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Computer Zone

Book - 3

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Preface

This is the age of computers. Computer is undergoing rapid change, and new and improved technological advances appear almost daily. Computers have invaded all walks of life to such an extent that computer literacy has become the order of the day. Computer science is now an essential addition to the school curriculum at all levels.

Computer Zone is a series of ten books on Computer Science for school level, designed for the new generation of students who need to acquire knowledge on the theory, application and programming aspects of computing. Logical and scientific in its approach, the series covers the history of computer, its accessories, applications and programming in a step-by-step and graded manner. It has been prepared to focus on creativity and encourage young children to explore and experiment with learning opportunities.

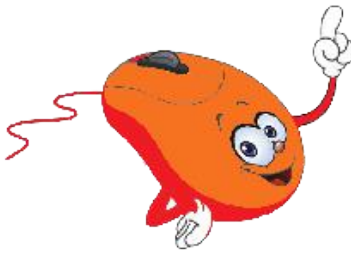
This book is the third in the series and is recommended for use in class 3. The chapters are supplemented with lucid illustrations, practise exercise, brief summaries and a variety of theory and lab exercises, that ensure mastery over the concepts learnt.

A lot of research and meticulous attention to detail have gone into the making of this book. However, there is always scope for improvement. Constructive criticism and suggestions which could be incorporated in the future editions of this book, are welcome.

I earnestly hope that the students would find the journey through this series an enjoyable experience and gain a sound working knowledge on the basic aspects of computing that lay the foundation for good and systematic programming.

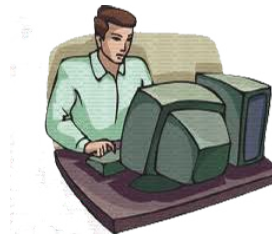
-Author

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Computers Everywhere

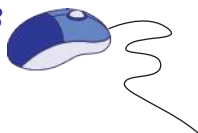
Learning Objectives

- Explain the importance of computer.
- Define computer and explain the basic functions of a computer.
- Define data and information.
- Explain the features of computer.
- List the applications of computer.



An Overview

Computers play a very important role in our life. It is very hard to imagine modern life without computer. The computers are used in different places by different people. Everywhere we are surrounded by these “mighty machines” at home, at work, in our schools, restaurants and even our corner stores. So, computers are a boon to the mankind.



Computer and its Basic Functions

The word computer is taken from a Latin word “Computare” which means “calculate or compute”. It works on electricity. Computer can understand electric signals only. It is a machine that accepts unorganised data, performs calculation and produces the meaningful information. Thus, the computers are also called data processing machine.



Definition

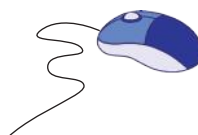


A computer can be defined as “an electronic machine that converts data into information using a program.”

expanding your horizons

A computer is machine which performs the following functions:

- | | | |
|---------------|---|--|
| a. INPUT | - | Accepts data given by you |
| b. Processing | - | Processes the data according to the given instructions |
| c. Output | - | Produces result |
| d. Storage | - | Stores the results |



Data and Information

Data is the collection of raw-facts. It can be any name, sentence or number. It is simply a fact given to the computer which are not arranged in the proper order. So, it must be arranged to provide meaningful result to us. Computer processes the data to convert it into information. The result of your data that you get after processing is called information. It is meaningful and organized.



Definition



Data is the collection of raw-facts whereas information is data arranged.

Features of Computer

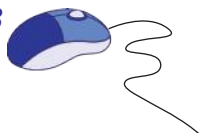
Computers are not very intelligent devices but they are useful to us. They are used in different places by different people for different purpose. It is a special device. Let us learn what makes this device so special.

Speed

Computer works at a very high speed. They can do large amount of calculations at a very high speed.

Accuracy

Computer does any type of work without mistakes. It is 100% accurate. If the data and instructions entered are correct, then the output also will be correct.



Diligence➤

Computer can work continuously for a long time without taking rest. Computer is a machine and does not complain.

Automatic➤

Computer is automatic. It carries out the processing without any help, once the instructions are prepared and given to it.

Storage capacity➤

Computers have very high memory. They can store large amount of data and information. It is easy get the information from them in seconds.

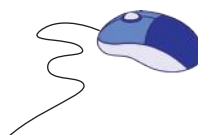
Communication➤

Today, the computer has become the most powerful communicating devices. You can communicate over any corner of world through Internet sitting at one place on computer.

Computer is a programmable device having special features. So, computer is used in every aspect of our lives. Life without computer is unimaginable.

expanding your horizons

One of the reasons the Internet is so important in education is because of the wealth of information that the Internet contains. The Internet has become very useful in the field of education and every news information is available online so you can update yourself any time according to your own needs and time table. The biggest source for online information for education is the encyclopedia and it is available online and any one can use it to get desired information.



Computers Everywhere

Computers have changed everyone's life. They are becoming more and more widespread in all areas of life - in industry, business, education and training, arts, entertainment and leisure. Some of the uses of computer are as follows.

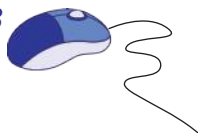


- You can use your computer to create letters, resumes, reports, etc.
- You can use your computer to chat with other people by typing messages to them.
- You can use your computer to play music and watch films.
- You can use your computer to play different types of games.
- You can use your computer for doing calculations.



Facts Corner

We operate washing machines, microwave oven and many other products using computer. Moreover we can store all the information about our important work, appointments schedules and list of contacts.





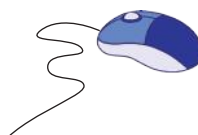
Tricky Terms

Computer	:	A machine that accepts unorganised data, performs calculation and produces the meaningful information.
Input	:	The data and instructions that a computer receives.
Data	:	The collection of raw-facts.
Internet	:	A massive public spiderweb of computer connections.



Let Us Revise

- The word computer is taken from a Latin word “Computare” which means “calculate or compute”.
- Computer is a machine that accepts unorganised data, performs calculation and produces the meaningful information.
- Data is the collection of raw-facts.
- The result of your data that you get after processing is called information.
- Computer works at a very high speed.
- Computer does any type of work without mistakes.
- Computer can work continuously for a long time without taking rest.
- Computers have very high memory.



Chapter Review

1. Fill in the blanks. Choose the answer from the given words.

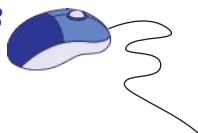
Clue Box

Computer, Computare, Speed, Automatic, Information

- The word computer is taken from a Latin word _____ which means “calculate or compute”.
- _____ is a machine that accepts unorganised data, performs calculation and produces the meaningful information.
- The result of your data that you get after processing is called _____.
- Computer works at a very high _____.
- Computer is _____.

2. Match each term with the statement that best describes it.

Input	A machine that accepts unorganised data, performs calculation and produces the meaningful information.
Computer	The data and instructions that a computer receives.
Internet	The collection of raw-facts.
Output	A massive public spiderweb of computer connections.
Data	The result of the work done by the processor.



3. Say whether these sentences are True or False.

- a. Computers play a very important role in our life.
- b. Computer can understand electric signals only.
- c. Computer processes the information to convert it into data.
- d. Computer does any type of work without mistakes.
- e. Computers have very small memory.

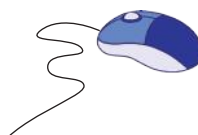
4. Answer the following questions.

- a. What does the word "Computare" mean?
- b. What is a computer?
- c. What is a data?
- d. Explain the special features of a computer.
- e. Write any three activities that you can do on a computer.

Extrapolative Exercise

One of your friend thinks it is a waste of time learning about computers. Write five reasons why you think he or she should learn computers.

- a. _____.
- b. _____.
- c. _____.
- d. _____.
- e. _____.





Computer Parts

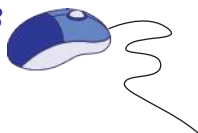
Learning Objectives

- Define input device and explain the uses of different input devices.
- Explain the importance of CPU.
- Define output device and explain the uses of different output devices.
- Define secondary storage device and explain the uses of different secondary storage devices.



An Overview

A computer is a machine. It has different parts. All these parts of computer works together to perform a specific task. It has different parts such as input device to enter data and instructions into the computer, processing unit to perform calculations and output device display the work done by the computer. All of them together make a computer system.



Input Devices

Input device is one of the most important parts of the computer. Input device is a device used to enter data and instructions into the computer. There are many different input devices, the most common being a keyboard and a mouse. Without an input device, we cannot communicate with the computer.

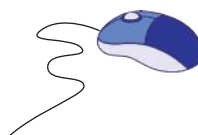


Keyboard

Keyboard is one of the most important input devices of a computer. It is used for entering data and instructions into the computer. It has different keys to perform various operations. The keys have letters, numbers and other symbols written on them. Instructions are given to the computer by pressing these keys.

Mouse

Mouse is also an input device. It is a small plastic box with buttons on top. There is a small wheel called scroll button in the latest mouse. The bottom of the mouse is flat and contains a mechanism that detects movement of the mouse. It is placed on a mouse pad, which provides a flat surface for the mouse to roll on. It is used to draw pictures on the screen.



Joystick

A joystick is an input device that is used to move the cursor or other objects on the screen of the monitor. It has a lever which can move in any direction. It also has two or more buttons. It is mainly used for playing computer games.



Trackball

Trackball is a pointing device that contains a movable ball on the top. The user rolls the ball around with the finger to operate it. It moves the cursor in the direction in which the ball is moved. Trackball is mostly used in notebook computers.



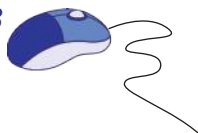
Microphone

Microphone is an input device. It is used to input sound by recording your voice and other sound in a computer. It is sometimes referred to as mike or mic.



Scanner

Scanner is a device that optically scans images, printed text, handwriting, or an object, and converts it to a digital image. Common examples found in offices are variations of the desktop (or flatbed) scanner where the document is placed on a glass window for scanning.



Central Processing Unit

CPU is the most important active part of the computer system. It is the brain of the computer. It does all the calculations and processing. It also controls the operations of other parts of the computer. CPU is fixed inside the system unit.

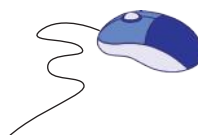
expanding your horizons

A system unit is a box like case which stands near the monitor or kept under the monitor. System unit is also called a computer case. The system unit contains the essential parts of a computer such as motherboard, CPU, Hard disk, DVD rom, etc. It protects the internal components of a computer from damages.



Output Devices

Output device is any device used to send data from a computer to another device or user. Most computer data output that is meant for humans is in the form of audio or video. Thus, most output devices used by humans are in these categories. Examples include monitors, projectors, speakers, headphones and printers.



Monitor

A monitor is an output device which looks like a television. It displays text, pictures and videos. It has a power switch located usually at the front. It has some control buttons that allows you to adjust the brightness and contrast of colours on the screen. The output shown on the monitor is called soft copy.



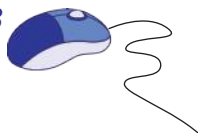
Printer

Printer is another important output device attached to a computer system. It prints text or illustrations on the paper. It is also called hard copy output. Dot matrix, inkjet, laser are the printer types commonly used. All these printers are available in colour and monochrome versions.



Speakers and Headsets

Speakers and headsets are used to listen to the sound being played by the computer system. They can be of different shapes and sizes. Some speakers are built into the computer and some are separate. With a good speaker or headsets system the computer can output high quality sound.



Secondary Storage Devices

Secondary storage devices are the devices that are used to store the data and information into the computer. Hard disk, pen drives, DVD, Blue-ray disk and CD-ROM are the examples of secondary storage media and the device that uses or holds the media is known as a secondary storage device.

Hard disk

Hard disk is the storage device that is fixed inside the system unit. It is the main storage device of the computer. It can store large amount of data and information into it. It is also called a hard drive.

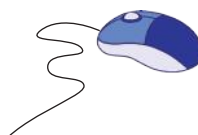


Facts Corner

An HDD records data by magnetizing a thin film of ferromagnetic material on a disk.

Pen drive

Pen drive is a small, lightweight, removable disk. It is very small in size and can be carried in a pocket or hand like a pen. It is used for storing and transferring audio, video, and data files from a computer. It is also called thumb drives.



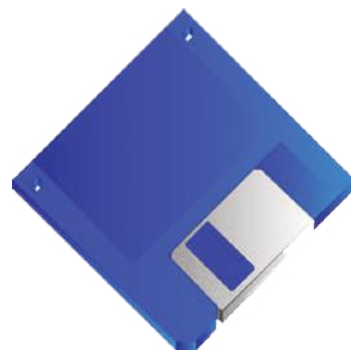
Optical Disk

Optical disk is a disk coated with reflecting medium. It is portable and can hold a large amount of data. Data is read and recorded through a laser beam. The optical disks have the capacity to store a large amount of data in the form of text, graphics, audio and video. CD-ROM (Compact Disk Read Only Memory, DVD (Digital Versatile Disk) and Blue-Ray disk are the common types of optical disks.



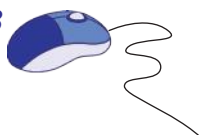
Floppy Disk

Floppy disk is a popular secondary storage medium. It is a plastic disk coated with magnetic material. It is sealed with a protective jacket. A floppy disk is inserted into a floppy drive to read data from it or write information on it. It is also used to transfer small files from one computer to another. The most common size is 3.5 inches which holds upto 1.44 MB (megabyte) of data.



expanding your horizons

The earliest floppy disks, developed in the late 1960s, were 8 inches (200 mm) in diameter; they became commercially available in 1971. These disks and associated drives were produced and improved upon by IBM and other companies such as Memorex, Shugart Associates, and Burroughs Corporation.





Tricky Terms

Input device : A device used to enter data and instructions into the computer.

Scanner : A device that optically scans images and converts it to a digital image.

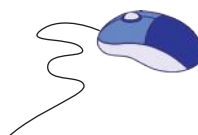
System unit : A box like case which stands near the monitor or kept under the monitor.

Output device: Any device used to send data from a computer to another device or user.



Let Us Revise

- Keyboard is used for entering data and instructions into the computer.
- A joystick is an input device that is used to move the cursor or other objects on the screen of the monitor.
- CPU does all the calculations and processings.
- Output device is any device used to send data from a computer to another device or user.
- A monitor is an output device that displays text, pictures and videos.
- Secondary storage devices are the devices that are used to store the data and information into the computer.
- Optical disk is a disk coated with reflecting medium.



Chapter Review

1. Fill in the blanks. Choose the answer from the given words.

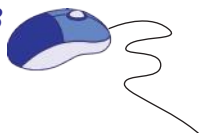
Clue Box

soft copy, CPU, output device, pen drive, joystick

- a. A _____ is an input device that is used to move the cursor or other objects on the screen of the monitor.
- b. _____ is the most important active part of the computer system.
- c. _____ is any device used to send data from a computer to another device or user.
- d. The output shown on the monitor is called _____.
- e. _____ is a small, lightweight, removable disk used for storing and transferring audio, video, and data files from a computer.

2. Give the names of the computer parts.

- a. A pointing device that contains a movable ball on the top.
- b. A device that optically scans images, printed text, handwriting, or an object, and converts it to a digital image.
- c. The most important active part of the computer system.
- d. A device that prints text or illustrations on the paper.
- e. A small, lightweight, removable disk that can be carried in a pocket or hand like a pen.



3. Say whether these sentences are True or False.

- Input device is a device used to enter data and instructions into the computer.
- Mouse is a pointing device that contains a movable ball on the top.
- CPU is fixed inside the system unit.
- Secondary device is any device used to send data from a computer to another device or user.
- Speakers and headsets are used to listen to the sound being played by the computer system.

4. Answer the following questions.

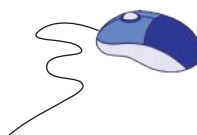
- What is an input device? Name two common input devices of a computer.
- What is a mouse? What is the function of a mouse?
- What is a scanner?
- What is CPU? What does it do?
- What is an output device? Name two common output devices of a computer.
- What is an optical disk?

Extrapolative Exercise

Write the name of three computer parts in each category.



INPUT DEVICES	OUTPUT DEVICES	STORAGE DEVICES





Keyboard and Mouse

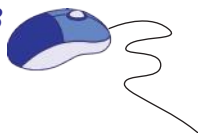
Learning Objectives

- Explain the different types of keys found in a keyboard.
- Explain the methods of typing text, capital letters and punctuation marks.
- Explain the basic mouse operations.
- List the uses of the mouse.



An Overview

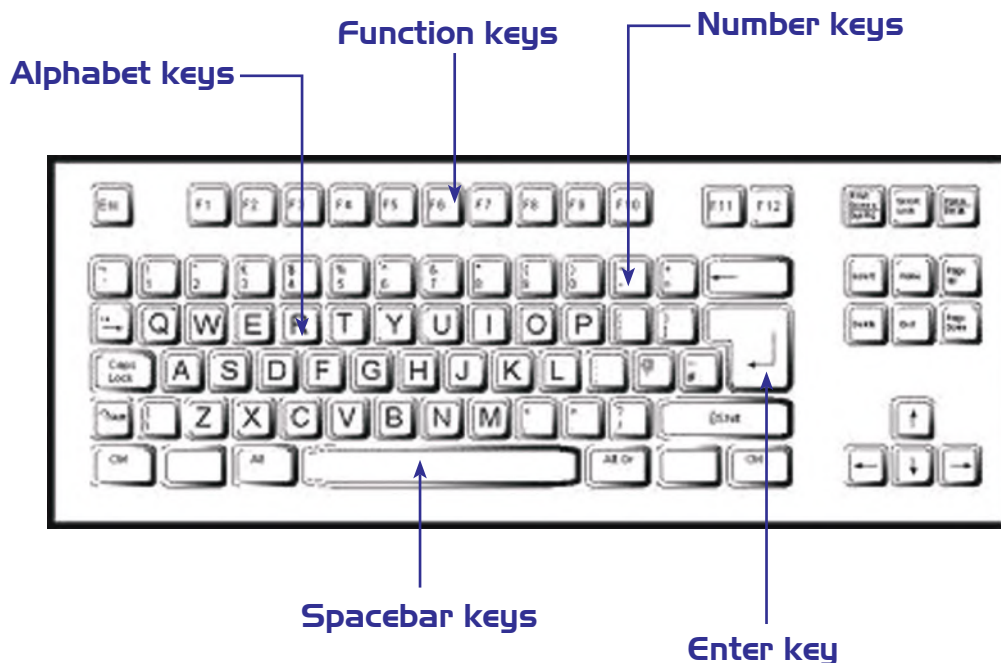
The device that is used to give the input to a computer is called an input device. The most common and popular input devices are keyboard and mouse. A number of other input devices have been developed which do not require typing to input data and instructions. These are joystick and digital camera.



A Tour of Keyboard

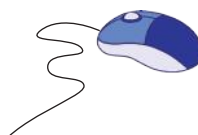
Keyboard is used to enter data and instructions into a computer. It has buttons called keys which once pressed provide input instructions to the computer. We can input alphabets, numbers and other characters. There are various types of keyboards such as wired, wireless, normal and multimedia keyboards.

A keyboard is a device which consists of a number of keys. There are different sets of keys on the keyboard. Some of the important keys are discussed below:



Alphabet keys

The keys that have alphabets from A to Z written on them are called alphabet keys. There are 26 alphabet keys on every keyboard. These keys are located at the centre of the keyboard. They are arranged in three rows. These keys are used to type capital letters from A to Z or small letters from a to z.



Using the Keyboard

To Type Text

You use the alphanumeric keys to type text. Text can include words and numbers. The numeric keypad may also be used to type numbers. This is possible only if the NumLock key is pressed. When the Num Lock key is pressed, the indicator below it may be lit.

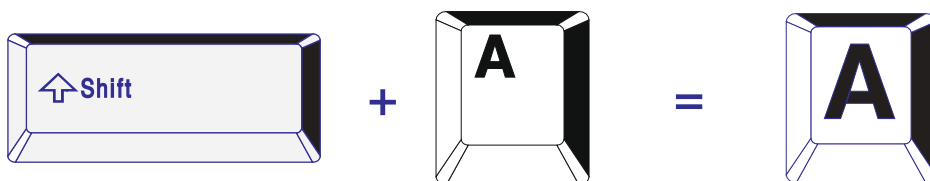


To Type Capital letters, Punctuation Marks and Symbols

To type text in capital letters, you may use the Caps Lock key or Shift key.

To type capital letters with Caps Lock key: The keyboard can be 'locked' into capitals by pressing the Caps Lock key. The key may be lit to indicate it is on. To return to lowercase letters, press the Caps Lock key again.

To type capital letters with a Shift key: Hold down the Shift key while pressing the letter keys. To return to lowercase letters, release the Shift key.

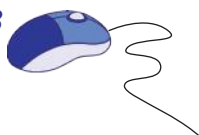


To Type Punctuation Marks and Symbols

The upper half of some keys have:

Punctuation marks like exclamation mark (!) and question mark (?).

Symbols like at (@) and ampersand (&), and brackets ().



Numeric keys

The keys that have numbers from 0 to 9 are called numeric keys. These keys are used for typing numbers. There are two sets of number keys present on a keyboard. One is above the alphabet keys and other at the right corner of a keyboard.



expanding your horizons

The numeric keypad is found at the right of the keyboard. It has the digits 0 to 9. There are also a decimal point, plus and minus signs, together with four special keys labelled Num Lock, Scroll Lock, Ins (Insert) and Del (Delete) keys.



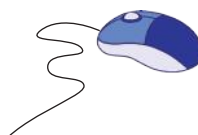
Function keys

A set of twelve function keys are found in a single row at the top. They are labelled from F1 to F12. These keys have special jobs to do.



Arrow keys

The arrow keys help us to move the cursor in all the four directions on the screen. Cursor is the blinking line on the screen. Arrow keys are also called cursor control keys.



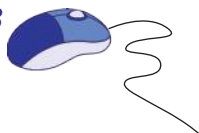
Special keys

The function of some special keys are given below:

<u>Special key</u>	<u>Use</u>
Backspace	The backspace key erases the letter or number to the left of the cursor.
Delete key	The delete key is used to erase the letter or number on the cursor position.
Spacebar	The spacebar is the longest key on the keyboard. It is used to give spaces between the letters or numbers typed.
Enter key	The enter key tells the computer that the instructions being typed are complete. It is also used to move the cursor to the next line, when you want to start a new paragraph.
Caps lock key	The caps lock key is used to change from small letters to capital letters. Caps lock can be turned ON by pressing the caps lock key once. It is turned OFF by pressing the caps lock key again.

A Tour of Mouse

Mouse is another commonly used input device. It is moved by hand around a flat surface. When the mouse is moved the cursor on the monitor screen moves accordingly. A mouse has two or three buttons which are used for various actions such as selecting an object, moving an object, etc. There are various types of mouse such as wired, wireless, mechanical and optical ones.



Basic Mouse Operations

The computer's mouse controls a graphical mouse pointer or mouse cursor on the screen. When you move the mouse around by rolling it on your desk, the pointer on the screen moves in a similar manner.



Some of the basic mouse operations are:

Pointing

Move the mouse so the mouse pointer is kept on the item you want to use.

Clicking

To click, gently press the left mouse button once and release it. The mouse makes a clicking sound. A click selects an item on the screen.

Right-Clicking

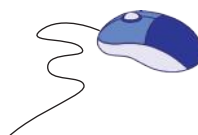
To right-click, gently press and release the right mouse button. Right-click displays a list of commands on the screen.

Double Clicking

To start any program, point to an item on the screen and quickly press and release the left mouse button twice.

Drag and Drop

The drag operation is done to graphically pick up something on the screen and move it. To do that, you point the mouse at the thing you want to drag, press and hold the mouse's button and then move the mouse to another location. When you move the mouse (and keep the button down), the object moves. To release, or drop, the object, release the mouse button.



Uses of the Mouse

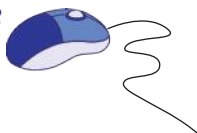
The computer mouse is a pointing device. It is used to point and click. It is used to click buttons, boxes and menus.

- You may use the mouse to click on a menu name. This action opens a list of options called a drop-down menu.
- The mouse is used to drag-and-drop an item. Point at the item, hold down the left button and move the mouse. The item being held will move on screen. Release the mouse button to let go of the item.
- The mouse may be used to start a program on the desktop. Just double click the icon of the program to open it.
- The mouse is used to select text. Selected text appears white on the screen with a black background.
- The mouse is used to maximize or minimize a window that is open. For these actions, you click on the Maximize button or Minimize button on the title bar.
- The mouse is used to close an open window.
- The mouse is used to scroll. Scrollbars appear when the information on the screen is too much and cannot fit.

expanding your horizons

Insertion Point and Mouse Pointer

A pointer moves on screen when you move the mouse. The pointer on screen is called mouse pointer. The insertion point on screen shows the place where the text you type will appear. The insertion point is seen only in an area where text can be typed.





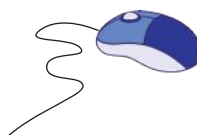
Tricky Terms

- Keyboard** : An input device is used to enter data and instructions into a computer.
- Arrow keys** : The keys that help us to move the cursor in all the four directions on the screen.
- Spacebar** : The longest key used to give spaces between the letters or numbers typed.
- Mouse pointer**: The slanting arrow, which represents the mouse on the screen.



Let Us Revise

- The device that is used to give the input to a computer is called an input device.
- Keyboard is used to enter data and instructions into a computer.
- The keys that have alphabets from A to Z written on them are called alphabet keys.
- The keys that have numbers from 0 to 9 are called numeric keys.
- The delete key is used to erase the letter or number on the cursor position.
- Mouse is another commonly used input device moved by hand around a flat surface.



Chapter Review

1. Fill in the blanks. Choose the answer from the given words.

Clue Box

Caps lock, Cursor, Enter, Mouse, Keyboard

- a. _____ is used to enter data and instructions into a computer.
- b. _____ is the blinking line on the screen.
- c. The _____ key tells the computer that the instructions being typed are complete.
- d. The _____ key is used to change from small letters to capital letters.
- e. The computer's _____ controls a graphical mouse pointer or mouse cursor on the screen.

2. Match the followings.

Column A

Column B

Mouse

An input device used to enter data and instructions into a computer.

Spacebar

The keys that help us to move the cursor in all the four directions on the screen.

Mouse pointer

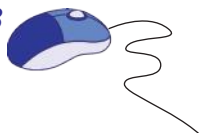
The longest key used to give spaces between the letters or numbers typed.

Arrow keys

The slanting arrow, which represents the mouse on the screen.

Keyboard

A pointing device used to point and click.



Rearrange the following jumbled words to make meaningful words.

EDLTEE EKY

CPSAE RBA

HSITF EYK

ACBKPASCE EKY

LPAHBEAT KYE

Answer the following questions.

- What is a computer keyboard? What are the different types of keys found on a computer keyboard?
- What are alphabet keys? How many alphabet keys are there in a keyboard?
- What is a cursor?
- What is a computer mouse? What are the uses of a computer mouse?
- What do you understand by drag and drop?

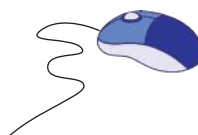
Extrapolative Exercise

Count the number of different types of keys on any keyboard in your computer room and write them below:

Alphabet keys _____

Number keys _____

Function keys _____





Getting to Know Windows 7

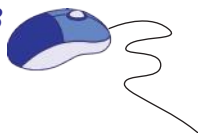
Learning Objectives

- Explain the steps to start Windows 7.
- Explain the components of Windows 7 screen.
- List the common activities of the Start menu.
- List the steps to open programs using the Start menu.
- Explain the steps to manipulate Windows.



An Overview

Windows is the name of an operating system developed by Microsoft Corporation, USA. It is a software which helps to operate and control the overall activities of a computer. It is simple and easy to use. It is a Graphical User Interface (GUI) in which all items are represented in the form of graphics. Windows has many versions that regularly get updated with time and requirements.



Starting Windows 7

Windows 7 is a Graphical User Interface (GUI) in which all the items are represented in the form of pictures and graphical links. When you switch ON your computer, Windows 7 gets loaded automatically.

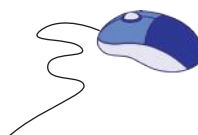
- Switch ON the main power supply button.
- Switch ON the power button on the UPS.
- Switch ON the power button on the CPU.
- Switch ON the power button on the monitor.
- Type the password and press Enter key. Windows 7 desktop will appear.



Desktop

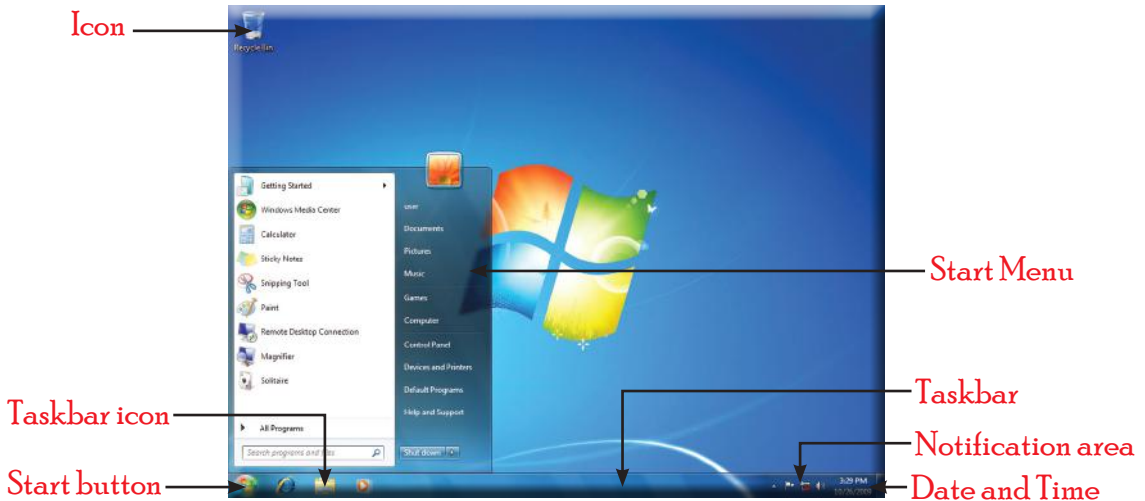
expanding your horizons

According to Microsoft, Windows 8 is a completely redesigned operating system developed from the ground up with touchscreen use in mind as well as near-instant-on capabilities that enable a Windows 8 PC to load and start up in a matter of seconds rather than in minutes.



Components of Windows 7 Screen

The Windows 7 screen displays various components. The components depends on how your computer is set up.



Desktop

Desktop is a work area in Windows. All the basic activities can be done from this area.

Icons

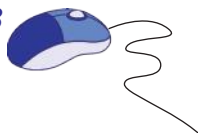
Icons are the small pictures that appear on the Desktop. They represent a program or software. To open the icons you have to simply double click your mouse on item.

Mouse Pointer

A small arrow on the computer screen, which moves with the movement of the mouse, is a mouse pointer. It helps to point, click, or double-click the various items on the desktop.

Taskbar

Taskbar is located at the bottom of the desktop. It contains start button at the left corner and clock at the right corner. It also shows the programs which are currently opened.



Taskbar icons

Taskbar icons are the icons through which you can launch some Windows 7 features with just a mouse click.

Time and Date

On the right corner of the taskbar you can see the current Time and Date on your computer. Click on the Time and Date area to see the full Time and Date box. You can also change Time and Date of computer.

Start button

The round shaped button on the left of the taskbar is the Start button. It is the most usable part of the desktop.

Start menu

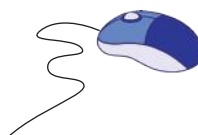
All the installed programs in the computer are listed in a start menu.

Notification area

This area displays small icons that notifies you about the things that are currently happened on the computer.

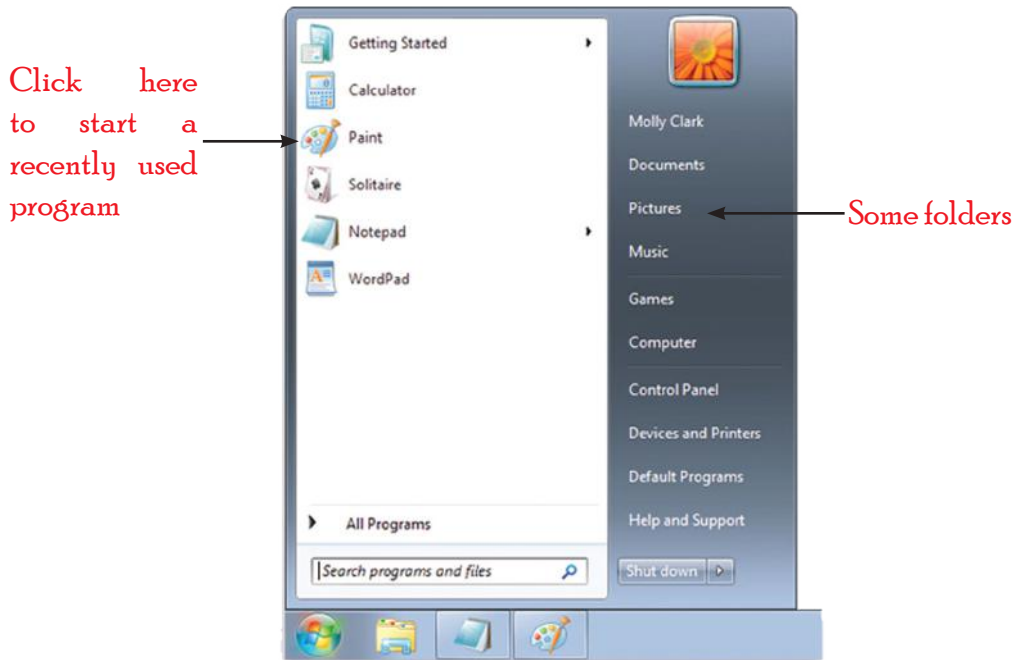
expanding **your horizons**

Using the new Windows 8 UI, the start screen is the main area where you can access apps. You can think of it as home base for Windows 8. You can personalize this start screen by pinning your favorite Windows 8 apps. The start screen is also where you access the charm bar, which allows you to shut down and restart your computer as well as set-up and manage your operating system.



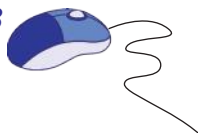
An Overview of Start Menu

The Start menu is the main gateway to your computer's programs, folders, and settings. It is called a menu because it provides a list of choices. And as "start" implies, it is often the place that you will go to start or open things.



Use the Start menu to do these common activities:

- Start programs
- Open commonly used folders
- Search for files, folders, and programs
- Adjust computer settings
- Get help with the Windows operating system
- Turn off the computer
- Log off from Windows or switch to a different user account

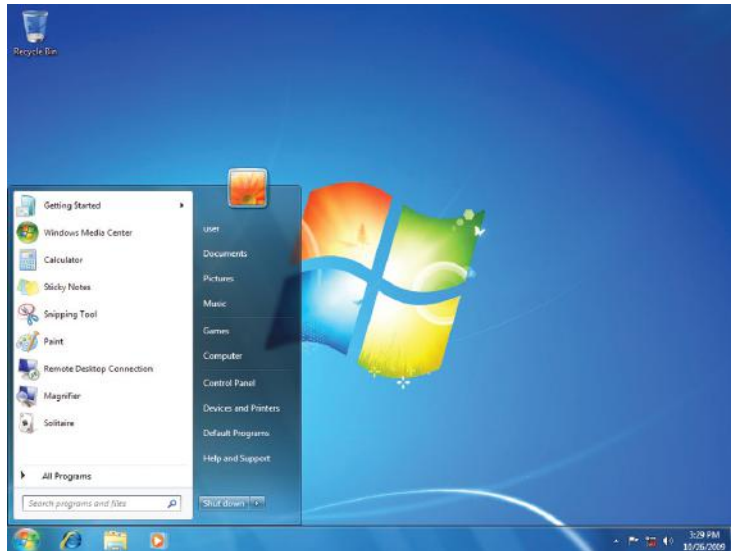


Getting started with the Start menu

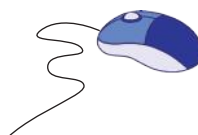
To open the Start menu, click the Start button in the lower-left corner of your screen. Or, press the Windows logo key on your keyboard.

The Start menu has three basic parts:

- The large left pane shows a short list of programs on your computer. Clicking All Programs displays a complete list of programs.
- At the bottom of the left pane is the search box, which allows you to look for programs and files on your computer by typing in search terms.
- The right pane provides access to commonly used folders, files, settings, and features. It is also where you go to log off from Windows or turn off your computer.



The search box is one of the most convenient ways to find things on your computer.



Opening programs from the Start menu

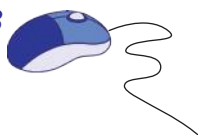
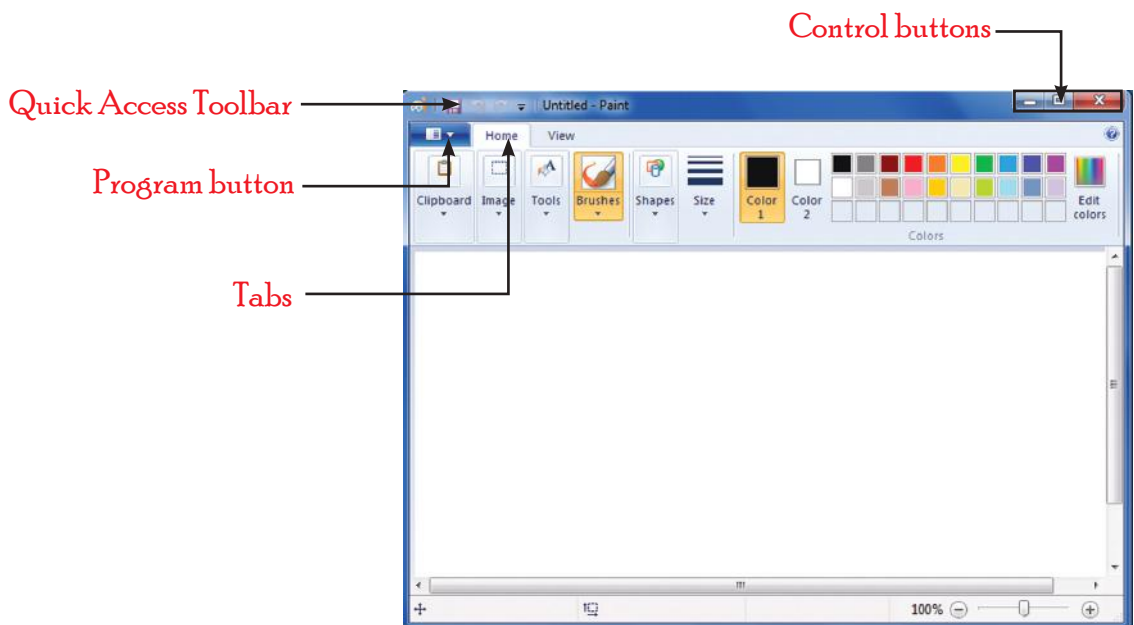
In Windows 7, you have much more control over the programs and files that appear on the Start menu.

To open a program, do the following:

- Click on *Start button*.
- Click on *All Programs* to view a list of the programs.
- Click on the program you want to open. Some programs has sub-menu.

Program Window

The Windows Operating System opens a new window for each program. It is these windows that have given the operating system its name. A window is a box-like frame with documents, toolbars, programs and icons.



Manipulating Windows

You know that it is possible for us to open more than one window on the screen at the same time. The sizes of the windows on your screen can be changed so that more windows are visible. Following is a list of common features that can be used with all windows.

a. *Maximize*

This option allows you to bring the size of any window to its maximum, so that it covers the entire screen.

To maximize a window, do the following:

- i. Click on *Maximize button* in the window. The window fills your screen.
- ii. Click on *Restore Down button* to return the window to its previous size.

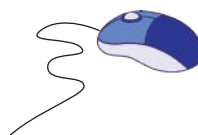
b. *Minimize*

This feature of Windows allows you to keep an application or program running, but remove it from the desktop area, so that other applications can be used. The minimized program becomes a bar on the taskbar, and can be used again by clicking on it.

To minimize a window, do the following:

- i. Click on *Minimize button* in the window. The window reduces in an icon on the taskbar.

To re-display the window, click on the icon of the window on the taskbar.

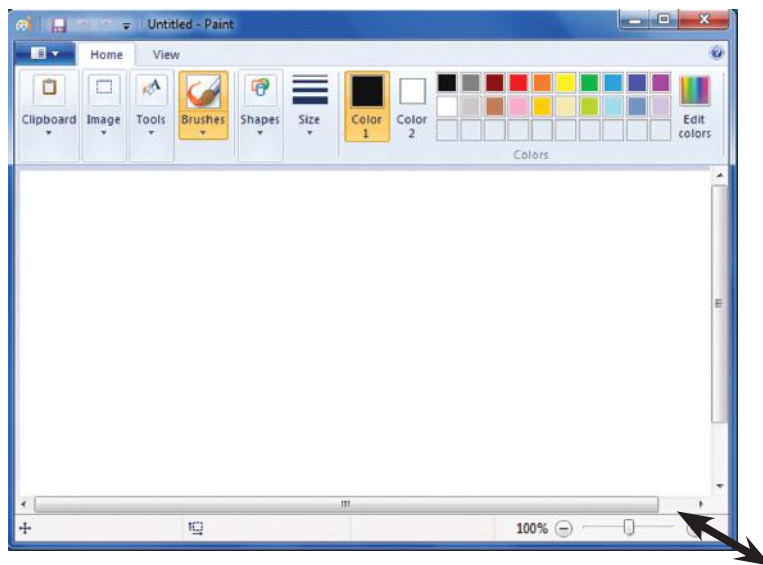


c. *Resize*

You can easily change the size of a window displayed on your screen.

To resize a window, do the followings:

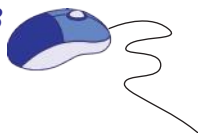
- i. Click the mouse pointer over an edge of the window you want to resize.
- ii. Drag the mouse pointer until the window displays the size you want.
- iii. The window appears in a new size.



Shutting Down

After completing your work, you need to switch off your computer. To shut down a computer properly, follow the given steps:

- a. Click on *Start button*. The start menu will appear.
- b. Click on *Shut Down*. Window 7 shuts down and turns off the computer.
- c. Switch off the Power Supply.





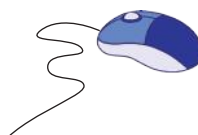
Tricky Terms

- GUI** : A computer interface that uses windows, icons and menus and which can be manipulated by a mouse.
- Desktop** : A work area in Windows.
- Icons** : The small pictures that appear on the Desktop.
- Mouse Pointer**: A small arrow on the computer screen, which moves with the movement of the mouse.



Let Us Revise

- Windows is a software which helps to operate and control the overall activities of a computer. It is a user-friendly operating system.
- Taskbar icons are the icons through which you can launch some Windows 7 features with just a mouse click.
- Notification area displays small icons that notifies you about the things that are currently happened on the computer.
- The Start menu is the main gateway to your computer's programs, folders, and settings.
- A window is a box-like frame with documents, toolbars, programs and icons.
- Maximize option allows you to bring the size of any window to its maximum, so that it covers the entire screen.
- You can easily change the size of a window displayed on your screen.



Chapter Review

1. Fill in the blanks. Choose the answer from the given words.

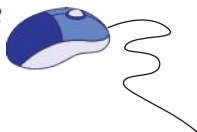
Clue Box

Icons, Start menu, Start button, Notification area, GUI

- a. Windows 7 is a _____ in which all the items are represented in the form of pictures and graphical links.
- b. _____ are the small pictures that appear on the Desktop.
- c. The round shaped button on the left of the taskbar is the _____.
- d. All the installed programs in the computer are listed in a _____.
- e. _____ displays small icons that notifies you about the things that are currently happened on the computer.

2. Spot the error in these statements. Write each one correctly.

- a. Windows 7 is a Character User Interface (CUI) in which all items are represented in the form of graphics.
- b. Cursor helps to point, click, or double-click the various items on the desktop.
- c. The round shaped button on the left of the taskbar is the Start menu.
- d. The left pane provides access to commonly used folders, files, settings, and features.
- e. A desktop is a box-like frame with documents, toolbars, programs and icons.



Answer the following questions.

- a. What is Microsoft Windows? Name the most recent version of Microsoft Windows.
- b. What is desktop?
- c. What are icons?
- d. Define mouse pointer.
- e. What does a Taskbar contain?
- f. What is Start menu? How can you open Start menu?
- g. What are the common use of Start menu?
- h. What is a Window? Name the different parts of a program window.

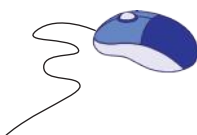
Write the steps for following operations.

- a. Maximizing a Window
- b. Minimizing a Window
- c. Resizing a Window

Lesson Labs

After reading this chapter, do all the following activities.

- a. Start up a computer.
- b. Find all the elements of Windows 7 Desktop.
- c. Click on the Start button and make a list of programs in your notebook.
- d. Open a Paint window using the Start button.
- e. Minimize the WordPad window.
- c. Restore the window from the taskbar.
- d. Now maximize the window.
- d. Shut down the computer.





Tools in Paint

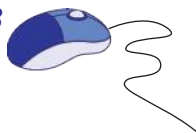
Learning Objectives

- Explain the steps to start Paint Program.
- Explain the components of Paint window.
- Explain the uses of color boxes of Paint.
- Explain the functions of Paint tools.
- Explain how to work with colors.



An Overview

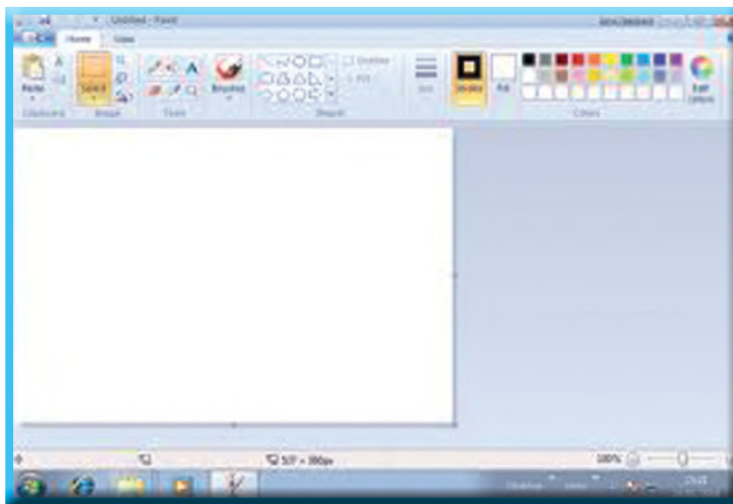
PAINT is a simple graphic program in Windows 7. It is presented in Accessories. It allows you to draw beautiful pictures and colour them. This is done by using the various tools and colours present in the Paint program. In Paint, drawings are made with the help of a computer mouse.



Starting Paint Program

Let us see how to get into the colourful world of PAINT. Switch ON the computer. Your monitor will display Windows Desktop. Windows Desktop has a Start button on the bottom left corner.

- Click on the *Start button*.
- Click on *All Programs*.
- Select *Accessories*. You will notice a list of options.
- Click on *Paint*. The Paint window appears on the screen.



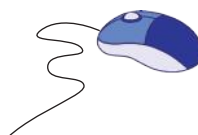
The different components of a new Paint window are:

Quick Access Toolbar

The Quick Access Toolbar is the small row of icons, found above the ribbon, on the upper left of the screen. It contains common commands that you use over and over again every day, such as Save, Undo, Redo, etc.

Paint Button

Below the Quick Access toolbar and on the left side, there is button called Paint button. Clicking on this button opens the main menu of Paint.



Tabs

There are two tabs: Home Tab and View Tab in the Paint.

The Home tab contains the Ribbon, from which tools and colors are selected.

The View tab contains Zoom In/Zoom Out, Full Screen mode options.

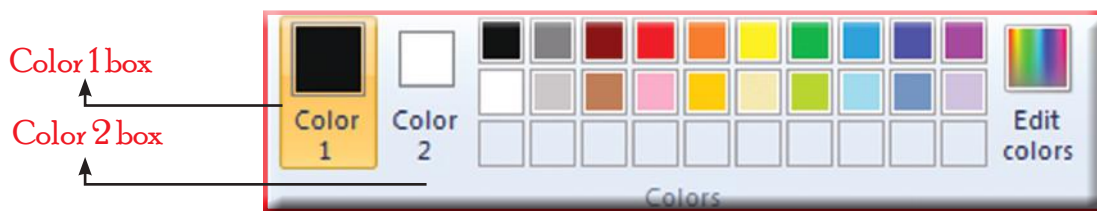
You can also select to show Rulers and Gridlines on an image which can help you align elements in an image.

Color Boxes

The Color boxes indicate the current Color 1 (foreground color) and Color 2 (background color) colors.

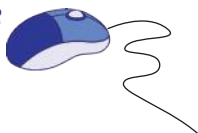
The Color 1 box shows the active colors or foreground color. To change the foreground color, click on Color 1 box and then click on the desired color palette.

The Color 2 box is the background color. The background color is the default color of any new image that you create. To change the background color, click on Color 2 box and then click on the desired color in the Color palette.



Use the Color picker tool to set the current foreground or background color.

Facts Corner



Tools in Paint

Paint contains a different tools to draw and insert shapes into your drawing. The different types of tools in Paint are:

Pencil Tool

It is used to draw straight, wavy and curved lines. It is used as a normal pencil. Freehand drawing can be done using this tool.

Eraser Tool

This tool is just like your normal eraser which is used to erase a drawing or a part of it.

Brush Tool

The brush tool is used for drawing freehand drawings using coloured brush.

Line Tool

The line tool is used to draw horizontal, vertical or slanting or straight lines of different thickness.

Rectangle Tool

The rectangle tool is used for drawing rectangles or squares.

Circle Tool

The circle tool is used for drawing oval shapes and circles.

Rounded Rectangle Tool The rounded rectangle tool is used for drawing rectangles with rounded corners.

Polygon Tool

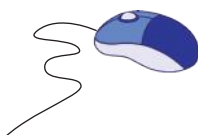
The polygon tool is used for drawing polygons.

Curve Tool

The curve tool is used to draw curved shaped objects.

Text Tool

The text tool is used to write text on the Paint screen.

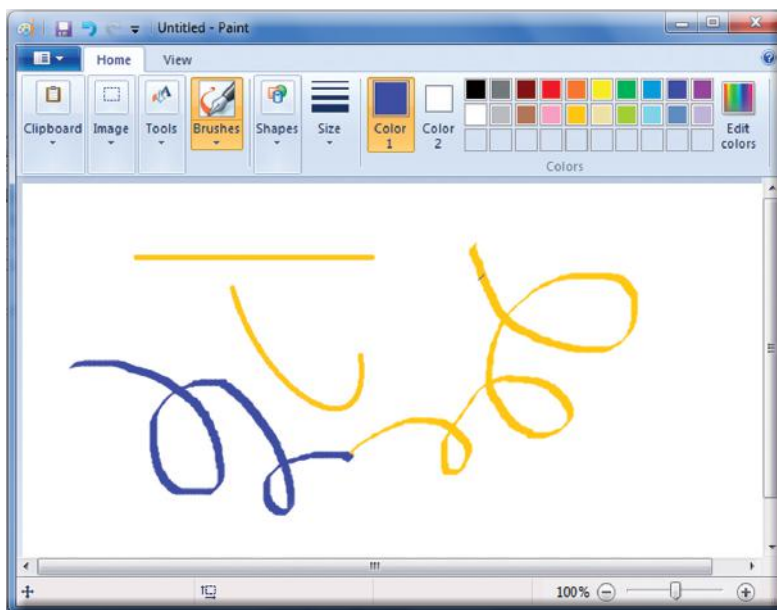


Drawing Lines

Some tools and shapes, such as the Pencil, Brush, Line, and Curve let you make a variety of straight, and curved lines.

To draw lines, do the following:

- On the **Home tab**, in the Shapes group, click the tool for the type of line you want to draw.
- In the Colors group, click **Color 1**, and then click the color you want to use.
- To draw, drag the pointer across the drawing area.

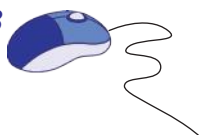


Drawing Shapes

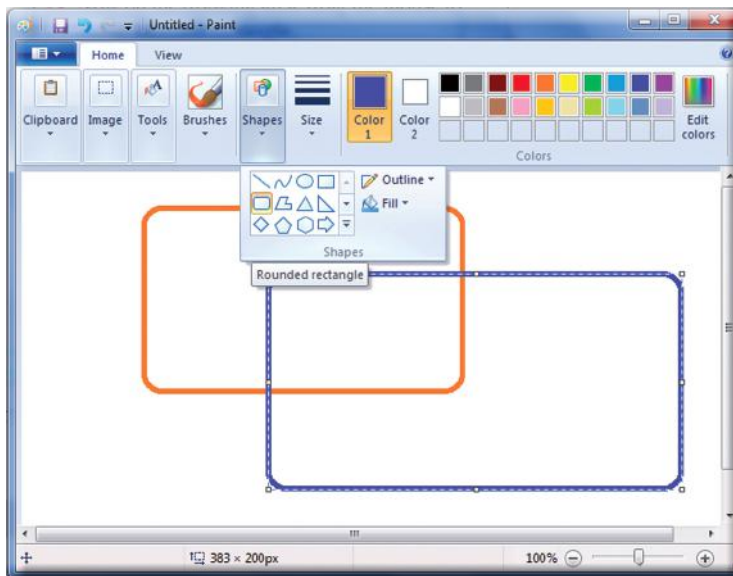
Paint lets you draw many different shapes. For example, you can draw ready-made, defined shapes such as rectangles, circles, squares, triangles, and arrows.

To draw shapes, do the following:

- On the **Home tab**, in the Shapes group, click a ready-made shape, such as the Rectangle.



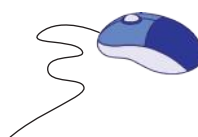
- b. To add a ready-made shape, drag the pointer across the drawing area to make the shape.
- c. To change the outline style, in the Shapes group, click **Outline**, and then click an *outline style*.
If you don't want your shape to have an outline, click **No outline**.
- d. In the Colors group, click **Color 1**, and then click a color for the outline.
- e. In the Colors group, click **Color 2**, and then click a color to use to fill the shape.
- f. To change the fill style, in the Shapes group, click **Fill**, and then click a fill style.
If you don't want your shape to be filled, click **No fill**.



Practical

Skills

- a. Draw a square. Then draw a circle inside that square.
- b. Draw a rectangle and a square of the same thickness and different thicknesses.



Working with color

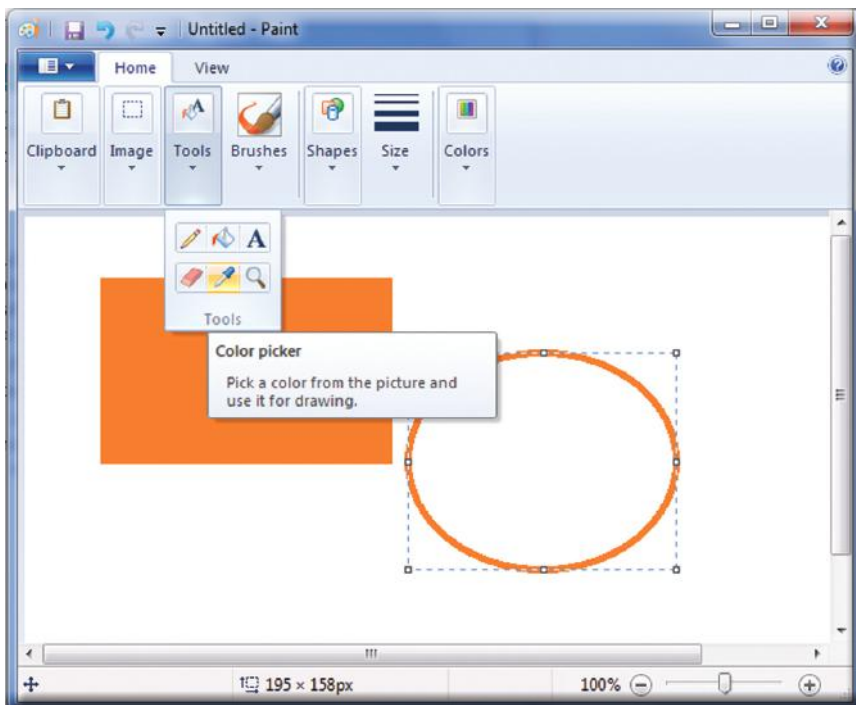
There are a number of tools to help you work specifically with color in Paint. They let you use the colors you want when you're drawing and editing in Paint.

Color picker

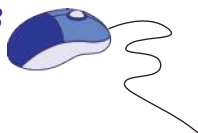
The Color picker tool is used to set the current foreground or background color. By picking a color from the picture, you can make sure that you're using the color you want when drawing in Paint, so your colors match.

To use Color picker tool, do the following:

- a. On the *Home tab*, in the Tools group, click *Color picker tool*.



- b. Click the color in your picture that you want to set as the foreground color, or right-click the color in your picture that you want to set as the background color.



Fill with Color

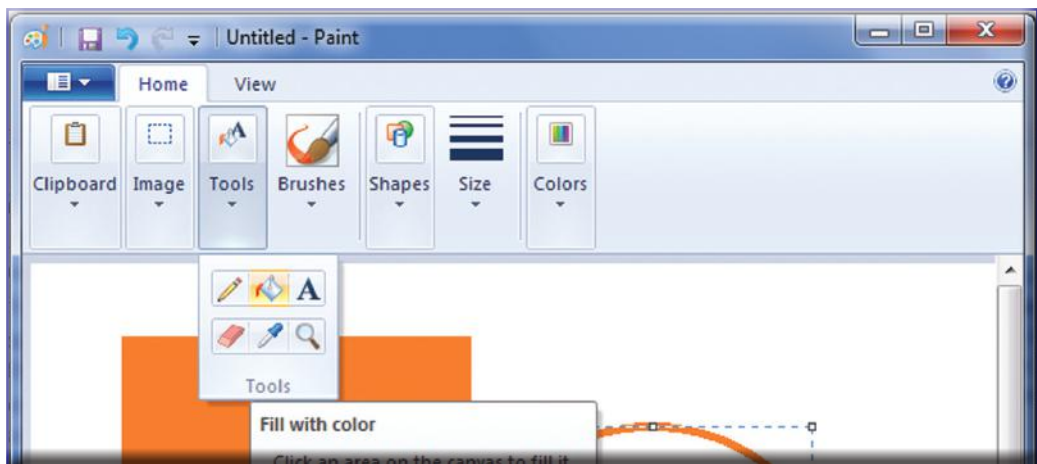
The Fill with color tool is used to fill the entire picture or an enclosed shape with color.

To use Fill with Color tool, do the following:

- On the **Home tab**, in the Tools group, click **Fill with color**.
- In the Colors group, click **Color 1**, click a **color**, and then click inside the area to fill it.

To remove the color and replace it with the background color instead, click **Color 2**, click a color, and then right-click the area to fill it.

- To draw, drag the pointer across the drawing area.

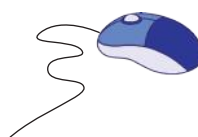


Editing colors

The Edit colors is used to pick a new color. Mixing colors in Paint lets you choose the exact color that you want to use.

- On the **Home tab**, in the Colors group, click **Edit colors**.
- In the Edit Colors dialog box, click a color in the color palette, and then click **OK**.

The color will appear in one of the color boxes, so you can use that color in Paint.



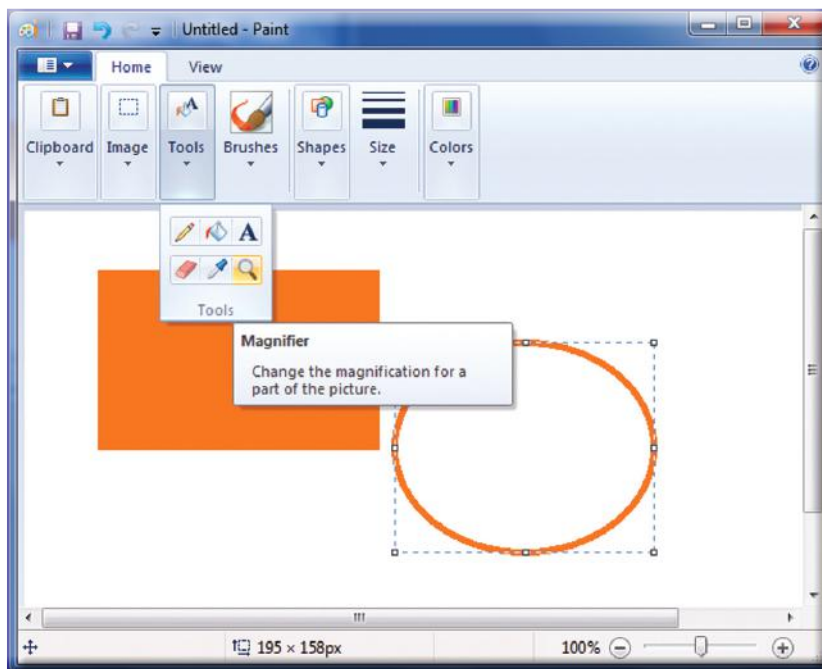
Viewing your picture

Changing the view in Paint lets you choose how you want to work with the picture. You can zoom in on a certain part of the picture or the whole picture if you want. Conversely, you can zoom out if the picture is too large. In addition, you can show rulers and gridlines as you work in Paint, which can help you work better in Paint.

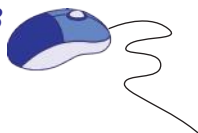
Magnifier

The Magnifier tool is used to zoom in on a part of your picture.

- a. On the **Home tab**, in the Tools group, click the **Magnifier tool**, move the magnifier, and then click to zoom in on the part of the image.



- b. Drag the horizontal and vertical scroll bars on the bottom and right side of the window to move around the picture.
To reduce the zoom level, right-click the Magnifier again.

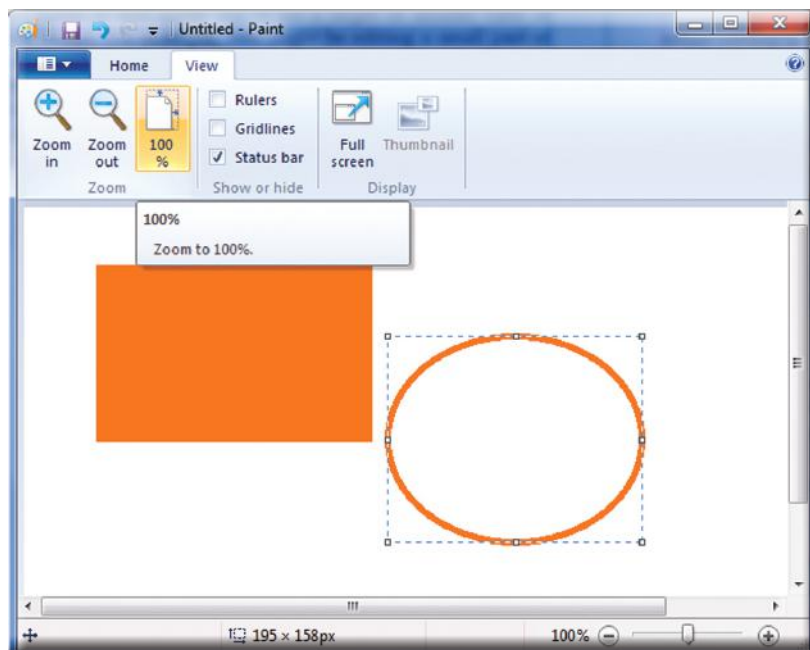


Zoom in and out

Use Zoom in and Zoom out to see a larger or smaller view of your image. For example, you might be editing a small part of it and need to zoom in to see it. Or the opposite might be true; your picture might be too large to fit on the screen, so you need to zoom out to view all of it.

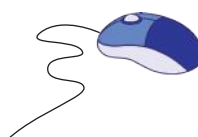
In Paint, there are few different ways to zoom in or out, depending on what you want to do.

- To increase the zoom level, on the **View tab**, in the Zoom group, click **Zoom in**.
- To reduce the zoom level, on the **View tab**, in the Zoom group, click **Zoom out**.
- To view the picture in the Paint window at its actual size, on the View tab, in the Zoom group, click **100%**.



Tip

To zoom in and out on a picture, you can also click the Zoom in Picture of the Zoom in button or Zoom out Picture of the Zoom out button buttons on the Zoom slider at the bottom of the Paint window to increase or decrease the zoom level.



Saving and using your picture

When editing in Paint, you should save your work frequently so you don't accidentally lose it. After you save your picture, you can use it on your computer or share it with others in e-mail.

Save a picture for the first time

When you save a new picture for the first time, you'll need to give it a file name.

- a. Click the *Paint button*, and then click *Save*.
- b. In the Save as type box, select the file format you want.
- c. In the File name box, type a name, and then click *Save*.

Open a picture

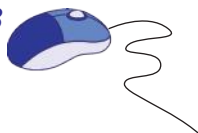
Instead of starting with a new picture, you might want to open an existing picture and edit in Paint.

- a. Click the *Paint button* and then click *Open*.
- b. Find the picture you want to open in Paint, click it, and then click Open.

Set your picture as your desktop background

You can also set the picture, so it's used as the desktop background on your computer.

- a. Click the *Paint button*, point to *Set as desktop background*, and then click one of the desktop background settings.





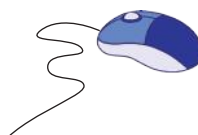
Tricky Terms

- Paint** : A simple graphic program in Windows 7 that allows to draw beautiful pictures and colour them.
- Accessories** : Additional programs that help us doing various jobs such as painting, creating documents, etc.
- Color 1 box** : Box that shows the active colors or foreground color.
- Zoom** : Term used to describe a function of focusing on a section of the image and increasing its overall size.



Let Us Revise

- Windows is a software which helps to operate and control the overall activities of a computer. It is a user-friendly operating system.
- Pencil tool is used to draw straight, wavy and curved lines.
- Brush tool is used for drawing freehand drawings using coloured brush.
- Rounded rectangle tool is used for drawing rectangles with rounded corners.
- Curve tool is used to draw curved shaped objects.
- Color picker tool is used to set the current foreground or background color.



Chapter Review



1. Fill in the blanks. Choose the answer from the given words.

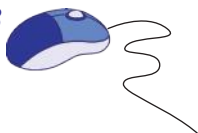
Clue Box

Color 1, Color picker, View, Text, Line

- The _____ tab contains Zoom In/Zoom Out, Full Screen mode options.
- The _____ box shows the active colors or foreground color.
- The _____ tool is used to draw horizontal, vertical or slanting or straight lines of different thickness.
- The _____ tool is used to write text on the Paint screen.
- The _____ tool is used to set the current foreground or background color.

2. Match the followings.

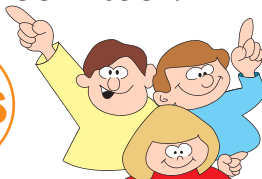
Rectangle Tool	used to draw straight, wavy and curved lines.
Brush Tool	used to erase a drawing or a part of it.
Line Tool	used for drawing freehand drawings using coloured brush.
Eraser Tool	used to draw horizontal, vertical or slanting or straight lines of different thickness.
Pencil Tool	used for drawing rectangles or squares.



3. Answer the following questions.

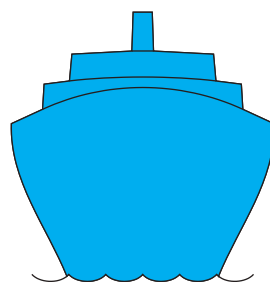
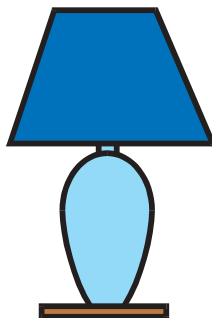
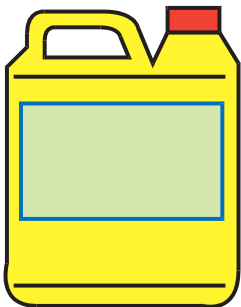
- a. What is a Paint program?
- b. What are the different components of a new Paint window?
- c. What does Color box indicate?
- d. What does the following tools help you to do?
 - i. Line Tool
 - ii. Brush Tool
 - iii. Airbrush Tool
- e. What is the use of Color picker tool?
- f. Why do we use Zoom tool?

Lesson Labs

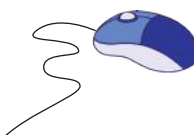


Draw a picture in Paint and set it as the background of the Desktop.

- a. Open the Paint Program.
- b. Make a drawing in the drawing area. Colour and save it using the File | Save As option.

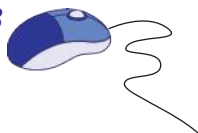
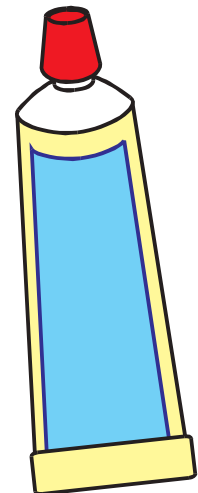
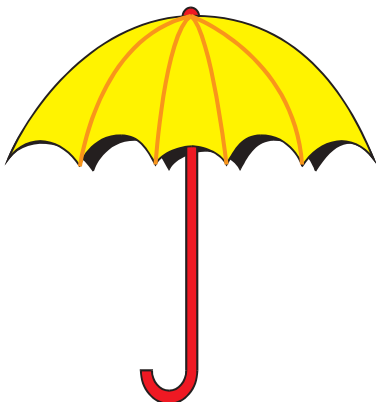
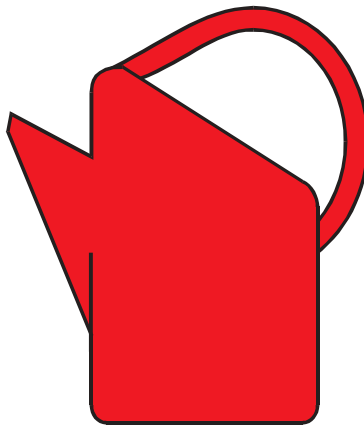
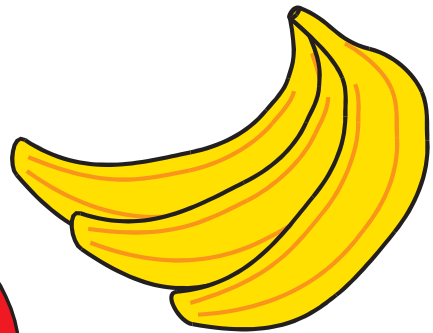
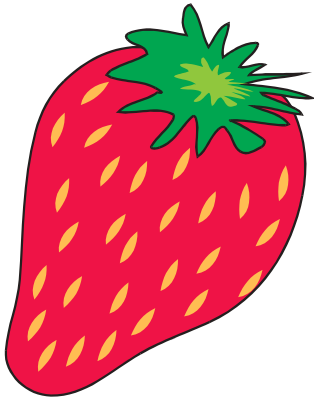


- c. Decrease the size of the drawing area by dragging inwards from the bottom right corner.
- d. Click on the File Menu. Select either of these two options.
Set As Background (Tiled)
Set As Background (Centered)



- a. Draw 3 kites using the Polygon tool. Colour them differently.
- b. Pick the colour of the first kite and in the same colour, write 'First' beneath the kite. Choose a suitable font and size for it. Similarly, write 'Second' and 'Third' below the other two kites.
- c. Save the file with the name 'Kites' in My Documents. Now, choose only the third kite and copy it to a new file. Give a suitable name to this file.

Draw the following pictures and colour them with the help of the PAINT program.





WordPad

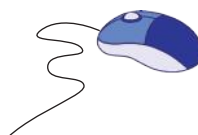
Learning Objectives

- Define word processor.
- Explain the different components of WordPad window.
- List the steps to enter text in WordPad.
- Explain the difference between moving and copying text.
- Define formatting text and list the different options available in formatting text.



An Overview

Word processor is a software that helps you to type your text on a computer. The process of typing in, using a word processor is known as word processing. WordPad is a word processing program present in Windows Accessories. It allows you to create simple letters and documents. It also provides many formatting features to give an attractive look to your documents.



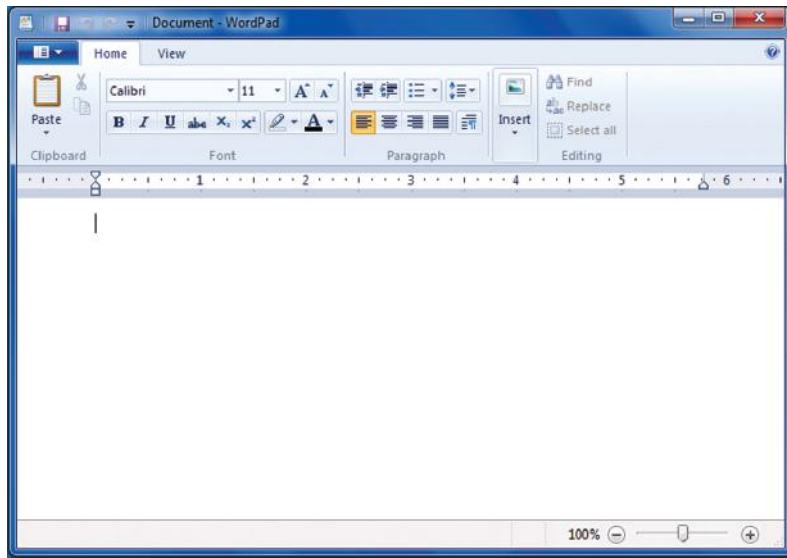
Starting WordPad Program

Switch ON the computer. Your monitor displays Windows Desktop. Windows Desktop has a Start button on the bottom left corner.

To start the WordPad program, do the following:

- Click on the *Start button*.
- Click on *All Programs*.
- Select *Accessories*. You will notice a list of options.
- Click on *WordPad*.

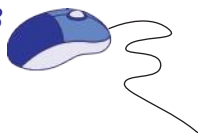
The WordPad window appears on the screen.



The different components of a WordPad window are:

The Title Bar

The title bar contains a Quick Access toolbar that has "Save," "Undo" and "Redo" buttons. It is also possible to add "New," "Open," "Send in email," "Quick print" and "Print preview" buttons through customization of the Quick Access toolbar.



Menu Button

The WordPad menu button contains buttons to create a new document, open a document, save a document, save a document as another name or format, print a document, and send document in an email.

Home Tab

The “Home” tab in WordPad contains clipboard, font, paragraph, insert and editing sections. It has many font options. The paragraph section contains alignment and indentation buttons and a button for bullets for lists. The insert section contains an area to insert a picture, object or drawing. It also has a button for adding the date and time. The editing section has “Find,” “Replace” and “Select all” buttons.

View Tab

In the “View” tab, you can adjust the zoom, show or hide the ruler and status bar, and adjust the settings of the word wrap and measurement units. The options for measurement units are inches, centimeters, points and picas.

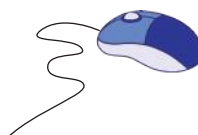
Practical

Skills

Switch on the computer.

Open WordPad and identify the different parts of WordPad window.

Type few line about your school and save the file.

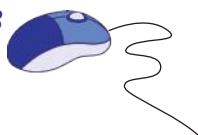
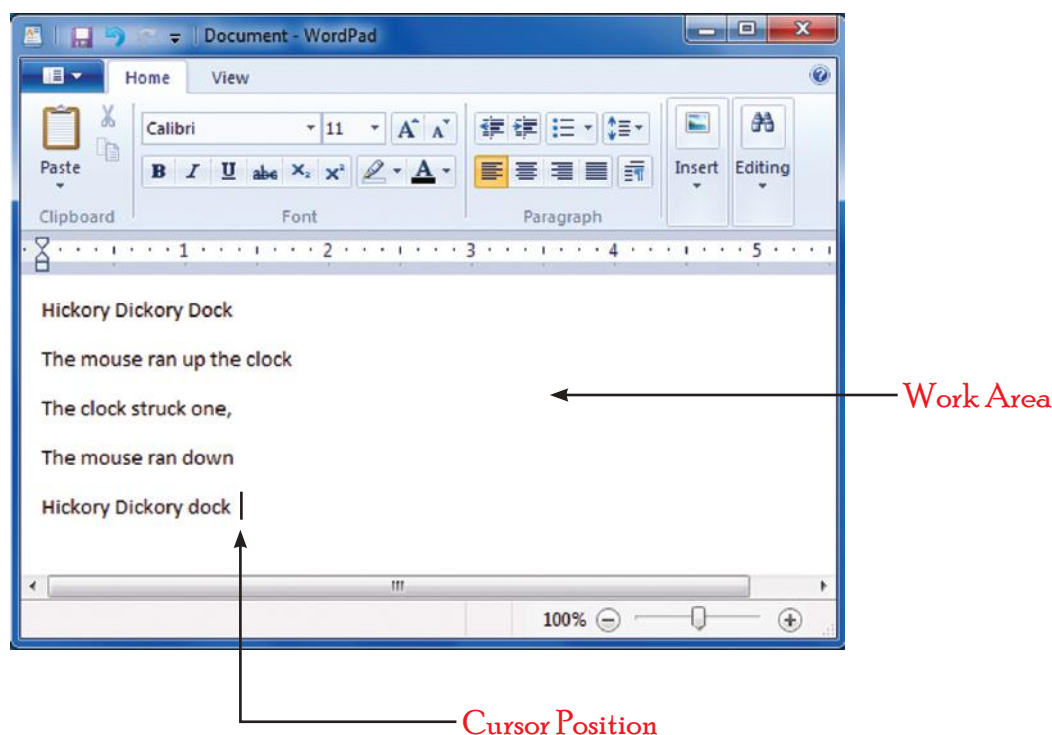


Entering Text in WordPad

It is very simple to work in the WordPad program. The blinking cursor indicates that the WordPad is ready to accept text. The letters typed by you appears at the cursor's position in the work area. The text automatically wraps itself as the insertion point reaches the end of the right margin. This property of the text-wrapping itself to the next line when it goes past the right margin is called the word wrap.

To enter text in WordPad, do the following:

- Type a paragraph.
- Press Enter key only when you want to start a new line or paragraph.
- Type the remaining text.
- Press Enter key again to start another paragraph.

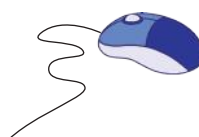
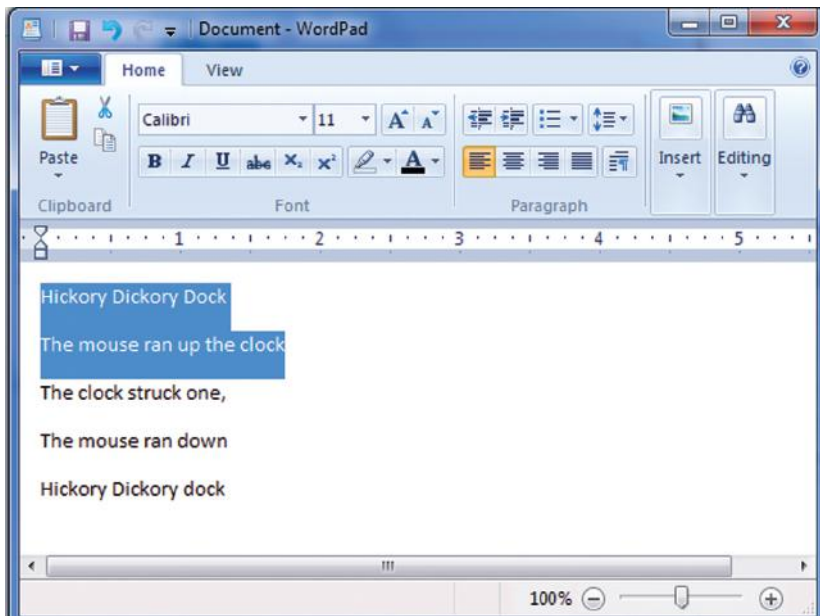


Highlighting the Text

Highlighting text in WordPad works the same way in other text editing software, such as Microsoft Word. However, there are some special tricks to use when highlighting text in WordPad, such as the ability to highlight single words, phrases, whole sentences or paragraphs.

Mouse Highlighting

- Highlight any text by positioning the mouse cursor at the starting point of the text to highlight. Click the left mouse button and keep the mouse pressed down. Move the mouse cursor to the end of the text you want highlighted.
- Highlight specific words by double clicking on any word of interest to highlight the word. A single click removes the highlight.
- Combine mouse and keyboard by holding down the shift key, and moving the mouse to your selected endpoint and then click on the left mouse button at that point.



Moving and Copying Text

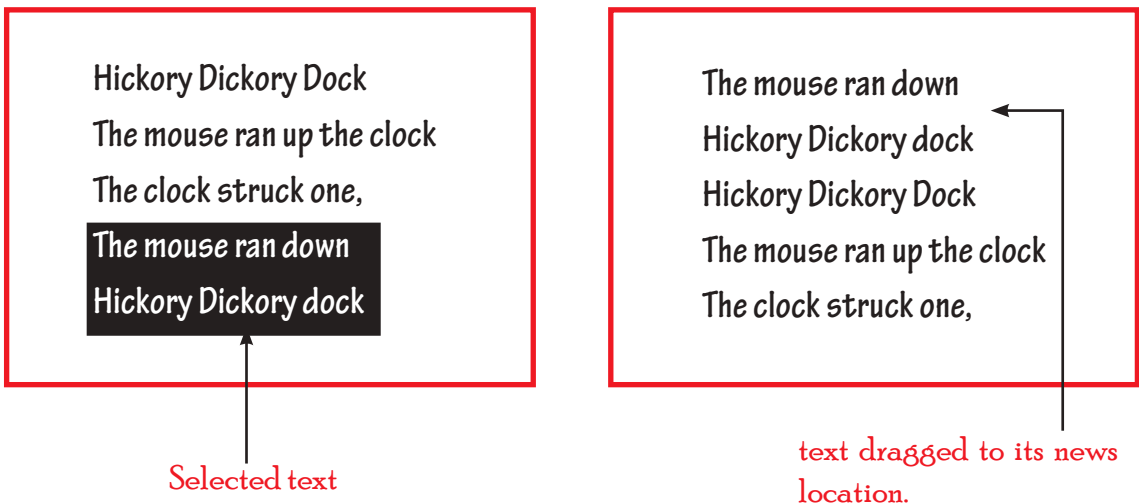
It is easy to move or copy text. When you move text, it disappears from its earlier location and gets placed at the new location. When you copy text, it can be seen both in its original location and the new one.

Moving Text

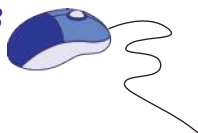
- Select the text to be moved.
- Click on the *Home tab*.
- Click on the *Cut button*.
- Bring the cursor to the position where you want to paste it. Click on the Paste button. The selected text will move to the cursor position.

You may also use the drag-and-drop action to move text.

- Select the text to be moved.
- Place the mouse pointer anywhere in the selected text.
- Hold down the left mouse button and drag to move the selected text to its new location.



You can use CTRL + X to cut the selected text and CTRL + V to paste the selected text.



Copying Text

- Select the text to be copied.
- Click on the *Home tab*.
- Click on the *Copy button*.
- Bring the cursor to the position where you want to paste it. Click on the *Paste button*. The selected text will get copied to the cursor position.

Formatting Text

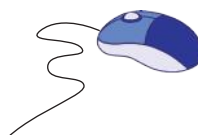
Formatting is the process of changing the appearance of the document to make it more presentable. The different options available in formatting text are:

- Changing the font style and font size
- Making text bold, italic or underlined
- Alignment of the text
- Changing the colour of the text

Changing the font, font style, or font size of a text

- Select the text whose formatting you want to change.
- Click on *Home tab* in the Font group.
- Click on the down arrow of Font. Then choose the font you want to use.
- Click on the down arrow of Font Size. Then choose the size you want to use.
- Click on one of the following buttons: B, I or U. The text you have selected appears in the new style.

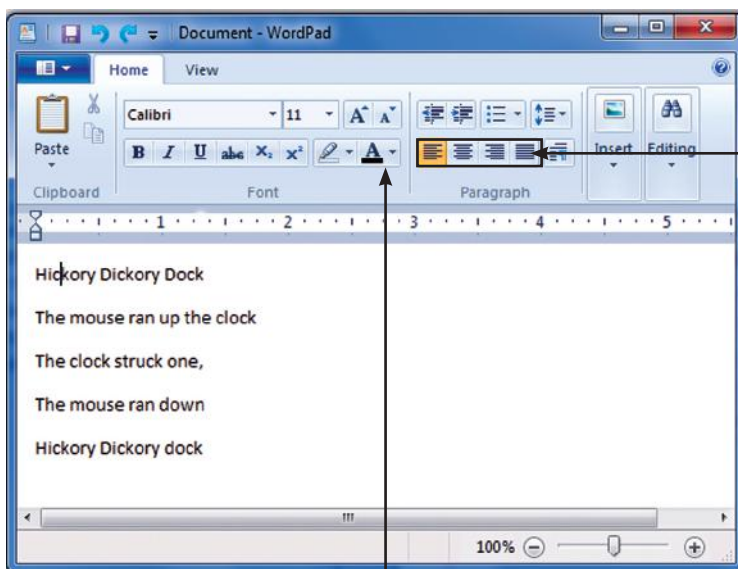
Click one of the following button to change the font style.



Changing the alignment of the Text

Alignment refers to the way text is set with respect to the margins. You can set alignment of a paragraph or the whole document. There are four options for text alignments. They are left alignment, right alignment, center alignment and justify alignment.

- Select the text you want to align differently.
- Click on *Home tab* in the Paragraph group.
- Move the mouse pointer over one of the alignment options.
- The text displays the new alignment.



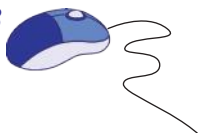
Click here to
select alignment
options.

Click here to
select text colour.

Changing the colour of text

By default, the colour of the text is black. However, you can change the colour of the text.

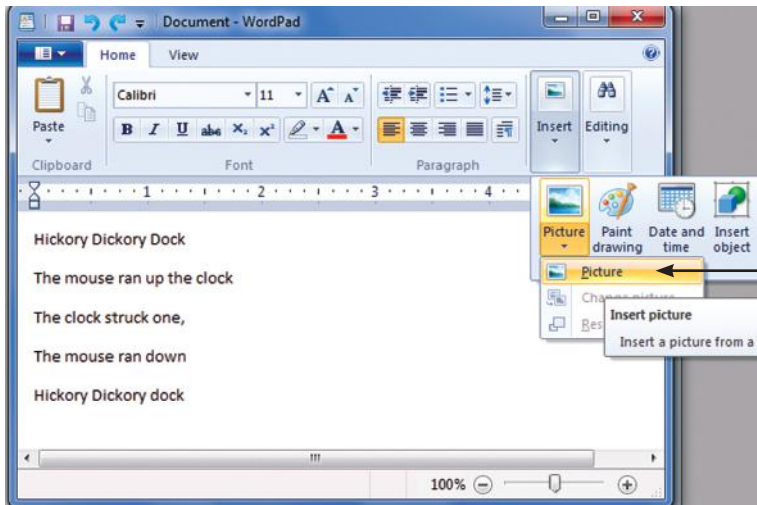
- Select the text whose colour you want to change.
- Click on *Home tab* in the Font group.
- Click on the Text color button.
- Select the appropriate colour.



Adding Pictures in a document

The new WordPad in Windows 7 makes inserting pictures quite easy. You can insert a picture into a WordPad document in a few short steps.

- a. On the *Home tab*, in the *Insert group*, click *Picture*.

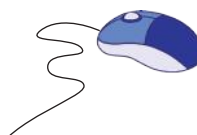


- b. Locate the picture that you want to insert, and then click *Open*.

Inserting Date and Time

You can insert date and time in your document. The text you insert appears in all printouts of your story.

- a. On the *Home tab*, in the *Insert group*, click *Date and time*.
- b. Click the format you want, and then click *OK*.



Save and Open documents

You should save your document to store it for future use. This lets you later open the document for making changes to it.

a. Save a document

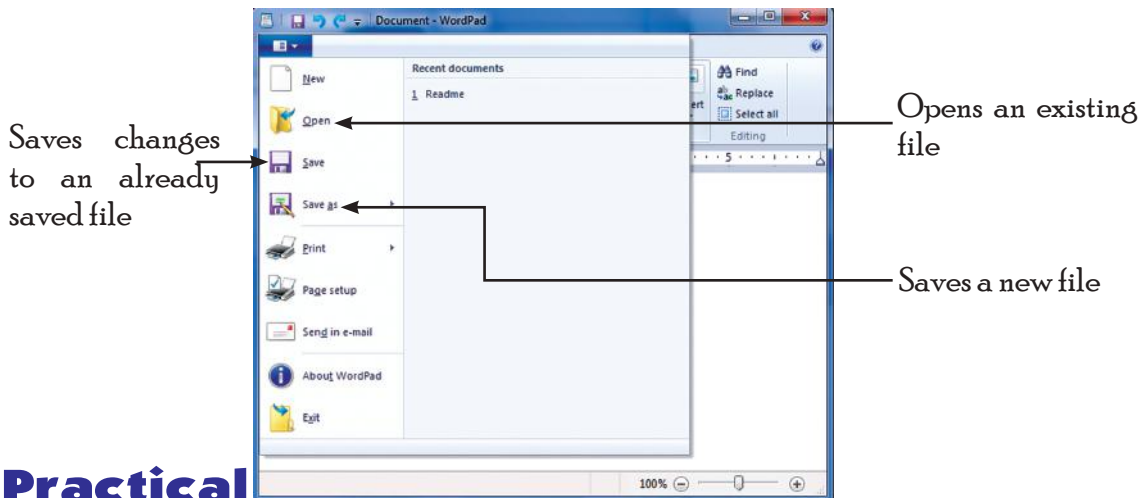
Click the WordPad menu button, and then click *Save*.

b. Save a document with a new name or format

Click the WordPad menu button, point to *Save as*, and then click the format you want to save the document in.

c. Open a document

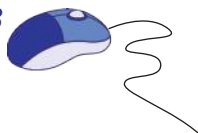
Click the WordPad menu button, and then click *Open*.



Practical

Skills

1. Type the following text given below exactly.
Willie Worm and his family lived in an apple tree.
Every one was contented, except Willie. He hated apples!
2. Change the title font to Arial (or a font of your choice), 16 pt.
3. Center the title.
4. Add italics and bold to the word "Willie Worm".





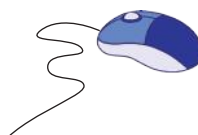
Tricky Terms

Word processor	: A software that helps you to type your text on a computer.
Word wrap	: The automatic placement of word in the next line.
Formatting	: The process of changing the appearance of the document to make it more presentable.
Font	: A set of characters with a specific design.
Alignment	: It refers to the way text is set with respect to the margins.



Let Us Revise

- Word processor is a software that helps you to type your text on a computer.
- The “Home” tab in WordPad contains clipboard, font, paragraph, insert and editing sections.
- When you move text, it disappears from its earlier location and gets placed at the new location.
- When you copy text, it can be seen both in its original location and the new one.
- Formatting is the process of changing the appearance of the document to make it more presentable.
- Alignment refers to the way text is set with respect to the margins.



Chapter Review



1. Fill in the blanks. Choose the answer from the given words.

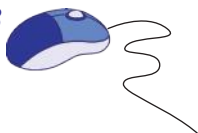
Clue Box

Formatting, Title bar, WordPad, Alignment, Cursor

- _____ allows you to create simple letters and documents.
- The _____ contains a Quick Access toolbar that has "Save," "Undo" and "Redo" buttons.
- The blinking _____ indicates that the WordPad is ready to accept text.
- _____ is the process of changing the appearance of the document to make it more presentable.
- _____ refers to the way text is set with respect to the margins.

2. Match the followings.

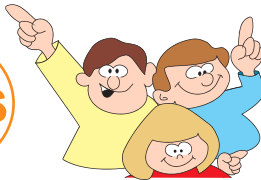
Word processor	A software that helps you to type your text on a computer.
Word wrap	The automatic placement of word in the next line.
Formatting	The process of changing the appearance of the document to make it more presentable.
Font	A set of characters with a specific design.
Alignment	It refers to the way text is set with respect to the margins.



3. Answer the following questions.

- a. What is a word processor?
- b. What is Wordpad? What are the different components of WordPad?
- c. What is a word wrap?
- d. What do you understand by formatting?
- e. What are the different options available in formatting text?
- f. What is alignment of text?
- g. Write the steps to perform the following operations:
 - i. Change the font of a text
 - ii. Saving a document

Lesson Labs

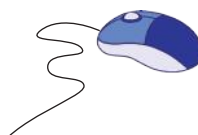


Open a new file in the WordPad Program and type the given text and make the text appear as shown below.

King Arthur

Once upon a time long ago, even before the days of King Arthur, there lived a blacksmith only three feet tall. He was so short that he needed a stool to stand on to shoe the great steeds of the knights. This bothered him not a bit because although he was small he was very brave. In fact, in his heart he secretly longed to become a knight and win the hand of the Princess.

- a. Bold and center the title “King Arthur”.
- b. Change the title font to a font of your choice to 18 points.
- c. Add a colour of your choice to the title text.
- d. Change the font of entire document to Times New Roman.
- e. Save the document as King Arthur.
- f. Close the document and exit WordPad.



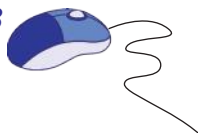
Open a new file in the WordPad Program and type the given text and make the text appear as shown below.

Michael "Mickey" Mouse



Michael "Mickey" Mouse is a comic animal cartoon character who has become a symbol for The Walt Disney Company. He was created in 1928 and voiced by Walt Disney. The Walt Disney Company celebrates his birth as November 18, 1928 upon the release of Steamboat Willie. The mouse has evolved from being simply a character in animated cartoons and comic strips to become one of the most recognizable symbols in the world.

- a. Change the title font to Arial Black (or a font of your choice), 16 pt.
- b. Add a colour of your choice to the title text.
- c. Bold and center the title.
- d. Format the entire document to Courier New.
- e. Insert any suitable clipart below the title text.
- f. Change the alignment to justified.
- g. Save the document as "Mickey Mouse".
- h. Close the document.
- i. Exit WordPad.





Fun with MSWLOGO

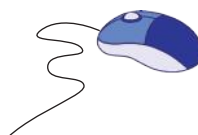
Learning Objectives

- Explain the importance of MSWLOGO.
- List the steps to start and exit MSWLOGO.
- Explain the different parts of MSWLOGO screen.
- Define LOGO turtle.
- Explain the use of different MSWLOGO primitives.



An Overview

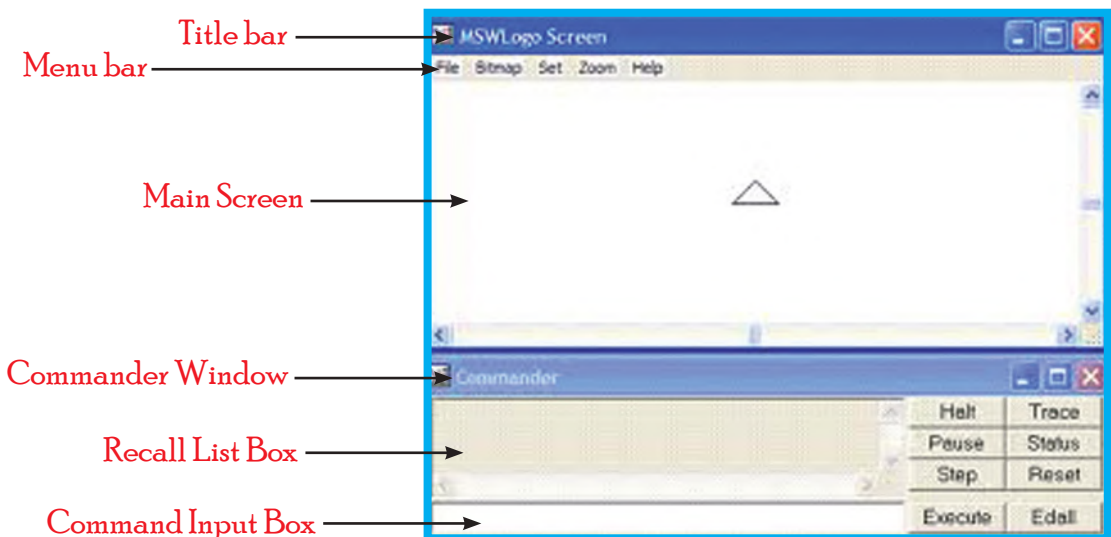
LOGO is a graphic-oriented programming language. It was designed by SEYMOUR PAPERT and his co-workers at the Massachusetts Institute of Technology in USA in the late 1960s. It was designed for the children to communicate with the computer more easily, especially to learn mathematics. It also allows the children to create, design and generate computer code.



Starting and Exiting MSW LOGO

LOGO stands for Language Of Graphic Oriented. You can start the LOGO program by following these steps:

- Place the mouse pointer over the *Start button* on the Taskbar and click with the left mouse button.
- On the Start menu, move the mouse pointer up until All Programs is highlighted. A Programs submenu will appear to the right.
- Move the pointer to Microsoft Windows Logo in the Programs menu. A submenu appears.
- Click on *Microsoft Windows Logo*.

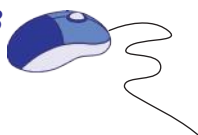


You can exit LOGO in two ways:

- Click on File menu in the Menu bar at the top of LOGO screen. File menu will appear. Then click on Exit.

Or

- Type 'Bye' in the command input box and press the Enter key from the keyboard.



Parts of MSWLOGO Screen

The two main parts of MSWLOGO screen are: Graphic screen and Commander Window.

Graphic Screen

The Graphic screen is the area where the turtle moves and draws figures. The Turtle is placed at the centre of this screen. It moves on the screen according to the commands given by you. These commands are also known as primitives.

Commander Window

The commander window is the area where commands are entered to draw the shapes and figures. The commander window is further divided into three sections. They are:

Command Input Box

Command input box is a small area located at the bottom of the screen. All the LOGO primitives are typed in this area. To execute the commands, you need to do one of the following:

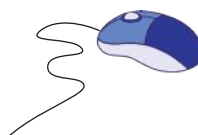
- Click in the Input Box and type a command.
- Click on the Execute button or press Enter key on the keyboard.

For example:

Try typing FD 100 and then press the Enter key.

Recall List Box

Recall list box is grey in colour and is used to view the commands executed before. All the executed commands get printed in this area. It is placed just above the command input box.



Control Buttons

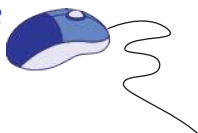
Control buttons are the buttons which are placed on the right side of the commander window in the LOGO screen.

- Halt Button - It immediately stops the working of LOGO command.
- Reset Button - It is used to erase everything drawn on the screen and to bring the turtle back to the center of the screen.
- Execute Button - It is used to run the command after typing it in the Input box.
- EDALL Button - Edall button is located to the right of the Execute button. Clicking at this brings up an Editor button that allows you to see all the procedures at once. Procedures are named group of commands.
- Status button - This button is used to display a status window showing the current settings.
- Pause button - This button is used to stop the execution of current LOGO program temporarily so that you can make changes in the program.



The halt button stops the execution permanently, whereas the pause button stops it for a short while.

Facts Corner

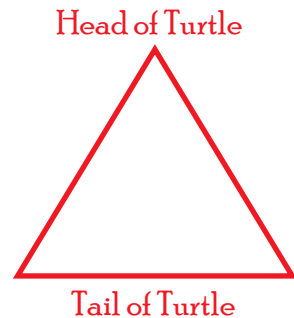


LOGO Turtle

LOGO Turtle is a small triangular shaped figure. It is placed at the centre of the LOGO screen. It has a pen that follows the commands and draw shapes. It can move in all directions according to the instructions given to it. Turtle understands only LOGO commands.

It has two body parts:

- The pointed top at the turtle is called head.
- The flat bottom of the turtle is called its tail.



Enter MSW Logo Commands

- a. Click in the Input Box at the bottom of the MSW Logo commander window.
- b. Type in the command.

FD 100

RT 90

FD 100

RT 90

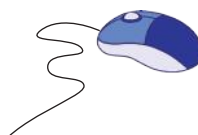
FD 100

RT 90

FD 100

RT 90

- c. Press the Enter key, or click the Execute button at the right of the Commander Window.



Moving the Turtle

The turtle appears in the middle of the Graphic window with its head upwards. You can move the turtle up, down, left or right on the screen by giving it suitable commands. Turtle moves and draws a line as per the commands given by you in the command input box.

FORWARD (FD) command

The FORWARD (FD) command is used to move the turtle in the forward direction by the specified number of steps. The FORWARD command is written as,

FORWARD <number of steps>

or

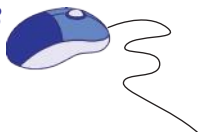
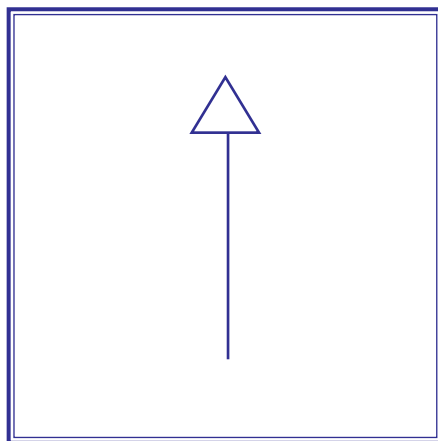
FD <number of steps>

To move the turtle forward, do the following:

- Type FORWARD or FD.
- Press the Space bar key.
- Type in the number of steps.
- Press the Enter key.

FORWARD 100

The turtle moves forward by 100 steps.



BACK (BK) command

The BACK (BK) command is used to move the turtle in the backward direction without turning its head. The BACK command is written as,

BACK <number of steps>

or

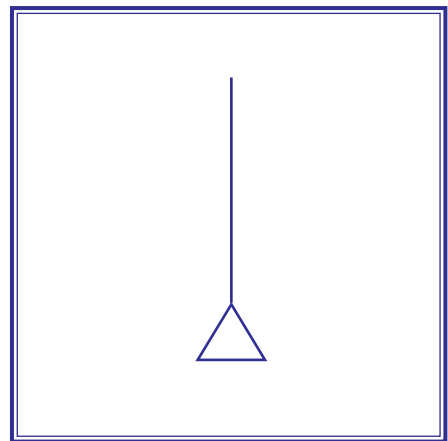
BK <number of steps>

To move the turtle backward, do the following:

- Type BACK or BK.
- Press the Space bar key.
- Type in the number of steps.
- Press the Enter key.

BACK 100

The turtle moves backward by 100 steps.

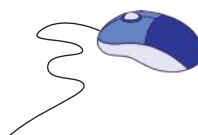


Practical

Skills

Turtle has to board the bus to go the school. The bus is nine steps away from him. He will move back in opposite direction of his face to reach there.

The command we should give is



Turning the Turtle

The turtle can turn in different directions. It can turn to its right or left depending upon the commands you give.

RIGHT (RT) command

The RIGHT (RT) command makes the turtle turn towards right direction i.e. in the clockwise direction. While turning, the turtle rotates, but stays at the same distance from the center. The RIGHT command is written as,

RIGHT <number of degrees>

or

RT <number of degrees>

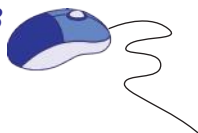
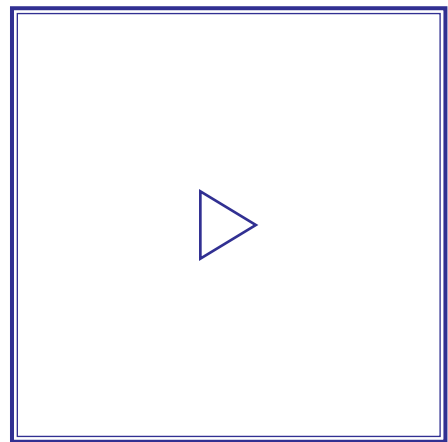
The number of degrees can be from 0 to 360.

To turn the turtle towards the right, do the following:

- Type RIGHT or RT.
- Press the Space bar key.
- Type in the number of steps the turtle should turn.
- Press the Enter key.

FD 100 RT 90

The turtle moves forward by 100 steps and turns the turtle 90°.



LEFT (LT) command

The LEFT (LT) command makes the turtle turn towards left direction i.e. in the anti-clockwise direction. While turning, the turtle rotates, but stays at the same distance from the center. The LEFT command is written as,

LEFT <number of degrees>

or

LT <number of degrees>

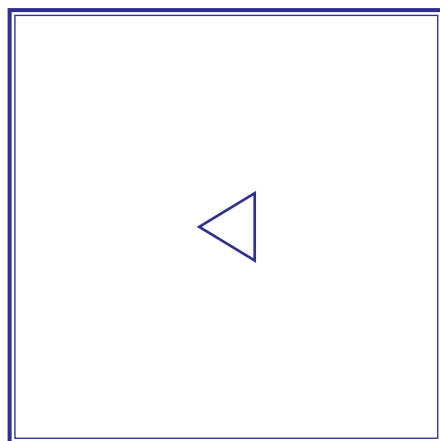
The number of degrees can be from 0 to 360.

To turn the turtle towards the right, do the following:

- Type LEFT or LT.
- Press the Space bar key.
- Type in the number of steps the turtle should turn.
- Press the Enter key.

FD 100 LT 90

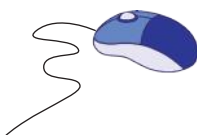
The turtle moves forward by 100 steps and turns the turtle 90°.



Practical

Skills

Turtle is talking and facing his friend Minku. Now he wants to turn to his friend Pinku. Give the appropriate command as shown.

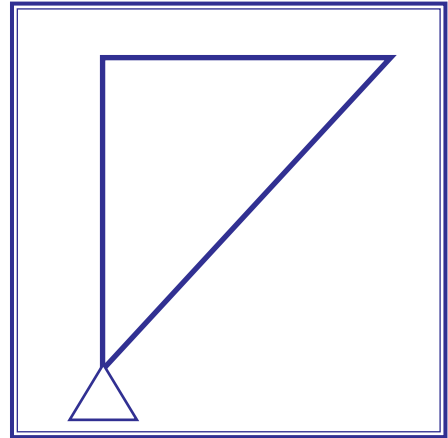


Home of the Turtle

The turtle appears at the centre of the screen with the head pointing upwards. The centre of the screen is called the Home of the turtle. The HOME command brings the turtle to its starting position. It makes the turtle draw the figure as it moves to the center of the screen. It is written as,
HOME

```
FD 100    RT 120  
FD 100    HOME
```

The turtle moves forward by 100 steps, turns the turtle 45° and again moves the turtle forward by 100 steps. The HOME command will bring the turtle at the center of the screen.



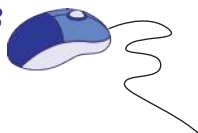
ClearScreen command

The CLEARSCREEN (CS) command clears all the drawings from the graphic screen. The Turtle moves to its HOME, which is the centre of the screen. The CLEAR SCREEN command is written as,

CLEARSCREEN or CS

ClearText command

The CLEARTEXT (CT) command is used to clear the text appearing in the Command Recall Box. It is written as ClearText or CT.





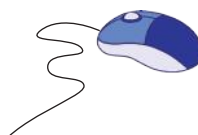
Tricky Terms

LOGO	-	A simple computer language, which can be used to draw pictures and do calculations.
Primitives	-	The basic LOGO commands given to the turtle.
Turtle	-	A triangle shaped figure at the centre of the LOGO window.
Home	-	The centre of the screen, where the turtle is positioned when you start MSWLogo.



Let Us Revise

- LOGO is a graphic-oriented programming language.
- LOGO was designed by SEYMOUR PAPERT and his co-workers at the Massachusetts Institute of Technology in USA in the late 1960s.
- The Graphic screen is the area where the turtle moves and draws figures.
- The Graphic screen is the area where the turtle moves and draws figures.
- LOGO Turtle is a small triangular shaped figure.
- The FORWARD (FD) command is used to move the turtle in the forward direction by the specified number of steps.
- The RIGHT (RT) command makes the turtle turn towards right direction i.e. in the clockwise direction.



Chapter Review

1. Fill in the blanks.

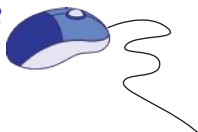
- LOGO stands for _____.
- The _____ is the area where the turtle moves and draws figures.
- _____ has a pen that follows the commands and draw shapes.
- The _____ command is used to move the turtle in the backward direction without turning its head.
- The _____ command makes the turtle turn towards right direction i.e. in the clockwise direction.

2. Say whether these sentences are True or False.

- The MSWLOGO is a computer program that is used to draw figures and type text.
- The Pause button stops the execution permanently.
- MSWLOGO commands are called primitives.
- The HOME command brings the turtle to its starting position.
- The CLEARSCREEN (CS) command is used to clear the text appearing in the Command Recall Box.

3. Write the use of the MSWLOGO primitives.

- FD
- RT
- HOME
- CT



4. Match the followings.

CLEARSCREEN	Clear the text screen
BACK	Bring the turtle to the centre of the screen
HOME	Move the head of the turtle to right direction
RT	Move the turtle to the backward position
CLEARTEXT	Clear the screen


5. Answer the following questions.

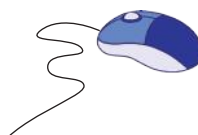
- What is LOGO? Name the two parts in which the LOGO screen is divided.
- What is the use of Graphic screen?
- Draw and define Turtle. Where is it located?
- Why do we use RT and LT commands?
- What is the function of HOME command?

Lesson Labs

Convert these sentences into commands, type them and draw the figure that you get on the screen.

- Move forward by 50 steps
Turn right by 90°
Move forward by 50 steps
Move back by 60 steps





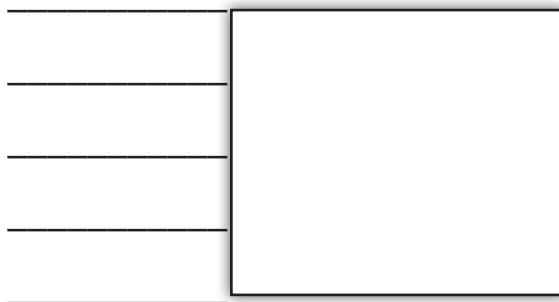
b. Turn right by 30°

Move forward by 80 steps

Move back by 40 steps

Turn left by 60°

Move forward by 40 steps

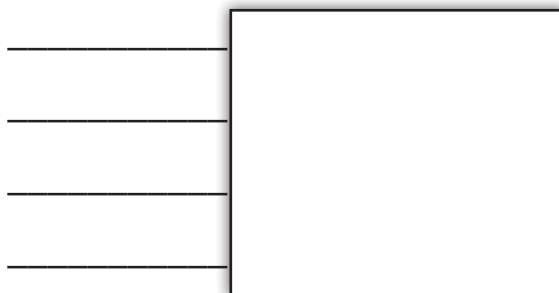


c. Turn right by 30°

Move forward by 90 steps

Move back by 90 steps

Turn left by 60°



Show the pattern drawn by the turtle in each case. Check by typing the commands on the computer.

a. CS

FD 40

RT 90

FD 20

RT 90

FD 40

RT 90

FD 20

b. CS

FD 60

RT 90

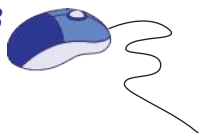
FD 30

BK 30

RT 90

FD 20

LT 20

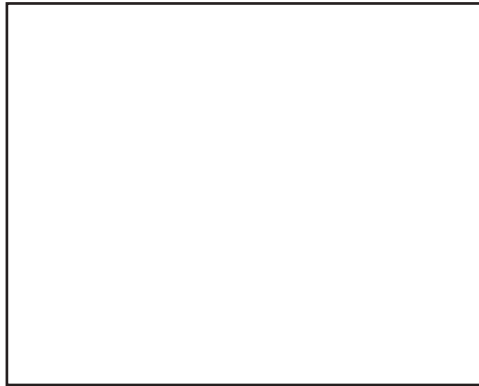


Complete the following primitives.

a. FD 60

FD 60

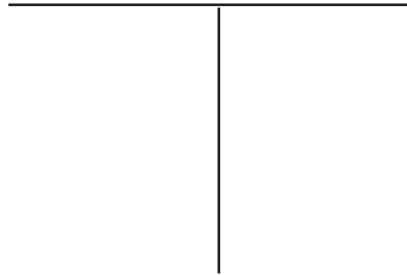
RT 90



b. _____

RT 90

BK 60



c. FD 80

BK 40

FD 10

BK 40

