library book with a computerized library catalogue.

ii) **Hospital**

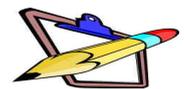
Keeps a record of all the staffs in the hospital from doctors, nurses to cleaners, list of all medicines in store and patient’s records that have visited the hospital similar to the one given below

Patient number	Surname	First Name	Home Address	Phone #	Last treatment	Allergies
H981	Tagi	Melinda	Davuilevu housing	7893456	3/8/2004	Yes
HO100	Naidu	Shujil	Veikoba settlement	6789023	12/14/211	No
HO123	Tawake	Meri	Sila Rd, Nausori	9902345	1/2/2010	No
HO156	Kumar	Raenal	45 Belo street	9923012	1/5/2009	Yes
HO980	Tuivuna	Malakai	lot 126, Delainavesi	3457895	2/3/2005	Yes

Table: Patient’s details

iii) **Recipe book**

It contains the detail list of ingredients and method of cooking according to the name of the dish in alphabetical order. An example is shown below.



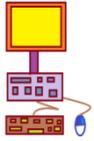
EXERCISE 3 – Examples of Database.

1) In the places mentioned below briefly state what they will use database for.

- a. School
- b. University (USP, FNU)
- c. Library
- d. Hospital

- 2) Open the file Database 1 from your student exercise folder and attempt the activity save the file as “U6-ex3-yrfirstname”

6.5 Creating a Database Using MS Access



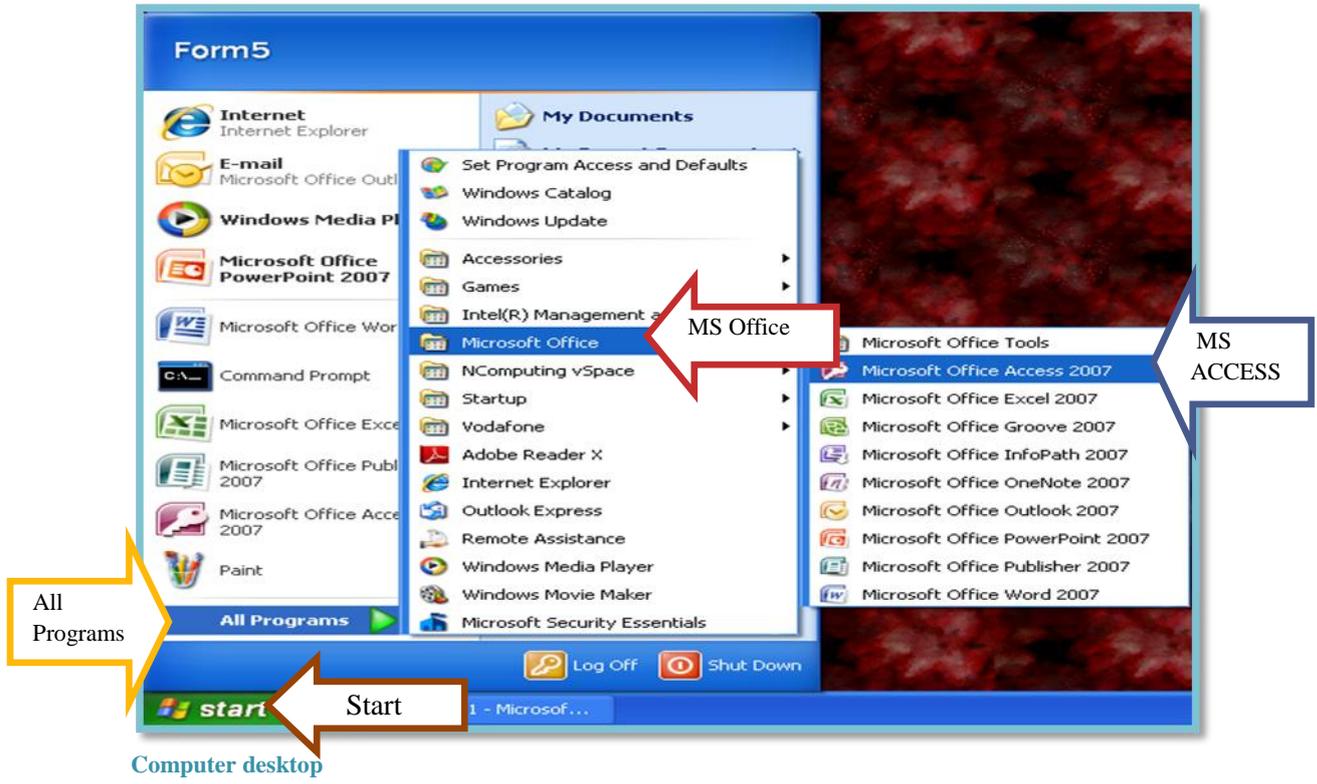
In this session we will be creating a database for your class to store records of students. Your database should look like something on figure 6.50

VATUWAQA PRIMARY				
Student Number	First Name	Surname	DOB	Age
s007	Mary	King	2/3/2005	7
s010	Samisoni	Tagi	4/12/2000	12
s001	Ana	Koto	5/6/1999	13
s003	Vikash	Naidu	4/7/1999	13
s005	Selwyn	Lee	12/12/2001	11
s002	Luisa	Lilly	4/6/2004	8
s006	Jese	Rawaico	11/29/2006	6
s012	Alipate	Motukiliu	10/11/2002	10
s025	Sung	Woo	8/9/1999	13
s030	Dennis	Palmer	4/5/1999	13
s045	Camari	Bale	9/10/2006	6
s067	Kasaya	Cakau	10/10/1999	13
s089	Sahil	Kisun	3/17/1999	13
s090	Lino	Tuiseke	5/7/2004	8
s088	Unaisi	Smith	3/9/2004	8
s056	Ashneel	Chand	4/6/2001	11

Figure 6.50

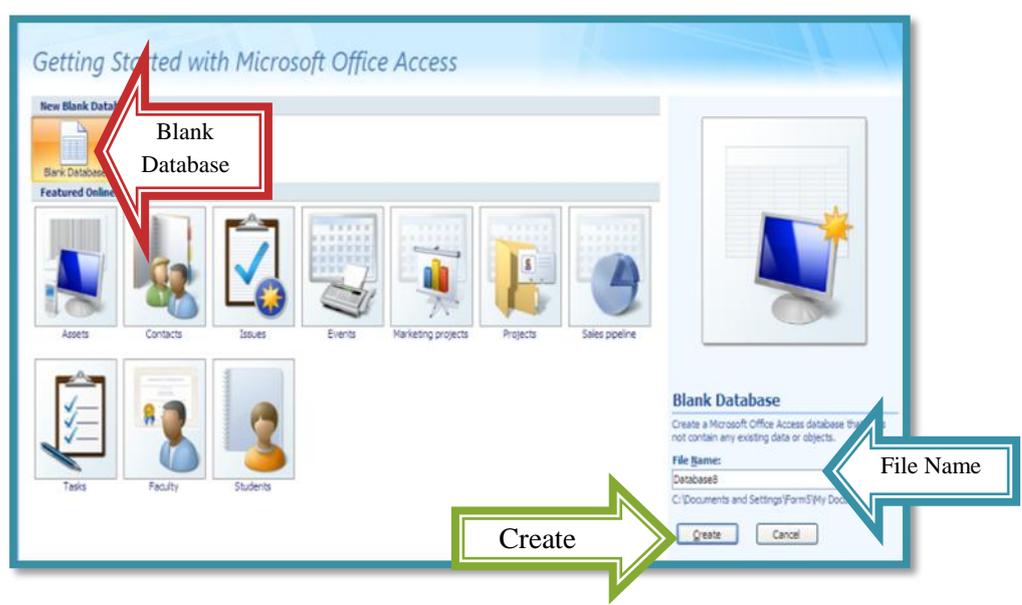
Starting Microsoft Access

- i. On your Task bar, click **Start**
- ii. Click All **programs**
- iii. Select **Microsoft Office**
- iv. Select **Microsoft Access 2007**



Creating a New Database

- i) Select **Blank database**
- ii) Type in **Vatuwaqa Primary** as your file name
- iii) Select **Create**



Creating a Table

- i) Select **View** Table
- ii) Select **Design** view
- iii) Type in your table name as **Student Details**
- iv) Select **OK**
- v) Type in your Field name with their data type as shown below in Figure 6.51

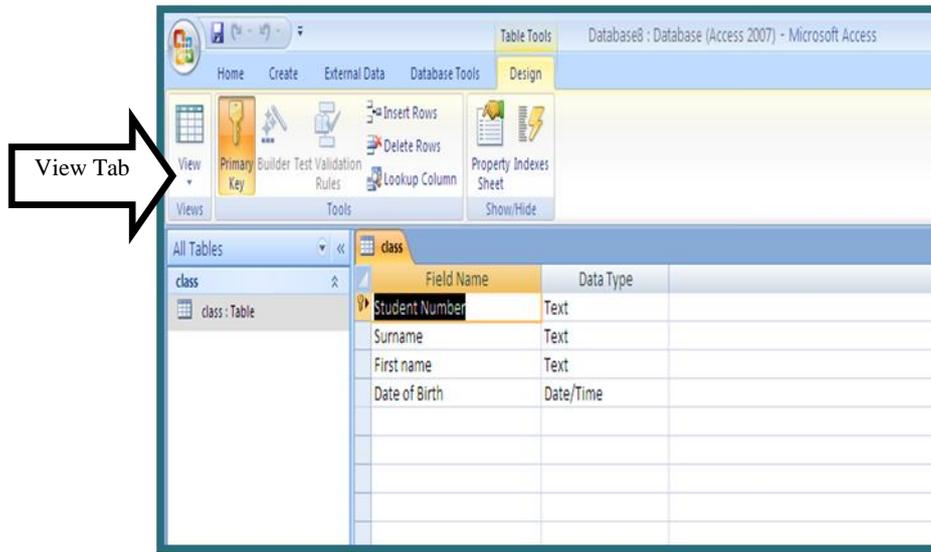
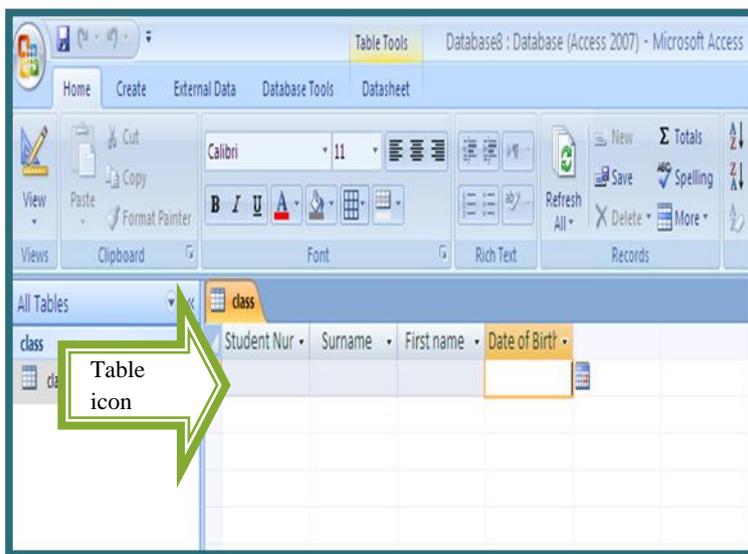


Figure 6.51

*Student Number should be set as **Primary key** by right click on the field and select Primary Key.

- vi) Once finished , close the window and select Yes to save changes
- vii) Double click on your table icon to start filling in the records.

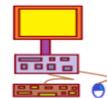
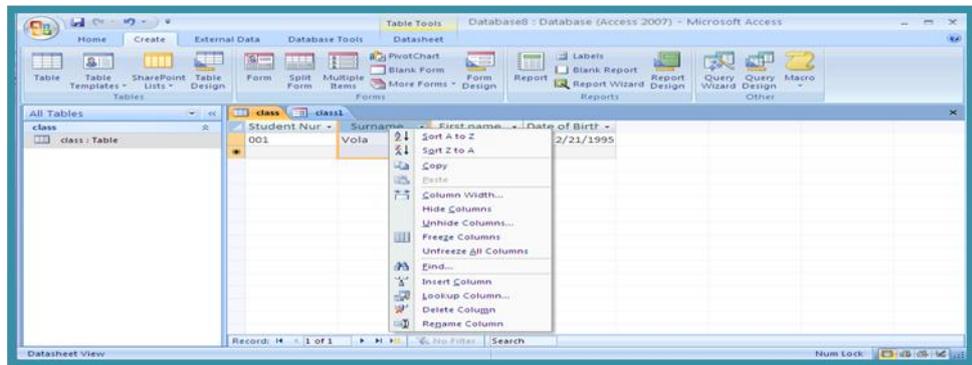


Fill in your records

Sorting Field
Surname

On your table

- i) Highlight the field **Surname**
- ii) Right click on your mouse
- iii) Select **Sort A-Z (Z- A Descending)**



EXERCISE 4 – Creating Databases

1) Your school librarian keeps a manual record of all the books in the library. She has asked you to create a simple database to keep record of the books in the library.

- i) Create a database that will contain the following fields and records.

Library Books				
Book Number	Title	Author	Year published	Number of copies
ref007	Rosina & her calf	Sally Farrell	1983	2
ref010	A killing kindness	Reginald Hill	1980	4
ref001	Victory	Mary Christopher	1982	1
ref003	My book of computers	Anil Madaan	2000	10
ref005	Computer Essentials	June Parsons	2001	5
ref002	The three little pigs	Lilly Mow	2004	8
ref006	Cinderella	K. Goldie	2006	6
ref012	Goosebumps	R. L. Stine	1998	10

Save the database as “U6-ex4-yrfirstname”

- ii) Sort the field Author in Descending order.
 - ii) What books have 10 copies?
 - iv) How many records and fields are there?
- 2) Refer to Exercise 1, number 4. (Secondary school database).

If the Location field is to be rearranged in ascending order, what school would be first on the list?

6.6 Searching an Existing Database

One of the advantages of using database is the ability to easily and quickly search any required information. This is enabled by asking questions to the database and it will provide you with your data. Before we actually use MS Access to search for data, we will first search a printed out database to familiarize ourself.

Your school keeps details of their teachers in a database. They use codes for some of the information.

A copy of their main table looks like the one below:

1	2	3	4	5
Jane Jones	F	PE	F	BA
Simon Kaci	M	HS	F	BA
Judith Mow	F	EN	F	BA
Sera Lilo	F	VL	P	BEd
Jese Rawaico	M	ES	F	PHD
David Tua	M	BS	P	MSc
Sonika Lal	F	MA	P	BSc
Mere Waqawai	F	CS	F	BSc
Vishal Naidu	M	TD	F	MA
Dennis Palmer	M	RE	S	MA

Some of the fields in this table might be a little hard to understand at first. The school have shortened the answers and made them into a code.

i) What do you think the advantages of storing data as a code might be?

The field headings should be:

Name	Gender	Subject	Full/Part time	Qualification
------	--------	---------	----------------	---------------

ii) Which subjects do you think these codes stand for :

Code	Subject
PE	
HS	
EN	
VL	
ES	
BS	
MA	
CS	
TD	
RE	

The codes for qualifications are:

BSc = Bachelor of Science

BA = Bachelor of Arts

Bed = Bachelor of Education

PHD = Doctor of Philosophy

MSc = Master of Science

MA = Master of Arts

iii) Write the teacher's qualifications in full

Name	Qualification
Jane Jones	
Simon Kaci	
Judith Mow	
Sera Lilo	
Jese Rawaico	
David Tua	
Sonika Lal	
Mere Waqawai	
Vishal Naidu	
Dennis Palmer	

iv) One piece of data is probably wrong in the database. Which one do you think it is?

v) How many male teachers work at the school?

vi) How many female teachers work part time?

vii) Which teacher has an MSc and is male?

viii) Which teachers are female and have a BA?

The following teachers will be joining in September. Add their details to the database:

- Mrs Mereoni Bose who teaches science, works full time and has a Master of Science degree
- Mr Vikash Singh who works part time teaching history and has a Bachelor of Arts degree

Name	Gender	Subject	Full/Part time	Qualification



EXERCISE 5 – Searching Databases

- 1) In your student folder open file name database 2 and attempt the questions save the file as “U6-ex5-yrfirstname”
- 2) Open file name database 3 and answer the questions, save your file as “U6-ex6-yfirstname”

Words You Should Know

Character	Database	Primary key	File
Data integrity	Field	Data security	Data sharing
Field name	Records	MS Access	
Tables	Rows	Columns	Data redundancy

Unit 7

Ethics

At the end of this chapter students should be able to:

- 7.1 Define computer ethics**
- 7.2 Discuss unethical use of information and computer technology**
- 7.3 Discuss issues related to acceptable and responsible use of information and computer technology.**
- 7.4 Appropriate ethically use of technology**

Ethics



Rules
&
Policies
@
ITSS

Right
or
Wrong





Everywhere we go or whatever we do there are laws or rules that we need to follow. These are put in place for our own protection, control and safety.

These laws are made by people on what they feel is the right thing to do. The element that controls how computers are used today is ethics.

Ethics is a set of moral values or principles that direct the conduct of an individual or a group.

In this unit we will be looking at computer lab rules and ethical issues that relate to use of information and technology to enable us to become responsible users.

7.1 Define computer ethics

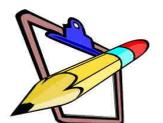


Computer ethics is the standard of behavior regarding the use of computers by individuals. It refers to how a person should behave when using a computer.

While using a computer we should always consider others. We need to ask our self questions before we carry out a task. Is it right or wrong?

With ethics we need to instill in ourselves good moral values such as:

- Respect
- Integrity
- Consideration
- Honesty
- Truthful
- Patience



EXERCISE 1 – Ethics

- 1) List four other moral values that you feel a person should have while using a computer.

7.2 Unethical use of information and computer technology



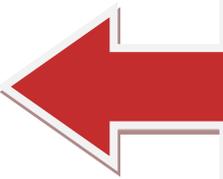
Computers are used in almost all the places, be it a home, office, factory or even a vehicle. People rely on computers because it helps them in so many ways. On the other hand people have also used computers to spread unwanted mails, copy software, access other people's account and steal money and data just from a press of a few buttons. People have committed unethical practices for their own personal gain or revenge.

Listed below are few unethical issues that relate to the use of information and computer technology that are increasing:

I)  

Hacking is the tapping (accessing) into other people's account or files to view their information or data without the person's knowledge for bad reasons. A person who hacks is called a hacker.

With the availability of advanced technology, people are able to break codes and gain access to other people's account without being known. Some people do it for fun, challenge to see how smart they are or for revenge. No matter how good your computer security system is, people can still break them. Hackers may change important data for their own benefit, with bank accounts they divert money into their own account.

II)  

Fraud - a planned cheating by a person for his own personal gain. A person who commits fraud is called a fraudster. They sell you a product or idea totally different from what you think you are getting.

Today fraud is on the rise. Not only through the use of computer. People tell you that they can help you migrate overseas but you need to pay them certain amount of money. After a few days you will never see them again so you lose your money. With emails, people send messages informing you that you have won a lottery and they need your personal details as soon as possible. Once you give in your personal details they will ask for your

bank account and other financial information. Some may even require you to pay a certain deposit. We should always be careful of fraudsters.

III)



Spam- email that is sent out to people. It is many times junk email that you don't want and probably didn't ask to receive.

Thanks to yahoo and other email providers, they can detect spam mails and put them separately under spam. Spam mails are sent around just to take up space. A good example is a chain letter that requires you to send the mail to other people otherwise you will get bad luck.

Have you ever received a spam mail?

IV)



Plagiarism- copying of work without acknowledgment.

Every piece of work is written by an author or publisher. They spend time and money to comply a piece of work. Ethically if we use other people's work we should acknowledge it through referencing. When you write a task or project always make sure to note down where you gathered your information from, the name of the book, date and place it was published.

Ask your teacher to help you reference a book.

V)



Software piracy- illegal or unauthorized copying of software.

Software are needed to run the computers as we have covered earlier . They are very expensive to buy. With the availability of internet people can download almost any software from antivirus to system and application software all for free. Software piracy is committed when we borrow other people's original software and we make

copies of it for our own use. Software piracy is also a problem in our movie industry. Movie dealers make several copies of a movie and sell them at a cheaper rate.

Is software piracy a problem in Fiji?

VI)



Virus- a program created to destroy or corrupt files or computer systems. It travels by email or shared lines and files.

A virus has infected my computer system is a common complain that we hear every now and again. A virus can corrupt files, destroy data, display irritating messages or even disrupt computer operations. People spread virus by distributing infected files, through disks, CDs, emails and downloading software from the internet. Example of a virus is the Michelangelo virus which is designed to damage hard disk files on March 6, his birthday.

Can you name another virus that you might have come across?



EXERCISE 2 – Unethical Issues

1) Matching

Match the terms in column A with their descriptions on column B.

Column A	Column B
1. Spam	i. They plan to cheat people for their own gain
2. Software piracy	ii. Junk emails
3. Plagiarism	iii. Gain access to other people’s account without being known.
4. Fraud	iv. Illegal copying of programs
5. Virus	v. Displays irritating messages
6. Hacking	vi. Copying an essay from the internet without acknowledging the writer’s work

2) Briefly state ways that you can prevent the following problems:

- a) Plagiarism
- b) Virus
- c) Hacking
- d) Software piracy
- e) Spam

3) A person who hacks is called a?

4) Differentiate between a hacker and a fraudster.

5) Research – pairs

This work should be carried out in pairs. All students should select a partner that they can work with. Students should select either their school computer lab , home or any other place that they know have computer.

Requirement:

- i. Students are to find out what antivirus software is used by their selected study area. What does the software do? What are some extra requirements needed for this software.
- ii. Write a one page report to document your findings and this should be presented in class.

6) C
ircle either yes or no on what you think for the ethical issues listed below.

What Do YOU Think?

YES	NO	1. It is a good idea to check facts found online with a reliable source.
YES	NO	2. Teachers do not need to worry about Copyright Law restrictions.
YES	NO	3. Software borrowed from school can legally be loaded on your home computer.
YES	NO	4. When children use the Internet, it is not wise for them to provide credit

		card information without specific permission from parent or guardian.
YES	NO	5. Using copyrighted materials created by a local cartoonist without permission is a violation of Copyright Law.
YES	NO	6. Using your favorite popular song as background music for a multimedia presentation is not a violation of Copyright.
YES	NO	7. It is OK to use another person's password to log on to the computer network.
YES	NO	8. You may download material from the Internet and claim it as your own.
YES	NO	9. If you are able to copy digital content, it is legal to use it.
YES	NO	10. Is it right to copy a friends project or program
YES	NO	11. Is it fair to tap (hack) into someone else's data files.
YES	NO	12. Can I read someone's email when they are not looking?
YES	NO	13. Is it right to buy pirated movies?

7.3 Issues related to acceptable and responsible use of information and computer technology



There are various ways in which we can protect ourselves and information against unethical practices.

D)



Privacy – is the right of people not to reveal information about themselves. If data is private then it cannot be seen by anyone who is not supposed to see it.

Every person needs their privacy . They are important information that we cannot share to other people because there are considered as confidential. Privacy is often abused by people when they hack into other people’s account and view their information, some even sell private information to spoil a person’s reputation.

There are many ways young people and adults can lose their privacy on the Internet, and all have their own dangers. Disclosing your address, telephone number, or even your name to a stranger can put you or family members in danger. It's also important to warn children not to give out information that could jeopardize others - family members, friends, teachers, and classmates.

II)



Security – is a system of safeguards for protecting information technology against disasters, system failure and unauthorized access that can result in damage or loss.

To protect our data, we put in place various security measures. Some are electronically or physically. Passwords, lock for the computer lab, signature verification, security guards are few methods that we use as security.

What form of security does your school use for its computers?



Copyright – is the legal right of the owner of software to control the copying, distribution and use of the program.

III)

In Fiji Copyright Act is put in place to protect authors and publishers. Still people commit software piracy from young children to adults.

What is the symbol for copyright?

IV)



File sharing- allows you to share your files with others and vice versa.

We share files with others so they can view information provided but we should always be careful of people that we share files with. Some may use information appropriately while others may use it for other purposes. The best tip for file-sharing is to stop and think before downloading files and only share files with people you really know and trust.



V)

Passwords- a secret word or numbers that limit access.

Passwords are used as a form of security so doesn't tell anyone else your password. Choose a word which you can remember without writing it down. Do not even share your password to your best friend or sister.

EXERCISE 3 – ACCEPTABLE ISSUES



- 1) Why is it important not to share your password?
- 2) List three forms of security that you can put in place to protect your information and computer technology.
- 3) How can privacy be abused?
- 4) When can you use file sharing?
- 5) In Exercise 2, number 6 , for the unethical issues identified briefly state how you can correct them.

- 6) Study the Computer ethics cases listed below and place a tick on the Right or Wrong box on what you think of those issues and identify the issue involved. If the issue was wrong state what can be done to correct it.

Case	Right	Wrong
1. Downloading movies for free from the internet.		
2. Nikhil's task was to write an essay on the "Impact of computers on school children". While searching the internet he found an essay on the same topic. He copied the whole essay and submitted his task without stating the sources or acknowledges the writer's work.		
3. Temo was asked to clean her teacher's room. While cleaning she noticed that the teacher's computer was still on and on the computer's desktop she can see a folder with the name Annual Exam. Curiously she opened the folder and saw all their annual papers; she quickly copied the folder and saved it in her flash drive.		
4. In a computer class, Mary found a piece of paper on the floor with the following information: Name: Iva R Facebook account User name: gurl Password: 22college She quickly logged into facebook to see if the account exists. She was able to log into the account and started reading Iva's messages.		
5. Your best friend has the latest antivirus program which they have bought for \$300. He lends it to you to install on your computer. While installing you decided to make a copy for yourself.		
6. Amelia has completed her Social Science task on "Families". While in the computer lab you saw Amelia's task in "My Documents". Quickly you changed the name and printed the task and then it was handed to your teacher as your own task.		
7. Typing and printing your own Social Science Task.		
8. Sending junk mails to friends asking them to donate money to help a dying cousin. Telling them that they will get bad luck if they do not donate money.		
9. Buying copied movies from a DVD shop for \$2.		
10. Buying and installing the original computer games software.		

7.4 Appropriate ethically use of technology



I) 10 COMMANDMENTS OF COMPUTER ETHICS

1.	Thou shalt not use a computer to harm other people.
2.	Thou shalt not interfere with other people's computer work.
3.	Thou shalt not snoop around in other people's files.
4.	Thou shalt not use a computer to steal.
5.	Thou shalt not use a computer to bear false witness.
6.	Thou shalt not use or copy software for which you have not paid.
7.	Thou shalt not use other people's computer resources without authorization.
8.	Thou shalt not appropriate other people's intellectual output.
9.	Thou shalt think about the social consequences of the program you write.
10.	Thou shalt use a computer in ways that show consideration and respect.

II) COMPUTER LAB RULES



A computer laboratory is a place where careful behavior is needed at all times. During practical classes, you will be using electrical devices.

Here are some computer laboratory rules. Read them carefully and be sure to follow them when you are in the lab.

RULES!

1. Noise level should be minimal at all times.
2. No unnecessary movements in the lab.
3. No playing of any kinds of games in the computer.
4. Never share your password, even with your best friend.
5. No gum, food or drinks in the lab, electronic equipment doesn't like to get wet or sticky.
6. Only use the Internet as instructed. **Do not click on links that seem suspicious or are offers of "free" anything.**
7. Do not change computer preference settings or "hack" into unauthorized areas.

Student's Signature _____

Date _____



EXERCISE 4 – Computer Lab Rules

- 1) Copy each rule and comment on why that rule is important.
- 2) Write at least four more rules that would be appropriate to your school computer lab.
- 3) If there was a fire in the computer lab , what would you do?
- 4) Why is it important that you do not share your password even with your best friend.
- 5) Study the diagram given below and list the rules that the girl has broken and why they are important.



III) ACCEPTABLE USE POLICY

Apart from the computer lab rules set by your school. You need to know the **Acceptable Use Policy**. It is a contract between you, your parents, and the school district.

There are various acceptable use policy for specific purposes such as internet, technology or hardware.

In this class we will be looking at the **Technology Acceptable Use Policy**. When you sign this contract you promise to follow the rules and to use technology in an appropriate way.

Technology Acceptable Use Policy

YOU SHOULD NOT BE:

1. changing or deleting another student's files
2. buying or selling items on the internet
3. being mean to other people online
4. downloading music or programs off of the internet
 - a. if you do need to copy a picture, make sure you label it with the website's address
5. using someone else's ID
6. giving out your personal information online
 - a. examples: address, phone number, whole name, pictures
7. using unacceptable language
8. viewing inappropriate websites
9. chatting or talking with someone online without the teacher's permission

EXERCISE 5– Acceptable Use Policy



- 1) List five appropriate ways to use technology in school.

2) **FILL IN THE BLANKS**

Fill in the blank with the correct term (from the list below) for each definition.

Hacker	Acceptable Use Policy	Password
Privacy	Fraud	Virus

- i) A person who secretly gains access to computer files without permission

- ii) A computer program designed specifically to damage computer files

- iii) The security protection to allow access to a computer or the computer programs

- iv) A set of rules and guidelines to regulate Internet use and to protect the user.

- v) Freedom from the attention of others, being intruded upon by others or being observed. _____

Words You Should Know

Ethics	Computer lab rules	Computer ethics	
Hacking	Virus	Fraud	Spam
Software Piracy	Plagiarism	Privacy	Security
Copyright	File sharing	Password	10 commandments
Acceptable Use Policy	Unethical Issues	Ethical Issues	

UNIT 8

COMPUTERS IN THE SOCIETY

At the end of this chapter students should be able to :

- 8.1 Identify ways in which computers are used in the workplace and in the society.
- 8.2 Evaluate information generated from electronic sources.



**COMPUTERS IN THE
SOCIETY**



What is a computer used for in the society?

8.1: IDENTIFY WAYS IN WHICH COMPUTERS ARE USED IN THE SOCIETY

Computer has become an essential part of our everyday life. It has changed our traditional way of living to a more modernized or computerized society.

Computerization of Society refers to the widespread use of computers in the society that has led to the restructuring of many activities in the organization.

Computers are used for:

I. EDUCATION AND RESEARCH



Research: We say that computer is an electronic toolbox for working with information as it is commonly seen among school children. Computers provide the most easily accessible resources on given topics, tasks, projects, and assessments activities.

Children use computers to do researches for their CBA tasks, CAT, Projects and Assignments.



Figure 8.1: Students using computer for research

Data Entry

In the early days students write their projects and tasks using pen and paper and submit them for assessment. Now with their knowledge on basic keyboarding and word processing students are able to type their project write up. This knowledge is essential for school, college and career.



A student is typing his write up on his English Project.

Figure 8.1.2: Student using computer to type his project

Intervention

Computers are also used to help learning for disabled students. There are many interactive and tutorial programs online or available as software that helps the challenged student with reading, math or other areas of weakness. Example is brail keyboards that are used by disabled students such as blind.



Figure 8.1.3: source topnews.in

Special websites such as <http://www.education.vic.gov.au> and <http://www.pacer.org> provides educational resources and help for disabilities.

Virtual or e-Learning

The use of computers has changed the face of distance education. For example **Laptops, iPod, mobile phone** are devices that are replacing textbooks and libraries. Students can access the internet and store information using these portable computers.

- Students can now be logged in at the same time, post assignments, and talk to each other on message boards while working on their college degrees from different geographical areas.

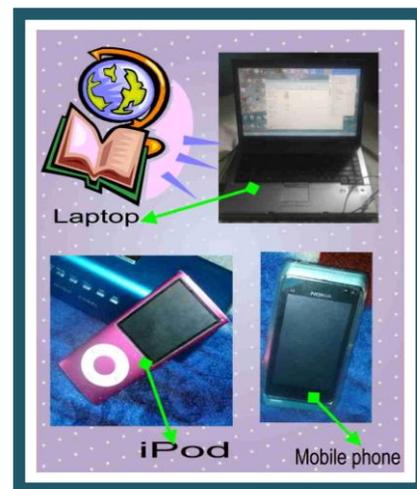


Figure 8.1.4: source scrap book factory



Figure 8.1.5: source www.elearn.usp.ac.fj

Teacher Resource

- The Internet provides a wealth of resources for teachers like lesson plans, pre-made tests, study guides, worksheets, and other activities that only have to be downloaded and printed. There are also grade book programs and class record-keeping templates that are time-savers.

For Example moodle website facilitates electronic based learning in all USP centers around the Pacific.

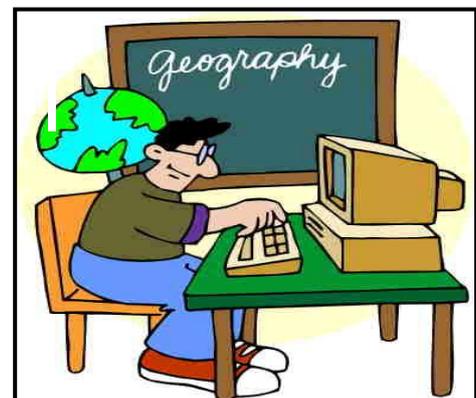


Figure 8.1.6: scrap book factory

i. Teaching Aid

Computer is now replacing the use of chalk, duster and blackboard. Teachers use computers to type their notes and use multimedia technology to present or teach students their lessons during class time.



Figure 8.1.7: source scrapbook factory

EXERCISE 1: Do the following exercise



- 1.) Identify at least **two** tasks that require you to use a computer in school.
- 2.) How is computers used by teachers.
- 3.) Identify two ways in which computers facilitates learning.



II. LAW AND LAW ENFORCEMENT

Most police forces, local sheriff departments and government agencies are computerized and use some form of technology in their everyday crime-fighting efforts.

From laptops in squad cars to community online services and accessible databases, law enforcement incorporates the latest technology when budgets allow.



Figure 8.2: source www.police.gov.fj

i. On Site



Long ago in the olden days law enforcements were inefficient. It takes longer time to access important information at their duty sites on the road, islands and remote areas away from their computers that stores information. With the use of computers Police officers and Land Transport Authority officials' use:

(a). **MDT** which stands for *Mobile Data Terminal*, it allows a police officer to run license plates and driver's licenses. Everything the officer needs to know about a car and its operator is right there at his fingertips.



Figure 8.2.1: source www.ecoustics.com



(b.) Notebook computers in their squad cars to easily access databases and check credentials of motorists and individuals they are interviewed at crime scenes.

Figure 8.2.2: source [www. sentsocc.info](http://www.sentsocc.info)



(c). Portable crime scene technology can help investigators identify fingerprints and other evidence on the site, allowing the officers **to move quickly to apprehend the perpetrators**

Figure 8.2.3: source [www. techsvg.com](http://www.techsvg.com)



ii. Communication

Computers can be used to ease communication related to crime awareness. Missing person reports, fugitive alerts and unsolved crimes can be posted on line to secure law enforcement websites to allow international cooperation. Gang-related activity, sex offenders and terrorist activities can easily be broadcast to law enforcement agencies worldwide immediately, limiting the amount of time others need to respond to requests and to post the necessary alerts to their own officers.

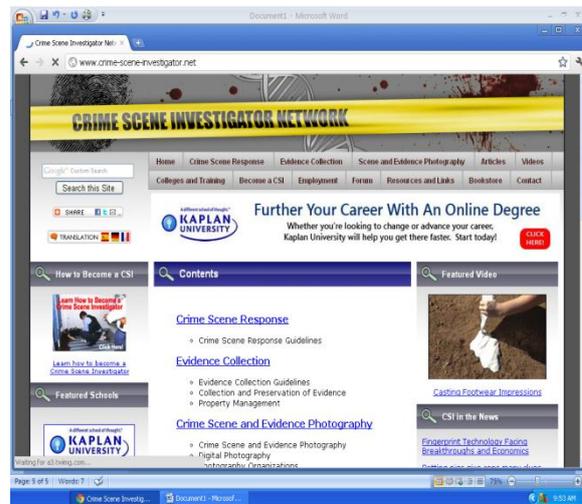


Figure 8.2.4: Source: <http://www.crime-scene-investigator.net/>

iii. Tracking

Police officers can track criminal suspects through their locations. This is through the use of computer technology such as advanced global positioning satellite (GPS) technology. Advanced global positioning satellite has:



Figure 8.2.5: source www.gpsnavie.com

- Provided law enforcement officials with additional resources to track and investigate criminal activity.
- Allowed most cell phone users to be traced to a location that is relatively accurate.
- Emergency call systems and 911 operators can trace a cell phone call as quickly as they can trace a land line call.

Vehicles equipped with GPS equipment can be tracked as long as the device remains activated and small GPS tracking devices can be planted on suspects to track movements.



Figure 8.2.6: source www.scitechie.com

iv. Timely Information

Another key feature of computers is the dissemination of information in a timely manner. Updates about any recent crimes in an officer's patrol area can be forwarded to him/her while out on patrol. Even photos, if available, can now be sent instantaneously to aid officers in the apprehension of suspects. With cases of bank robbery surveillance footage of a suspect was downloaded from video cameras in the bank and immediately disseminated to MDTs in police vehicles. The police set up road checks, and instead of a basic description of the suspect, police had an actual photo to work with them.

EXERCISE 2: Do the following exercise



- 1.) List down ways in which computers are used for Law and Law enforcements.
- 2.) How is computers used to track down criminals
- 3.) How is computers used for communication in law enforcement.
- 4.) Give one advantage of computers in Law enforcement.



III. ENTERTAINMENT

Computers started as very simplistic machines for storing and transferring data. Most of these files were text-based reports used in a work environment.

As technology advanced, computers became increasingly resourceful in what they could do. With the creation of the Internet and faster processors, file sharing and *entertainment* became a popular use for personal computers everywhere. Computers can now provide us with:

1. Music

- ✚ Computers now have almost unlimited access to any song by any artist. Many website services allow users to purchase individual tracks or albums directly to their computer. Example www.youtube.com where video clips and songs are kept.
- ✚ Computers also open a venue for many amateur musicians in the music industry to record their own music without a professional studio.



Figure 8.3.1: source www.gregcutshaw.com



- ✚ Computers also allow musicians to create artificial instruments to record with, called MIDI instruments.



Figure 8.3.2: source www.topnews.in

2. Television and Movies

- With the advancement of video card and Internet speeds, movies and streaming television are now at the click of a mouse button.

Many website services offer free-to-stream movies with the cost of a monthly subscription fee. Example we can now watch television program from the internet,



Figure 8.3.3: source <http://www.fijitv.info/>

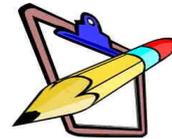
3. Art

- Art is something that is readily available online at any moment. Pictures, paintings, poetry and more are just a click away. Popular browsers offer specific image search options to quickly browse through art with a single keyword. Besides general use, computer photo editing programs and animation programs are also the sources behind most movies and professional photographs. Example, www.imikimi.com website gives us an advantage to create our own photos on line.

4. Games

- Computer games are quickly growing market just like all other forms of video games. Kids game site includes www.kids.yahoo.com

EXERCISE 3: Do the following exercise



- 1.) Identify some uses of computers for entertainment.
- 2.) Do a research on any other website apart from your reading that can do photo designing or editing. Identify at least two web sites.

IV. GOVERNMENT

Like businesses, government offices use computers. Government employees must set up meetings and distribute various reports and they speed up these tasks using programs like word processing, spreadsheets and database. There are other means and ways in which computers are utilized by government institutions. This includes:

2. Distributing Payments

- State and federal offices use computers to distribute payments to people. These payments can be sent electronically like most Social Security payments, or by check. For example, the Ministry Of Education sends its employees' salaries and payments refunds through using the computer. The checks are usually produced on various printers in the government offices.

1. Email Functions

Government offices that have computers usually have some type of email system in place. For example in Fiji all government workers use the govnet emailing system for emailing. Emails enable government workers to compose, send or read emails from other workers and people outside the company. Government employees might also use emails to distribute copies of reports or presentations.

GOVERNMENT

3. Record Keeping

- The government often hires computer programmers or database managers to maintain records of employees and citizens, kept in large databases, which can store records of people's gender, age, address, phone number and other important information.
- Government offices also keep records of dates, such as when people file taxes, and amounts that are due and paid. Computer record keeping is an essential function for government offices because of the need for accuracy and timeliness.

EXERCISE 4: Do the following exercises



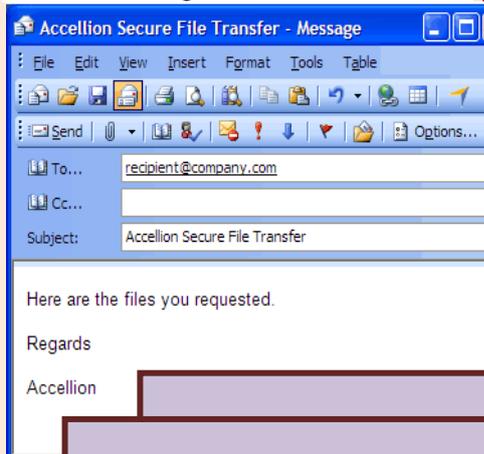
1.) Identify *three* uses of computers in the following places:

- (i.) Medical
- (ii.) Education
- (iii) Banking

V. COMMUNICATION

There are a variety of ways that computers can be used for communication. From instant messaging to video conferencing, computers allow for complex and highly advanced communication.

2. E-mail or electronic mail is the sending of electronic messages via the internet. Email is one of the first, and least complicated ways of communicating over the computer. With the invention of the World Wide Web, online email accounts allow for global communication, often at no charge to the user.



1. Instant Messaging (IM): is an extension of e-mail that allows two or more people contacting each other directly. For example, Instant Messaging -the most common IM are AOL's Instant Messenger, Microsoft's MSN Messenger and Yahoo Messenger. Online chat in Facebook.



3. Social Networking is a web based service or web sites that accommodates relationships and communication between people, groups and organizations E.g. facebook, bebo, wordpress.com and many more.





How can I communicate
on a computer with
Instant Messaging

STEP:

1. Do an Internet search for Instant Messaging. AOL Instant Messenger and Yahoo! Messenger are the programs that readily come up first in most searches.
2. Select the Instant Messaging (IM) program you want, and click the "download" button.
3. Read through the online instructions and familiarize yourself with your new Instant Messenger program.
4. Enter the IM names of your friends and family into your Instant Messenger contacts. By doing so, you will be alerted when they are online, and they also will know when you are available to chat.
5. Chat with a friend or family member in real time by selecting his IM name from your contact list and typing a message in the text box provided.

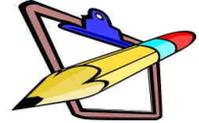


How can I communicate
on a computer using
Social Networking

STEP:

1. Choose to join one of the most popular social networking websites. Facebook, MySpace and LinkedIn are similar types of networking sites.
2. Sign up for a free account on the homepage of the social networking website. You will need to enter your information, as well as an email.
3. Check your email address for your verification link. Click on the link and you will be transferred to your new homepage on your social networking site.
4. Create your profile. Fill in general information about yourself in your profile and add photos to help identify yourself and your page. Check your privacy settings to ensure that information only is given to people you allow viewing your social networking page.
5. Communicate with others by searching for friends or family members by finding them on the social network. Typically, there is an advanced search option where you can type in a person's name, location and other identifying information. Profile photos often help to detect whether you have found the correct person.

EXERCISE 5: Do the following exercise



1. Identify three ways in which computers are used for in communication.
2. Differentiate between email and instant messaging.
3. What is social networking? Give some examples of social network websites.

VI. HOMES

The home computer is an access point for all sorts of information and communication. Families use home computers to stay in touch, send pictures and talk through video and voice software. Home computers also have *entertainment* value, such as watching movies or gaming. Many businesses operate from home with the help of a computer as well.

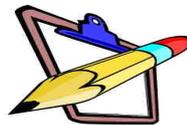
Children can type their projects and tasks from home computers. Having internet at homes enables students to type their projects, communicate with their teachers through emailing and also does virtual learning.

Parents can prepare their family budgets using spreadsheets program on computers.



Figure 8.5.1: source scrap book factory

EXERCISE 6: Do the following exercise



1. Identify *three* main uses of computers at homes.
2. Retrieve the following “*Exercise 6*” from the *Unit 8 – Student File Folder* And answer the questions; Save your work as “*U8-Ex6-your first name*”

8.2: EVALUATE ELECTRONIC INFORMATION SOURCE



Having the world at your fingertips through the internet is a double-edged sword whereby

- One can find information about almost any topic one can think of by doing a simple Google search.
- And sometimes it is difficult to identify the accurate, reliable sources from the inaccurate, untrustworthy ones.

An effective way to search for information in the web is to use a checklist known as a **CARS** checklist.

C for Credibility:

1. Who wrote the information?

A for Accuracy:

1. What are the aims of the website?

R for Reasonableness:

1. Why is the website relevant to me?

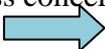
S for Support:

1. How can I check whether the information is correct?
2. When were the information last updated?



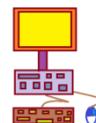
Websites with **.org** domain code contains electronic information about an organization.

These sites are usually managed by non-profit organizations and usually have less concern about making money.



Web sites with **.com** domain names are commercial web sites, meaning they:

- a) Sell advertisement space,
- b) Charge for access to files, and
- c) Are often Internet Service Provider sites, For example Connect.



Exercise 7: Do the following Exercise

Use the internet to find information about the following topics using the three websites given:

- i. www.buzzle.com/articles/why-is-education-so-important.html
- ii. <http://expertscolumn.com/content/why-education-important-our-lif>
- iii. [http://troym.hubpages.com/hub/Why Education Important](http://troym.hubpages.com/hub/Why_Education_Important)

1.) **Topic: Advantage of having a good education background.**

A. Evaluate the 3 websites given according to the following questions.

- a. Who wrote the information?
- b. What are the aims of the website?
- c. Why is the website relevant to me?
- d. How can I check whether the information is correct?
- e. When were the information last updated?

	Website 1	Website 2	Website 3
Author of information			
Aim of the website			
Relevancy to user			
Correctness of information			
Information updated			

- a. Which website provides the best source of information for the researched topic?

WORDS YOU SHOULD KNOW

Computerization of Society, Electronic Mail, Instant Messaging, CARS checklist, .org, .com, MDT, GPS, Communication

UNIT 9

COMPUTER HEALTH, SAFETY AND SECURITY MEASURES

**At the end of this chapter
students should be able to :**

**9.1 Adopt Proper Health, Safety when
using the computer**

**9.2 Adopt Security Measures when
using the Computer**

9.3 Discuss safety issues on the internet

COMPUTER HEALTH, SAFETY AND SECURITY MEASURES



ESET NOD32
Antivirus V.3

9.1: ADOPT PROPER HEALTH AND SAFETY WHEN USING THE COMPUTER

What is Computer Ergonomi...



Computer **Ergonomics** (pronounced “er-guh-nom-ix”) is defined as things that you can do to make working on a computer more comfortable and better for your body.



I. Problems caused by improper use of computers physically.

Sitting in front of a screen in uncomfortable positions for a long time may lead to physical problems such as eyestrain, headaches, and back pain.

To avoid all these physical problems there are things that you should do:

- Support feet and low back
- Lower shoulders
- Relax arms
- Level elbows with the keyboard
- Straighten hands and wrists
- Bend neck slightly
- Level eyes with text on the monitor
- Use proper furniture E.g. Adjustable Chairs to avoid back and neck pain
- Take 15 minutes break every hour or two to avoid eyestrain and headache.

How to be Comfortable at your Computer Workstation



The picture shows the **posture** you should try to use as you are working at a computer workstation. If you ...

Figure 9.1.1: source scrap book factory

II. Problems caused by improper use of computers mentally

A computer offers many ways of improving productivity, but it also creates some irritation that may be counter-productive. One common factor that is causing *mental health problem* is *Noise*. Voice input and output devices can distract users. Noise produced from cooling fans and vibrating parts inside the system unit can affect your mental health.

Solution to Noise irritation problem:

Use Head mounted microphones and earphones to reduce the effect of voice input and output.

Spending a lot of time on computers without a break can cause *mental stress*. It is advisable that every computer users must take 15-20 minutes break after every hour or two. Limit your time at the computer and make sure you take periodic stretch breaks during computing time.

Your muscles need adequate hydration to work properly and avoid injury. Drink four 8-ounce glasses of water a day.

EXERCISE 1: Do the following questions



1. What is Ergonomics and why is it important?
2. Identify some of the most physical health problems and how they can be avoided.

EXERCISE 2: Do the following exercise



[Case

In this classroom, the computer monitor and the keyboard were too high. Students had to look up to see the monitor. Their elbows were also lower than the keyboard.

Study]



1. According to your knowledge in Ergonomics List some solutions to the above Scenarios.

9.2: ADOPT PROPER WAYS TO KEEP DATA SECURE

Computers and devices can always be replaced unlike for data they cannot be replaced once lost or damaged. Data can be lost during natural disasters, for example if a Tsunami comes and sweeps away your school computer laboratory all the projects, tasks and student records stored in the computer will be lost. Therefore it is safe for you as a computer user to secure your data. “*Prevention is better than cure*” When we talk about **computer security** it means the protection of information, hardware and software. There are ways in which we can secure our data:

What is Backup and why backup



I. BACKUP

It is important to make another copy of the same data and store it in a remote location, this is also known as **Back up**.

Back up your data because you can always recover the lost data during natural disasters, fire and computer damage.

How can I Back up my Data??



There are storage devices that can be used to back up data: for example, usb, external hard drive and compact disk (CD). For large companies like banks and government ministries they use other computers such as mainframe computers to back up their data.



EXERCISE 3: Do the following exercises

- 1.) It is important for a bank such as ANZ to back up its data. Give one reason why the bank needs to back up its data.
- 2.) How do large companies back up their data?

II. COMPUTER VIRUS AND PROTECTION AGAINST IT



My usb is infected with virus I cannot retrieve my project.

This is a comment or responds that we often hear when our usb or computers are infected with virus.



What is Computer Virus?



Computer Virus is any computer program that harms or interrupts and can destroy the program or damages computer files.

There are different types of virus namely the Worm virus, Trojan horse and

boot sector virus. These viruses can be harmless or destructive when downloaded to the computers.

How do computers get infected with virus?



HOW?

1. Downloading documents that contain virus from internet/email and infected computers on the network.
2. Using USBs that have already being infected with virus



How do I know that my computer is infected with virus?



Symptoms:

1. Computer slows down [take a long time to access your data]
2. Multiple copies of the same file in the computer system.
3. Freezes the computer system
4. Cannot open file or programs [destroyed by virus]



How can we protect against viruses?



Protection against Viruses:

1. Installing Antivirus programs: this program find virus and repair damaged files
Eg. Avira,Avast,Eset
2. Password security to prevent unauthorized access and attacks.
3. Install firewalls-to protect documents on network.



Identify different types of Virus.



Types Of virus

1. A **worm** - corrupts data and causes irreparable damage to computers
2. A **Trojan horse** is disguised as a useful program, but it contains hidden instructions to perform a harmful activities. Erase the data on the hard disk or cause other damage.
3. A **boot sector virus** will load each time the computer is turned on and can make the data stored on the disk inaccessible.i.e.you can not open the Hard Disk.



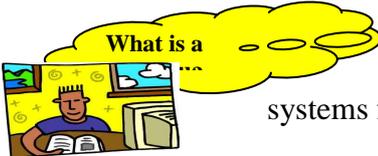
EXERCISE 4: Do the following exercises:



- 1.) What is Computer Virus?
- 2.) Identify two ways in which computers are infected with virus
- 3.) List some ways in which you can protect your computer against virus.
- 4.) State two signs displayed from computers showing that they are infected with virus.
- 5.) Identify at least two types of virus.

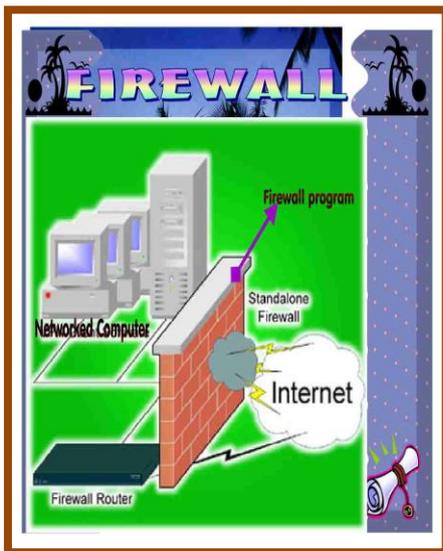


III. FIREWALL



All organization has to be very careful to protect their computer systems from virus and other criminal activities over the network.

Computer criminals are people who performed illegal activities using the computer. There are basically two common types of criminals the *Hackers* and *Crackers*. A *hacker* is someone who is very skilled in computer technologies and uses that knowledge to break into systems illegally and for fun whereas *Crackers* also gain unauthorized access and do illegal activities but for harmful purposes.



There is a security program that is used to protect any organization from external attack - this program is called *Firewall*. It is a gateway between networks that screens all information passing among networks. It is designed to keep hackers obtaining access to a network.

Figure 9.3.1: source scrap book factory



EXERCISE 5: Do the following exercise:

- 1.) What is a firewall?
- 2.) Why do large organizations need a firewall program?

What is Password?

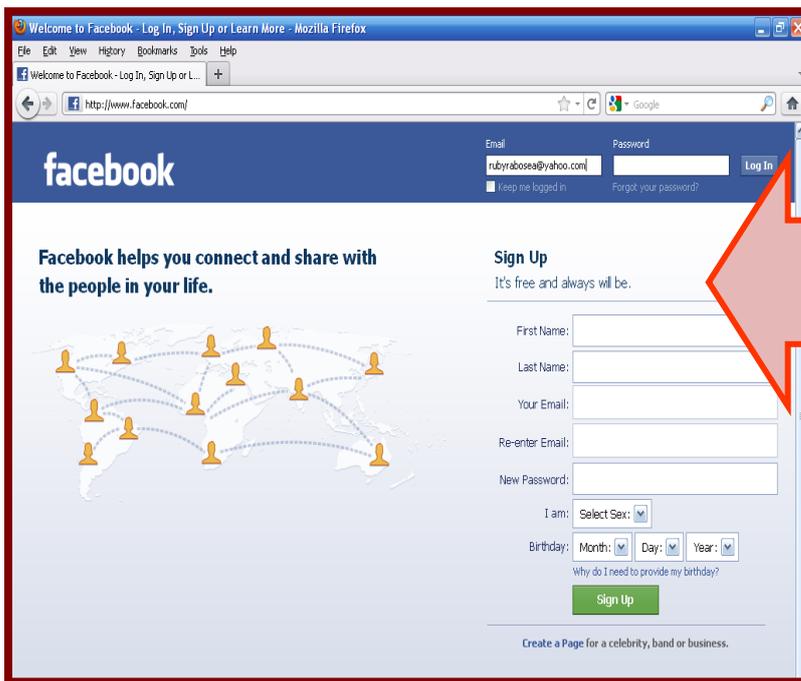


IV. PASSWORD



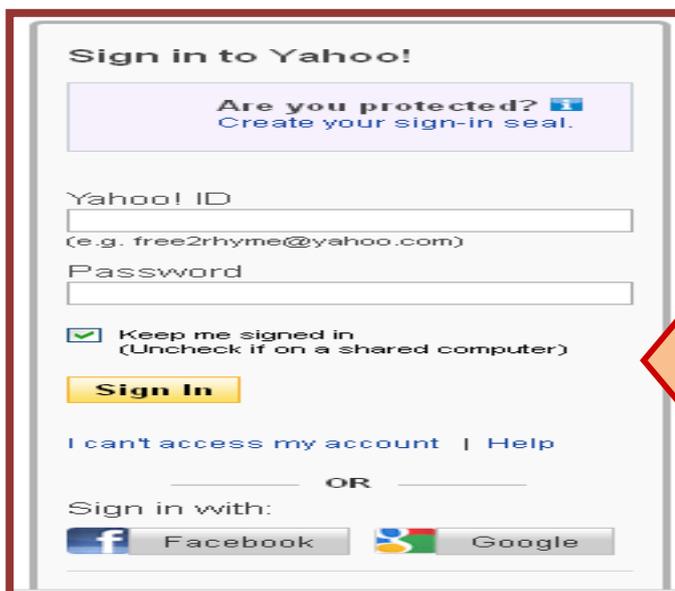
There are other ways we can use to secure our hardware, software and information. This could be the use of passwords to restrict unauthorized access.

Passwords: are secret words or numbers that are masked and must be keyed into a computer system to gain access.



Facebook is a social network that has billions of users. There a personal messages or documents that can be kept in **facebook** therefore it is designed in such a way to *restrict access* to the users by using a Password login system.

Figure 9.4.1: source www.facebook.com



Yahoo mail is a common electronic mail system used by internet users. This system allows people to send personal and official documents that may be confidential or of private use only. **Yahoo mails** also have a special Password login

Figure 9.4.2: source www.yahoo.com

WHAT YOU HAVE TO DO?



Strong password will protect your computer files and online accounts from being modified or changed.

You must have a Strong Password Tips:

1. Don't use passwords that are easy to guess-like your nickname or pet's name.
2. Don't use a word in the dictionary as a password.
3. Create passwords with at least eight characters.
4. Use combinations of letters, numbers, and symbols which are harder to crack than just words.
 5. Change your password regularly-at least every six months.

EXERCISE 6: Do the following exercise



- 1.) What other security measures you can use to restrict access to your data, hardware and software?
- 2.) Define the term Password.
- 3.) Identify some tips of writing a strong password.

EXERCISE 7: Do the following exercise



- 1.) Leone lives in Vuci, Nausori. His birthday is June 14th and he is a member of a swim team. His password is "leswim92".How did Leone choose his password? Was it a safe choice? State a reason for your answer.

Using the tips above, make a new password for Leone. Try making up a sentence and changing it into a series of letters, symbols, and numbers. Explain how Leone will remember his password.

Leone: _____

9.3: SAFETY ISSUES ON THE INTERNET

UNSAFE PRACTICES ON THE INTERNET

The internet can be a wonderful resource for students but they also have unsafe practices that could harm you. People have used the internet to promote things that parents would not allow kids to see. Some sites are full of pornographic materials, drug information and criminal activities.

UNSAFE PRACTICES

1. Communicating with strangers
2. Accessing sites with sexually explicit images and text
3. Opening SPAM or unwanted emails that may contain money making product
4. Use of offensive language and adult conversation
5. Posting of Photographs on the net.

Should parents avoid their child using the internet?



INTERNET SAFETY TIPS

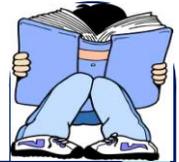
NO, there are things that parents can do to protect their children. Some rules and conditions that you should be aware of is given below.



INTERNET SAFETY TIPS

1. Tell a parent or adult if someone you don't know (a stranger) tries to talk to you online.
2. Going on the internet is like going out on Halloween. Everyone's face is hidden unless you know your friend's costume [i.e.] online name], you don't know if you're talking to your friend or someone you don't know.
3. Access appropriate websites approved by parents, guardians or teachers
4. Do not open email from strangers
5. Do not give out email address(unless approved)
6. If someone use a bad word tell adult
7. Do not give out personal information.Eg, Name, address, phone contact, birth date, photo, height, weight, parent's name, school.
8. Have adult's permission before you talk with someone on the internet.
9. Inform adults if someone asks to meet you
10. Never arrange a face-to-face meeting with someone you met online.

You should talk to adults or your parents about what you are doing on the internet or websites that you visit and have an agreement with your parents/guardian about how you use the internet.



INTERNET SAFETY PLEDGE

1. I promise not to give out any personal information such as my address, telephone number, my parents' work address / telephone number, or the name and location of my school without first asking my parents' permission.
2. I promise to tell my parents right away if I come across any information that makes me feel uncomfortable, scared or funny.
3. I promise never agree to meet with someone I met online without first checking with my parents. If my parents agree to the meeting, it must be in public and I agree to bring my mother or father along.
4. I promise to never send a person my picture or anything else over the Internet or through the post office without first checking with my parents.
5. I promise not respond to any messages that are mean or that in any way that makes me feel uncomfortable. If someone sends me a message like, I promise to tell my parents right away.
6. I promise to talk with my parents so that we can set up rules for going online. My parents will decide the time of day that I can be online, how much time I can be online and the safe sites for me to visit. I will not break these rules or access other areas without their permission.
7. I will not download anything from anyone I don't know.

Signed: _____

Date: _____

Parents: _____

EXERCISE 9: Do the following exercise



Ana has been talking online to a boy named Inoke for a few days now. Inoke has told Ana where he lives, how old he is, where he goes to school, and what he looks like. Inoke asks Ana what school she goes to.

QUESTION:

- 1.) Is it alright for Ana to tell Inoke?
- 2.) What else shouldn't Ana tell Inoke?



Exercise 10: Do the following exercise

Use the words provided in the table below to complete the sentences.

Online Safety	Virus	Worm	Server
Online Resources	Antivirus		Firewall
Password	Hacker		Network

1. A computer program designed to find viruses and repair files. _____
2. A person who secretly gains access to computer files without permission. _____
3. The security protection to allow access to computer programs or files. _____
4. A computer program that is designed specifically to damage computer files. _____
5. Protection of computers, and computer files, or a computer network is known as _____.

WORDS YOU SHOULD KNOW

Ergonomics, Physical Health problem ,posture, Mental health problem, Back up, Computer virus, Worm virus, Trojan horse, Boot sector virus ,Computer Security, Computer Criminals, Hacker, Cracker, Firewall, Password.