

INTRODUCTION TO COMPUTING

Part 1

Support notes for students

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"MAKING CONNECTIONS"

COMMUNITY EDUCATION SERVICE

EDUCATION
ANGUS COUNCIL



BASIC OVERVIEW

This is a basic level course designed to introduce those with little or no experience to the world of computing. Please read the overview carefully, as it will help you apply what you have learned on your course.

Basic Tutorial Part 1 (page 2)

- ◆ Basic Concepts
Types of Computer, Software, Computer Memory, Graphic Interface, Electronic Mail, Health & Safety, Computer Viruses, Software and the Law.
- ◆ Starting the Computer
- ◆ Shut Down the Computer
- ◆ The Mouse
- ◆ Settings
- ◆ The Desk Top
- ◆ The Icons
- ◆ Windows
- ◆ Minimise / Restore / Close

Basic Tutorial Part 2 (page 8)

- ◆ The Start Button
- ◆ Opening Word
- ◆ Cursor / Insertion Point / Insertion Bar
- ◆ Page Set-up
- ◆ Saving a Document in Word
- ◆ Selecting Text /Objects
- ◆ Formatting Toolbar
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Basic Tutorial Part 3 (page 17)

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The Text Box Tool, Rectangle and Oval Tools, Line and Arrow Tool, Autoshapes, Word Art,
- ◆ Formatting and Attributes of Shapes & Lines

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- ◆ Microsoft Excel
- ◆ Manipulating and selecting Cells
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- ◆ Navigating in Excel
- ◆ Moving cell information around
- ◆ Toolbars
- ◆ Autosum, Paste function, Sorting Information, The Currency Tool, Percentage and Decimal points

Basic Tutorial Part 5

- ◆ Evaluation Exercise

BASIC TUTORIAL PART 1

1. The basic concepts of hardware, Information Technology software and Information Technology (IT).

- ◆ Hardware is any part of a computer that you can see or touch.
- ◆ Software describes the electronic instructions that tell the computer what to do.

2. Types of computers. (Their capacity , speed , costs, and uses)

- ◆ Personal Computer (PC) - A non mobile computer normally used in Office or Home environment. The speed and memory capability is generally related to the cost.
- ◆ Laptops- A mobile computer with the capabilities of a PC but usually more costly due to the precision of the construction of the computer.
- ◆ Mini Computer(Hand Held)- A sophisticated electronic filo-fax usually fairly inexpensive and often able to connect up to a PC.

3. Main parts of a personal computer.

- ◆ CPU (Central Processing Unit) this is the main chip in a computer, it is it's brain. It communicates with input ,output and storage devices to perform tasks. The speed of this device is measured in MHZ
- ◆ Hard disk- this is the primary device that a computer uses to store information.
- ◆ RAM (Random Access Memory) RAM temporarily stores information inside a computer. Loss of power will result in loss of information.
- ◆ Removable storage devices-diskette, zip disk, CD-Rom, Optical Memory Drive. These devices with the exception of the CD-ROM (Read Only Memory) can read and write memory to the hard disk of the Computer. It is now possible to write to CD.
- ◆ Input devices are the Keyboard, the Mouse, Scanners, Digital Cameras, Trackballs, Light pens, Joystick and Graphic Tablets.
- ◆ The main output device is of course the Screen along with others such as the Printer, Plotters, Speakers and Speech Synthesisers.

NOTE:- The term used for any Hardware connected to a PC is a "**Peripheral Device**"

4. Software

- ◆ System software. This is the primary software that controls the overall activity of the computer e.g. Windows 98 /Windows 2000.
- ◆ Application software. This is software that allows you carry out specific tasks on the computer e.g. you would use Word Processing (Word 97) software to write letters, and Image Manipulation (Adobe Photoshop) software for altering photographs and creating designs.

5. Types of computer memory.

- ◆ Hard Drive most commonly indicated in the PC as (C:)Drive . The operating System software, the Application software and any documents that you have created and have chosen specifically to save to the hard drive all live in here.

- ♦ ROM for example CD Rom. This memory can only be read from, it cannot be altered. For example in the case of a file being copied from a CD you could manipulate the file on your PC and then store it on your own internal hard drive but you could not return it to the CD in it's altered state.
- ♦ RAM This area determines the number of programmes that can be run at one time and how fast the programmes will operate. RAM works similar to walking into a workshop (the hard drive), making a copy of one of the workshop tools (a software application) then returning to the RAM with it to carry out your task. It is vulnerable in that should the power supply cease all would be lost. For this reason the task you are carrying out must be saved to the Hard disk.

NOTE: Memory is stored in bits, bytes, Kilobytes, Megabytes and Gigabytes. RAM size is of particular importance with regard to the computing power and speed of a PC. RAM and Hard Drive capacity can normally be upgraded on PCs.

6. Graphical User Interface (GUI)

- ♦ Windows is a Graphical User Interface. A GUI allows you to use pictures (icons) instead of text commands to perform tasks on the computer. A much easier system than the MS-DOS (Microsoft -Digital Operating System) which was used by IBM computers until relatively recently.

7. Electronic Mail (e-mail)

- ♦ Electronic mail commonly referred to as e-mail is a way of transmitting written text, files, images and sound from one computer to another over a global network called the internet.

8. Uses of the Computer in the home.

- ♦ The PC has a host of uses within the family.
- ♦ Keeping track of household accounts and related information.
- ♦ Hobbies.
- ♦ Homework. Ideal for research on projects.
- ♦ Communicating by e-mail and research on the net.
- ♦ Working from home.

9. Health and Safety.

- ♦ Posture and seating are of great importance fig1 shows the correct position and take frequent breaks away from the computer.
- ♦ Make sure the lighting is correct.
- ♦ Provide good ventilation .
- ♦ Keep coffee and other liquids well away from the computer
- ♦ Make sure that all your power cables are secured and that power points are not overloaded
- ♦ Be aware of RSI (Repetitive Strain Injuries) and eye strain.

IDEAL POSTURE WHEN WORKING WITH A SCREEN

The Head

- ♦ The head is held over the shoulders and is in line with the buttocks

The Chair / Seat

- ♦ The seat should tilt forward and have a `rocking` action. Adjust seat height so that the hip joint is higher than the knee joint.

The advance Two step

- ♦ Place one foot in front of the other, try altering feet position during the day. Movement is essential, exercise throughout the day by rocking three to four times at half hourly intervals.

Desk Height

- ♦ The middle row of the keyboard is level with the elbow.

Eye Height

- ♦ The top of the VDU screen should be level with the eyes, and not lower than 21 degrees at the base.

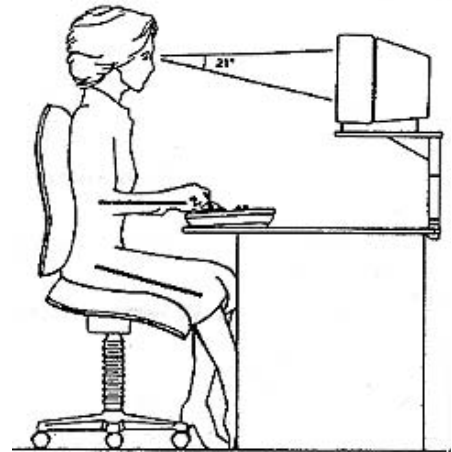


Fig1

10. Computer Viruses

- ♦ Computer Viruses attack the software within your machine.
- ♦ They are caught most commonly from files down loaded from the internet.
- ♦ You should therefore be very cautious about attached e-mail files and what sites you choose to download files from.
- ♦ Virus protection in the form of software is available and it is advised that you install a copy of such a programme on your system.

11. Software and the law.

- ♦ When you purchase a copy of a software application you enter an agreement with the company that only the software will be used on only one machine, and that you will not make copies of it for resale.
- ♦ You can obviously also buy copies of software for educational use. This grants you a license to install the software on several machines but forbids you from using it for commercial purposes.
- ♦ Freeware is an application which as it indicates is free for you to use for your own purposes.
- ♦ Shareware is an application that the author distributes to you on trust in the expectation that if you wish to continue using the software after a short , usually 30day period, you will pay him an amount indicated by him for the use of the software. He will in turn register you and furnish you with any modifications or updates he make to the application.

12. Starting up the Computer

- ♦ To start up your computer you will find a button, normally placed on the front of the casing of the PC. In the case of a laptop this is most commonly found on the side of the case and is covered by a sliding protective cover which stops the laptop from being switched on inadvertently. Some computers require you to hold this button in for some seconds until such time as an led light flashes on the casing. This process is

known as "Booting Up".

- ◆ In some cases the screen will automatically switch on with the machine as is the case with most laptops. Other machines you will have to switch the screen on separately. Peripherals should all be switched on beforehand. It is advisable to wait 15 seconds in between each power up of a peripheral to avoid power surges that might knock out another piece of equipment.

13. Shut down the computer properly.

- ◆ To shut down the computer. Proceed to the start button most commonly found in the bottom left-hand corner of the screen, click once with the primary mouse key (the left-hand Key) this will open a window similar to the one shown in Figure 2. If the first option is checked (a black dot in the white circle known as a radio button) and you then click Yes the computer will proceed to the close down mode.



Fig 2

- ◆ If the second option is checked and you click Yes the computer will close down and then Restart.
- ◆ If the third option is checked and you click Yes then the computer will close down and restart in MS-DOS mode. MS-DOS stands for Microsoft Disk Operating System. MS DOS is an operating system that performs tasks using textual commands.

14. The Mouse

The standard basic mouse has two buttons at the front of it. As mentioned earlier the left-hand mouse button is referred to as the primary mouse button and the right hand button as the secondary mouse button.

The buttons serve 4 basic functions.

1. One click with the left button will select an object. To click just press and release.
2. A double click opens a document or an application. To double click, press and release the left mouse button very quickly in succession..
3. Dragging and Dropping:- Dragging and dropping makes it possible to move objects on the desk top. To drag and drop, position the cursor over the object you wish to move ,hold down the left mouse key and move the mouse, you will find that the object you took hold of will be dragged along with the mouse cursor.
4. A single click with the right button displays a list of commands on the screen. To right click press and release the right button.

15. Settings

Settings for certain aspects of the computer can be accessed from an area called the "**Control Panel**" You will be shown this area and what aspects are important for you to be able to alter at this stage of your computing.

16. The Desktop

The Desktop, often referred to as the Active Desktop, is the screen that greets you after the computer along with the monitor have been booted up i.e. a background

screen pattern along with a number of small graphics normally displayed on the left side of the screen. These graphics are referred to as "Icons". Along the bottom of the screen there is a bar (The Task Bar) with a raised rectangle at the left-hand end with "Start " written on it, at the right hand end you will find the time displayed. And perhaps some other small icons.

Think of the "Active Desktop" as the first door you come to in order to access the information in the computer.

17. The Icons

There may be many icons displayed on the screen and you will rarely boot up a computer to find the same lay out of Icons displayed, as the entire desktop is fully customisable.

Using the concept of the Icons representing doors into different areas of the computer, the most important Icons you should know about are, the following:- My Computer, Recycle Bin and the Start Button on the Task Bar. You will be shown around these during the course.

18. Windows

Double clicking on an icon will open a rectangular box called a "Window". An example of which is shown below. This window was opened by double clicking on the "My Computer" icon. It shows five further icons which in turn will allow you to access further areas of the computer. Each time you click on an icon you will of course be presented with a window similar to that shown in Fig 3.

Fig 3

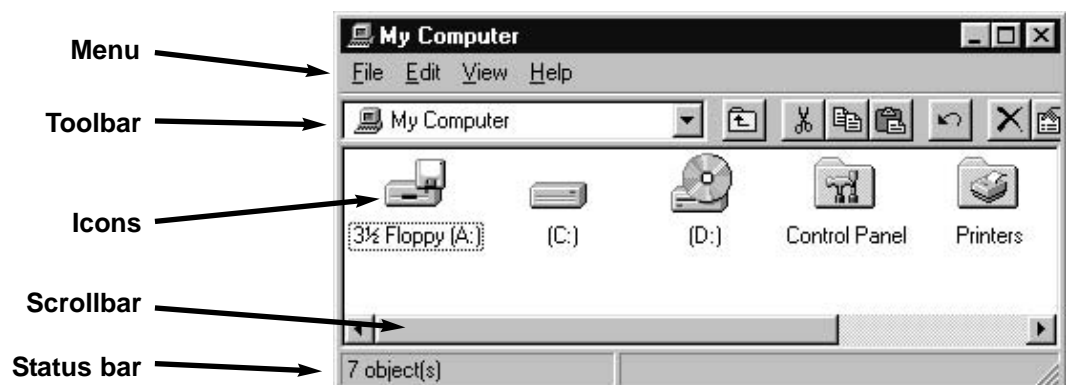


Window properties

Resize a window:- Guide the cursor to the border of any window very slowly and you will note that the cursor changes to a thin double headed arrow, holding the left mouse button down and dragging the mouse will resize the window. Dragging from the right or left will alter the width alone, dragging from the top or bottom will alter the height. Placing the cursor in any corner will show a thin double headed 45 degree arrow, this will resize both height and width at the same time.

The actual window itself can be customised and will therefore not necessarily appear the same on every computer.

Fig 4

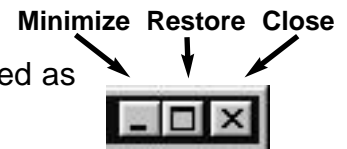


The actual icons displayed in the window can be displayed in many different ways. To alter the appearance of the window contents proceed to the "View" menu, there you can not only alter how you view the icons but can choose whether you wish to display a "Toolbar" or "Status bar".

The main Icons displayed in this particular window are:- " 3½ Floppy (A)"this gives access to the floppy drive; "(C:)" gives access to the hard drive(usually referred to as C Drive); "(D:)" gives access to the CD Rom drive; "Control Panel" will let you in to the settings, mentioned earlier;"Printers" gives access to any printers you might have configured for your computer.

19. Minimize / Restore / Close

The three small buttons in the top right corner of the window are used as follows:-



1. Clicking once on the minimize button will result in the window disappearing from the active desktop and appearing as an embossed rectangle in place of the sunken rectangle on the Task bar at the bottom of the page.
2. Clicking the Restore button will, providing the window is displayed as in Fig 4 on page 6, open the window to fill the entire desktop. The restore button will now have change to display 2 small boxes, clicking again will return the window to it's original state.
3. Clicking on the X will close the window.

Note: Every window displays these icons and they perform in exactly the same way.

BASIC TUTORIAL PART 2

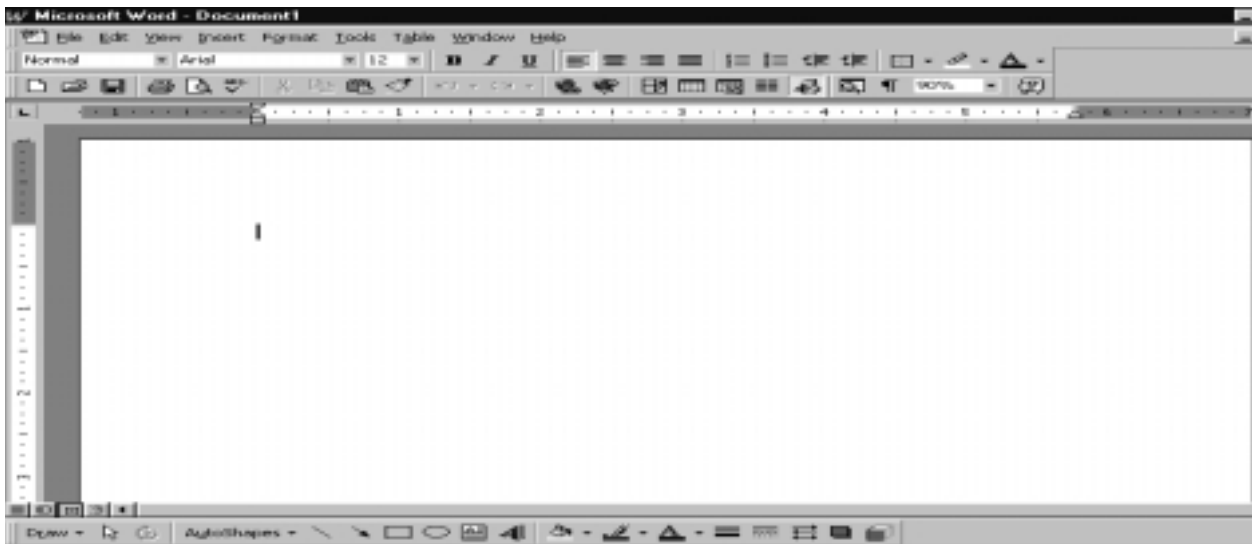
1.The Start Button

- ◆ The "Start" button located at the left hand end of the task bar at the foot of the page is the short cut to the applications and other utility programmes available in the computer.

2.Opening Up Word

- ◆ Microsoft Word is a word processing programme used throughout the world.
- ◆ A word-processing programme allows you to manipulate text.
- ◆ Proceed to the start button and click once, run up to "Program Files" this will open up a large sub menu.
- ◆ Amongst the Microsoft applications you will find a turquoise W with the words "Microsoft Word" written alongside. Click on this.
- ◆ The application will open up in the desktop.
- ◆ The application always opens with a fresh document in place and should appear similar to that shown below in Figure 1

Fig 1



2. Word/The Window

- ◆ The dark blue strip at the top of the page is the "Title Bar" for the document. It describes the application and also the name of the saved document. Prior to saving, the document is given a default name. For example, "Document 1.doc" if it is the first document opened and "Document 2.doc" if it is the second document opened.
- ◆ Immediately below the Title bar is the "Menu bar". A lot of the information contained in these menus is also available as icons, which provide shortcuts to some of the tools.
- ◆ The next two bars of tools are, respectively, the "Formatting Bar" and the "Standard Tool bar".
- ◆ The Large white area is of course the Page/Document with rulers showing both at the top of the page and to the left also with scroll bars to the right and at the bottom of the page.
- ◆ Below the page and scrollbars is a further toolbar, this is the "Drawing Tools Bar"

- ◆ The Information Bar is last. This displays information such as which page and section you are on and the line number etc.
- ◆ Remember that all these toolbars are customisable and their presence will depend on whether they have been selected to be shown or not by the user. To call up other toolbars or to change the ones you have at present you must go to the View Menu and select what you want.

3. Cursor/Insertion Point/Insertion Bar

- ◆ The cursor will default to the upper left-hand corner of the document when it is opened. It takes the form of a short black line referred to as the "Insertion point" which flashes on and off. At this stage the Insertion Point can only be moved downward using the "Enter" key, and upward using "Backspace".
- ◆ The cursor will remain in the shape of the white arrow as long as you are in the "Toolbars" area or the margin, however when you move down to the main part of the document within the margins it will change its shape to a large "I" commonly known as the insertion bar. This bar can be used to place the insertion point in a specific part of a piece of text in order to carry out some task.

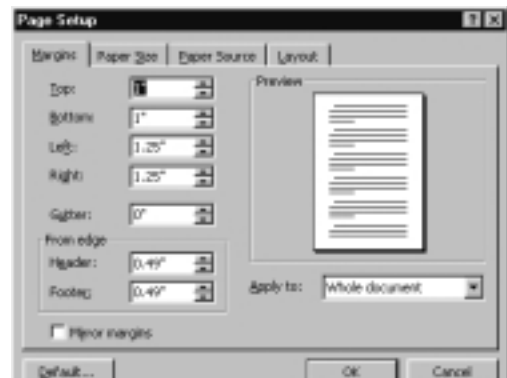
4. Page Setup

The first task in any word processing is to set up the margins of your document.

- ◆ Proceed to the "File" menu and down to "Page Set Up".

Fig 2

- ◆ A dialogue box in Figure 2 will appear.
- ◆ From this box you can set up the page margins for the document. To make a change to a margin you must click on one of the arrowheads to the right of the number displayed in the field. The arrow pointing up will increase the margin, the one pointing downward will decrease it. The changes you make to the margins will automatically update the document preview immediately to the right.



- ◆ Gutter is a term referring to an extra margin placed on a document in the event of the need to bind pages together. The gutter is the dead area where the pages would be bound.
- ◆ Now proceed to the Tab next to Margin on the box and left click once. This will allow you to set the paper size and also to check if you wish the page to be a Portrait or Landscape set up. Most documents you use will be Portrait. Click OK and you will return to your document.

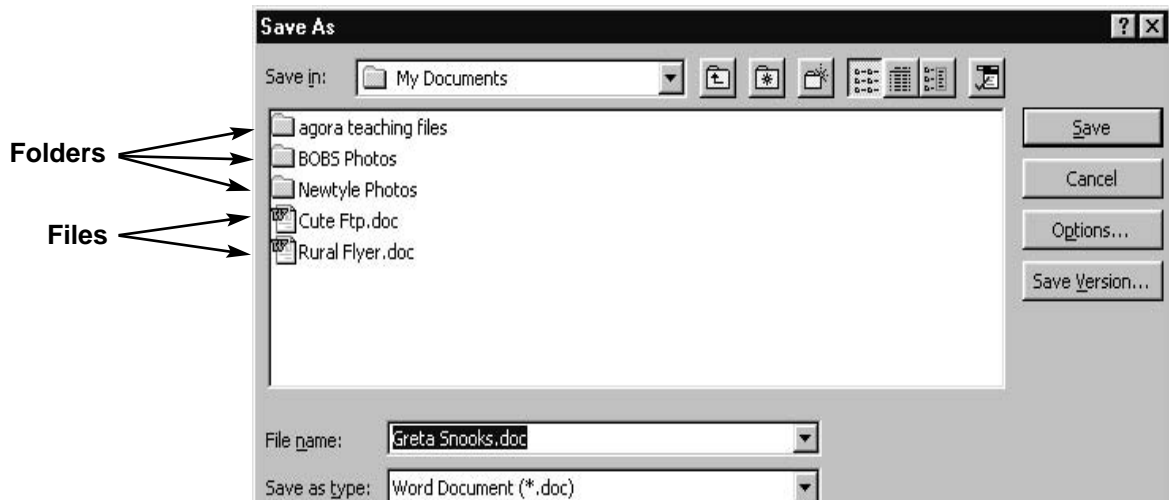
5. Saving a Word Document

It is always wise to save a document very early on its creation. It is also important to remember to save the document from time to time as you proceed with its creation. The procedure is as follows:

This will save your document to the area on the Hard drive called "My Documents" which has been specifically put aside for you to store your files. However it is always important to take a further copy of your file to some other type of external storage, a floppy disk or a Zip Drive for example; this is done lest your hard drive should crash.

1. For this example first type your name in the top left-hand corner of the Word document.
2. Now proceed to the File menu and click once, this will give you a drop down menu from which you must choose SAVE, click this and you will get a "Save As Dialogue" box as displayed in Figure 3.

Fig 3




This window will be displayed every time you save a file for the first time. From the top, there is the Title bar, below that the destination area of the file which will normally default to "My Documents" unless you previously saved a file to another area of storage either internally or externally during that session. To the right of this are three small icons representing folders. The first will take you one up in the file hierarchy, the second will bring up your most used folders. The third will create a new folder for you. The next three icons deal with the layout of the files in the window below and other information. The last one deals with uploading files to a remote computer, ignore the last four icons discussed as you will certainly not require them at this stage. The main part of the window displays all the files and folders contained in that location. The two fields below are described in the main text descriptor.

3. The destination of the file has defaulted to MY Documents in the example above. Had it not, then clicking on the arrow head to the right of the field will present you with other destination options in a drop down menu.
4. Note that in the field titled "File Name" beneath the main window you will see your name followed by .doc (.doc is a file extension) You should select your name and then type the name you wish to call your file, leave the file extension .doc.
5. The last field refers to the file format. This will be covered at a later stage.
6. At the right hand side of the page you will see four bar buttons. Don't concern yourself with the lower two at this stage. Make a final check that the destination you have chosen is correct and that the name of the file is as you wish and then click the Save button.
7. You may now hear your hard disk whirring in the background and the cursor will momentarily change to an hour glass shape indicating that the computer is busy carrying out a task, in this case saving a document. The Save As dialogue box will also disappear.

6. Selecting Text/Objects

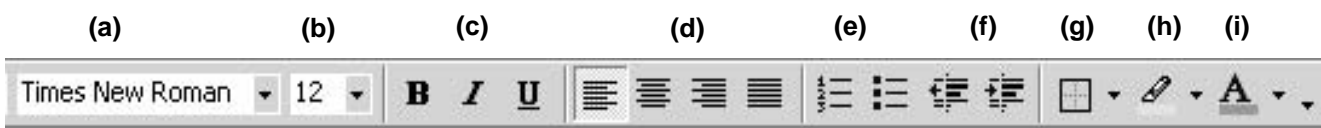
When you wish to carry out a specific task on text, an object or handling a file or folder the object in question must be selected. At this stage we will deal with selecting text

only. (Refer to section 14 of Basic Tutorial Week1 for mouse clicking information)

1. The text you have in your document, in this case your name, will be used for learning how to select.
2. Place the "I" bar immediately to the right of the text.
3. Click and hold down the left mouse button.
4. Now drag back to the left through the text.
5. Your text should now look like the example shown in Figure 4. Fig 4
6. This selection process is also possible by placing the cursor to the left of the text you wish to select and dragging to the right. 
7. A further method is by placing the "I" bar in the margin to the left of the text and clicking once with the left button. An entire paragraph can be selected by this method. However it is necessary to hold the left mouse button down and drag down the page in the margin. This method will only select entire lines, paragraphs or the complete document.
8. To select an individual word in a sentence place the "I" bar in the middle of the word and double click.
9. You can also go to the "Edit" menu and come down to "Select All". This will select everything within the entire document.
10. **REMEMBER THAT NO ACTION CAN OCCURS WITHOUT A SELECTION BEING MADE.**

7. Formatting Text / Formatting Toolbar

Fig 5



The bar displayed here in Figure 5 is the "Formatting" bar. It will allow you to change the look as well as the alignment and colour of the text you have typed on your document.



Arrowheads like this denote that there is a drop down or pop up menu. Left clicking will reveal the menu.

Follow the directions below to action on a selection you have made:-

- a) Select a word or sentence, click the arrowhead and run down the list of fonts clicking on the one of your choice. There are scroll bars provided to search the contents of the menu.
- b) Select a word or sentence, click the arrowhead and run down the list of numbers (font sizes are measured in points). Click on the one you wish. There are scroll bars provided to search the contents of the menu.
- c) Select a word or sentence.
 1. B is for Bold type
 2. I is for Italic type
 3. U is for Underlined

Clicking on the appropriate letter will format the type style for your text.

- d) The first three are for Aligning (respectively:- Left align, Centre, Right align and Justify) your text. Whenever you open a new document in Word it will default to Left Align. To realign a sentence you need only place the "I" bar at the end of a word. To realign an entire paragraph you are required to select all the text in that paragraph, by double clicking the left mouse button, within that paragraph. To Justify text select the

appropriate paragraph and click the justify icon. This will space out the text and create the impression of wall to wall text. Note: This paragraph has been justified.

e) These two icons are for creating lists. The first being an Ordered list the second a Bullet list. Type a heading for your list, then press enter, with the cursor now on the line below your list heading go to the Toolbar and select the Ordered list icon. As soon as you click on this icon and then return to your document you will note that the number 1. has been inserted, you can now type the content of your list. After completing the content, press enter again, you will now find a number 2. has been inserted again you must enter your content and then follow on as before. When you want to complete the list, you must press enter twice to come out of List mode. The Bullet list works in

g) This is the Border Tool. It works by drawing borders around any selection you might have made before selecting the Border tool. It has a small arrowhead to the right of it indicating that there are several types of borders available.

exactly the same way. Note: Both Ordered and Bullet lists can be altered by using "Bullets & Numbering" from the Format menu.

f) These icons allow you to either increase or decrease the indent of text. You need only place the "I" bar on the relevant line you wish to change or in the case of a paragraph you will need to select the entire paragraph.

h) The Highlight tool works like a normal highlighting pen you simply select the tool and return to your document where the "I" bar has had a pen added to it. You then hold down the left mouse key and drag through the words you wish to select. If you want to undo this you simply drag through the words once again.

i) This Tool will change the Font colour. Select the text you wish to change the colour of and proceed to the Font colour icon. The colour shown below the letter A is the present colour in use. To change the colour click the small arrow head next to the A, this will present you with a drop down colour palette.

Simply click on the desired colour.

8. Standard Toolbar

Fig 6

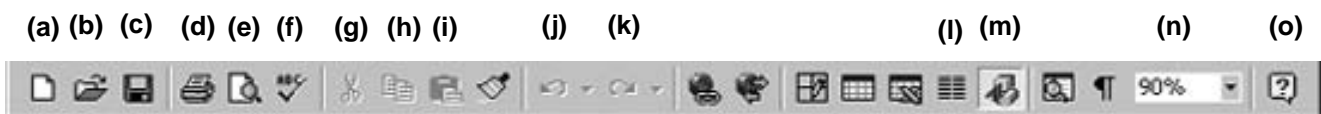


Figure 6

(a) Clicking this icon will produce a new document in the Word Window. The same icon can be found under the file menu. However, clicking on this will steer you to a new document but offers you template alternatives should you wish to use one.

(b) This icon will open an existing document in the window. You will of course have to navigate using a file dialogue box similar to that shown in Figure 3. The procedure is similar to that described in Section 5. The differences being that firstly you must navigate to the specific folder or file and once found click "Open".

(c) Clicking on this icon will save changes to any previously saved document. It will also allow you to commence the saving procedure described in Section 5.

(d) This is the "Print" icon; clicking here will initiate the printing process.

(e) This icon is "Print Preview"; it will allow you to view your page in it's entirety prior to

printing. To return to your document from "Print Preview" click on "Close " in the "Menu" bar.

(f) This is the spell check icon. Clicking on this icon will check the spelling of your entire document.

(g) This icon works in conjunction with the next three icons and is referred to as "Cut". It is shown ghosted at the moment. To action this icon the word or paragraph you wish to remove from a document must first be selected. Clicking on the "Cut" icon will then remove the selection from the document and copy it to the "Clipboard" (This is a temporary storage area in the computer reserved for cutting and copying any selection. Note: It can only store one selection at a time.)

(h) This icon, also ghosted, is the "Copy" icon and will copy any selection from the document to the clipboard.

(i) This is the "Paste" icon. Clicking here will paste anything that has been copied to the clipboard. Note: These three functions are universal throughout different applications and will also allow you in a lot of cases to copy from one application to another.

(j) Undo-see below

(k) "Redo"; this icon, works in conjunction with "Undo". They will, as suggested, undo the last action you made on the computer. Redo will undo the last "Undo" you carried out back to the last time you saved the document. The number of undoes you have made of course governs "Redo".

(l) This icon will allow you to create columns in your document. Clicking on it gives a small drop down menu, which gives you the option of having 1-4 columns on your page.

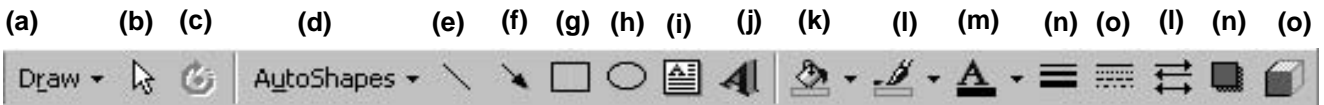
(m) This icon allows you to choose whether you view the Drawing toolbar or not. This one is shown in selected mode. *See Section 2 for viewing and hiding toolbars.

(n) This window allows you to view the document at different sizes, it is known as the "Zoom". By clicking on the arrowhead to the right you are presented with a percentage figure that decreases or increases the size of the document according to figure you choice of number.

(o) The final icon is one that appears in most applications, it provides a source of help pertinent to that particular application.

BASIC TUTORIAL PART 3

1. The Drawing Bar

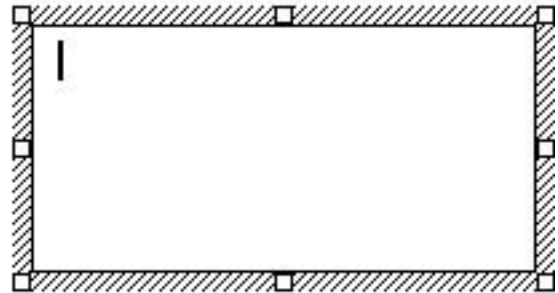


Please note that the following explanations are not in alphabetical order.

i) This is the "Text Box" tool. It will allow you to place text within a rectangular box, which can be moved to any part of the document. Clicking the icon with the cursor will change the cursor to a plus sign on your return to the document.

You must now hold down the left mouse button and drag in a diagonal direction. **Fig 1**

You should now have a rectangular shape on the document similar to that in Fig 1. The small white squares on the edges and the corners are called "Control Points" and will allow you to resize the box. Top and Bottom control points, deals with height. Right and Left, deals with width. Any corner control point will alter the width and height simultaneously. The herring bone pattern around the



borders denotes that the box is selected and it should also have an insertion bar flashing in the top left-hand corner. Text can then be entered into the box and formatted in exactly the same way as it would were it typed into a document.

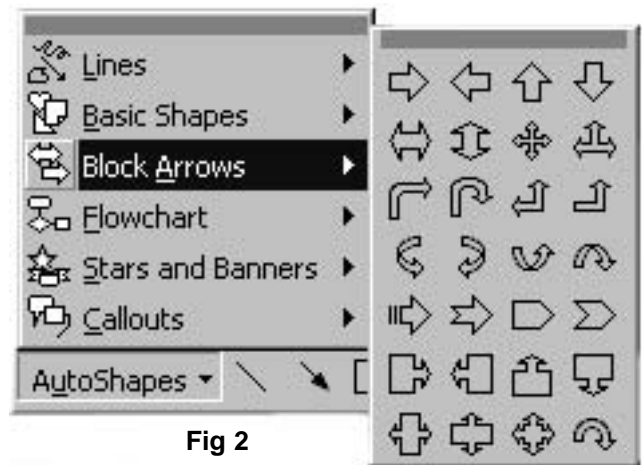
Clicking on the border of the box will change the selection pattern to a series of small dots and at the point of the mouse two lines crossed at 90 degrees with arrow heads at all four ends will appear, somewhat like a compass. Holding the mouse down at this stage on the dotted pattern will allow you to drag and drop the box anywhere in the document.

g) & h) These two tools are the Rectangle and Oval tools and are used for drawing rectangles, squares, ovals and circles. They work in the same way as the Text box tool. However, to create a perfect square and/or a perfect circle you must hold down the "Shift" key before you commence dragging across the document; you must remember to release the mouse key prior to releasing the "Shift" key. The manner of selection for these shapes is similar to the Text box but with the exception of having no border patterns.

e) & f) These are the Line and Arrow tools. To create a line on your document check the tool you wish and return to the document, place the cursor where you want the line to start, hold down the left mouse key and drag to where you wish the line to end. The arrow tool will create an arrowhead at the end of the line you draw. After releasing the mouse key you will note that the line you created has control points at either end. The lines can be resized or their angles altered by dragging on the control points.

d) This area is known as AutoShapes and clicking on the AutoShapes button will throw up a floating palette like that shown in Fig 2; the left hand side shows the Categories and clicking on the respective arrow head will throw up a submenu as demonstrated in Figure 2. Clicking on one of the shapes shown will allow you to draw a shape in that style. Again, once the object is drawn it will remain selected (until you

deselect) on the document showing control points. In addition to the standard control points there are in this case three further diamond shaped points coloured yellow similar to that shown in Fig 3. Clicking and dragging these points will change various attributes of the selected objects. Not all objects have these added points and they may not have three of them.



j) Word Art allows you to type text into an editor (a floating window) and then converts the text to an editable object as shown in Fig 4. The control points will allow you to resize the text and the diamond shaped control point allows other attributes to be changed.

Fig 3

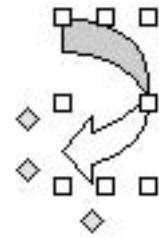


Fig 4



- k) This is the **Fill Colour** tool when any of the objects described above are selected clicking on this icon will fill the object with the colour shown in the colour bar below. To change the colour your must click on the small arrow head to the right of the icon this will display a small colour palette, clicking on one of the colour swatches here will set a new colour fill for the object.
- l) This is the **Line Tool** It works in the same manner as the Fill Tool but applies the colour changes to the borders of any of the objects. Clicking the arrowhead will let you choose an alternative colour.
- m) The **Text Colour** tool. This tool will change the text colour. Clicking the arrowhead will let you choose an alternative colour.
- n) Clicking the **Line Style** icon gives you the option of changing the style and weight of any line or border. Select an object or a line you wish to change and choose the style you wish from the list.
- o) This icon, **Dash Style** lets you choose from a list of assorted broken lines. The tool works in the same way as the Line Style tool.
- p) The **Arrow Style** lets you choose from a list of lines with arrow shapes at either end of them. A line must be selected and then a style applied by clicking on the appropriate style.
- q) The **Drop Shadow** tool allows you to select from a list of pre-set drop shadow effects and also gives you the opportunity to customise the settings yourself.
- r) **3-D** This tool will create 3 dimensional shapes from a basic 2-D object and render the surface with a realistic colour surface. The settings in here can also be customised.
- a) **Draw**. Clicking on Draw will open the menu shown here in Fig 5. A number of actions can be carried out from here. The top three sections only are dealt with here.
 - Group/ Ungroup /Regroup**. When a multiple selection of objects is made clicking group will combine the objects into one scalable object with the normal six standard control points.
 - Order**. When you have several overlapping objects on your document and you wish to

alter their order i.e. The last object placed on the document is foremost in order and will cover any other previously placed object. By selecting an object you can reposition the object using with any one of the six different commands.

Grid will set up an invisible grid that allows you to snap (the object will seem to jump into place when you are positioning it) your objects to unseen lines on the page thus helping you to align the position of objects.

Nudge will act in a similar way to the cursor keys on your keyboard nudging your object either up, down, left or right.

Align or Distribute will allow you to position objects in a number of different ways. The menu is graphically illustrated. You must however remember to select all the objects that you wish to reposition.

Rotate or Flip will do just as it says. As well as the Free Rotate icon in the submenu you can also use icon (c) on the Drawing bar to rotate any object.

b) This arrow will, if you hold down the left mouse button and drag diagonally, encompass a group of objects and create a multiple selection from them.

REMEMBER, TO APPLY ANY OF THE ABOVE YOU MUST FIRST SELECT THE OBJECT.



Fig 5

BASIC TUTORIAL WEEK 4

Microsoft Excel

Proceed to Start, click with the left mouse button and go to Programs, in here you will find an icon with a turquoise (see Fig1) with Microsoft Excel written to the right of it. Left clicking this icon will open the application Microsoft Excel. **Fig 1**

Excel is a spreadsheet programme, which allows you to handle and sort Information both numerically and textually.

The basic layout of the programme and action of some of the tools is similar to that of Microsoft Word. See Fig 2

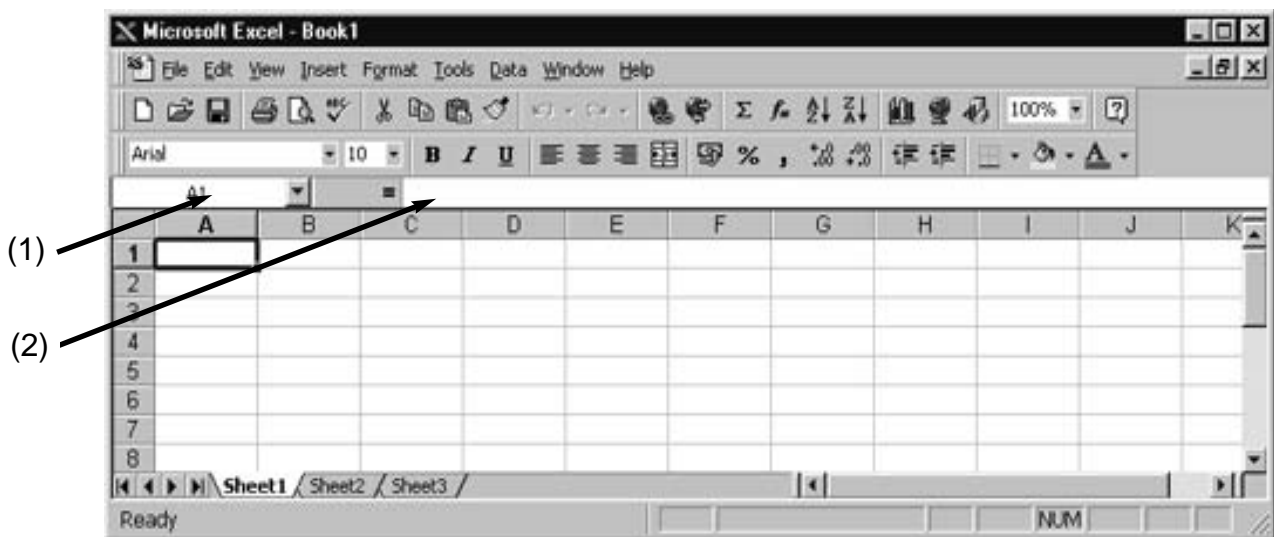


Fig 2

The Document is called a Book and is split into three separate sheets, accessed by tabs at the bottom left corner of the page. Each sheet is split into cells and each cell has a specific address, a textual reference at the top of the page and a numeric reference at the left-hand side of the page.

On opening, the programme defaults to having a black border around the top left-hand corner. This denotes that this is the active cell and is confirmed by the fact that the text field marked (1) has the cell address A1 in it.

The cursor in Excel alternates between being a very fat white cross in the main cell area, a white arrow in the Tool and Menu bar area and an insertion point in any text fields.

Manipulating & Selecting Cells

1. In order to increase the width of a cell you must place the cursor in the alphabetic reference bar on the dividing line between to cells. The cross will change to a thick vertical line split by a horizontal line with arrows at either end. Holding down the left mouse button and dragging to the left or right will resize the width of the column.
2. To resize the height of a row repeat the steps in the previous section but this time in the number reference bar.
3. To select a cell, place the cross on the designated cell and click once. To select multiple cells, click in one cell, hold down the mouse key and drag horizontally to take

in a row, vertically to take in a column and diagonally to capture cells in both a horizontal and vertical plain. Note: Each cell will change from white to black with the exception of the one you started with, it is selected none the less.

Entering Information in a Cell

1. To enter any information simply click the cross on the cell you wish, this will select the cell. With the cell selected, start to type the information, which will appear not only in the selected cell but also in the Formula bar indicated in Figure1 marked (2).
2. To change the information you can select the text in the normal way in the Formula bar or double click on the cell you wish to change, which will result in the black border changing to a lighter weight and the insertion bar flashing in the cell. Selection can then be carried out on the contents and appropriate changes made.
3. To confirm the entries click the green tick in the Formula bar.

Navigating Cells

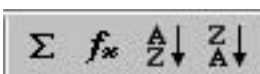
1. There are several ways to move from cell to cell. You have learnt one already, that is, by simply placing the cursor in a cell and clicking once.
2. After entering information into a cell you can move to the right by using the Tab key, holding down the shift key and Tabbing once more will cause the selection to jump to the left.
3. Enter your information and this time use the Enter Key; this will cause the selection to move immediately below the last entry. Using Shift will modify this to cause the selection to move upwards.
4. The last way is to use the cursor Arrows on the keyboard to navigate in the respective direction indicated by the Arrow key.
5. Each of the above methods will confirm the entry in the cell you are moving from.

Moving Information in a Cell

1. If you want to move information from one cell to another, select the cell and proceed to the Cut icon in the toolbar this will copy your selection to the clipboard and create a "marching ant" border around the text. Proceed to the new cell you want and select it. Now go to Paste and this will copy what you cut from the previous cell to the new destination and delete the contents from the original cell.
2. Another method is to select the cell and as you leave the cell the cursor changes to a white arrow; pause at this point and holding down the left mouse button drag the selected cell to a new destination.
3. You will of course have to take care using either of these methods that the size of the cell you are moving is large enough to take the information being moved in to it, although this will not stop you from transferring the information. You can of course resize the cell after the move.

Toolbars

(a) (b) (c)



a) This tool is called **AutoSum**(Sigma in Greek). It will let you add up columns or rows of numbers and input the answer in a cell previously selected by you. It works as follows:

Enter 5 figures in a row across the page, click in the cell to the right of the last figure


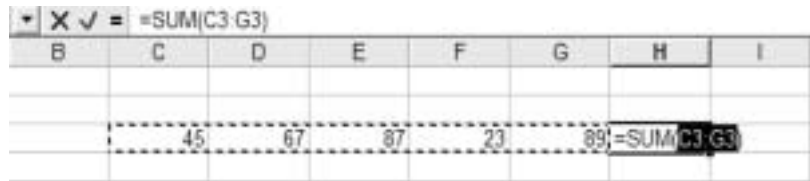
you entered and go to  AutoSum and click once. This should result in a similar layout as that shown in Fig 3. Clicking the green arrow will enter the sum of the figures contained in the marching ants.

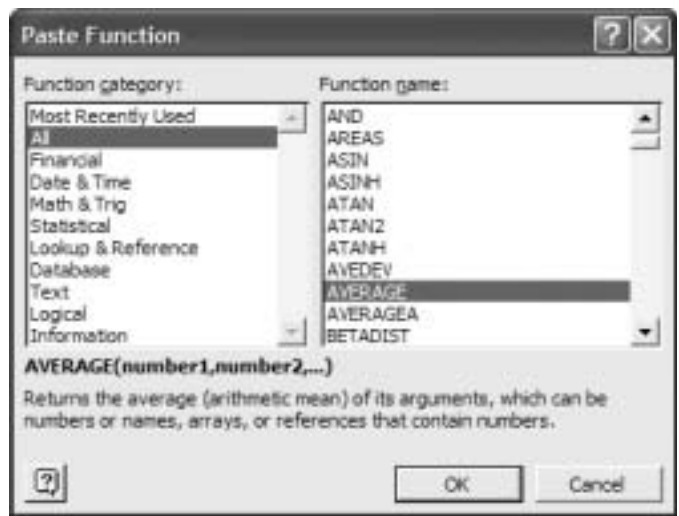
Fig 3



If you had wished to, you could have placed the answer anywhere on the sheet and after clicking AutoSum select the cells you wished to sum. This method can be used for adding columns in exactly the same manner.

b) This is the **Paste Function** tool. When you need to analyse whether values in a list (a series of worksheet rows that contain related data, such as an invoice data-

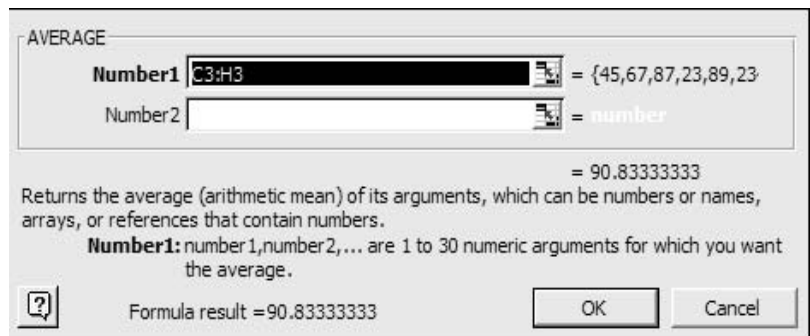
base or a set of client names and phone numbers. A list can be used as a database, in which rows are records and columns are fields) meet a specific condition, or criteria, you can use a database worksheet function. The following example deals with numbers:



Type in a row in the spreadsheet the following five numbers, 56, 34, 23, 89 and 234, then to the right of 234 select the adjacent cell. Proceed to the Paste Function tool and left click. You will be given a floating window identical to the one shown in Figure 4. The Function category is shown to the left and the name of the function shown to the right. Select "All" in the Category list and "Average" in the Function list, then press "Ok".

Fig 5

Clicking "OK " will return the average of the numbers and place the result in the selected cell, in this case the answer is 87.2, (see Fig 5). Various functions can be found by the same means.



c) These icons will sort selected information in ascending or descending order whether the information is alphabetical or numeric.

(d) (e) (f) (g)



- d) The **Currency Tool**. To use this tool select a column or row of figures and then left click the Currency tool, this will prefix each figure with a "£" sign. Alternatively, select a row or column of empty cells and apply the Currency tool, thereafter when you type a number in this cell the number will be prefixed with a "£". Should you wish to apply a Dollar sign this can be changed within the settings of the programme.
- e) This will apply a **Percentage** style to the figure you have entered.
- f) **Comma Style** will insert a comma in the appropriate position of a sizeable number.
- g) These two icons will **increase** the decimal point and **decrease** the decimal point respectively.

Evaluation Basic

1. Set your entire document in "Page set up" to: Top and Bottom 1" (2.5cm) and Right and left 1.25" (3.125cm). Return to the document and set the Columns icon to 2 columns.
2. Type out the heading and Format the text accordingly.
3. Type out the first paragraph. Set the font to Arial 12. Bold the "T" and increase the font weight by 1 in "The" at the start of the paragraph. Underline "exercise" and finally Justify the paragraph.
4. Type out the next paragraph in the same font. Italicise the text and align the whole paragraph to the right.
5. Set the next short paragraph with Garamond as it's font is at the same weight, and centre the paragraph.
6. For the small Table you will need to choose the "Insert Microsoft Excel Worksheet". From the drop down chart choose 3 columns by 4 rows. The headings are bolded, underlined and centered. The additions were arrived at using the Sum tool.
7. This Paragraph is set in Arial pt size 12, Bolded and the colour set to red.
8. The next small paragraph has been set in the same font as above with no style and the word "paragraph" has been highlighted in yellow.
9. This paragraph tells you exactly what it wants.
10. You will need to navigate to "Clipart" to find an image; it does not need to be this particular one. The Route to "Clipart" is: **Insert Picture Clipart**.
11. The aim here is to set out the short paragraph as an address. To do this you must re set your "Tabs"
12. To create the stick of rock. You must first create an oval shape. Leaving it selected proceed to the "Text box " tool and click it once then return to the oval shape and click once inside it. You should now have in insertion point flashing in the oval . You can now type the words "Retreat Rock". You may have to resize your text and possibly the oval shape. Make sure the oval is selected and now proceed to the "3D" tool. Again you may have to resize the shape on your layout.
13. This paragraph is written into a Text box and a line border set.
14. This was created as "Word Art". Proceed to the "Word Art" icon, click once and choose the style in the top left hand corner. Clicking once will bring up the "Text editor" showing the words "Type Your Text Here". Leave the font and point size at their default settings and type in the date. Click "Ok" and the text along with a small floating window will appear on your document. Leaving the text selected go to the "Drop shadow" tool and choose shadow style 14, now choose from the small window, the "Free Rotate" tool and turn the object to roughly the angle being shown. If you want to change the colour of your text, do so if you wish.
15. Finally copy the paragraph you dealt with in section 7 and paste it in to the end of your document.

EXERCISE NO 1

3. The following little **exercise** will hopefully let you try out some of the aspects of this software application that you have been taught over the past few weeks.

4. *The first paragraph you typed was set as justified type, this, the second will be saved as right aligned.*

5. This one short as it is centre aligned if you set it correctly.

6.

<u>Date</u>	<u>Oranges</u>	<u>Apples</u>
01/03/2000	45	23
01/03/2000	34	45
	79	68

7. You should be able to change the colour of the text. Change this paragraph to red coloured bold text

8. Highlight part of this paragraph with yellow highlighter.

9. This paragraph must be set at a point size of 20 and the font set to Bookman Old style.

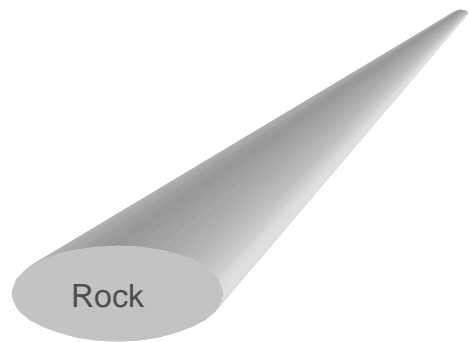
10.



11

This is a short Paragraph Styled Like an Address.

12



13

See if you can create this little graphic instance and write in the box giving the box a nice border.

14.

Wed 1st March

15.

You should be able to change the colour of the text. Change this paragraph to red coloured bold text