KEY FEATURES

Latest Trending Technologies

Incorporates chapters on trending technologies

Additional Annexures

Information and updates about the latest topics in the field of computers

Project Work

Cross-curricular projects integrating knowledge, principles, and values of various disciplines

Online Links

To access more information on the given topics

Group Discussion

To help the students understand the topics in an interactive manner

Brain Developer & Worksheets

For self assessment of the concepts learnt

Incorporates NEP 2019 Guidelines in Activities and Projects

Life Skills and Values *Art Integration* *Interdisciplinary*

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INPUT, OUTPUT, AND STORAGE DEVICES

LEARNING IN THIS CHAPTER

- Computer system
- Parts of a computer
- Input devices
- Processing device
- Output devices
- Storage devices

A computer is a machine that works on electricity. It can be compared to a magic box that can do a variety of jobs. Computers are not confined to offices only. They can be seen everywhere around us, such as at shops, schools, hospitals, banks, airports, railway stations, etc. Computers work very fast and give 100% accurate results.

Definition: A computer is an electronic device that accepts data and instructions given by the user, processes them accordingly, and gives meaningful results.

A computer system performs three basic functions:
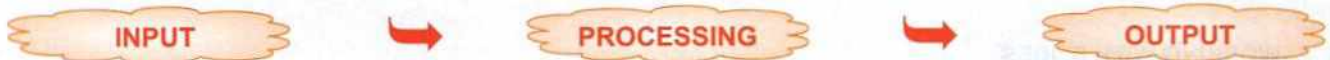
INPUT ➡ PROCESSING ➡ OUTPUT

Figure 1.1: Working Cycle of a Computer

⟩ PARTS OF A COMPUTER

A computer system is made up of four types of devices.

➤ Input Devices ➤ Processing Device ➤ Output Devices ➤ Storage Devices

These devices are connected with each other through wires. A computer performs various tasks with the help of these devices.
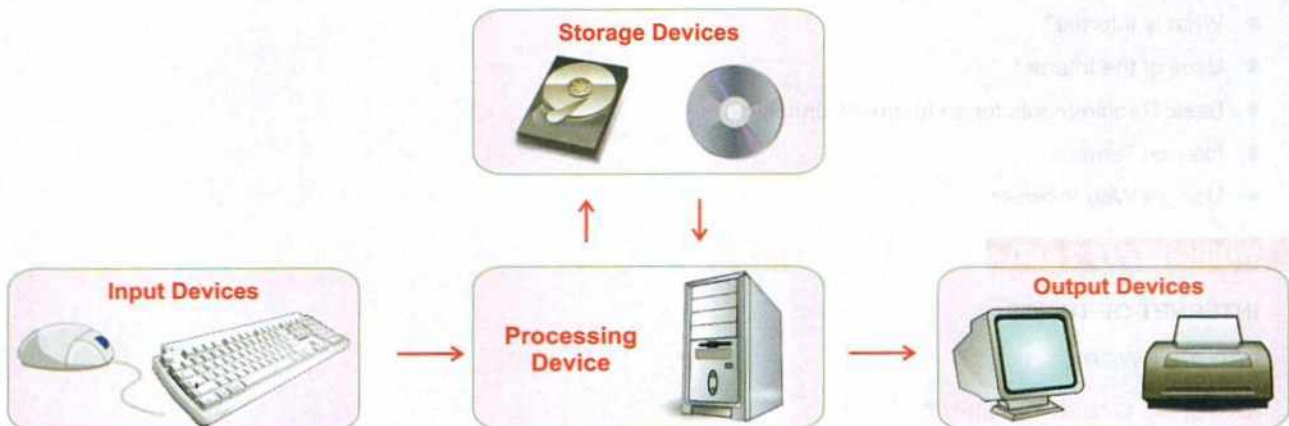
Figure 1.2: Parts of a Computer

⪼ INPUT DEVICES

The devices through which we enter data and instructions are called the **Input Devices**. A most commonly used input device is the Keyboard.

The other input devices are mouse, trackball, and light pen. They do not require typing of input data and are called **Pointing Devices**. We can select any item on the screen by pointing and clicking on it.

KEYBOARD

A keyboard is used to input data and instructions into the computer. A standard keyboard has 104 keys, which can be divided into four groups: Typing keys (Alphabet keys and Numeric keys), Function keys (F1–F12), Navigation keys (Arrow keys, Home, End, Page Up, Page Down, etc.), and Control keys (Ctrl, Alt, Windows logo key, and Esc).

MOUSE

A mouse is a hand-held pointing device with two buttons on its top. It is used to control the movement of the pointer to select an object and open files/folders. A mouse is also used to draw pictures.

MICROPHONE

A microphone is an input device, which is used to record voice, music, and sound into the computer system. Sound cards enable a computer to record sound from a microphone, which is connected to the computer.

TOUCH PAD

On a laptop, a touch sensitive pad is used instead of a mouse. We can control the movement of the pointer on the screen by moving the finger on the touch pad.

Fact File

Sir Christopher Latham Sholes was the inventor of QWERTY Keyboard.

Fact File

Dr Engelbart is the inventor of the computer mouse.

Let's Know More

Magic Mouse - A magic mouse is a multi-touch mouse, which was designed in 2009.

Let's Know More

Track Ball

You can also use a Track Ball instead of a mouse. It has a ball on its top. To move the pointer on the screen, you need to roll the ball with your finger.

TOUCH SCREEN

Touch screen is a computer screen, that is sensitive to the touch. On it, we can select objects directly by touching them with fingers without using any pointing device. They are used in Tablets, Laptops, ATMs, Cell phones, etc.

LIGHT PEN

A light pen is a pen-like pointing device. It is used to select objects on the display screen. It is quite similar to a mouse, except that it allows the users to point to the objects displayed on the screen or draw directly on it. A light pen is used only with CRT monitors. These days stylus, which is a type of light pen, is used with a tablet or digitizer.

SCANNER

It is a device that reads the text or pictures printed on a paper and translates the information into a form that a computer understands. There are mainly four types of scanners but only two are commonly used. These are flat bed scanners and hand-held scanners.
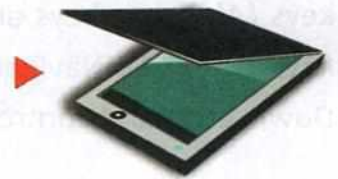
DIGITAL CAMERA

A digital camera is used to take photographs and record videos. The photos/videos taken with a digital camera are stored in the memory chip inside the camera. Then, the digital camera is plugged into the computer and the images/videos are transferred to it for storing, editing, printing, etc.

WEB CAMERA

A web camera is a device connected to the computer for capturing still images and live videos. It is primarily used to chat live with friends and relatives using the internet.

⮞ PROCESSING DEVICE

CENTRAL PROCESSING UNIT

In a human body, the brain has an important role to play. The activities that we perform are the result of signals that we receive from our brain. Likewise, the Central Processing Unit or CPU is the brain of a computer where it processes and stores the information, performs calculations, and sends the result to the output devices. It is placed inside a box called the **CPU Cabinet.**

The CPU has three main parts: ALU, CU, and MU.

Figure 1.3: Parts of CPU

1. **Memory Unit (MU):** This unit stores information temporarily or permanently according to our need.

2. **Arithmetic and Logical Unit (ALU):** This unit performs all arithmetic calculations and logical operations.

3. **Control Unit (CU):** The control unit controls the working of all the other units, i.e, MU, ALU, Input devices, and Output devices. It works like a traffic policeman.

▶ OUTPUT DEVICES

Output devices are used to display the data that we enter into a computer and the results that we get after processing.

MONITOR

The most common output device is the monitor. It looks like a television.

The output that we get on a monitor is called the **Soft Copy**. There are three types of monitors: CRT monitors, LCD monitors, and LED monitors.

CRT monitors are generally less expensive, but consume more electricity.

Both CRT and LCD monitors produce sharp images, but **LCD** monitors have the advantage of being much thinner, lighter, and consume less electricity.

The third type of monitors are **LED** monitors. These monitors look more or less the same as LCD monitors. These have better picture quality and are much in demand than LCDs.

SPEAKERS

Speakers are the output devices that are used to listen to music and sound effects from the computer. These may be built into the CPU cabinet or connected with cables to the CPU cabinate.

PRINTER

It is an important part of a computer system. It prints the output onto the paper. The printed copy is called the **Hard Copy**. The most commonly used printers are: Dot Matrix, Inkjet, and Laser printers.

The **Dot Matrix** Printer works like a typewriter and creates an impression by striking its printing head on the paper. It is very noisy and does not produce quality output. It gives the output only in black and white.

The **Inkjet Printer** sprays droplets of ink on the paper to form the text and graphics. It is ideal for routine business work and personal documents. It can give the output both in black and white and in colour. It produces high quality prints when used with a special paper.

The **Laser Printer** uses laser beams and dry ink to print. It is used mainly in publishing houses. It prints very fast and gives high quality output. Some printers also work like a photocopier machine. The laser printers cost more than the Inkjet printers.

3D printers are remarkable machines that can make everyday things in different materials, in all forms. Various objects are created in 3D using additive processes. In this process, an object is created by laying down successive layers of material until an object is entirely made. In comparison, 3D printers are much costlier than the other printers.

ACTIVITY ZONE ▶▶

USING PRINTER

➤ Open **Paint 3D** and draw a 2D drawing.

➤ Fill colours in it and save the file.

➤ Click on the **Menu** icon 🔲, select the **Save** option, and specify the file name.

➤ Click on the **Menu** icon and select the **Print** option.

➤ Choose the **2D print** 🖨 option from the **Print** pane.

➤ In the **Print** dialog box, specify the number of copies either by typing the number or by clicking the '+' icon.

➤ Click on the **Print** button.
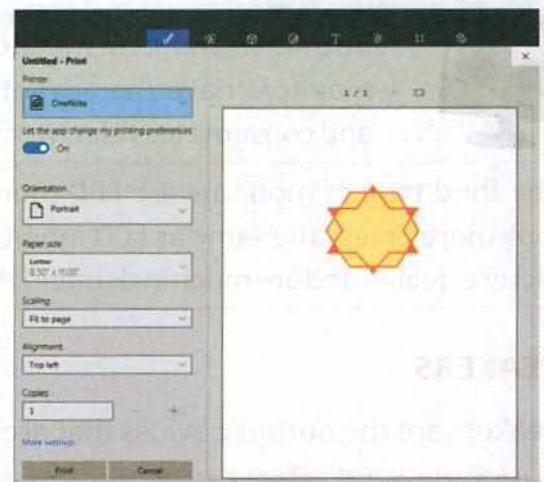
STORAGE DEVICES

Like our brain, a computer stores the data temporarily or permanently using short term or long term memory. The devices that help us in storing the data are called storage devices. We can retrieve the data from these devices whenever needed.

BITS AND BYTE

A computer can understand only two states-ON (represented by 1) and OFF (represented by 0). These two digits–0s and 1s are called Binary digits or Bits. The data is stored in the computer memory in the form of bits, and is measured in **Bytes**.

Every computer has a certain amount of memory. The memory capacity determines how much data and instructions can be stored in the computer either temporarily or permanently.

MEMORY SIZE					
8 Bits	=	1 Byte	1024 TB	=	1 Petabyte (1 PB)
1024 Bytes	=	1 Kilobyte (1 KB)	1024 PB	=	1 Exabyte (1 EB)
1024 KB	=	1 Megabyte (1 MB)	1024 EB	=	1 Zettabyte (1 ZB)
1024 MB	=	1 Gigabyte (1 GB)	1024 ZB	=	1 Yottabyte (1 YB)
1024 GB	=	1 Terabyte (1 TB)			

The memory of a computer is of two types:
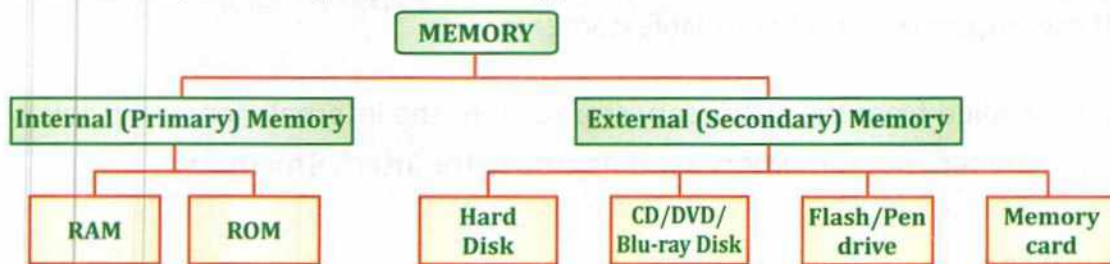
Figure 1.4: **Types of Computer Memory**

INTERNAL MEMORY

Internal memory is also called **Primary memory** or **Main memory**. It is the built-in memory, designed to store data and instructions while the computer is working. The data stored in the internal memory is erased when the computer is turned off. It is always easier to access data or programs from the internal memory as it is the fastest of all forms of computer data storage.

Primary memory is of two types:

Random Access Memory (RAM): It stores the information temporarily and

works like a blackboard that can be constantly overwritten with new data. The information stored in the memory is lost when you turn off the computer or the power goes off. That is why RAM is also called Volatile memory.

RAM is like a calculator, where the information exists till the calculator is on. The moment you turn off the calculator, all the data disappears.

Example

Read Only Memory (ROM): It stores the start up instructions that prepare a computer for use. The instructions stored in the ROM cannot be changed, but can only be read. It retains the stored information even when the power is switched off. Therefore it is called non-volalite memory.

ROM is like an audio disk that can be played, but we cannot record anything on it, except in special types of disks.

Example

EXTERNAL MEMORY

It is used to store information for a long period. Data is not lost in the external memory even when the computer is turned off. It is also called the **Secondary Memory**. The external memory is essential, because the internal memory of a computer has limited storage capacity.

In our daily life, we use many storage devices, such as cupboard, book shelf, refrigerator, school bag, etc. A computer also uses various storage devices that vary in their storage capacity, e.g., hard disk, pen drive, CD, etc. These are permanent or non-volatile storage devices.

Example

When we run a program, it is copied from the secondary storage into the internal memory. It takes more time to access data from the secondary memory as compared to the internal memory.

PORTABLE STORAGE DEVICES

Hard Disk: It is the main storage component in a computer. It is fixed inside the CPU box. It can hold a large amount of data. Hard disks can store up to **16 TB** of data. Nowadays, external hard disks are also available, which are small in size and can be carried anywhere.

CD: CD stands for **Compact Disk**. It is an optical storage device. A CD is a thin, shiny, circular disk that can store up to **700 MB** of data and measures **4.7 inches** in diameter. A CD can hold text, graphics, sound, images, and videos. It can be used for data backup and storing software.

DVD: The full form of DVD is **Digital Versatile Disk** or **Digital Video Disk**. It is an optical storage device that is used for data storage and recording movies with high video and sound quality. The storage capacity varies from **4.7 GB** to **17 GB**.

Blu-Ray Disk: It is a new optical disk format that can store upto **128 GB** of data. This disk is mainly used for storing high quality sound, games, and movie data. The name Blu-ray disk has been derived from the Blue–violet laser that is used to read and write data on it.

Activity Zone

Using a CD/DVD

➤ Press the push button present on the CD/DVD drive. The CD/DVD drive tray will slide out.

➤ Place a CD/DVD on it and press the push button. The tray will move in.

➤ The CD/DVD has an **AutoPlay** program and the CD/DVD will start playing automatically.

➤ If the CD/DVD does not play automatically, double-click on the **CD/DVD** drive icon in the **This PC** folder. It will display its contents. To open any file, just double-click on it.

Flash Drive: It is popularly known as **pen drive** and the most popular data backup device. It is a plug and play device and can be connected to the Universal Serial Bus (USB) port. It is a small, light weight, and removable **drive**. It is used for copying and moving data from one computer to another. A flash drive can store upto **4 TB** of data.

Memory Card: A memory card is a storage medium for portable devices, like mobiles, digital cameras, and music players. These devices transfer image and music files into a computer by using memory card reader that can be connected with a computer through a USB cable. Nowadays, most of the laptops come with an in-built card reader port.

Example

A multimedia card in a digital camera or mobile

A memory multimedia card is small in size; approximately the size of a postage stamp. Multimedia cards are available in various storage capacities ranging up to 512 GB.

RECAP

> A computer system performs three basic functions: Input, Processing, and Output.
> A computer system is made up of four types of devices, Input Devices, Output Devices, Processing Device, Storage Devices.
> The devices through which we enter data and instructions into a computer are called the input devices.
> The devices that display input as well as the result, which we get after processing are called the output devices.
> The devices used to store data and instructions entered by a user are called the storage devices.

BRAIN DEVELOPER

SECTION - A

A. Fill in the blanks.

1. The .... printers give very high quality output.

2. .... devices display the result that we get after processing.

3. The information in a computer is stored in the form of .... digits.

4. .... and .... are the two types of memories present in a computer.

5. A flash drive is popularly known as ....

HINTS • Output • Laser • External • Pen drive • Internal • Binary

B. State True or False.

1. A digital camera is used to share pictures and have live chat on the internet.

2. The CPU manages all the jobs of a computer.

3. A multifunction printer is also known as an All-in-One Printer.

4. RAM stands for Random Accept Memory.

5. 1 Megabyte is equal to 1024 Gigabytes.

C. Application-based questions.

1. Smriti has lost her computer notebook in the class and the next day she has to appear for a test. Which device will you suggest her to use so that she can take the photocopy of the chapters from her friend's notebook?

2. Sohail could not finish his project work in the class, so he wants to carry the softcopy of the project to his house in order to finish it. Which device will you suggest him to fulfill the task?

....

D. Match the following.

A	B
Blu-ray Disk	4.7" in diameter
MU	Used to listen to music and sound effects
CD	Stores information
Speakers	128 GB

SECTION - B

A. Multiple-choice questions.

1. Which output device allows you to record sound?

   a. Microphone   b. Speakers   c. Monitor

2. Which device is used to control the movement of the pointer on a laptop?

   a. Touch Pad   b. Track Ball   c. Touch Screen

3. The maximum capacity of a multimedia card is up to ....

   a. 223 GB   b. 31 GB   c. 512 GB

4. The storage capacity of a DVD varies from .... to ....

   a. 4.2 GB, 16 GB   b. 4.7 GB, 17 GB   c. 4.7 GB, 17.1 GB

B. Answer the following questions.

1. Define the term Input device. Name any two.

   ....

   ....

2. What is a printer? Name the types of printers.

   ....

   ....

3. What do you understand by computer memory? Name its types.

   ....

   ....

4. How is a hard disk useful?

   ....

   ....

5. Why do you use the following devices? Answer briefly.

   a) Digital Camera ....

   ....

   b) Light Pen ....

   ....

ACTIVITY SECTION

MY ACTIVITY   Learning While Playing

A. **Pick the words from the bubbles and put them in the blank places to complete the rhythmic lines.**

A .... is circular in shape,
and it wears a shiny drape.
It stores data, like text, movie, and sound,
and plays it moving round and round.

.... is very small,
but transfers data from one to all.
You can connect it to the USB port,
it saves data and gives all support.

.... is like a blackboard,
It keeps the data on hold.
If you don't press SAVE,
The data gets erased.

A .... is an input device of computer.
It takes a snapshot of your paper and
displays it back on the screen,
It is quite an amazing machine.

Scanner   RAM   DVD   Pen Drive
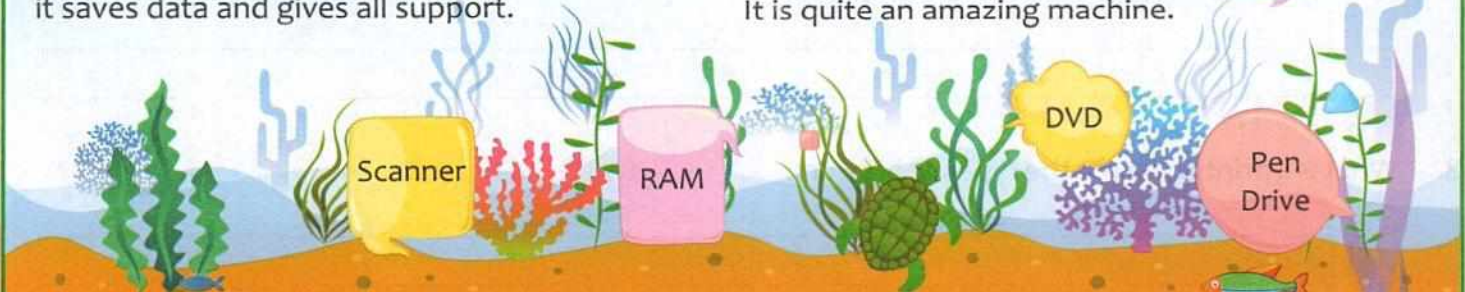
B. Visit the computer lab and learn how to use a CD, DVD, and a Pen drive.

> Open **Word 2016** by selecting the **Start** > **scroll down to Word 2016**. The **Start Screen** appears. Click on the **Blank document**. A new blank document will open.

> Type any two differences between 'RAM' and 'ROM'. Set the font size of the headings to **16** points.

> Type 'RAM' and press the tab key thrice and then type the heading 'ROM'.

> Press the **Enter** key twice, set the font size to **14** and type the points that you have understood in the class. Now, apply italic effect to the text.

> Save the file by using **Ctrl+S** key combination. Specify the name of a file in the **File name** box and click on the **Save** button.

> Close the application by clicking on the **Close** button on the **Title bar**.

GROUP DISCUSSION
For Concept Clarity

Encourage the students to participate in group discussion on the following topics:

> **Digital Camera** and **Web Camera**

> Differentiate between **Touch pad** and **Touch screen**

PROJECT WORK
Using Creativity

Make an informative collage on input, output, and storage devices. Collect pictures from the magazines, newspapers, or the internet with the help of your parents.

ONLINE LINKS
Looking For More

To have better understanding about input and output devices, visit the following websites:

> http://www.teach-ict.com/gcse_computing/ocr/212_computing_hardware/ output_ devices/quiz/ontarget_output.htm

> www.pitara.com/quizzes_for_kids/technology_quizzes_for_kids/computer _hardware

MANAGING FILES AND FOLDERS

A computer is a machine that cannot think on its own and requires instructions from us. The most important software of a computer is its operating system. It is a medium through which we can interact with the hardware, using software. It controls all the activities of a computer. There are various types of operating systems, such as Windows, Linux, Unix, etc.

Windows is a Graphical User Interface (GUI - pronounced as **gooey**) between a computer and its user. It has been developed by Microsoft—the world's leading software company.
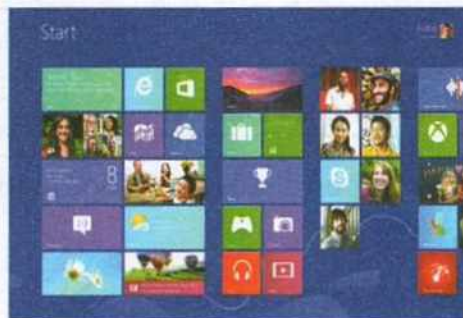
Figure 2.1: Windows 7   **Figure 2.2: Windows 8**   **Figure 2.3: Windows 10**

FEATURES OF WINDOWS 10

The first GUI version of Windows Operating System was Windows 1.0. Since then, many versions of Windows operating system have been released. The most popular versions of Windows are: Windows 98, Windows 2000, Windows ME, Windows XP, Windows Vista, Windows 7, Windows 8, and Windows 10.

The Windows 10 operating system has become very popular because of its following features:

ATTRACTIVE AND EASY TO USE

Windows 10 has a very attractive transparent look with blue highlighting features. It has a complete set of new pictures, themes, tiles, and icons. The use of graphics makes it quite interactive. It works the way we want and makes new things possible.

IMPROVED START MENU

The new Start menu of Windows 10 gives you quick access to apps and services. In the left pane, you

can find File Explorer, Settings, and a list of the most used apps, Power option etc. In the right pane, live tiles are displayed, which consist of various apps.

SEARCH TOOL — CORTANA

Windows 10 has a refined and powerful search tool called 'Cortana'. It allows you to search for information on the system or on the web directly. It can also be used to play music, videos, set alarms and reminders, send e-mail, give voice commands, etc.

SUPPORTS MULTIPLE DESKTOPS

Windows 10 has a new 'Task View' button on the taskbar. This button provides the ability to open multiple desktops at the same time. You can create multiple desktops for different tasks so that only one related set of applications is visible in one desktop. There is no limit to the number of desktops that you can create.

WINDOW SNAPPING

This feature assists you to work with multiple applications on the same screen. You can drag and drop a window to any corner of the screen thereby making space for other apps to be opened simultaneously.

THE NEW BROWSER — EDGE

Microsoft Edge is the default browser of Windows 10. It allows you to write and highlight the text directly on web pages. Cortana is an in-built feature of Microsoft Edge that helps you to do things faster.

WINDOWS STORE

The Windows Store application provides you with all kinds of paid and free apps, games, music, movies, etc. With Microsoft Store, you can try an app before you buy it. Windows 10 opens these apps in multiple small windows on the Desktop.

⟫ STARTING WINDOWS

When we switch on a computer, the Windows operating system starts loading into the computer's memory. Once the process gets completed, the first screen that appears on the monitor is known as the **Desktop**. It contains **Icons** that are the graphical images or symbols representing files or programs.
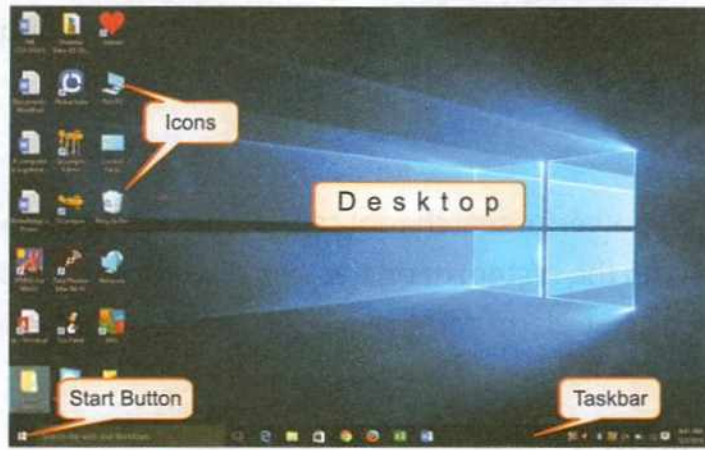
Figure 2.4: Windows 10 Desktop

Labels in figure: Icons, Desktop, Start Button, Taskbar

THE START BUTTON

This is probably the most used button on the Windows desktop. When we click on the **Start** button 🪟 , a menu appears-displaying the major options along with the live tiles . This is called the **Start Menu**. It provides access to the installed programs on a computer.

Figure 2.5: Starting a Program

THIS PC FOLDER

This PC folder displays the contents of the computer's hard disk, CD/DVD, or any other external storage media, such as a pen drive. By using **This PC** 🖥 icon, we can access and manage all the folders and files stored in a computer. It is useful for finding, organising, moving, and copying files/folders in a computer. Double-clicking on **This PC** 🖥 icon opens the folder as shown in Figure 2.6.
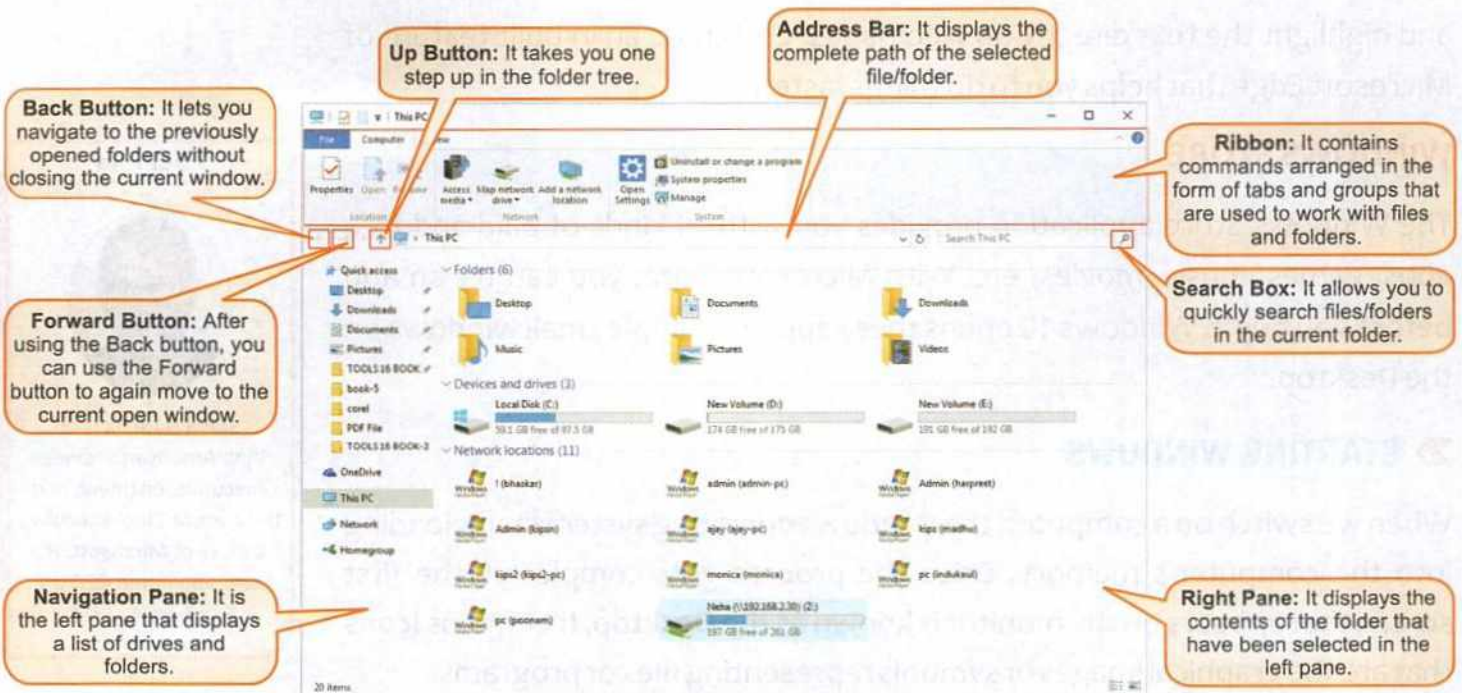

Up Button: It takes you one step up in the folder tree.

Address Bar: It displays the complete path of the selected file/folder.

Back Button: It lets you navigate to the previously opened folders without closing the current window.

Ribbon: It contains commands arranged in the form of tabs and groups that are used to work with files and folders.

Forward Button: After using the Back button, you can use the Forward button to again move to the current open window.

Search Box: It allows you to quickly search files/folders in the current folder.

Navigation Pane: It is the left pane that displays a list of drives and folders.

Right Pane: It displays the contents of the folder that have been selected in the left pane.
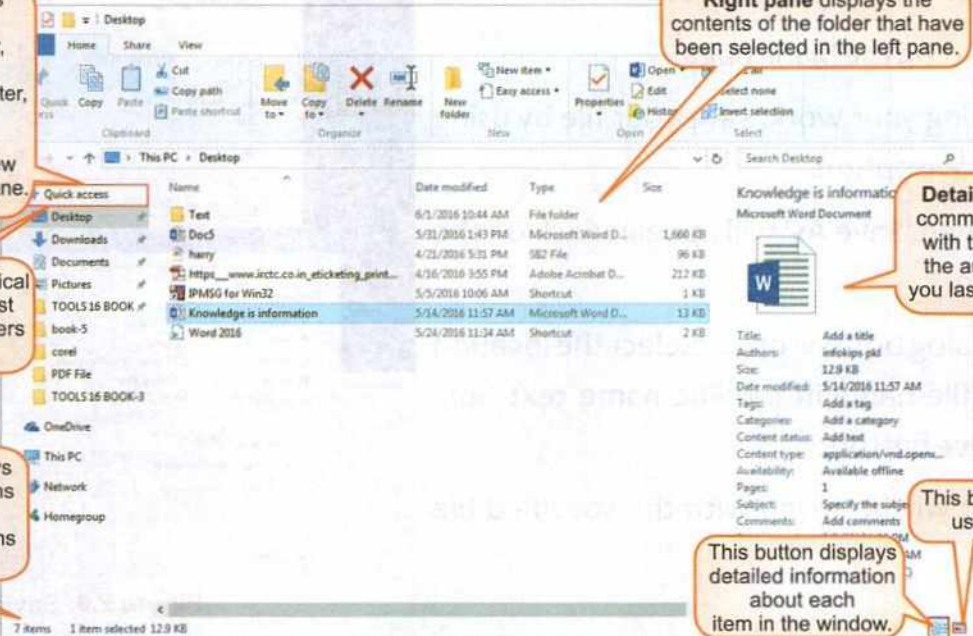
Figure 2.6: This PC Folder

FILE EXPLORER

File Explorer is an application that displays detailed information about files, folders, and drives. It enables you to access, edit, manage, and organise your files and folders. You can use it to view, create, delete, copy, move, rename, and search files and folders.

HOW TO OPEN FILE EXPLORER

To open File Explorer:

> Click on the **Start** button > **File Explorer** option. Or

   Press **Windows key** ⊞ **+ E**.

> The **File Explorer** window will open.

The **Left pane** displays all kinds of locations, such as **This PC** folder, devices and drives connected to your computer, and other folders on your computer. Click on a location to view its contents in the right pane.

Quick access is a vertical ribbon that shows a list of frequently used folders and recent files.

The **Status bar** displays the total number of items in a location, or the number of selected items and their total size.

Right pane displays the contents of the folder that have been selected in the left pane.

Details pane shows the most common properties associated with the selected file, such as the author, size, and the date you last changed the file on, etc.

This button displays the items using large thumbnails.

This button displays detailed information about each item in the window.

Figure 2.7: Components of File Explorer

VIEWING CONTENTS

> To view the contents of any file or folder, simply double-click on it.
> You can change the layout of files and folders by using the **View** tab.

FILES AND FOLDERS

FILE

It is a collection of related information stored together on some storage device, such as hard disk, CD, DVD, or Pen drive. As we keep important papers in a file, likewise, any information in a computer is saved in the form of a file. Each file is given a filename, which helps us to find it whenever required.

FOLDER

As we keep all our files in a file cabinet, similarly, a folder in a computer is like a cabinet where we keep relevant files. A folder can hold other folders as well. A folder within a folder is called a **sub-folder**. You can differentiate a file from a folder with the help of the icons associated with them.

double-click on a file → Opens a Document

double-click → Shows files

Figure 2.8: Files and Folder

CREATING AND SAVING A FILE

The most common method to create a file is by using any application software. Here we are using Word 2016.

➤ Open a new blank document in **Word 2016**.

➤ Start typing text on the blank page.

➤ After completing your work, save your file by using the **File** tab > **Save** option.

➤ A window named 'Save As' will appear. Click on the **Browse** button.

➤ The **Save As** dialog box will open. Select the location and type the file name in the **File name** text box. Click on the **Save** button.

➤ The document will be saved with the specified file name.

Figure 2.9: Saving a File

CREATING A FOLDER

➤ Right-click on the blank area of the desktop.

➤ A Context menu appears.

➤ Place the pointer on the **New** option. A list of sub-options appears, which is called the **Cascading Menu**.

➤ Click on the **Folder** option. A new folder icon will be displayed on the desktop with its default name, i.e, 'New Folder'.

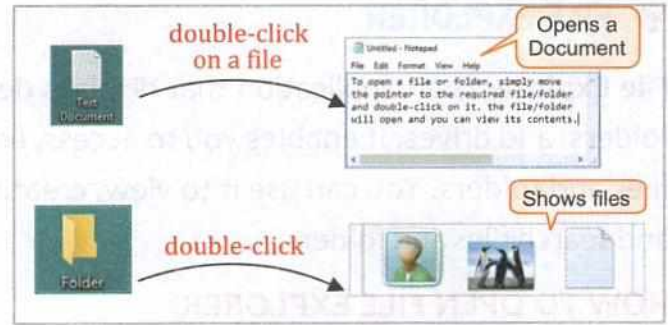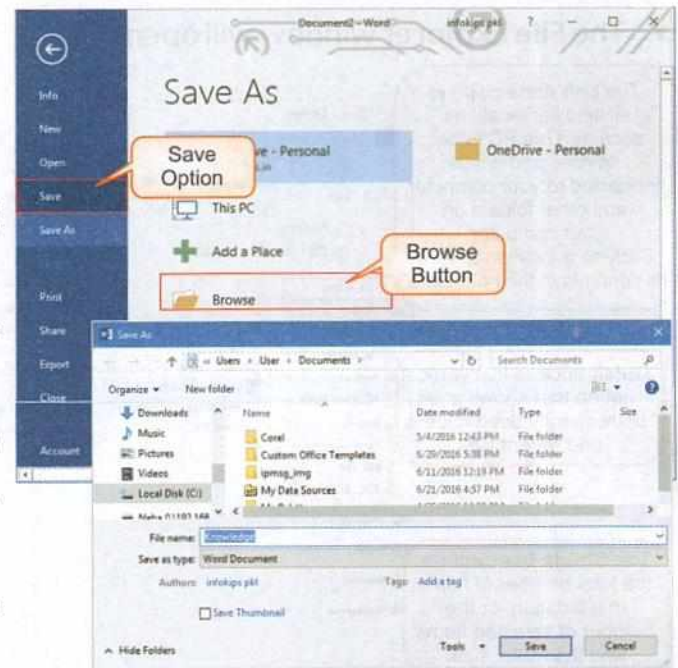➤ Type a name for the folder and press the **Enter** key.
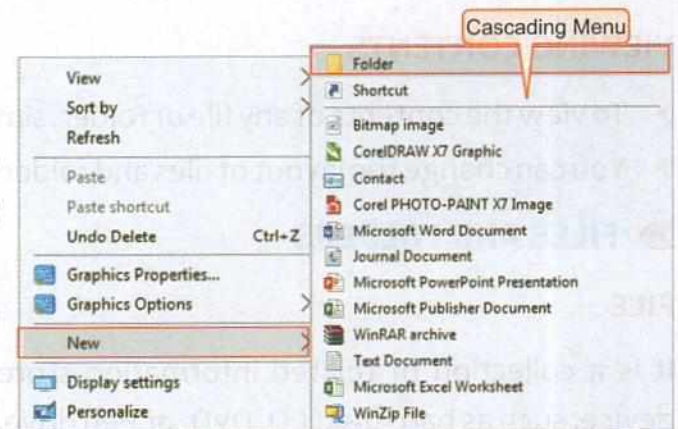

Figure 2.10: Creating a New Folder

OPENING A FILE/FOLDER

To open a file or a folder, simply move the pointer to the particular file/folder and double-click on it. The file/folder will open and you can view its contents.

RENAMING A FILE/FOLDER

Rename means to change the existing name of a file/folder.

To rename any file/folder:

> Right-click on the desired file/folder.

> Select the **Rename** option from the Shortcut menu.

> The file/folder name will be highlighted.

> Now, type the new name that you wish to give to the file/folder.

USING CONTEXT MENU

When you right-click on any icon, a pop-up menu appears, which is called the **Context Menu**. Using this pop-up menu, you can save your time to access commands. Right-clicking on the different areas and objects displays different sets of commands. The Context menu is also called the Shortcut menu.

Figure 2.11: Renaming a Folder

RIGHT- CLICKING ON THE BLANK AREA OF THE DESKTOP

When you right-click on the blank area of the desktop, you will find a menu with a list of options. The **Personalize** option can be seen at the bottom of this list. Using the **Personalize** option, you can change the desktop background, Windows colours, lock screen background, settings of the desktop, screen saver, appearance of icons, menus, taskbar, etc.
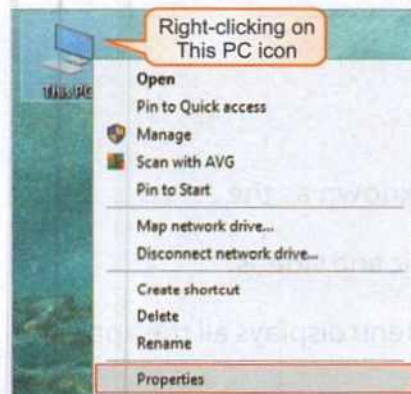
Figure 2.12: Right-clicking on the Blank Area

Figure 2.13: Right-clicking on an Icon

RIGHT-CLICKING ON AN OBJECT

When you right-click on any icon on the desktop, you will find an entirely different list of options. The **Properties** option will be found at the bottom of this list. It displays the basic information about the icon.

⟫ WHAT IS A SHORTCUT?

A Shortcut is an icon that provides an easy and quick method to open any application or software that we use frequently. There is a small jump arrow present at the lower left corner of the shortcut icon. Double-clicking on the shortcut icon opens the file or program that it represents.

CREATING A SHORTCUT ICON FOR MICROSOFT WORD

> Click on the **Start** button ⊞ scroll down and select **Word 2016** program.
> Drag the icon to the Desktop.
> A shortcut icon of **Word 2016** appears on the desktop with a jump arrow in its lower left corner.
> Double-click on the shortcut icon to open the application directly.

📖 RECAP

> Windows 10 is an attractive and easy-to-use operating system.
> An operating system controls all the activities of a computer.
> The first screen that appears on the monitor is known as the desktop.
> Small graphics or symbols displayed on the desktop, which represent a file or program, are called icons.
> This PC folder displays the contents of the computer's hard disk, CD/DVD, or any other external storage media, such as a pen drive.
> A file is a collection of related information stored together on some storage device.
> A folder in a computer is like a file cabinet where we keep relevant files.
> A shortcut icon provides a quick method to open any application or software that we use frequently.

🧠 BRAIN DEVELOPER

SECTION - A

A. Fill in the blanks.

1. When we switch on a PC, the first screen that appears on a monitor is known as the ....

2. The Search tool, ... can also be used to play music and videos.

3. The .... option at the bottom of the left pane of the Start Menu displays all the apps and programs.

4. The .... icon provides an easy and quick method to open any application or software.

5. .... provides detailed information about files, folders, and drives.

B. State True or False.

1. In Windows 10, only one desktop can be opened at a time.

2. An operating system controls all the activities of a computer.

3. Right-clicking on any icon will display 'Personalize' option at the bottom of the displayed list.

4. Cortana is an in-built feature of Microsoft Edge.

5. The shortcut menu is also called the Context menu.

C. Application-based questions.

1. Mehak has created a number of files on her school project and stored them on the desktop. She wants to keep all the relevant project files in a folder, but she has forgotten the way to create a new folder. Help her to create a folder.

   ....

2. Saurabh has created a folder for his Science project and saved it on his computer. But now he wants to rename it. Help him to do so.

   ....

SECTION - B

A. Multiple-choice questions.

1. Windows is a .... user interface software.

   a. Graphical   b. Character   c. Word

2. A .... is a collection of relevant files stored together on some storage device.

   a. Icon   b. Folder   c. Desktop

3. .... is the default browser of Windows 10.

   a. Internet Explorer   b. Microsoft Edge   c. Google Chrome

4. .... displays the number of selected items and their total size.

   a. Status bar   b. Toolbar   c. Menu bar

B. Answer in one word or one sentence.

1. Name the application that provides all kinds of paid and free apps.

2. Which option of Context menu is used to change the desktop background?

3. Which option displays the basic information about an icon?

4. Name the area of File Explorer that displays the most common properties associated with the selected file.

C. Answer the following questions.

1. Explain any two features of Windows 10.

2. Differentiate between a file and folder.

3. What is the use of This PC icon?

4. What do you know about Cortana?

5. What is the use of the Start menu?

ACTIVITY SECTION

Activity-1

➤ Double-click on the **This PC** icon on the desktop. It will display the drives and folders.

➤ Double-click on **D:** drive. It will display all the files and folders stored in it.

➤ Now, create a new folder in it and name it 'My Activity'. Create a file in MS Word 2016 and save it in the 'My Activity' folder.

➤ Right-click on the 'My Activity' folder and select **Send to** option from the Shortcut menu. Now, select the **Desktop (create shortcut)** option.

➤ You will get the shortcut of 'My Activity' folder on the desktop.

Activity-2

➤ Right-click on the blank area of the desktop.

➤ Select the **New** option from the Shortcut menu.

➤ Choose the **Folder** option from the cascading menu.

➤ Type a desired name for the newly created folder and press **Enter**.

➤ Now, rename this folder by right-clicking on it, selecting the **Rename** option from the Shortcut menu, and assigning any new name.

PROJECT WORK   Using Creativity

Prepare a chart on the topic: **Various Versions of Windows**. To make it attractive, paste pictures of each version along with its brief information.

ONLINE LINKS   Looking For More

For better understanding of an operating system, visit the website:

➤ www.gcflearnfree.org/computerbasics/understanding-operating-systems/1/

To know more about Windows 10, visit the website:

➤ www.gcflearnfree.org/windows10/

MORE ON PAINT 3D

Paint 3D has many inbuilt options that can be used to enhance your art work. One such feature is Stickers in Paint 3D. The **Sticker** option is used to add realistic texture and icons to your drawings. Stickers can be added to 2D or 3D drawing. Paint 3D stickers are available in various forms like squares, curves, lines, surface gestures, and facial gestures. You can also create your own stickers using other application and add it to Paint 3D canvas.

ADDING STICKERS TO CANVAS

Adding stickers into your Paint 3D canvas is a simple and easy task. The Sticker tool is used to insert stickers in your canvas. Following steps can be used to add a sticker in Paint 3D canvas.

➤ To add a sticker to your canvas, click on the **Stickers** icon 🖼 on the top menu.

➤ The Sticker, panel will appear on the right-hand side of the Paint 3D window.

➤ You will see three icons on the top of the Stickers panel, i.e., Stickers, Texture, and Add Stickers.

➤ Click on the **Stickers** option 🖼 and you will see all the available stickers in the **Stickers Panel** display.

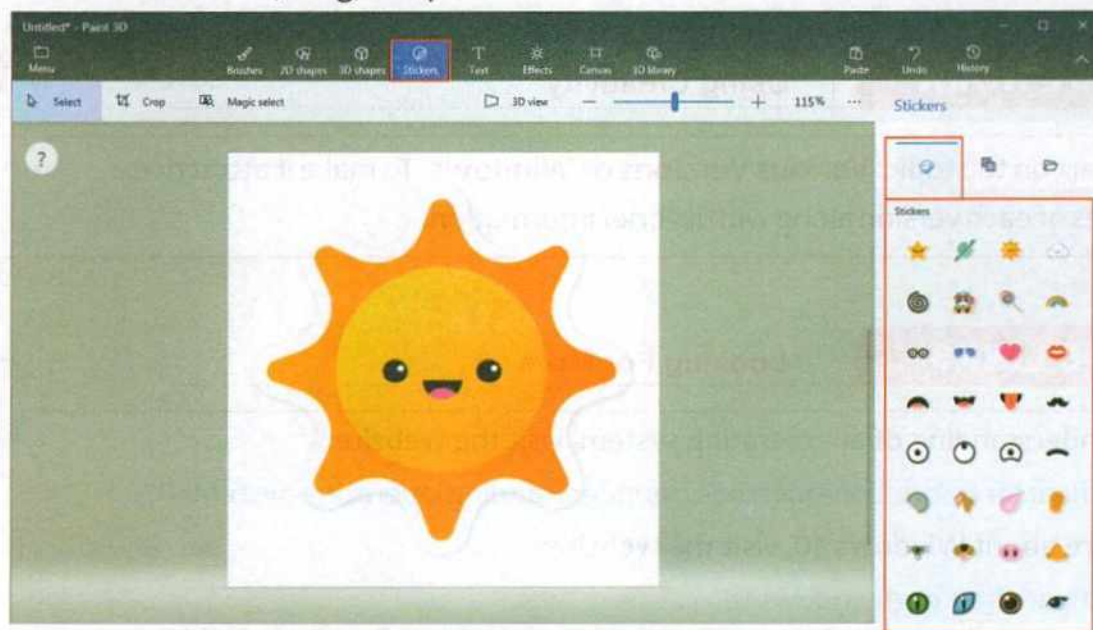➤ Select on the desired sticker, drag, and place it on the canvas.

Figure 3.1: Adding Sticker to the Canvas

SELECTING A STICKER

You can make changes to the sticker that you have inserted in the Paint 3D canvas. You can change the size, position, orientation, and appearance of the sticker. Before you make any significant change to the sticker, it is necessary to select the sticker first. The Select tool placed just below the top menu is used to select a sticker.

Following steps can be used to select a sticker:

➤ Add the sticker **Sun** to the canvas as shown in Figure 3.1

➤ Click on the **Select** tool 🔲 select placed below the top menu.

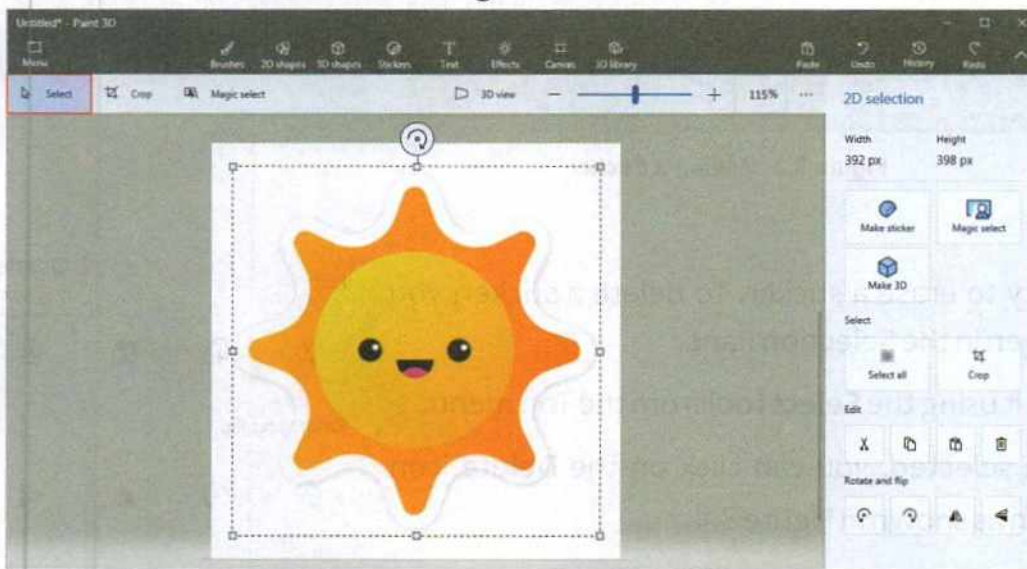➤ Once the object is selected, a rectangle with dotted lines will appear around the sticker as shown in Figure 3.2.

Figure 3.2: Selecting a Sticker

MOVING A STICKER

After adding the desired sticker, you can always change the position and size of the sticker by dragging its edges.

➤ Insert the sticker Sun into canvas and save the file with name **Sun**.

➤ Select the sticker using **Select** tool from the top menu.

➤ Select **Copy** 🔲 button under the **Edit** option from the **2D selection** panel.

➤ Now, click on the **Paste** 🔲 button. The new copy of the selected sticker will be placed over the pre-existing sticker.

➤ Select the inserted sticker, and drag and drop it at the new location as shown in Figure 3.3.

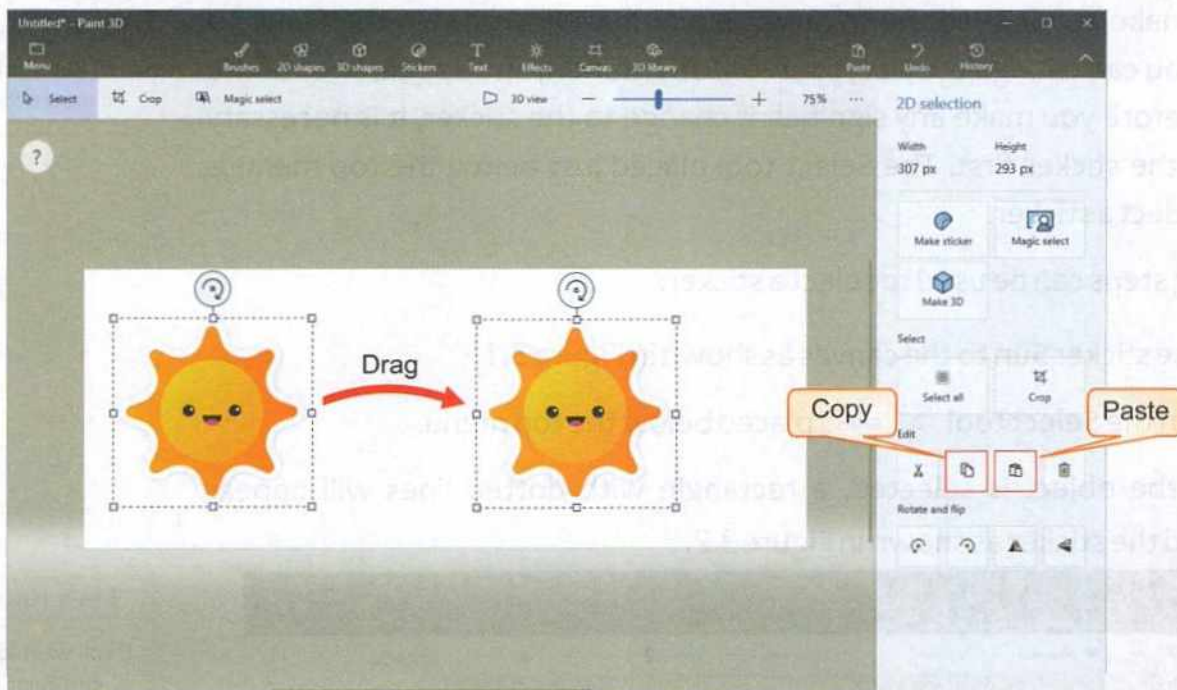> The new copy will be placed at the desired location on the canvas.

Figure 3.3: **Moving a Sticker**

DELETING A STICKER

Paint 3D provides the facility to erase a sticker. To delete a sticker, you can use the delete option given in the Selection Pane.

> To delete a sticker, select it using the **Select** tool from the Top menu.

> Once a sticker has been selected, you can click on the **Delete** icon 🗑 under the Edit option as shown in Figure 3.4.
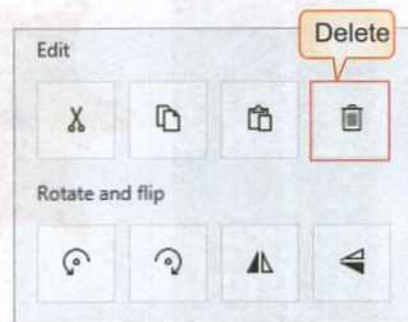
Figure 3.4: **Edit Options**

⨠ ADDING 3D TEXT TO CANVAS

You can also enhance your artwork by adding 3D text to your canvas. The Paint 3D Text tool is an upgrade of Text tool used in MS Paint. With MS Paint program you can only add 2D text to your drawing, on the other hand the Paint 3D program is used to create both 2D and 3D text.

> Click on the **Text** tool 🄣 on the Top Menu. The pointer changes to a ▶₁ sign. Click and drag the Text box on the Canvas Area.

> A dotted rectangular box with options to rotate the text box will appear with a blinking cursor inside it.

> Type the text as shown in the text box.

> You can then use the rotation tools (x- axis, y-axis, and, z-axis) to change and convert the text into 3D.

➤ Rotate the text using y-axis tool up to a position where it takes its 3D form.
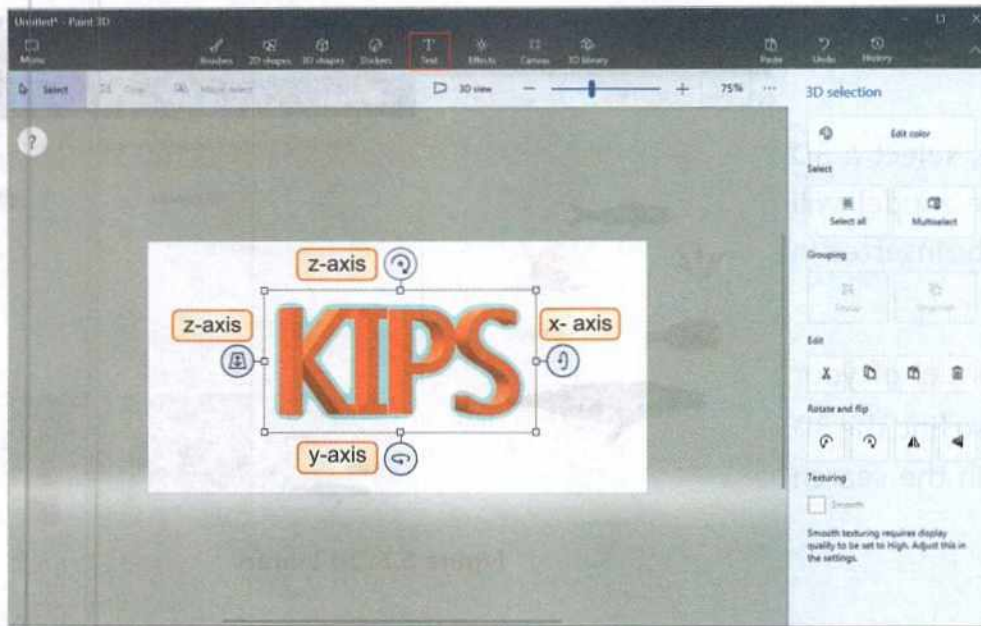
Figure 3.5: **Adding 3D Text**

DELETING 3D TEXT FROM THE CANVAS

➤ To delete 3D Text, select the 3D text box using the **Select** tool from the Top menu.

➤ Once the text has been selected, click on the **Delete** icon 🗑 in the 3D selection panel.

Now, you have learnt how to draw 2D and 3D objects in Paint 3D. You can also enhance the look of your art work using colours, textures, and effects.

➤ ADDING EFFECT

➤ Open the artwork you have already saved using Paint 3D.

➤ Click on the **Effects** icon ☀ on the Top menu. The **Effects** panel will appear on the right-hand side.

➤ Select a filter of your choice from filters. Click on the **Filter** to apply the effect.

➤ You can enhance or lighten the effect by rotating the **Sun** icon ☀ on the Effects panel.
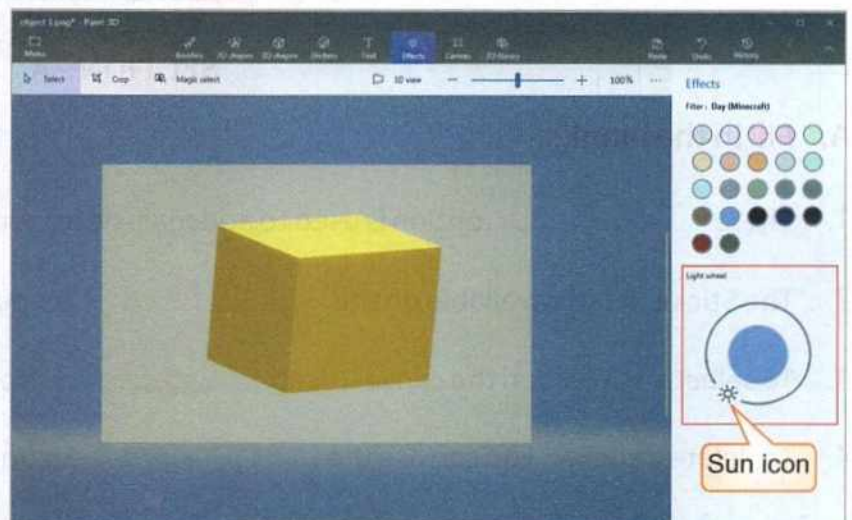
Figure 3.6: **Adding Effects**

➤ ADDING OBJECTS FROM 3D LIBRARY

➤ Click on the **3D Library** icon [▣] in the Top menu.

➤ From the **3D Library** Pane, select a 3D model. Once selected, the model will automatically load and will be inserted in to Paint 3D canvas.

➤ If you do not find a 3D model of your choice in the list, you can also find the 3D model by typing its name in the search box.
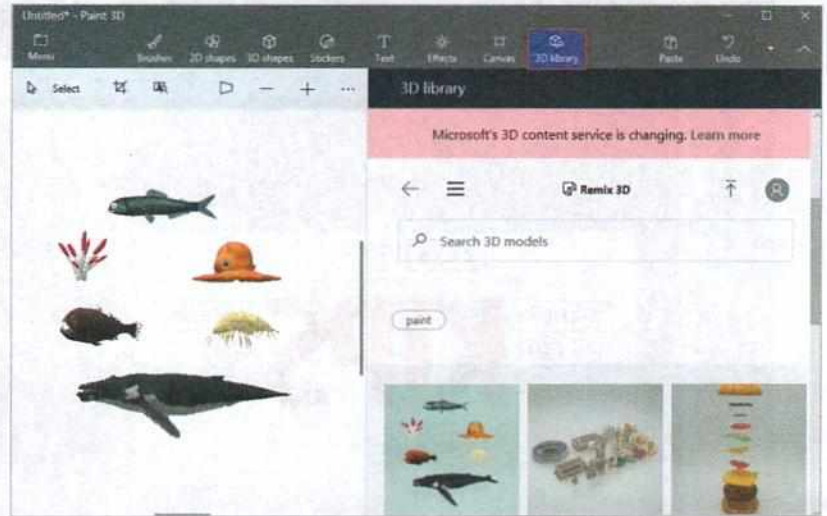
Figure 3.7: 3D Library

📖 RECAP

➤ The Stickers option is used to add realistic texture and icons to your drawings.

➤ To select an object on the canvas, use the Select tool from the top menu.

➤ You can change the position and size of the sticker by dragging its edges.

➤ To delete a sticker, you can use the delete option [🗑] given in the Selection pane.

➤ The Paint 3D Text tool is an upgrade of Text tool used in MS Paint.

➤ The effects options help us to enhance the appearance of the objects.

Let's Know More

You can share your 3D drawings with other people using Remix 3D option. **Remix 3D** is a community that allows Paint 3D users to share and view their creation with the other members of the community.

BRAIN DEVELOPER

SECTION - A

A. Fill in the blanks.

1. The _____ option is used to add realistic texture and icons to your drawings.

2. The Sticker icon is available on the _____ menu.

3. To select an object on the canvas, use _____ tool .

4. To delete a sticker, you can use the _____ icon given in the Selection pane.

5. The Effects panel will appear on the _____ hand side.

B. State True or False.

1. Stickers can be added to 2D or 3D drawings. ☐

2. There are only two icons on the top of the stickers panel. ☐

3. To make any change in a sticker, it is not necessary to select the sticker first. ☐

4. The Paint 3D Text tool is an upgrade of Text tool used in MS Paint. ☐

5. You can also create your own stickers using Paint 3D application. ☐

C. Application-based questions.

1. Abhinav wants to create a 3D drawing of an animal sanctuary. His teacher told him that he can use the Paint 3D application for the same. Help Abhinav in selecting the right tools that can be used for creating the drawing.

2. Alisha has drawn a tree in Paint 3D . She wants to add some effects in the background . Which tool can she use to add the background effects?

SECTION - B

A. Multiple-choice questions.

1. The _____ option is used to add realistic texture and icons to your drawings.

   a. Icons   b. Stickers   c. Labels

2. On which side of the Paint 3D application the Stickers panel is placed?

   a. Left   b. Right   c. Center

3. In paint 3D,the _____ tool is used to select a sticker.

   a. Sticker   b. Select   c. Label

4. You can convert 2D drawings and convert them in 3D using _____ option.

   a. Make 3D   b. Update   c. Insert

5. You can enhance or lighten the effect by rotating the _____ icon on the Effects panel.

   a. Sticker   b. Arrow   c. Sun

B. Answer the following questions.

1. Name the various forms in which Paint 3D stickers are available.

2. Write the steps to delete a Sticker from the Paint 3D canvas.

3. What is the use of 3D Text tool?

4. How is the 2D Text tool different from the 3D Text tool?

MY ACTIVITY   Learning While Playing

Draw the following drawings.

1.

2.

HINTS Use 3D Library to add objects like Island, fishes, and boat.

GROUP DISCUSSION   For Concept Clarity

➤ MS Paint vs Paint 3D

PROJECT WORK   Using Creativity

Make an attractive invitation card for your friend's birthday.

MORE ON MICROSOFT WORD 2016

Word 2016 is a word processor that helps you to create documents with a professional outlook. It not only provides the facility to type and modify the text, but also offers features to enhance the overall appearance of the text. You can find and replace the text, set the page appearance as per your need and also preview a document before printing it.

▶ COPY FORMATTING TO ANOTHER SELECTION

The **Format Painter** tool is used to copy and apply text formatting and some basic graphics formatting, such as borders and fills to another selection.

➤ Select the text or graphics whose formatting you want to copy. Click on the **Format Painter** button 🖌 in the **Clipboard** group on the **Home** tab.

➤ The pointer changes into a brush shape. Now, apply the copied format by dragging the brush over the desired text.

➤ The formatting attributes of the previous text will be applied to the selected text.

▶ FINDING THE TEXT

To find a particular word or phrase in the current document, follow the given steps:

➤ Click on the **Find** button 🔍Find ▾ in the **Editing** group on the **Home** tab.

➤ A **Navigation** pane appears to the left of the document window.

➤ You can simply type the word that you want to find in the 'Search document' box. The searched results will be displayed in the **Navigation** pane with the highlighted words. Or

Select the **Advanced Find** option from the drop-down menu of the 'Search document' text box. The **Find and Replace** dialog box appears as shown in Figure 4.1.

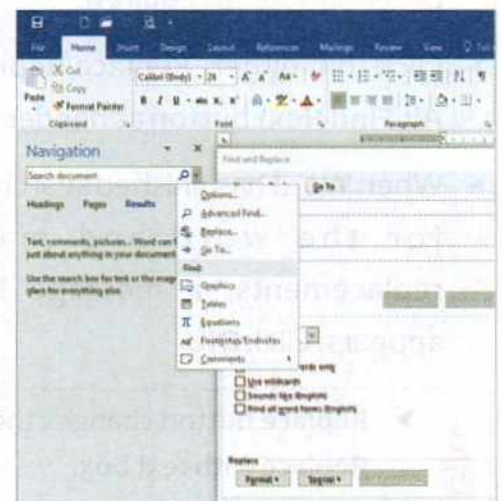➤ In **Find what** box, type the text that you want to search in the document.

**Figure 4.1: Find and Replace Dialog Box**

- Click on the **Find Next** button. The pointer will move to the next occurrence of the searched word and the text will get highlighted.
- After finishing the search, Word displays a message: "We're finished searching the document". Click **OK**.
- Click on the **More** button if you want to widen your search criteria.

> **Tips**
> - If you click on the **Match case** check box, it will search the text with a similar case that you have typed in the **Find what** text box.
> - If you select the **Find whole words only** check box, it will match the complete word; otherwise, it will also search those words where it finds the first matching letters. For example, if you type 'the' in the **Find what** text box and do not click on the **Find whole words only** option, it will also search the word 'they', 'then', 'there', etc., because the first three letters of these words are 'the'.

❯ REPLACING THE TEXT

Besides searching the text you can also replace the words or phrases with any alternate text. To replace text, follow the given procedure:

- Click on the **Replace** button ᵃᵇ⌐ᵃᶜ **Replace** in the **Editing** group on the **Home** tab. The **Find and Replace** dialog box appears. In **Find what** box, type the text that you want to search for. In the **Replace with** box, enter the new text to replace the existing text.

- Click on the **More** button to select other options, if required.

- Click on either **Replace/Replace All/Find Next** button as needed.

- When Word has finished searching for the word and made replacements, a message box appears. Click **OK**.

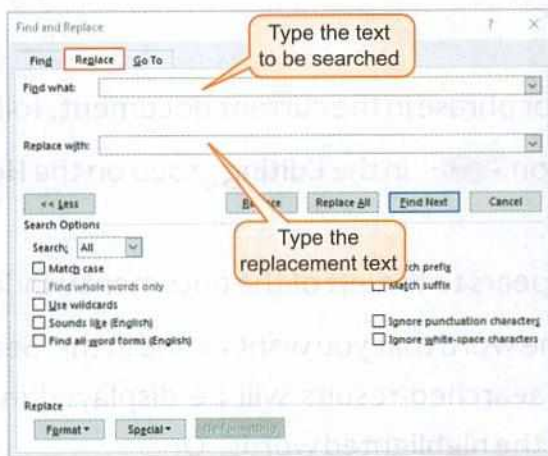**Figure 4.2: Find and Replace Dialog Box**

> **Tips**
> - **Replace** button changes the searched text with the new text given in the **Replace with** text box.
> - **Replace All** button replaces all the occurrences of the searched text with the new text.

> ➤ **Find Next** button will highlight the next occurrence of the text that it searches.
>
> ➤ **Cancel** button is used to close the **Find and Replace** dialog box.

➤ PAGE FORMATTING

CREATING HEADER AND FOOTER

Header and Footer is used to place some information on top and at the bottom of every page, respectively. You can include the title, chapter's heading, date, page number, author's name, etc. in this section.

Figure 4.3: Header & Footer Tools

➤ The **Header** and **Footer** buttons are found in the **Header & Footer** group on the **Insert** tab. Click on the **Header** button. Select the **Edit Header** option in the drop-down menu. Likewise, select the **Insert > Footer > Edit Footer** option to display the **Footer** box. An additional tab named **Design** will appear on the Ribbon under the **Header & Footer Tools** section.

➤ You will find the **Header** and **Footer** boxes at the top and bottom of each page, respectively, separated by the dotted lines.

➤ Click on the **Header** box and type the text that you want to display here. For example, 'KIPS LEARNING' on the left side.

➤ Press the **Tab** key twice. The insertion point will jump to the right side. Click on the **Date & Time** button in the **Insert** group on the **Design** tab under the **Header & Footer Tools** section. The **Date and Time** dialog box appears. Choose the desired date and time format. Click **OK**.

➤ Click on the **Go to Footer** button in the **Navigation** group. The cursor will appear on the left side of the **Footer** section. Press the **Tab** key and the cursor will jump to the centre of the page.

➤ Click on the **Page Number** button in the **Header & Footer** group and choose the desired format from the drop-down list. If you intend to apply specific page number style then select the **Format Page Numbers** option from the drop-down menu.

➤ The **Page Number Format** dialog box appears. Define the settings as per your need and click **OK**.

➤ Click on the **Close Header and Footer** button on the **Design** tab to come out of the **Header & Footer Tools** section.
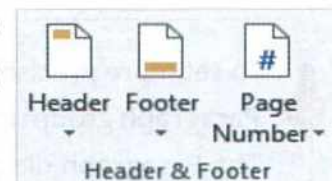
SETTING PARAGRAPH SPACING

Paragraph spacing is the amount of space above or below a paragraph. Follow the steps to set the paragraph spacing.

> Select the paragraph before or after which you want to change the spacing.

> Click on the **Paragraph** dialog box launcher button ⌐ on the **Home** tab. The **Paragraph** dialog box will open.

> Select the **Indents and Spacing** tab. Enter the required spacing in the **Before** and **After** spin boxes under the **Spacing** section. Click **OK**.

> To set more precise spacing measurement, click on **Line and Paragraph Spacing** ⌐ button in the **Paragraph** group under the **Home** tab and select the **Line Spacing Options** from the drop-down menu. The **Paragraph** dialog box will appear. Select any specified value for the line spacing and paragraph spacing.

CHANGING LINE SPACING

Line spacing is the vertical distance between successive lines of the text in a document. We can also increase or decrease the line spacing between a paragraph.

> Select the text. Click on the **Paragraph** dialog box launcher ⌐ .

> The **Paragraph** dialog box appears. Select the **Indents and Spacing** tab and then select the required **Line spacing** option under the **Spacing** section. Click **OK**.

Word 2013

In a similar manner, you can set the Paragraph and Line spacing from the **HOME** tab in Word 2013.

Figure 4.4: Changing Line Spacing

INSERTING COLUMN AND COLUMN BREAK

When you type in Word document, by default the text is displayed in a single column style or paragraph style. If you wish to format the document in newspaper style, i.e., column style. **Word 2016** enables you to create a document in two or more columns.

Using Column Button

The easiest way to create a multi-column document is to use the **Columns** button ⌐ on **Layout** tab in the **Page Setup** group.

> Select the text. Click on the **Columns** button.

- A drop-down menu displays the choices of columns.
- Select the number of columns that you would like to insert in your document.
- If you want to customise the column then click on the **More Columns** option in the drop-down menu. The **Columns** dialog box appears. Define the desired settings and click **OK**.

Figure 4.5: Columns Dialog Box

Inserting Column Break

If you have already added columns to your Word document, then you might have noticed that some of the columns are not as balanced as you would like them to be. One solution to this problem is to add a column break. It will force the end of the column and move that text to the beginning of a new column.

Figure 4.6: Selecting Page Breaks Option

- Place the cursor before the text where you want to insert column break.
- Click on the **Breaks** button on the **Layout** tab and select the **Column** option from the drop-down menu.
- You will observe that the text following the column break will begin in the next column.

Word 2013

To add columns and breaks in a document, click on the **PAGE LAYOUT** tab and select the desired options.

WORKING WITH TABS

The most common way to indent the text is to use the **Tab** key. It is used to move the cursor at certain spaces in a document. By default, Tab stops are set at every 0.5 inch. You can set the Tab stops along the ruler according to your requirement. When you press the Tab key, the cursor automatically jumps to the next tab. Tabs can also be created using Leaders lines. The Leaders insert dots or dashes in the space leading up to the Tab stop. To set the Tab stop, follow the given steps:

- Click on the **Paragraph** dialog box launcher in the **Layout** tab.
- The **Paragraph** dialog box will appear. Now, click on the **Tabs** button present on the lower left of the dialog box. The **Tabs** dialog box will appear on the screen.
- Type a tab position for example, 1.25" in the **Tab stop position:** Text box.

- Select any of the **Alignment** options and click on the **Set** button.

- Similarly, set a new tab at 3" and click **OK**.

- Now, press the **Tab** key. The cursor will jump to the next position where you have set the Tab stop.

> **Tips:** You can quickly set Tabs by using the **Tab selector** ∟ button present on the left end of the Ruler bar in a document. Keep on clicking the button until it displays the type of tab that you want to set. Then, click on the location on the Ruler bar where you want to set the tab.
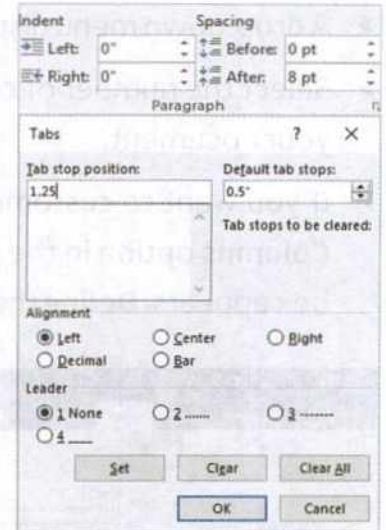
Figure 4.7: Tabs Dialog Box

Word 2013

In Word 2013, you can set the tab position from the **PAGE LAYOUT** tab.

INDENTING TEXT

Indentation determines the amount of spacing between the text and the page margins. Indenting basically draws the reader's attention. The Indentation feature is used to move a complete paragraph or the first line of a paragraph to a specific position, either from the left or right margin.

- Select the text to be indented.

- Click on the **Increase Indent** button in the **Paragraph** group on the **Home** tab. The selected text will shift ½ inch away from the left margin.

Figure 4.8: Indenting Text

- Click on the **Decrease Indent** button to move the text ½ inch closer to the left margin.

> **Tips:** You can also set the indents by the dragging method. Select the paragraph and drag the **First Line Indent**, **Left Indent**, **Right Indent** or **Hanging Indent** on the Ruler bar.

Word 2013

In Word 2013, you can also indent the text by selecting the **Increase Indent** and **Decrease Indent** buttons present on the **HOME** tab.

≫ SETTING PAGE PROPERTIES

Word offers features to set the page properties, such as page margins, page orientation, page size, etc.

SETTING MARGINS

Margin refers to the amount of space that is left from the edge of the page and the document text. Word 2016 allows you to set the margins on all the four sides of a document, i.e., top, bottom, left, and right. The default margins are set at 1" from top and bottom and 1" from left and right edge of the page.

Setting Margins using Ruler Bars

> To change the left or right margins, point to a margin boundary on the Horizontal ruler. When the pointer changes to a double-headed arrow ↔, drag the margin boundary as per your need.

> To change the top or bottom margins, point to a margin boundary on the Vertical ruler. When the pointer changes to a double-headed arrow ↕, drag the margin boundary, as required.

To Specify Exact Margin Measurement

> Select the **Layout** tab. Click on the **Margins** option in the **Page Setup** group. A drop-down list of options appears. The **Normal** option is selected by default. Select any pre-defined margin setting.   Or

Figure 4.9: Page Setup Dialog Box

Select the **Custom Margins** tab. Type the values for **Top, Bottom, Left, Right,** and **Gutter** margins or click the spin boxes to set the margins.

> In the **Apply to** drop-down list, choose the option; **Whole document**. Click **OK**.

SETTING PAPER ORIENTATION

The **Page Orientation** is the property to set the printing direction of the text. The default orientation is **Portrait**, in which document is printed length-wise. When we choose **Landscape** orientation, the document is printed width-wise.

To change the page orientation, follow the given steps:

> Select the **Layout** tab. Click on the **Orientation** button in the **Page Setup** group.

> Choose the **Landscape** orientation from the drop-down list. Observe the change.

SETTING PAPER SIZE

In Word 2016, you can work with different sizes of paper, but the available selections depend on the type of printer you use.

To set a paper size:

➤ Select the **Layout** tab. Click on the **Size** button in the **Page Setup** group. A list of paper size option appears. The current paper size is highlighted in the drop-down list. Select any desired page size option. The paper size of the document changes accordingly. Or

Click on the **Page Setup** dialog box launcher. The **Page Setup** dialog box will appear.

➤ Click on the **Paper** tab. Select the desired size from the **Paper size** drop-down list.

➤ Observe the change in the **Preview** block and click **OK**.
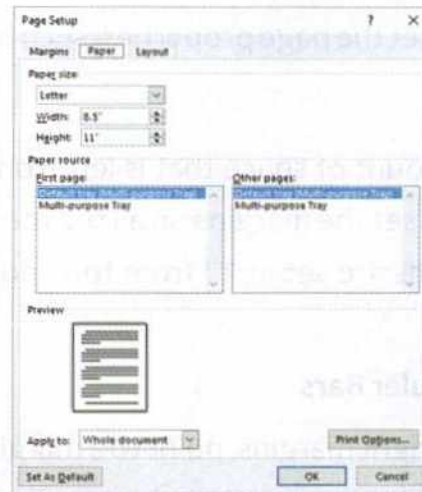
Figure 4.10: Setting Paper Size

Word 2013

The page setting options are available on the **PAGE LAYOUT** tab in Word 2013.

➤ PREVIEWING A DOCUMENT

Word 2016 allows you to preview the document before printing. Follow the given steps to preview a document:

➤ Click on the **File** tab and select the **Print** option.

➤ A preview of your document automatically appears on the right side of the Word window. To view each page, click on the Navigation buttons below the preview section.

➤ You can magnify the view of the page by using the **Zoom Slider** bar at the bottom right corner of the preview section.

Figure 4.11: Previewing a Document

- If you want to print more than one copy of a document, you can choose between the **Collated** and **Uncollated** options in the **Settings** section.

- If there are ten pages in a document and you want to print five copies then the **Collated** option will print the complete copy of the document, i.e., from page 1 to page 10 and then it will again start printing the next copy. Whereas, the **Uncollated** option will print all the five copies of the first page, and then it will print the next copy of the subsequent pages likewise.

PRINTING A DOCUMENT

After checking the preview of the document, you can follow the given steps to print it:

- Click on the **File** tab and select the **Print** option.

- Choose the printer from the **Printer Properties** drop-down list.

- Enter the number of copies in the **Copies** spin box.

- Under the **Settings** section, click on the arrow next to the **Print All Pages** to choose any given option.

  - Selecting the **Print All Pages** option prints the entire document.

  - Selecting the **Print Selection** option prints only the selected text from the document.

  - Selecting the **Print Current Page** prints only the selected page from your document.

  - Choosing the **Custom Print** option prints the specified range of pages from the document.

Figure 4.12: Selecting the Print Option

- After selecting all the required options, click on the **Print** button.

Word 2013

In Word 2013, clicking on the **FILE** tab and then selecting the **Print** option will open the **Print** section in the right pane. You can change the print settings by following the same steps as we have mentioned above.

Figure 4.13: Word 2013 Window

> The Format Painter tool is used to apply text formatting and some basic graphics formatting, such as borders and fills to another selection.

> The Find option finds a particular word or phrase in the current document.

> The Replace option in Word offers a facility to search a particular word or phrase and replace it with a new word.

> Header and Footer are used to place some information on the top and at the bottom of every page, respectively.

> Line spacing is the vertical distance between successive lines of the text in a document.

> Paragraph spacing determines the amount of spaces above or below a paragraph.

> By default, Tab stops are set at every 0.5 inch.

> Indentation determines the amount of spacing between the text and page margins.

> Margin refers to the amount of space that is left from the edges of a paper where the text actually begins to appear.

> Page Orientation is the property to set the printing direction of the text on paper.

BRAIN DEVELOPER

SECTION - A

A. Fill in the blanks.

1. The default margins are set at .... from top, bottom, left, and right edge of the page.

2. To copy formatting to multiple text, ... on the Format Painter button.

3. The Column breaks option is present on the .... tab.

4. Format Painter is a .... button.

5. The default tab stops are set at every .... inch.

6. .... is the vertical distance between successive lines of the text in a document.

HINTS   • 1"   • Toggle   • Double-click   • 0.5   • Line Spacing   • Layout

B. State True or False.

1. Indentation determines the amount of spacing above or below a paragraph. ☐

2. Tab key is used to move the cursor at certain spaces in a document. ☐

3. The Page Break option splits the document in two or more columns. ☐

4. Landscape is the default paper orientation in Word 2016. ☐

5. The Increase Indent button shifts the text 1" (inch) away from the left margin. ☐

C. Application-based questions.

1. Aaryan has been given an assignment to write three paragraphs on the topic- 'Keep Your City Clean'. Help him format the document by setting the indents, margins, spacing before and after the paragraph. Name the options that he would use to format these.

   ....

2. Diya has created a Science project of five pages in Word 2016. Her Science teacher has asked her to mention the topic, page numbers, and her name on all the pages. Suggest her the most suitable option for the same.

   ....

SECTION - B

A. Multiple-choice questions.

1. The .... option is used to search any particular word or phrase in a document.

   a. Find   b. Search   c. Replace

2. The .... option divides a document in two or more columns.

   a. Tab   b. Columns   c. Header

3. The selected text can be shifted half inch away from the left margin by using the .... button.

   a. Decrease indent   b. Increase indent   c. Spacing

4. The top and bottom margins of a document can be changed by using the ....

    a. Vertical ruler   b. Horizontal ruler   c. Tab stop

5. To move a paragraph or line to a specific position, the .... feature is used.

    a. Format Painter   b. Paragraph Spacing   c. Indenting

B.   Answer the following questions.

1. How will you apply text formatting to another selection?

2. Why do we use Header and Footer options?

3. What is indentation? List the types of indentation.

4. What are Page margins? What are the default settings of Left and Right margins?

5. What do you understand by the Print Preview option?

ACTIVITY SECTION

➤ Open Word 2016, insert **Header** and type the text **Class IV**.

➤ Write the heading **BIRTHDAY RECORD**. Select the heading, apply orange colour and align it to the centre of the page.

➤ Divide the page into two columns using the **Columns** options. Set **Line Spacing** of the page to double.

➤ Set two tabs in the first column to align **NAME** and **D.O.B** as shown in the given figure.

➤ Select the headings **NAME** and **D.O.B**, make them **Bold, Underlined**, change their **Font Size** and **Font Colour** to **18** and **Dark Blue**, respectively. Enter the data using tabs.

➤ After inserting the complete data of column 1, insert a column break in the document.

➤ In the second column, enter the heading, 'Your Qualities'.

➤ Use the **Format Painter** button to apply the formatting of the heading, 'NAME' and apply it on the heading, 'Your Qualities'.

➤ Set the left margin of column 2 by dragging the double-headed arrow towards left before typing the text.

➤ Find the word 'Polite' and replace it with 'Courteous'.

➤ Save the file by pressing **Ctrl + S** key combination and exit Word 2016.

Class IV

BIRTHDAY RECORD

NAME	D.O.B	Your Qualities
Shreya	January 12	January- You're Ambitious, Smart, and Organised
Kushal	February 9	February- You're Quiet, Shy, and Humble
Vikas	July 17	July- You're Friendly, Caring, and Loving
Aliya	September19	September- You're Calm, Kind, and Sympathetic
Harshad	March 26	March- You're Attractive, Affectionate, and Moody
Mehreet	June 22	June- You're Polite, Soft spoken, and Sensitive

➤ **Paragraph spacing** vs **Line spacing**.

➤ Discuss the different methods of **Margins** settings.

To know more about Word 2016, visit the following websites:
http://www.dummies.com/how-to/content/how-to-find-and-replace-formatting-in-word-2016.html

A. Fill in the blanks.

1. The default margins are set at .... from top, bottom, left, and right edge of the page.

2. A computer can understand only two states .... and ....

3. .... and .... are the two types of primary memory.

4. The .... icon is used to delete objects in Paint 3D.

5. .... displays a list of drives and folders.

HINTS   • On   • Delete   • RAM   • 1"   • Off   • Navigation pane   • ROM

B. State True or False.

1. The Inkjet printer can give only colour printouts.

2. The Tab key is used to move the cursor certain spaces in a document.

3. Potrait is the default paper orientation in Word 2016.

4. In Paint 3D, you can only add 3D text to your canvas.

5. An operating system controls all the activities of a computer.

C. Find the odd one out.

1.	Keyboard	Touch Pad	Scanner	Printer
2.	MU	ALU	VDU	CU
3.	Flash drive	DVD	ROM	Blu-ray Disk
4.	Windows 7	Windows 10	Windows 8	Sticker
5.	Vinod Dham	Bill Gates	Satya Nadella	Sachin Tendulkar

D. Write the full form of the given acronyms.

1. CRT ....

2. CD ....

3. GUI ....

4. ALU ....

A. Choose the best answer.

1. Which device gives the output on a paper?

   a. Printer   b. Pen drive   c. Monitor

2. The maximum capacity of multimedia cards is up to ....

   a. 223 GB   b. 31 GB   c. 512 GB

3. Windows is a .... user interface.

   a. Graphical   b. Character   c. Word

4. Which among the following tools is not used in Paint 3D?

   a. 3D Text   b. Effects   c. 2D Library

5. Paint 3D Text tool is an upgrade of the .... used in MS Paint.

   a. Text Tool   b. Brush Tool   c. Eraser Tool

B. Answer in one word.

1. Which input device is used to record voice into the computer system? ....

2. Which input device can be used only with CRT monitor? ....

3. Name the latest version of the Windows operating system. ....

4. Name the tool used to add text to the canvas in Paint 3D. ....

5. Which shortcut method is used to replace the text in a Word document? ....

C. Answer the following questions.

1. What do you understand by computer memory? Name its parts.

   ....

2. What is a storyboard?

   ....

3. Write any two features of Windows 10.

   ....

   ....

4. What are Page margins? What are the default settings of Left and Right margins?

   ....

   ....

WORKING WITH STYLES AND OBJECTS

LEARNING IN THIS CHAPTER

- Applying Built-in styles and creating a new style
- Adding a Text box and inserting WordArt
- Working with shapes
- Inserting Symbols and Special characters
- Inserting pictures
- Adding Screenshot in a document

Style is a pre-defined combination of formatting features and types, like font style, colour, and the size of text that is applied to the selected text in a document to quickly change its appearance. When you apply a style, you apply a group of formats together in one simple task.

To format the title, "WELCOME TO THE WORLD OF STYLE" as **16 pt, Calibri Light,** and **Font Color : Accent 1,** we would be requiring three steps. You can also achieve the same result in one step by applying the built-in **Heading 1** style. By default, the text that you type in a new document is based on the Normal style. Besides Normal style, Word provides many inbuilt styles. You can also create and edit your own styles. Styles are of two types:

CHARACTER STYLE : A Character Style affects the selected text within a paragraph, such as font name, size, colour, bold, underline, borders, and shading.

PARAGRAPH STYLE : A Paragraph Style controls all the aspects of a paragraph's appearance, such as text alignment, tab stops, line spacing, borders, and it can also include character formatting.

⯈ APPLYING BUILT-IN STYLES

To give a polished look to the text, apply a style from the built-in Styles gallery.

⯈ Select the text to which you want to apply a style. Hover the mouse over each style in the **Styles** gallery to see a live preview in the document and select the desired style. You can also click on the **More** drop-down arrow to see some additional styles and select the desired one. Or

Click on the **Styles** dialog box launcher button ⯐ in the **Styles** group.

⯈ The **Styles** task pane will appear at the right side of the document window.
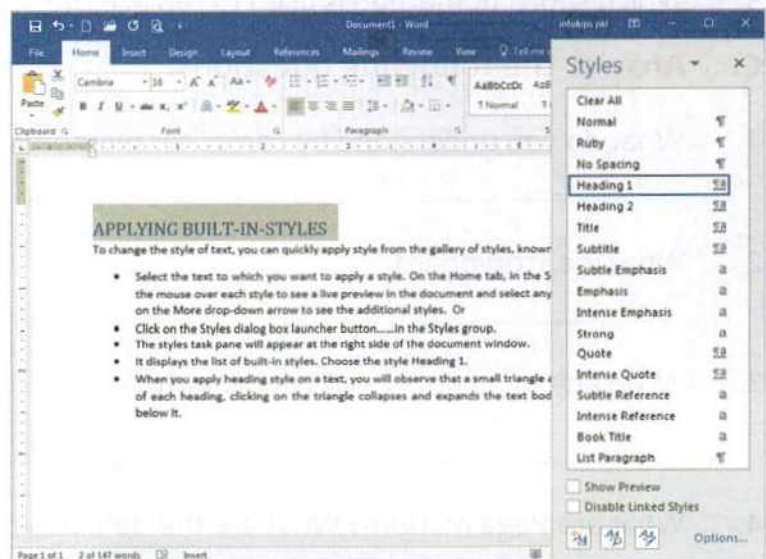

Figure 5.1: Applying Built-in Style

- It displays a list of built-in styles. Choose the style **Heading 1**.

- Observe the change in the appearance of the text.

CREATING A NEW STYLE

- Select the text and click on the dialog box launcher in the **Styles** group on the **Home** tab. This opens the **Styles** task pane.

- Click on the **New Style** button located at the bottom of the window. The **Create New Style from Formatting** dialog box will appear as shown in Figure 5.2.
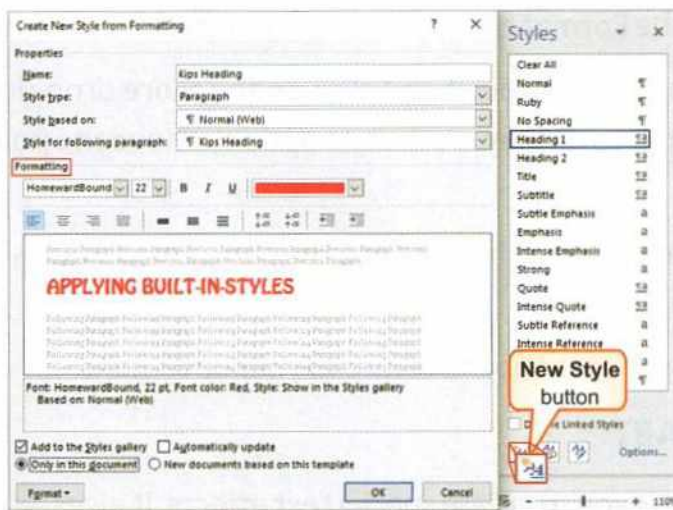
- Type the style name in the **Name** text box, and choose the formatting effects under the **Formatting** section.

Figure 5.2: Creating a New Style

- Select the **New documents based on this template** radio button so that the new style will be available in all your documents for use.

- Click **OK**. The new style with the assigned name will appear in the list.

WORD 2013

You can apply, change, and create new styles in Word 2013 by using the **Styles** group on the **HOME** tab.

ADDING A TEXT BOX

A text box is a placeholder where you can enter text. It can be used to manipulate text and give it new graphical effects. You can move the text box along with its contents anywhere in the document.

CREATING A TEXT BOX?

- Select the **Insert** tab. Click on the **Text Box** button in the **Text** group. Select the **Draw Text Box** option from the drop-down menu. The pointer changes into cross hair (+) symbol.

- Click and drag the mouse pointer on the document to create the text box.

Handles of the Text Box

Learning
Computer
With
KIPS

Figure 5.3: Using Text Box

- The text box will be drawn with the insertion point inside it.

- You can resize the text box by dragging its handles.

- Type the text. It automatically adjusts and shifts the text to the next line with respect to the box area.

- You will observe that the **Format** tab appears automatically on the ribbon with various options.

- To change the text box style, select it and click on the **More** drop-down arrow in the **Shape Styles** group on the **Format** tab to display more style options. Move the pointer over the styles and select any desired one.

- You can also select the text and then change the font, colour, and size by using the commands on the **Format** and **Home** tabs.

- Click anywhere outside the text box to return to your document.
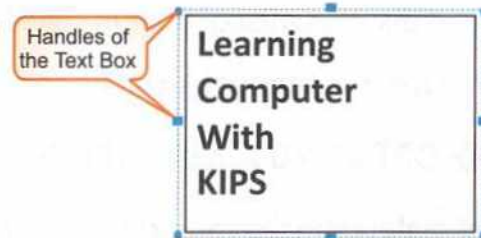
≫ INSERTING WORDART

The **WordArt** feature allows you to create special text effects. It gives a unique look to the text. By using **WordArt,** you can create decorative effects, such as curved, wavy, shadowed or apply 3D effects.

- Select the text on which you wish to apply WordArt effect.

- Click on the **Insert** tab. Select the **WordArt** option in the **Text** group and choose the desired effect from the WordArt gallery. The letter 'A' represents the different designs that you can select to apply on the text you type.

Figure 5.4: Using WordArt Gallery

- A placeholder appears with the highlighted text 'Your text here'.

- Enter the text to replace the placeholder text.

APPLYING EFFECTS TO WORDART TEXT
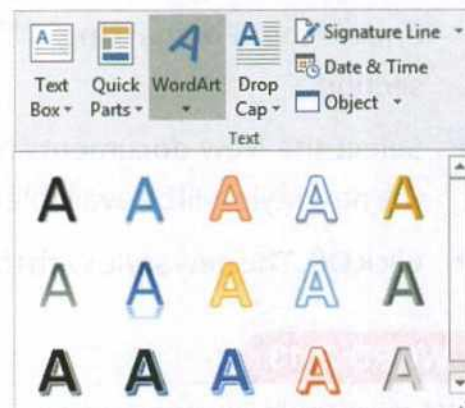
- Select the **WordArt** text. Select the **Text Effects** button. A list of various effect categories from the **WordArt Styles** group will be displayed.

- Place the pointer on the **Glow** option. Click on the **Glow** options from the displayed sub-menu and set its 'Presets', 'Colour', 'Size' and 'Transparency' according to the requirement. The effect will be applied to your text.
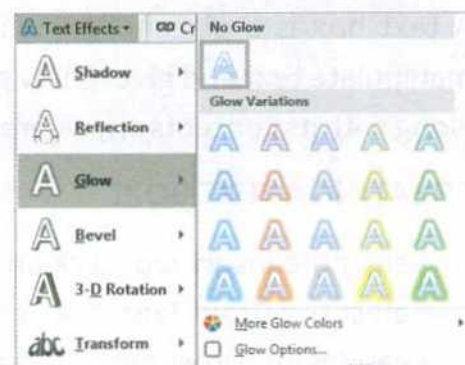
Figure 5.5: The Glow Effect Menu

WORKING WITH SHAPES

Shapes is a drawing feature that helps you to draw various shapes, like stars, banners, callouts, connectors, etc. With the help of these shapes, you can draw the attention of the user towards your message. To insert a shape, follow the given steps:

➤ Click on the **Shapes** button in the **Illustrations** group on the **Insert** tab.

➤ A drop-down menu will display various options like, **Lines, Rectangles, Basic Shapes, Block Arrows, Flowchart**, etc. as shown in Figure 5.6.

➤ Point to the **Basic Shapes** and select the **Smiley Face**. Drag the pointer on the working area. The selected shape will appear in the document.

➤ The **Format** tab will appear. To add a quick style to the shape, choose the options from the **Shape Styles** group on the **Format** tab.
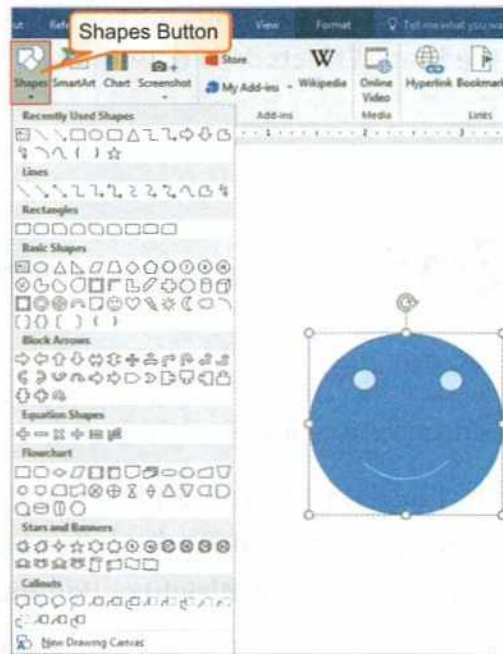

Figure 5.6: Using Shapes

ADDING TEXT IN A SHAPE

You can also insert text in the shape. To add text in a shape:

➤ Select the shape. Right-click on it and select the **Add Text** option from the Shortcut menu.

➤ The insertion point appears in the object. Now, type the text.

Figure 5.7: Adding Text in Shapes

APPLYING SHADOW

You can apply shadow effect on any object. Word facilitates you to change the colour of the shadow and set its position.

➤ Select the shape and click on the **Shape Effects** drop-down menu in the **Shape Styles** group on the **Format** tab.

➤ Place the pointer on the **Shadow** option in the drop-down menu and select

Let's Know More

Layout Options 📷
When you insert **WordArt** in a document, the **Layout Options** icon appears adjacent to its right corner. You can adjust the position of the WordArt and wrap the text around it by using the **Layout Options**.

Let's Know More

Alignment guides are the green lines that appear when you move the image around the text. These lines help you to align the image along with the text in a document. The alignment lines disappear automatically when an image gets aligned along with the text.

Let's Know More

Word allows us to change the order of two or more overlapping objects. To do so, click on the **Bring Forward** or **Send Backward** option in the **Arrange** group on the **Format** tab.

Know the Fact

To maintain the height and width ratio of a shape, hold down the **Shift** key while you drag the shape.

the desired Shadow effect from the displayed list of shadow options. It will be applied on the object.
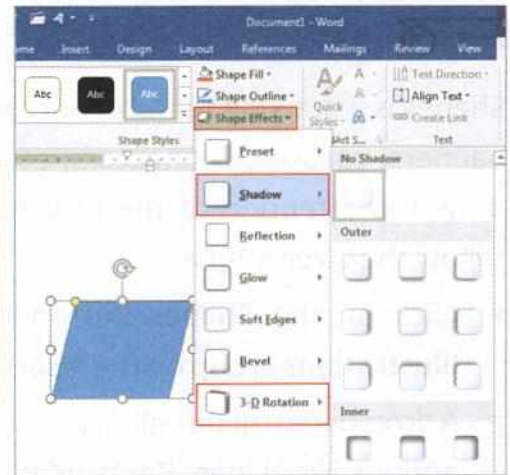
Figure 5.8: Applying Shadow Effect

ACTIVITY ZONE >>

Let us create a hut using various shapes.

➤ Select the **Line** tool ╲ and draw the outline of the hut.

➤ To select the outline of the hut, hold down the **Shift** key, and click on each line individually. Click on the **Shape Outline** drop-down list ☑ , in the **Shape Styles** group on the **Format** tab. Select the **Weight** option and click on **3 pt**.

➤ To draw a door, select the **Rectangle** tool ☐ and drag inside the hut. Click on the **Shape Fill** tool ⬧ in the **Shape Styles** group on the **Format** tab and fill in any colour of your choice.

➤ Now, change the outline colour of the door by selecting the **Shape Outline** tool ☑ .

➤ Select the **Oval** tool ◯ and draw windows in the hut.

➤ To make clouds, click on the **Callouts** option in the **Shapes** list and select the 'Cloud Callout'. Now, drag the shape and fill grey colour inside it.

➤ To display rain shower, draw a line, then select the **Dashes** option ▦ from the **Shape Outline** tool present on the **Format** tab. Select the square dots and observe the effect.

➤ Type the text **BEAUTIFUL HUT**, select it and change its colour by using the **Font Color** tool ⓐ ▼ in the **Font** group.

Drawing a Hut

➤ INSERTING SYMBOLS AND SPECIAL CHARACTERS

Symbols and special characters are punctuation, spacing, or typographical characters that are generally not available on the standard keyboard.

To insert symbols and special characters in a document, follow the given steps:

➤ Place the cursor at the position where you want to insert a symbol.

> Click on the **Symbol** button ⍵ in the **Symbols** group on the **Insert** tab. Select the **More Symbols** option.

> The **Symbol** dialog box will appear.

> Select the **Symbols** tab if it is not selected.

> Select the **Font** of your choice from the drop-down list, e.g., 'Wingdings'.

> Choose the symbol and click on the **Insert** button. Click on the **Close** button to close the box. The selected symbol will appear at the cursor position.
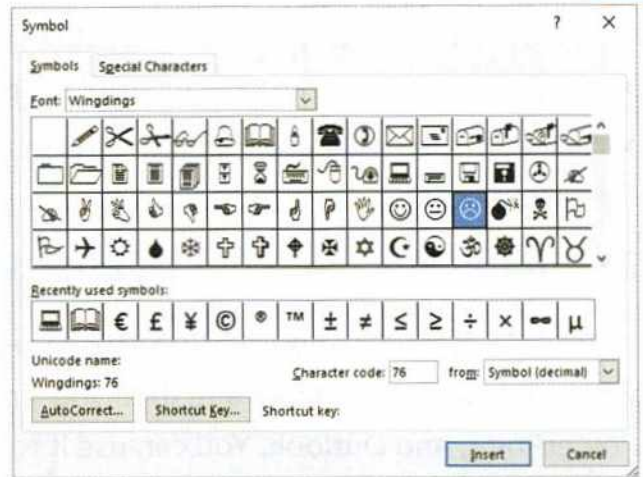
Figure 5.9: Symbol Dialog Box

⟩ INSERTING PICTURES

Adding pictures to your document helps you to illustrate the information in a better way. It also enhances the appearance of your document. Word 2016 allows you to add pictures from your computer or the web directly into your document.

ADDING PICTURE FROM YOUR COMPUTER

> Click on the **Insert** tab. Select the **Pictures** button from the **Illustrations** group. The **Insert Picture** dialog box will appear.

> Select the image and click on the **Insert** button.

> The selected image will appear in your document.

> Format the image by selecting the desired option from the **Picture Styles** group on the **Format** tab.
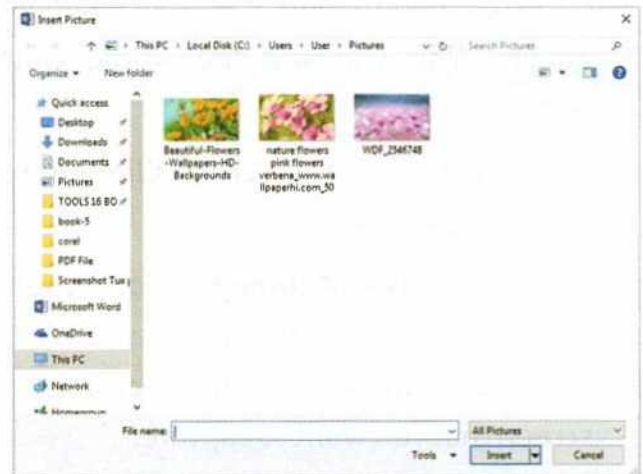
Figure 5.10: Insert Picture Dialog Box

ADDING ONLINE PICTURES

To insert an online picture follow the given steps:

> Place the insertion point where you want to display the image.

> Click on the **Insert** tab > **Online Pictures** option from the **Illustrations** group.
The **Insert Pictures** dialog box will appear on the screen.

> Enter your search term in the **Bing Image Search** text box and click on the **Search** button 🔍.

> You can also browse through the inbuilt categories of

Figure 5.11: Inserting Online Pictures

images by clicking directly on the **Search** button 🔍 .

➤ This will open another screen, displaying the images of various categories.

➤ Select the image and click on the **Insert** button. The selected image will appear in your document.

⊃ ADDING SCREENSHOT IN A DOCUMENT

Word 2016 provides a new feature called **Screenshot**. This option allows you to take instant screenshot without leaving the program that you are working in. This feature is available in Word, Excel, PowerPoint, and Outlook. You can use it to take the screenshot of any window that is open on your desktop. To add the screenshot in a document, follow the given steps:

➤ Open the Word document and the other application of which you want to add the screenshot.

➤ Click on the Word document. The Word document is now active.

➤ Now, click on the **Screenshot** button 📷 in the **Illustrations** group on the **Insert** tab.

➤ Click on the thumbnail in the **Available Windows** gallery. This will add the whole window in the document.

➤ You can also use the **Screen Clipping** tool to add a part of the window.

➤ Select the **Screen Clipping** option. When the pointer changes to a cross hair (+) symbol, hold the left mouse button and drag it to select the area of the screen that you want to capture.
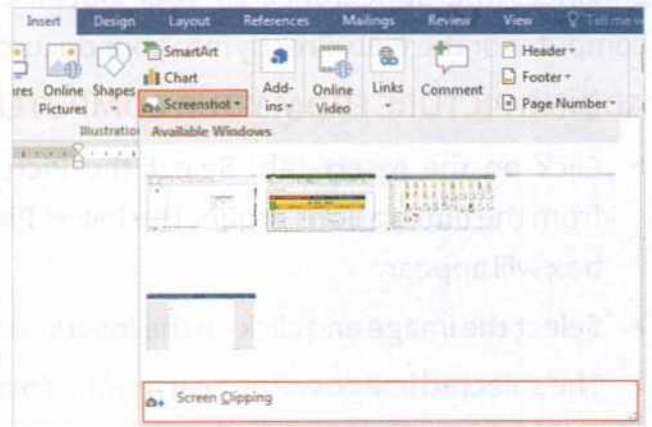
Figure 5.12: **Selecting a Screenshot**

📖 RECAP

➤ Style is a pre-defined combination of formatting features, like font style, colour and the size of text that is applied to the selected text in order to change its appearance.

➤ Text box is a placeholder where text can be entered. It can be moved along with its contents, anywhere in the document.

➤ WordArt feature allows the user to create special text effects.

➤ Alignment guides are the green lines that appear when you move the image around the text. These

lines help you to align the image along with the text in a document.

➤ Symbols and special characters are punctuation, spacing, or typographical characters that can be inserted by using the Insert > Symbol option.

➤ The Screenshot option allows you to take instant screenshot of any window that is open on your desktop without leaving the program that you are working in.

BRAIN DEVELOPER

SECTION - A

A. Fill in the blanks.

1. .... and .... are the two types of styles.

2. A .... is a set of formatting choices that can be applied to an entire document.

3. Lines, Basic Shapes, Block Arrows are the options of .... button.

4. The .... feature allows to create special text effects.

5. A .... is a placeholder where text can be entered.

| HINTS | • WordArt | • Text Box | • Character | • Shapes | • Paragraph | • Theme |

B. State True or False.

1. The Shape Fill tool is used for colouring a drawing object.

2. Alignment guides help you to align the image around the text.

3. Text cannot be formatted within the text box.

4. You cannot insert text in a shape.

5. To view the Styles task pane, use the Alt + Ctrl + Shift + S key combination.

C. Application-based questions.

1. Aarushi wants to write a poem on 'Rain' in Word document. She wants to apply decorative text effect to every single line. Suggest how she can apply the special text effect.

2. The teacher has asked Varun to make a banner for the 'School Fate'. Which feature should he use to add ready-made pictures to the banner?

_____

SECTION - B

A. Multiple-choice questions.

1. Which style affects the selected text within a paragraph?

   a. Character Style   b. Paragraph Style   c. Built-in Style

2. When you draw a text box, a new _____ tab appears with Drawing Tools.

   a. Home   b. Insert   c. Format

3. The _____ key is used while dragging to maintain the height and width ratio of a shape.

   a. Shift   b. Ctrl   c. Alt

4. The WordArt button is present on the _____ tab.

   a. Format   b. Home   c. Insert

B. Answer the following questions.

1. What do you understand by Style? Name the different types of Styles.

_____

_____

_____

2. What is the use of the WordArt feature?

_____

_____

_____

3. What is a Text box? How will you resize a text box?

_____

_____

4. Describe the Shapes feature in Word 2016.

_____

_____

> Click on the **Insert** tab, and add a rectangular shape and fill green colour in it with the help of the **Shape Fill** option.

> Type the text 'SUMMER CAMP', and change its font to **ITC Benguiat Gothic Std Hvy** and size to **36** from the **Font** group on the **Home** tab.

> Select the Text, click on the **WordArt** button on the **Insert** tab in the **Text** group and choose the desired WordArt style.

> Create a new style named 'My Style'. Change its formatting effects to **Font: Hobo Std, Size: 18** and apply the **Bold** effect.

> Add the **Text Box** by using the **Insert** tab and type the text 'PLAY, LEARN, AND GROW TOGETHER'.

> Select the text 'PLAY, LEARN, AND GROW TOGETHER' and apply **My Style** effect on the text.

> Select the rounded rectangle shape from the **Rectangles** category in the **Shapes** group and fill it with **Red** colour using the **Shape Fill** option. Type the text 'Age group 2–6' as shown in the figure.

> Change the **Font Colour** to **Yellow** and size to **16** from the **Font** group.

> Add the **Cloud** from the **Basic Shapes** using the **Shapes** option. Type the text 'Splash Pool' in the cloud.

> Similarly, write the content for the other clouds as shown in the figure.

> Add the Clipart of **Football, Sun,** and **Paint Brush** with the help of **Online Pictures** option and save the file.
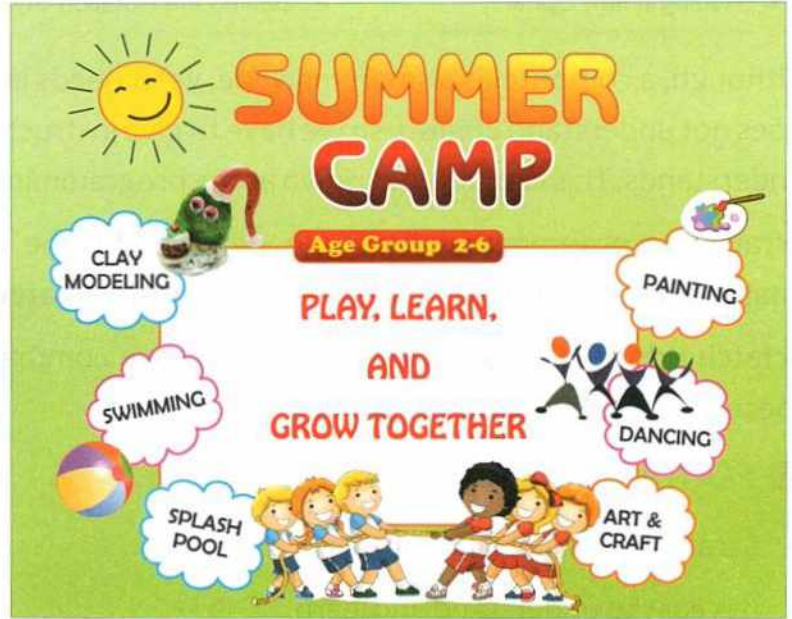
> Make Posters on the following topics by using all the effects that you have learnt till now and write appealing slogans on them.

    > **Clean and Green Earth**   > **Healthy Food Habits**

MORE ABOUT SCRATCH

Although, a computer is a smart machine, yet it needs instructions from us to do any task. A computer does not understand English, so we have to give instructions to it in a special computer language that it understands. This language is known as the programming language.

Scratch is a programming language, designed for the students to enhance their computing skills. It enables the children to create their own games, animated stories, and projects.

Scratch provides objects to which we can give commands to perform different actions. In Scratch, these objects are known as Sprites.

⮞ FEATURES OF SCRATCH

➤ Scratch is available free of cost.

➤ It is easy to understand and learn.

➤ It increases students' interest in programming by providing graphical environment.

➤ Instead of writing text or codes, pre-defined blocks are snapped together to create the Script.

➤ It allows playful experimenting with program segments.

⮞ COMPONENTS OF SCRATCH
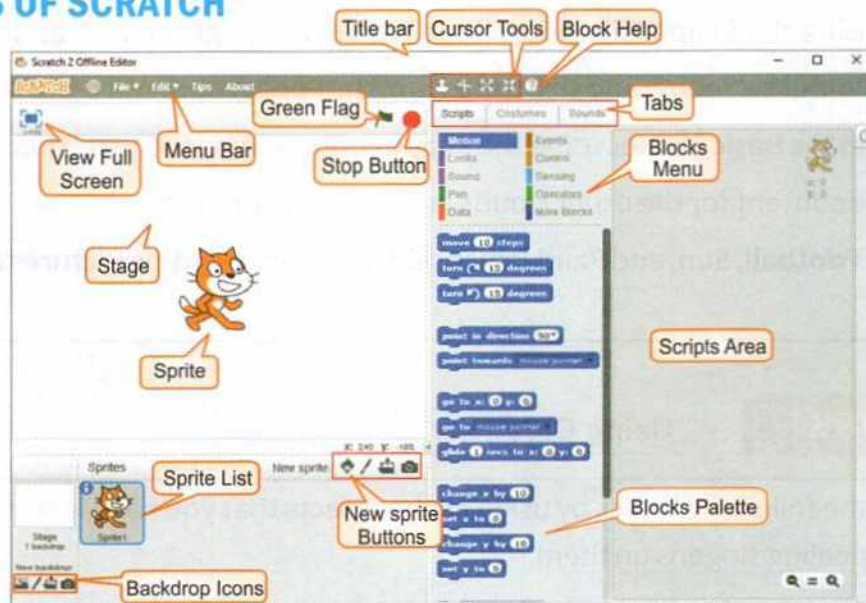
Figure 6.1: Components of Scratch

Let us learn about the various components of the Scratch window:

SPRITE : Sprites are the objects that perform various actions in a Scratch project. Scratch provides a number of inbuilt Sprites. By default the 'Cat' Sprite is selected and displayed in the middle of the stage.

STAGE : It is the main working area to draw pictures or perform actions. Stage is the place where Sprites move and interact with each other. It is divided into (x, y) co-ordinates x: 121 y: -111 ,which shows the position of the mouse. The values of both the co-ordinates are displayed at the bottom-right corner of the Stage.

SPRITE LIST : It displays the thumbnails of all the Sprites that we have selected, below the stage.

BLOCKS PALETTE : Blocks Palette contains various predefined blocks that are used to perform specific tasks.

SCRIPT AREA : The collection of step-wise instructions given to a Sprite is known as a Script. Script Area is the place where we pick and drop the blocks to create a script.

SPRITE INFO PANE : Click on the 🛈 icon present on the top-left corner of a sprite thumbnail to display the **Sprite Info Pane**. It includes information about the selected sprite as well as few tools for manipulating the Sprite. The tools include:

Sprite Rotation Style Buttons :

➤ **Circular Arrow** ↺ : The circular arrow enables full rotation of a Sprite.

➤ **Linear Arrow** ↔ : The Linear arrow enables the Sprite to only face left or right.

Figure 6.2: Sprite Info Pane

➤ **Disable Rotation** ● : It disables rotation. The Sprite will remain facing 90 degrees no matter what.

x: y: co-ordinates : These coordinates indicate the position of a Sprite on the stage. The horizontal line is labelled as x-axis and the vertical line is labelled as y-axis. The point at which the two axes meet is the centre of the stage and is known as **origin**. The origin is represented by x : 0 and y : 0 coordinates.

Direction: It includes how the sprite will turn when it executes a move instruction.

0 = Up	90 = Right	180 = Down	-90 = Left

VIEW FULL SCREEN ▣ : View full screen mode or Presentation mode button is located at the top-left corner of the stage. Click on the button to view the presentation of your project in full screen mode.

TABS : Scratch provides us with three different tabs namely **Scripts, Costumes,** and **Sounds.** All three tabs have different tasks to perform. In addition to these, the **Backdrops** tab appears only when we select the stage icon to add any inbuilt background on the stage or paint a new background.

STAGE ICON: The Stage icon is present at the left of the Sprite list. Clicking this button will add the **Backdrops** tab in place of **Costumes** tab. Using this tab we can import any background on the stage.

CURSOR TOOLS: Cursor tools are located at the top of the Scratch window. There are four different tools to perform different operations on Sprites:

➤ **Duplicate** 📇 : This option creates a duplicate copy of the selected Sprite.

➤ **Delete** 🐱 : Clicking on this option will delete the selected Sprite.

➤ **Grow** ✖ : As the name suggests, this option helps us to increase the size of the Sprite.

To increase the size of the Sprite:

➤ Select the **Grow** button ✖ from the toolbar.

➤ The mouse pointer shape changes into four-headed arrow with an outward direction.

➤ Now, place the pointer on the Sprite and click on it. The size of the Sprite will increase.

➤ **Shrink** ✖ : The function of **Shrink** button is opposite to the **Grow** button. It helps to decrease the size of the Sprite.

To decrease the size of the Sprite:

➤ Select the **Shrink** button ✖ from the toolbar.

➤ The mouse pointer changes into four-headed arrow with an inward direction.

➤ Place the pointer on the Sprite and click on it. The size of the Sprite will decrease.

BLOCK HELP : Selecting the **Block help** button ⑦ will change the mouse pointer into a question mark. Click on any block in the blocks palette with the question mark. A pop-up window appears that shows quick tip for that specific block. We can also open the tips window by clicking on the **Tips** option placed on the Menu bar.

⤳ ADDING A NEW SPRITE

When we open Scratch, by default, the Cat Sprite is present on the stage. We can create a new Sprite, import it or use the available sprites in our project by selecting the **New sprite** option.

Let us discuss each one of these:

1. **CHOOSE SPRITE FROM LIBRARY** 🔲 : Scratch contains many exciting inbuilt Sprite options. Clicking on this button will open a **Sprite Library** dialog box, which provides multiple options of Sprites.

2. **PAINT NEW SPRITE** 🔲 : Clicking on this button will open the 'Paint Editor window', from where we can draw a new sprite. This window provides many paint tools. Use the tools to draw a Sprite and fill any colour from the colour palette of the **Paint Editor**. After the Sprite is completed, click on **OK**. The stage will have similar Sprite as we draw in the **Paint Editor** and it will also be added in the Sprite list. While drawing, we can also increase or decrease the size of the Sprite by using the **Zoom** buttons. Observe that the Costumes tab is sselected.

3. **UPLOAD SPRITE FROM FILE** 🔲 : Clicking on this button will open the **Select file(s) to upload by app:/Scratch. swf** dialog box that offers a facility to choose Sprite from the files stored in a computer system.

Figure 6.3: Costume Library Dialog Box

Figure 6.4: Paint New Sprite

4. **NEW SPRITE FROM CAMERA** 🔲 : This option opens the web camera of our system, provided our system is enabled with it. It allows us to click an image and use it as a Sprite.

⏩ WORKING WITH TWO SPRITES

We have learnt how to add a new Sprite on the stage. Let us make a project using more than one Sprite.

➤ Open the Scratch window. Remove the Cat Sprite by right-clicking on it and selecting the **delete** option.

➤ Click on the **Choose sprite from library** button 🔲 . The **Sprite Library** dialog box will open. Choose **People** from **Category** section and select the

Ballerina Sprite. Click **OK**.

➤ Now, select the **Costumes** tab. We will notice **Ballerina-a**, **Ballerina-b**, **Ballerina-c** and **Ballerina-d** costumes under the **Ballerina** Sprite's costume list.

➤ Select the **Ballerina-a** costume and adjust its position on the stage by dragging it to the desired position.

➤ Again select the **Choose sprite from library** button and add **Jaime** Sprite from the **People** category on the stage.

➤ Select the **jaime-b** Sprite from the costume list and place it as shown in Figures 6.5.

➤ Select the sprites, one by one, and start creating the block stack, step-by-step, in the Script area.

➤ Create scripts for both the Sprites separately as shown in Figures 6.6 and 6.7.

➤ Click on the green flag button located on the top of the window and observe the two Sprites talking to each other.

Figure 6.5: Multiple Sprites on the Stage
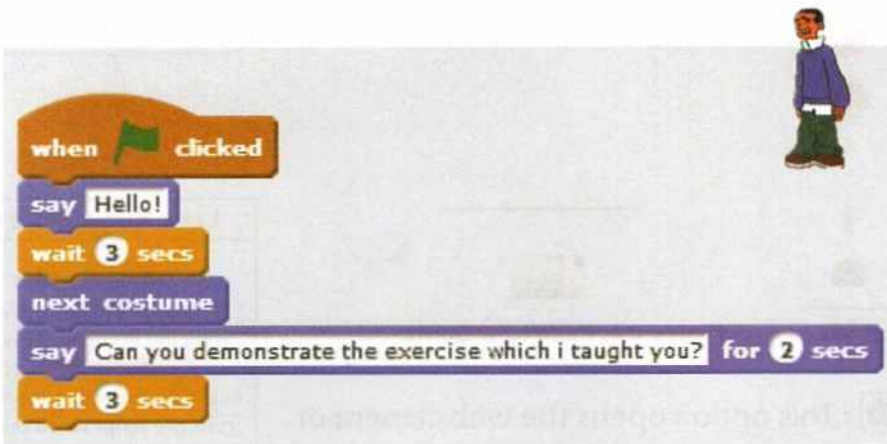
Figure 6.6: Script for Jaime Sprite

Figure 6.7: Script for Ballerina Sprite

⏩ SETTING THE SPRITE POSITION

The Scratch stage is 480 pixels wide and 360 pixels high. It is divided into x and y grid. The middle of the stage has x coordinate whose value is 0 and y coordinate whose value is 0 too. To find out the x and y positions of the Sprite on the stage, click and drag the sprite and observe the change in the coordinates displayed below the stage.

The 'x' value determines the horizontal location of the Sprite and the 'y' value determines the vertical location of the Sprite. The 'x' value of stage can
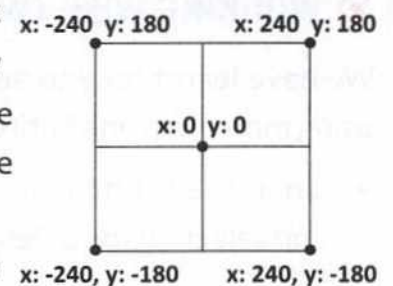
Figure 6.8: Stage Coordinates

range from 240 to -240, and the 'y' value can range from 180 to -180.

The easiest way to set a Sprite's position is by using blocks from the **Motion** block palette.

Now, let us create a Scratch project by specifying the Sprite's location on the stage:

> Drag the `when clicked` and `forever` blocks from the **Event** block and **Control** block palette to the Script area.

Figure 6.9: Stage Coordinates

> Select the `move 10 steps` block from the **Motion** block and place it inside the `forever` block. Change the step value to -100.

> Drag the `wait 1 secs` block from the **Control** palette and place it beneath the `move -100 steps` block.

> Now, click and drag the `set x to 0` block from the **Motion** block on the Script area and change its value to 100.

> Again pick the `wait 1 secs` block and place it after the `set x to 100` block.

> Add the `change size by 10` and `change color effect by 25` blocks one after the other at the end of the script. Change the value in `change size by 10` block to 5.

> Click on the green flag and observe the Sprite changing its position, colour, and size on the stage.

> In a similar manner, we can change the value of y coordinate using the `set y to 0` block.

⧁ SETTING THE ROTATION STYLE

We can also set the rotation style of the Sprite by using the **rotation style** buttons present in the **Sprite Info Pane**. Let us use these options in a Scratch project:

> Open the Scratch window, delete the **Cat** Sprite and add **Jaime Walking** Sprite on the stage.

> Open the **Sprite Info Pane** section by clicking on the ℹ️ icon at the left corner of the Sprite.

> Select the **Linear Arrow** ↔ rotation style.

> Drag the blocks on the Script area. Change the values of the blocks as shown in Figure 6.11 and click on the green flag to run the script.

Figure 6.10: Sprite Costumes List   Figure 6.11: Script for Walking Boy Sprite

CHANGING THE PEN SHADE

In Scratch, **Pen** block instructions are used to draw a trail as the Sprite moves on the stage. Each pen colour has different shades that vary from the lightest to the darkest. The pen shade varies from 0 to 100, i.e., 0 being the darkest and 100 being the lightest shade. Let us observe this with the help of a given example:

> Delete the **Cat** Sprite and add **Butterfly3** Sprite on the stage.

> Select the **Pen** block palette. Click and drag the `change pen shade by 10` block on the Script area.

> Drag the `set pen size to 1` and `pen down` blocks and place them under the `change pen shade by 10` block.

> Change the value to 10 in `set pen size to 1` block.

> Now, select the **Motion** block menu and drag the `move 10 steps` block on the Script area.
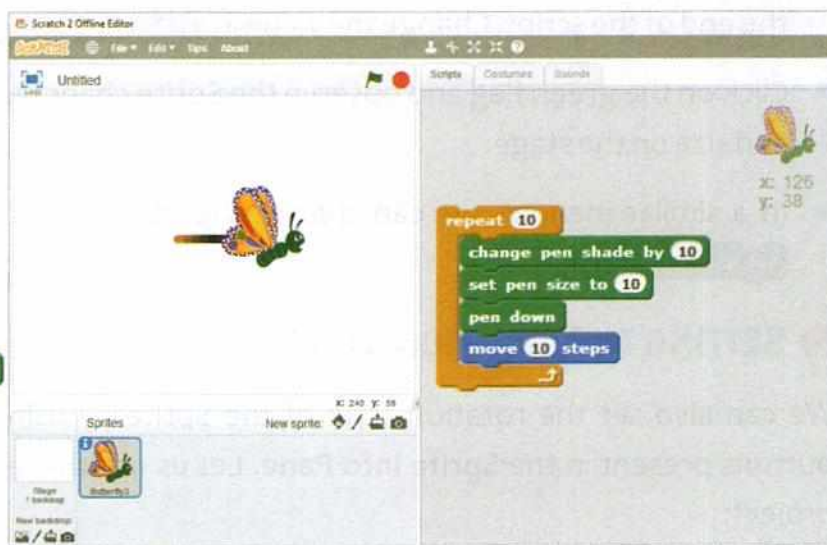
Figure 6.12: Changing Pen Shade

> Now, select the `repeat 10` block from the **Control** block menu and place it over the Script.

> Click on any block in the Script and observe the sprite drawing a line with a change in the pen shade.

If the pen shade is 0, then the pen colour will be close to black. If the pen shade is 100, the pen colour will be close to white.

CHANGING THE BACKDROP OF THE STAGE

The **New backdrop** icons are used to change the background of the stage. We can either create our own backdrop or choose any backdrop from the available built-in options. Scratch provides four different options to change the backdrop of the stage.

Let us learn about each one of them.

1. **CHOOSE BACKDROP FROM LIBRARY** 🖼 : To choose a backdrop from the Scratch library, click on this option. The **Backdrop Library** window pops up. The library is divided into two sections: **Category** and **Theme**. Select the desired theme, choose any backdrop from the displayed list and click **OK**. The selected theme will be set as the backdrop of the stage.

2. **PAINT NEW BACKDROP** ✏ : This option will open the 'Backdrops Window Editor', where we can create a new backdrop window according to our requirement.

Stage
2 backdrops
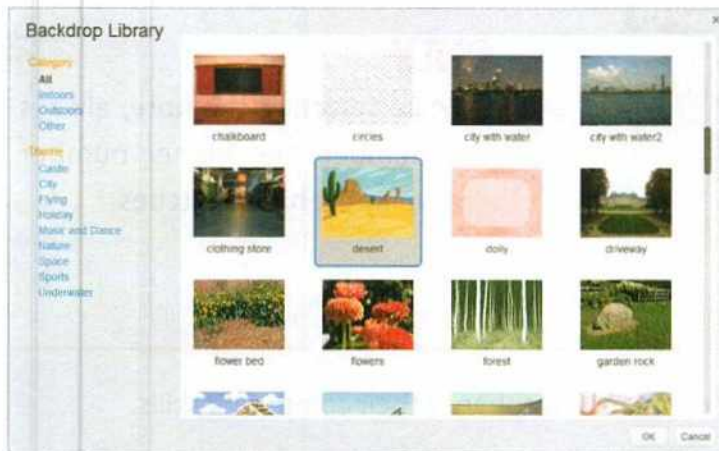
New backdrop:
🖼 ✏ ⬆ 📷

Figure 6.13: Backdrop Library
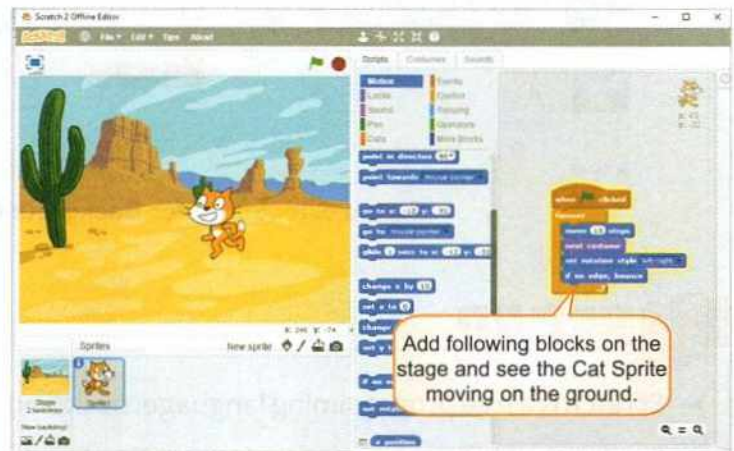
Figure 6.14: Selected Backdrop on the Stage

3. **UPLOAD BACKDROP FROM FILE** ⬆ : Clicking on this option opens the **Select file(s) to upload by app:/Scratch.swf** dialog box. Select the required file for backdrop and click on the **Open** button. The desired image will be uploaded for the backdrop.

4. **NEW BACKDROP FROM CAMERA** 📷 : Selecting this option allows us to click an image using the built-in camera of our computer system and import it on to the stage as a backdrop.

⟫ PLAYING THE INSTRUMENTS

The **Sound** block provides different blocks to add music to our Scratch project. It also provides music based on different instruments using the `set instrument to 1 ▾` block. This block sets the type of instruments that a Sprite uses to play the note. There are 21 different in-built instruments from which we can select the desired one. We can also set the notes for the instrument for a required number of beats. The notes are signified by numbers.

Let us create a dancing sprite project as shown in Figure 6.16. The Sprite used here is **Cassy Dance** present in the **People** group and the backdrop used is the **spotlight-stage** present in the **Music and Dance** group.

Figure 6.15: Script to Play Instruments

Figure 6.16: Script for Background

NOTE

While selecting the note, always remember, the higher number will play the higher pitches.

📖 RECAP

- ➤ Scratch is a free programming language, designed for students to enhance their computing skills.
- ➤ Sprites are objects that perform actions in a Scratch project.
- ➤ We can add a Sprite by selecting the New sprite buttons placed at the bottom right-corner of the stage.
- ➤ Paint new sprite button will open the Paint Editor window, where we can create or draw a new Sprite.
- ➤ The Scratch stage is 480 pixels wide and 360 pixels high. It is divided into x and y grid.
- ➤ The x value of stage can range from 240 to -240, and the y value can range from 180 to -180.
- ➤ A Sprite can rotate by using different rotation style buttons present in the Sprite Info Pane.
- ➤ Pen block instructions are used to draw a trail as the Sprite moves on the stage.
- ➤ We can add music to our Scratch project by using the blocks in the Sound block menu.

SECTION - A

A. Fill in the blanks.

HINTS
- Script area
- Sprite list
- Vertical
- Horizontal
- Pen
- Shrink

1. The .... button helps to decrease the size of the Sprite.

2. .... block instructions are used to draw a trail as the Sprite moves on the stage.

3. .... is the place where we pick and drop the blocks to create a script.

4. The .... displays the thumbnails of all the Sprites used in a project.

5. The x value determines the .... location of the Sprite and y value determines .... location or height.

B. State True or False.

1. We cannot change the name of the Sprite.

2. Stage is the main working area where the Sprite moves and performs actions.

3. If the pen shade is 0, then the pen colour will be closer to white.

4. The Scratch stage is 480 pixels wide and 360 pixels high.

5. View full screen button is present on the top-right corner of the stage.

6. Paint Editor window allows us to create a new sprite on the stage.

C. Application-based questions.

1. Kritika is creating a project in Scratch. She wants to create a new Sprite in her project. Suggest her the method to do the same.

....

....

2. Rahul loves to play Guitar. While working on his Scratch project, he wants to play the sound of Guitar. Help him by suggesting the appropriate block to do the same.

....

....

A. Multiple-choice questions.

1. Which box, on clicking, displays the short description of the block?

   a. Help   b. Sprite Info   c. Info

2. The collection of step-wise instructions given to a Sprite is known as ....

   a. Blocks   b. Script   c. Stage

3. The .... button increases the size of the Sprite.

   a. Grow   b. Shrink   c. Duplicate

4. The y value of the stage can range from ....

   a. 240 to -240   b. 180 to -180   c. 480 to - 480

5. To record our own sound in a project, we need a .... attached to our computer system.

   a. Music system   b. Speakers   c. Microphone

6. There are .... different instruments to choose from the Sound block.

   a. 20   b. 21   c. 28

7. Name the block that makes the Sprite disappear from the stage.

   a. Show   b. Hide   c. Remove

B. Answer the following questions.

1. What is Scratch? Explain the main features of Scratch.

   ....

   ....

   ....

2. What does the Scratch Info Pane display?

   ....

   ....

3. What do you understand by term 'backdrop'?

   ....

   ....

4. What is the purpose of the Script Area?

....

....

5. List the names of the different block menus given under 'Blocks menu'.

....

....

....

6. What are the various Cursor tools?

....

....

ACTIVITY SECTION

MY ACTIVITY   **Learning While Playing**

Your school is organising a picnic for your class. The class teacher has assigned some work for the picnic to one boy and one girl. Create a Scratch project by adding a girl and boy Sprite on the stage. Make the Sprites converse among each other.

➤ Announcement to be made in the class

➤ Collect the names of the interested students

➤ Collect the fees within a week's time

➤ Submit the names and fees to the class teacher

➤ Ask the students to bring required things for the picnic, like water bottle, packed snacks or lunch, and games

Use the following blocks to complete your project.

HINTS   `pen down`   `say Hello!`   `say Hello! for 2 secs`   `wait 1 secs`   `next costume`   `play drum 38▾ for 0.2 beats`

A.   Draw the background by using the Paint Editor tools, step-by-step.

Now, add a seed Sprite, and a girl Sprite on the stage. Let the girl Sprite explain the process of the 'Germination of a Seed'.

HINTS You can change the costume of the seed and show it growing using the `next costume` block. Adjust the time limit of the changing Sprite with the help of `wait 1 secs` block.

B.   Draw the given shapes by using the Sprite Paint Editor and fill different colours in each shape.

(I)   Add the Shape Sprites, one-by-one in the **Costumes** list. Now, make a script for each shape Sprite and let the Cat Sprite say the following information about the shapes:

➤   Name of the shapes

➤   Colour of the shapes

➤   Number of sides of the shapes

(ii) The shape should appear one-by-one on the stage. Add different sounds with each changing shape. As the new shape appears, the previous shape should hide.
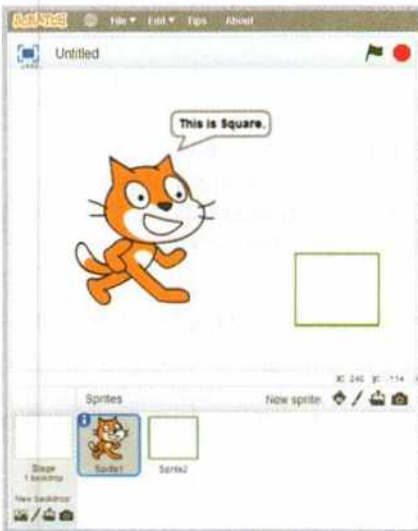
GROUP DISCUSSION For Concept Clarity

Discuss with the students:

➤ **Different ways to add a new backdrop**

➤ **Different ways to add a new Sprite**

➤ **Uses of Pen and Sound blocks**

ONLINE LINKS Looking For More

For better understanding of the concepts of Scratch, visit the following websites:

➤ www.scratch.mit.edu/help/

➤ http://d.umn.edu/~sivelab/project/learningToCode/Getting-Started-Guide-Scratch2.pdf

MICROSOFT POWERPOINT 2016

Microsoft PowerPoint is a presentation graphics software developed by Microsoft. It comes as an integral part of the Microsoft Office suite of applications. PowerPoint is used to create and display beautiful presentations that include text, pictures, charts, diagrams, audio, video, and animated special effects.

PRESENTATION

A presentation is a collection of slides arranged in a systematic order that displays the information along with graphics, sound, and animation.

SLIDE

A slide is like a page in a PowerPoint presentation that displays some information about a topic.

How is a Presentation Helpful?

> A PowerPoint presentation helps us in presenting the views and ideas effectively by creating a good visual impact on the audience.

> People in the business world use it to present information about their products or company in seminars and meetings.

> PowerPoint is an effective tool to present and organise the course contents in the classroom and encourage students' learning.

STARTING POWERPOINT 2016

To start with PowerPoint 2016, follow the given steps:

> Click on **Start** > scroll down to **PowerPoint 2016**.

> When you open PowerPoint 2016, the Start Screen appears. Select the **Blank Presentation** thumbnail from the screen. A new blank presentation named **Presentation1** will be opened in the presentation window.

Figure 7.1: **Starting PowerPoint 2016**
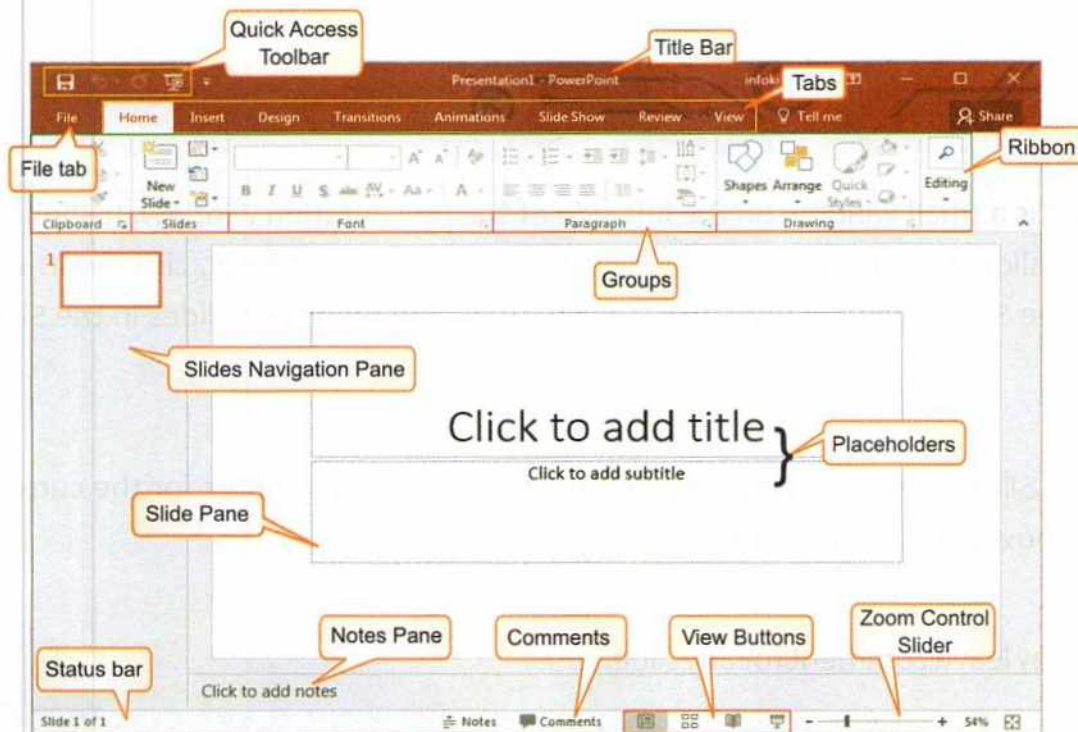
Figure 7.2: PowerPoint Interface

COMPONENTS OF POWERPOINT 2016

PowerPoint 2016 consists of the following components:

TITLE BAR

It displays the name of the presentation on which you are currently working.

QUICK ACCESS TOOLBAR

It contains the frequently used commands and is placed at the extreme left of the Title bar. You can also place this toolbar below the Ribbon. To do so, click on the drop-down arrow at the end of the toolbar and select the **Show Below the Ribbon** option.

To add more commands to the Quick Access Toolbar, right-click on any command on the Ribbon and click on **Add to Quick Access Toolbar**.

RIBBON

The Ribbon is placed at the top area of the document. It displays several tabs, such as File, Home, Insert, Design, Transitions, Animations, etc. Each tab contains commands that are organised into different groups.

RULER

The two rulers–vertical or horizontal are located at the top and to the left of the current slide, respectively. The ruler makes it easy to align text and objects on the slide.

SLIDE PANE

It is the middle section of the PowerPoint window where you can work directly on individual slides.

SLIDES NAVIGATION PANE

The Slides Navigation pane is a small window on the left side of the presentation window. It shows a thumbnail version of each slide. If you want to see the large view of any thumbnail, click on it. The selected slide appears in the Slide pane. You can add, delete, copy, and rearrange slides in the Slide Navigation Pane.

NOTES PANE

It is placed right below the Slides Area. The Notes pane provides space to add notes for the current side. These notes are also known as Speaker's Notes.

COMMENTS

In this area, the reviewer may leave comment for any slide.

VIEW BUTTONS

The View buttons are displayed towards the left of the Zoom Control Slider on the Status bar. You can view the slides in different formats:

(i) Normal   (ii) Slide Sorter   (iii) Reading View   (iv) Slide Show

ZOOM CONTROL SLIDER

To Zoom in or out, click and drag the slider to the Zoom control. The number to the right of the Slider reflects the Zoom percentge.

> **POWERPOINT 2013**
>
> The components of PowerPoint 2013 are similar to PowerPoint 2016.
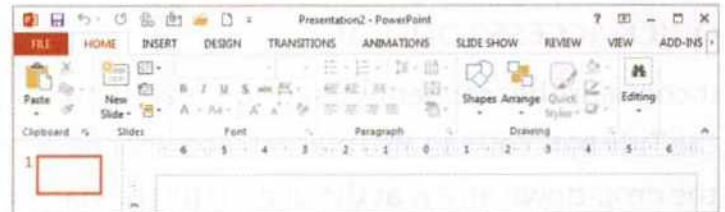
Figure 7.3: Ribbon of PowerPoint 2013

≫ CREATING A NEW PRESENTATION

A new presentation can be created in the following two ways:

➤ By using Blank Presentation

➤ By using Templates

CREATING A BLANK PRESENTATION

To create a presentation, follow the given steps:

➤ Start PowerPoint 2016.

➤ When the Start Screen appears, either press the **Esc** key or select the **Blank Presentation** thumbnail. Or

Figure 7.4: Start Screen of PowerPoint 2016

If the PowerPoint application is running, click on the **File** tab to go to the Backstage View. Select the **New** option and then click on the **Blank Presentation**.

➤ A new blank presentation appears in the PowerPoint. By default, it contains only one slide with dotted rectangular boxes called **placeholders**. These placeholders hold text, images, and other objects on a slide.

ADDING TEXT IN THE PLACEHOLDER

➤ Click on the 'Click to add title' placeholder. The cursor blinks inside the text box. Now, type some text, say, **KIPS COMPUTER BOOKS**. Similarly, select the 'Click to add subtitle' placeholder and type some text, say, **Learning PowerPoint 2016**.

Figure 7.5: Adding Text in a Placeholder

➤ Now, click outside the text box. You will notice the entered text appears on the slide in the slide pane.

CREATING PRESENTATION USING TEMPLATES

➤ Start PowerPoint 2016.

➤ A Start Screen appears, displaying a list of templates. Double-click on the template thumbnail that you wish to use. Or

Click on the thumbnail to preview the template first and then click on the **Create** button.
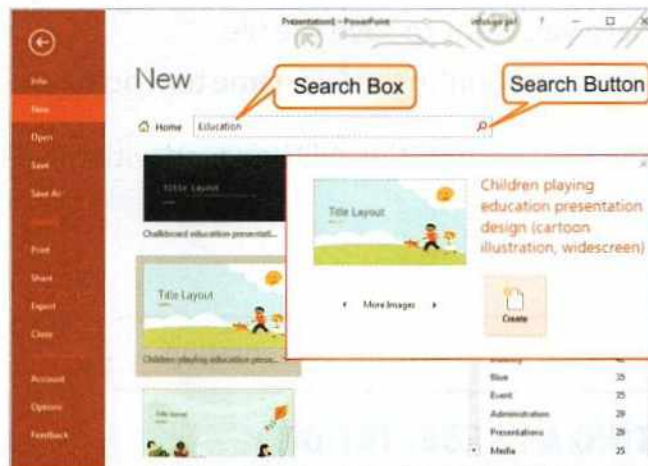
Figure 7.6: Creating Presentation Through Templates

➤ You can also create a presentation based on **Online** templates.

➤ When the Start screen appears, enter a term related to the template that you are looking for in the Search box at the top of the page. Click on the **Search** button. Or

Click one of the **Suggested Searches** present below the Search box. Here, we have selected the 'Education' category.

➤ A gallery of online templates will open.

➤ Select the desired template and click on the **Create** button. Here, we have selected 'Children playing education presentation' design template.

➤ The selected template will open as a new presentation, comprising a group of slides with different backgrounds.

Figure 7.7: Selected Template Presentation

SAVING A PRESENTATION

To save a presentation:

➤ Click on the **File** tab and select the **Save** option. The **Save As** window appears. Or

Click on the **Save** button on the **Quick Access Toolbar**.

➤ Select the **Browse** option. The **Save As** dialog box will open.

Figure 7.8: Saving a PowerPoint Presentation

➤ Select the location where you want to save the file. Specify the name, 'My Presentation' in the **File name** text box.

➤ Click on the **Save** button. The presentation will be saved with the name 'My Presentation', having an extension '**.pptx**'.

POWERPOINT 2013

Select the **Save** option on the **FILE** tab to save the presentation.

CLOSING AND EXITING A PRESENTATION

To close the presentation:

➤ Click on the **File** tab. Select the **Close** option. The presentation will be closed, but the PowerPoint application window will remain open.

To exit the presentation:

➤ Click on the **Close** button ▣ on the Title bar or use **Alt + F4** key combination.

> **NOTE**

If the changes in a document are not saved, PowerPoint 2016 will prompt you to save the changes. You should close a document only after saving it.

> **POWERPOINT 2013**

We can close and exit the presentation in PowerPoint 2013 in the same way as we do in PowerPoint 2016.

➤ OPENING A PRESENTATION

To open an existing presentation:

➤ Click on the **File** tab, and select the **Open** option from the drop-down menu.

➤ The options related to the **Open** option will be display in the right pane.

➤ Click on the **Browse** button.

➤ The **Open** dialog box will appear. Locate and select the file name to be opened and click on the **Open** button.
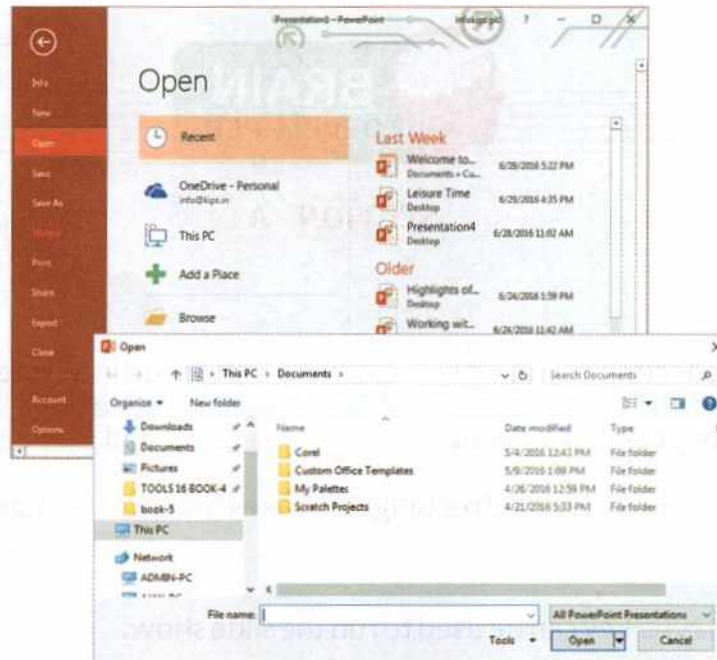
Figure 7.9: Opening PowerPoint Presentation

> **POWERPOINT 2013**

We use the **Open** option on the **FILE** tab to open any file in PowerPoint 2013.

➤ RUNNING A PRESENTATION

After making slides for your presentation, you can run the presentation using F5 key. This will let you view the slides in progression on the screen.

➤ A presentation is a collection of slides arranged in a systematic order that displays information along with graphics, sound, and animation.

➤ A slide is like a page of a PowerPoint presentation that displays some information related to a topic.

➤ The Slide Pane is the middle section of the PowerPoint window where you can work directly on individual slides.

➤ The Slides Navigation Pane is a small window on the left side of the presentation window.

➤ Notes pane is placed right below the Slides Area. It provides space to add notes to the current slide.

➤ A new presentation can be created in the following two ways–By using Blank Presentation and by using Templates.

➤ By default, a presentation contains only one slide with dotted rectangular boxes called placeholders.

➤ A Slide layout refers to the general arrangement of various components on the slide.

BRAIN DEVELOPER

SECTION - A

A. Fill in the blanks.

1. A presentation is a collection of .... arranged in a systematic order.

2. A presentation is widely used to present .... and .... effectively.

3. .... are the dotted rectangular boxes that hold text, images, and other objects on a slide.

4. The .... key can be used to run the slide show.

5. In PowerPoint 2016, the files are saved with the extension ....

HINTS • F5 • Slides • Views • Ideas • .pptx • Placeholders

B. State True or False.

1. By default, PowerPoint application opens with Title slide as its first slide. ☐

2. On starting PowerPoint, a blank presentation named, 'Slide 1' appears on the screen. ☐

3. You can save your presentation by using the Ctrl+S key combination. ☐

4. To close PowerPoint application, click on the File tab > Close option. ☐

5. The shortcut to create a new presentation is Ctrl + M key combination. ☐

C. Application-based questions.

1. Suruchi's teacher asked her to make a presentation using the predesigned layout backgrounds and colour schemes. Which option will you suggest her to accomplish this task?

....

2. Raghav has created a presentation on 'Go Green' by using the predesigned templates. He wants to save the presentation, but he does not know how to do so. Can you help him?

....

SECTION - B

A. Multiple-choice questions.

1. Which among the following options opens the Home tab?

    a. Alt+F4   b. Alt+H   c. Alt+M

2. What is the name of the area where we can type the information about the current slide?

    a. Title bar   b. Comment   c. Notes Pane

3. The .... contains frequently used commands.

    a. Ribbon   b. Tab   c. Quick Access Toolbar

4. The .... shows a thumbnail version of each slide.

    a. Slides Tab   b. Status Bar   c. Slides Navigation Pane

B. Answer the following questions.

1. How is a presentation different from a slide?

....

....

....

....

2. List the different uses of a presentation.

3. Differentiate between Slides Navigation pane and Slide pane.

4. What is a Placeholder?

5. What do you understand by the term Templates?

ACTIVITY SECTION

LAB SESSION   **Perfection Through Practice**

A. Follow the below given instructions to create a presentation on Four Seasons:

> Click on **Start** > scroll down to **PowerPoint 2016**. The PowerPoint application window will open a presentation with a Title Slide. Select **Blank** slide from the **New Slide** button. Add a **Rectangle** equivalent to the size of the slide by selecting **Insert** > **Shapes** option. Fill 'pink' shade in it.

FOUR SEASONS

Slide 1

> Change the font to 'Arial', font size to '44', font colour to 'white', and type 'FOUR SEASONS'. Apply the Bold effect.

> Add a new slide by pressing **Ctrl + M** key combination. A new slide will be added in the presentation.

SPRING

Spring is wet,
the flowers grow.
It rains a lot
and melts the snow.

Slide 2

SUMMER

Summer is hot,
with bright Sun.
There is no school,
it is lots of fun.

Slide 3

> Enter the text 'SPRING' in the 'Click to add title' placeholder and change its font to 'Tahoma', size '34' and colour 'red'. Fill 'orange' colour in the Placeholder.

> Click on the 'Click to add subtitle' text box. Change the font to 'Bookman old style', font size to '32', and type the text as shown in the **Slide 2**. Fill the colour in the placeholder as shown here. Adjust the size of the placeholders according to the slide.

AUTUMN

Autumn is cool,
the leaves fall down.
The colour changes
all over the town.

Slide 4

> Similarly, insert text in slides 3, 4, and 5 as shown in the slides.

> Save the file and specify the name 'Four Seasons'.

> Click on the **Close** option in the **File** tab to close the presentation.

> To open the presentation, select the **Open** option from the **File** drop-down menu.

WINTER

Winter is cold,
the snowflakes fall.
We skate and ski,
and make snowballs.

Slide 5

> Choose the file 'Four Seasons' in the **Open** dialog box and click on the **Open** button.

> Press **F5** combination to run the presentation and exit from the PowerPoint application.

GROUP DISCUSSION   For Concept Clarity

> Discuss the topic - **Different ways to create a new Presentation** with the students.
> Uses of Presentation software in Education

PROJECT WORK   Using Creativity

Create a presentation on the topic, **Our School at a Glance** by using the available templates.

ONLINE LINKS   Looking For More

To know more about Microsoft PowerPoint, visit the following websites:
www.gcflearnfree.org/powerpoint2016/getting-started-with-powerpoint/2/

WORKING WITH SLIDES

Students! In the previous lesson you learnt about the basics of PowerPoint presentation, like what is a presentation, how it is created, and in what way it is useful for us. Now, in this chapter, we will discuss some more features that will help us in making a presentation more presentable.

ADDING SLIDE TO A PRESENTATION

While creating a presentation, we sometimes need to insert new slides in it. Whenever we add a new slide, we have to select its layout first. Slide layout refers to the general arrangement of the various components on a slide. A layout contains placeholders that hold text, titles, bulleted lists, and slide content, such as tables, charts, images, movies, and sound clips. You can also change the layout of the existing slide that matches your requirement. To add a new slide:

> Select the slide after which you want to add a new slide.

> If you want that the new slide should have the same layout as that of the previous one, then:

>> On the **Home** tab, in the **Slides** group, click on the **New Slide** button and not on its drop-down arrow.

Figure 8.1: Adding a New Slide

> If you want your new slide to be based on any other slide layout, then:

>> On the **Home** tab, click on the **New Slide** drop-down arrow to display the available layouts.

>> Click on the desired slide layout. PowerPoint will add a new slide with the selected layout in the Slides Pane. The new slide can also be seen in the Slides Navigation Pane on the left.
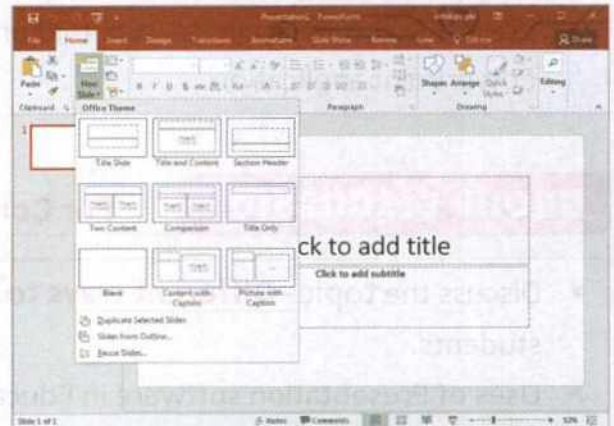
DELETING A SLIDE

To delete a slide from your presentation, do the following:

> Click on the **View** > **Normal** option.

> Right-click on the slide in the Navigation pane that you want to delete, and then click on the **Delete Slide** option. Or

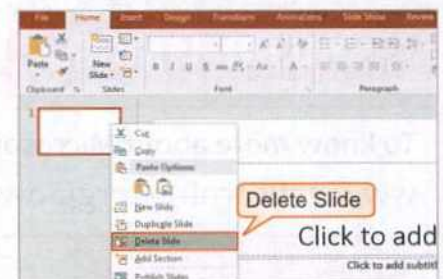Select the slide and press the **Delete** key.

Figure 8.2: Deleting a Slide

❯ FORMATTING TEXT IN A SLIDE

Applying formatting effects to text can draw the attention of your audience to specific parts of a presentation and emphasise on important information. Similar to Word 2016, PowerPoint also provides several formatting features to beautify the text on a slide. Let us discuss some of these features:
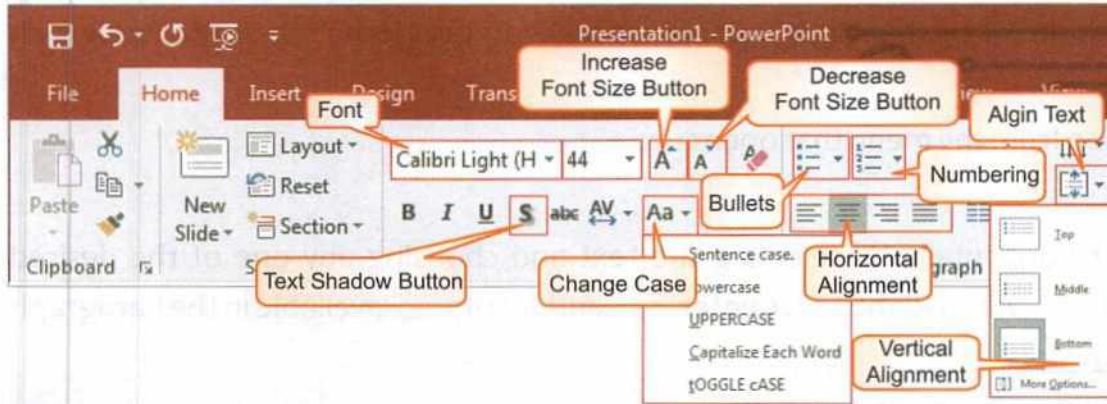
Figure 8.3: Formatting Tools

CHANGING FONT STYLE

➤ Select the text to be formatted.

➤ Click on the **Font** drop-down arrow in the **Font** group on the **Home** tab.

➤ Select any font style from the drop-down list and observe the change.

CHANGING FONT SIZE

There are two ways to change the font size of the text.

Method 1

➤ Click on the drop-down arrow present next to the **Font Size** button 44 ▾ in the **Font** group and select the desired font size from the drop-down list.

Method 2

➤ Click on the **Increase Font Size** button A˙ or **Decrease Font Size** button A˙ in the **Font** group to increase or decrease the font size respectively.

CHANGING FONT CASE

➤ Select the text. Click on the **Change Case** drop-down arrow in the **Font** group on the **Home** tab.

➤ Select any desired case from the displayed list of options.

CHANGING ALIGNMENT

You can adjust the horizontal as well as vertical alignment of the text to change how it is displayed on the slide.

Vertical Alignment
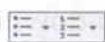
➤ Select the text.

➤ Click on the drop-down arrow of the **Align Text** button 〔⬚〕▾ on the **Home** tab in the **Paragraph** group.

➤ Select the desired option from the menu that opens up.

Horizontal Alignment

➤ You can align the text horizontally by selecting the text and choosing any one of the desired options, like **Align Left** ≡ , **Align Right** ≡ , **Center** ≡ , and **Justify** ≡ available in the **Paragraph** group on the **Home** tab .

CREATING BULLETED AND NUMBERED LIST

To create Bulleted and Numbered lists:

➤ Select the paragraph on which you want to apply bullets. Or

➤ Place the cursor at the location where you want to apply the bullets.

➤ Click on the drop-down arrow of the **Bullets** or **Numbering** button 〔≔〕▾ 〔≔〕▾ in the **Paragraph** group on the **Home** tab. Select the desired style from the displayed gallery.

APPLYING INDENTS

To apply indentation, follow the given steps:

➤ Select the paragraph that you want to indent.

➤ Drag the **Left Indent** marker 🔼 towards the right side. It will increase the indentation.

➤ To indent the first line of a paragraph, drag the **First Line Indent** marker ▽ towards the right side.
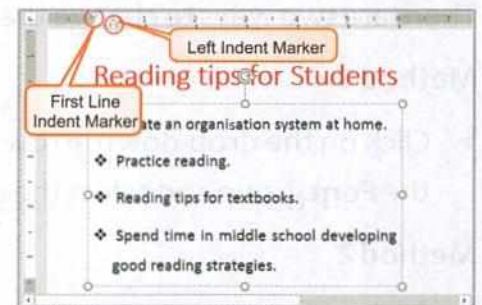
Figure 8.4: Applying Indents

USING FORMAT PAINTER

Format Painter helps us in copying the formatting effects from one object to another. It picks up all the formatting from your first object, whether it is a shape, picture, or piece of text and applies it to the second. To copy the formatting effect:

➤ Select the text with the formatting that you want to copy.

➤ Click on the **Format Painter** button 🖌 in the **Clipboard** group on the **Home** tab.

➤ The pointer changes to a **Paintbrush** icon 🖌I . Now, hold down the mouse and drag it over the text on which you want to apply the effect and release the mouse button.

You can also insert a new slide, format the text in a presentation by using the commands present on the **HOME** tab in PowerPoint 2013.

INSERTING OBJECTS IN A SLIDE

You can add different objects in the slide to enhance its look and feel.

INSERTING WORDART

The WordArt feature helps you to create special text effects. It gives a unique look to the text. By using the WordArt, you can make the text curved, wavy, shadowed, or apply 3D effects.

> On the **Insert** tab, click on the **WordArt** button in the **Text** group.

> The WordArt gallery opens up on the screen as shown in Figure 8.5. Select any WordArt style.

> Type 'KIPS PRESENTATION' in the placeholder by replacing the text 'Your text here'. Now, select this text.

Figure 8.5: Inserting WordArt

> Click on the **Text Fill** drop-down arrow in the **WordArt Styles** group on the **Format** tab. Select the desired colour and observe the change.

Figure 8.6: Different Text Effects

> Click on the **Text Outline** drop-down arrow. Choose the desired outline colour from the displayed list.

> Now, click on the **Text Effects** drop-down arrow. Point to the **Glow** option and select

Figure 8.7: WordArt is Applied

the desired effect from the **Glow Variations** section and observe the changes in the text.

INSERTING A TEXT BOX

Sometimes you may have to add more text than the area provided for entering text in the slide. The **Text Box** tool present on the **Insert** tab gives the facility to add more text to your slide. Text Box is a placeholder, where you can enter and manipulate text. You can move the text box along with its contents anywhere on the slide.

➤ Click on the **Text Box** tool on the **Insert** tab in the **Text** group. Hold down the left mouse button while dragging the mouse diagonally towards right and release the mouse button.

➤ You will get a rectangular box on the slide with the cursor inside it. Enter the text, say, 'This is a Text Box'.
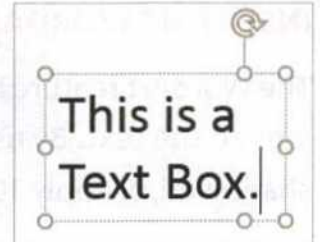
> This is a
> Text Box.

Figure 8.8: TextBox

INSERTING PICTURES

It is rightly said that 'A picture is worth a thousand words.' Image of a subject conveys its meaning more effectively than its description does. We can insert pictures in a presentation from a file stored on the computer as well as the internet called **Online Pictures**.

Inserting Pictures From a File

➤ Click on the **Pictures** button on the **Insert** tab in the **Images** group.

Figure 8.9: Inserting Pictures

➤ The **Insert Pictures** dialog box appears. Select the desired picture and click on **Insert**.

➤ The selected picture will be added in the slide.

Figure 8.10: Inserting Online Pictures

Inserting Online Pictures

➤ Click on the **Online Pictures** button on the **Insert** tab in the **Images** group.

➤ The **Insert Pictures** dialog box appears.

➤ Type a search term in the **Bing Image Search** box, say, 'Computer'.

➤ A gallery of images related to the searched term will be displayed.

> You can refine your search on the basis of the Size, Type, and Colour of the object.

> Select the desired image and click on the **Insert** button.

> The image will appear on the selected slide.

INSERTING SHAPES

Shapes is a drawing feature that helps in inserting different shapes into a slide. Shapes can be resized, rotated, flipped, and coloured too.

> Click on the **Shapes** button on the **Insert** tab in the **Illustrations** group. Shapes drop-down gallery will appear displaying different categories, like Lines, Rectangles, Flowchart, etc.

> Click on any shape from any category. We have selected **Smiley Face** from the **Basic Shapes** category.

Figure 8.11: Inserting Shapes

> The pointer changes to a ' + ' sign. Place the pointer on the slide where you want to place the object and drag it to adjust the size of the selected object/shape.

Adding Text in a Shape

> Right-click on the shape and select **Edit Text** from the shortcut menu. The insertion point appears inside the shape. Now, you can type the text.

Applying Shadow Effects in Shapes

You can apply shadow effects to any shape. It will make the shape impressive in appearance.

> Select any shape.

> Click on the **Shape Effects** button on the **Home** tab in the **Drawing** group. Select the **Shadow** option from the drop-down menu.

> Click on the **Offset Center** button in the **Outer** sub-option in the cascading menu.

> The selected effect will appear on the shape.

Figure 8.12: Applying Shadow Effects

You can also apply Shadow effects by using the **Format** tab. Click on the **Format** tab > **Shape Styles** group > **Shape Effects** button > **Shadow** option.

➤ To have different shadow colours, select the **Shadow** option from the **Shape Effects** drop-down menu.

➤ Select the **Shadow Options** from the cascading menu.

➤ The **Format Shape** task pane appears. Now, define the desired colour and click on the **Close** button on the task pane.

➤ Similarly, you can work with **3-D Rotation** ☐ option present on the **Shape Effects** drop-down menu.

POWERPOINT 2013
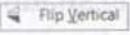
You can also add various objects in PowerPoint 2013 presentation, like Shapes, Text Box, WordArt, and Pictures by using the **INSERT** tab and format the objects by selecting various options from the **FORMAT** tab under the **DRAWING TOOLS**.

➢ ROTATING A PICTURE, SHAPE, TEXT, OR OBJECT

➤ Left-click on the picture, shape, wordart, or text box that you want to rotate. A rotation handle (🔄) appears at the top of the object.

➤ Click on the rotation handle and drag it in the direction in which you want to rotate the shape while holding the left mouse button.

To rotate a picture using the pre-defined options:

➤ Select the shape. Click on the **Format** tab.

➤ In the **Arrange** group, click on the **Rotate** button 🔄 Rotate ▾ .

➤ Choose the desired rotation option from the drop-down menu.

➤ An object can be flipped either by using **Flip Horizontal** 🔼 Flip Horizontal or **Flip Vertical** ◁ Flip Vertical option in the **Rotate** button on the **Format** tab.

Pre-defined rotation options are also available on the **Home** tab. Select the **Home** tab > **Arrange** button > **Rotate** option.

➢ RESIZING A PICTURE, SHAPE, TEXT, OR OBJECT

Resizing stretches or shrinks the dimension of an object.

➤ To increase or decrease the size of an object, select it.

- Bring the pointer to any of the eight resizing handles on the selected object. When the pointer changes to a double-headed arrow ($\updownarrow$), drag the handle inward to decrease and outward to increase the size of a shape.

- If you want to resize the object by keeping the centre of an object in the same place, then hold down the **Ctrl** key as you drag.

RECAP

- Slide layout refers to the general arrangement of various components on a slide.
- A layout contains placeholders that hold text, titles, bulleted lists, and slide content, such as tables, charts, images, movies, and sound clips.
- You can add different objects in the slide to enhance its look and feel.
- The WordArt feature helps you to create special text effects. It gives a unique look to the text.
- The Text Box tool helps in adding more text than the area provided for entering text in a slide.
- You can insert pictures in a presentation from a file on a computer as well as the internet called Online Pictures.
- Shapes is a drawing feature that helps in inserting different shapes into a slide.
- You can rotate and resize any object in a presentation.

BRAIN DEVELOPER

SECTION - A

A. Fill in the blanks.

1. .... refers to the general arrangement of various components on a slide.

2. New Slide button is present in the .... group.

3. Using the .... , you can make the text curved, wavy, shadowed, or apply 3D effects.

4. .... is a drawing feature that helps in inserting different shapes into a slide.

5. Flip Vertical option is present in the .... button on the Format tab.

HINTS • Rotate • WordArt • Slide Layout • Slides • Shapes

B. Application-based questions.

1. Rhea wants to add text in her slide but outside the placeholder. Can you suggest the option or tool to accomplish this task?

   ....

2. Aaryan's teacher has asked him to prepare a presentation on the topic- "Save Environment". He has typed the content for the same, but does not know how to insert online pictures relevant to the topic into the slides. Suggest the option in PowerPoint, which he should use for the same.

   ....

SECTION - B

A. Multiple-choice questions.

1. To delete a slide, right-click on the slide in the navigation pane and click on the .... option.

   a. Delete Slide   b. Delete   c. Cut

2. The .... tab contains the Text box tool.

   a. Home   b. Insert   c. Design

3. The .... button on the Format tab is used to apply 3D rotation to a shape.

   a. Rotate   b. Resize   c. Shape Effects

4. To insert text in a shape, select the .... option from the shortcut menu.

   a. Add Text   b. Edit Text   c. Insert Text

B. Answer in one word or a sentence.

1. Which group on the Insert tab contains the Shapes button?

   ....

2. Name the button that is used for adding a new slide in a presentation.

   ....

3. Which key helps us to select more than one shape at a time?

   ....

4. Which feature helps in creating special text effects?

_____

C. Answer the following questions.

1. How can we add slides in a presentation?

_____

_____

2. What is the utility of the Text box in a presentation? Explain the method to insert a Text box in a slide.

_____

_____

3. Briefly explain the WordArt feature.

_____

_____

_____

4. Explain the Shapes feature and the procedure to insert a shape in a slide.

_____

_____

_____

5. How can we resize an object?

_____

_____

_____

6. What are the different ways of inserting pictures in a presentation?

_____

_____

_____

LAB SESSION   **Perfection Through Practice**

Follow the instructions to create the given presentation:

➤ Click on **Start > PowerPoint 2016**.

➤ The Start screen will appear. Select the template 'Ion Boardroom' from the displayed list of templates.

➤ The template preview window appears. On the right side of the window, you will find some variation on the same design. Select the last variation and click on the **Create** button.

➤ A new slide with the selected template will be displayed in a presentation.

➤ Click on the 'Click to add title' placeholder and type the text-**Success Trait....**.

  ➤ Select the text. On the **Home** tab, choose the font-style- 'Bookman Old Style' and font colour- 'Gray-25% background 2'.

  ➤ Click on the 'Click to add subtitle' placeholder and type the text-**Success is determined by how determined you are to succeed**.

  ➤ Select the text and change its font-style to 'Baskerville Old Face' and font colour to 'Gold, Accent 1, Lighter 80%'.

➤ Now, add another slide to your presentation by clicking on the **New Slide** button in the **Slides** group on the **Home** tab.

➤ Delete the two placeholders that appear on the slide by clicking on their outline and pressing the **Delete** key.

Insert WordArt on the Slide

➤ Click on the **WordArt** button on the **Insert** tab in the **Text** group.

➤ Select 'Fill-Gray-25%, Background 2, Inner Shadow' from the gallery of styles and click on it.

➤ Click the placeholder and type **Beautiful quotes** and click outside the placeholder.

➤ Fill the WordArt box with orange colour by clicking on the **Shape Fill** button in the **Shape Styles** group.

➤ Apply transform effect to the **WordArt** text by clicking on the **Text Effects** in the **WordArt Styles** group. Click on the **Transform** and select **Double Wave 1** from the gallery.

> Select the text and change its font to 'Century Gothic' and colour to 'White'.

Insert Text box on the slide

> Insert a text box on the Slide. Enter text in the text box as given in the slide.

> Apply effect to the text box by clicking on the text box and selecting **Shape Effects> Shadow > Perspective Diagonal Lower Left.**

> Fill the text box with 'Orange Text 2, Lighter 40%' colour as we did in WordArt.

> Change the font to 'Lucida Calligraphy'.
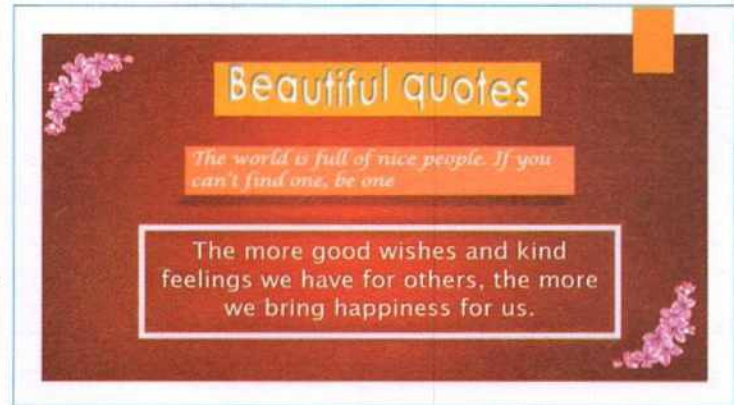
Insert Shape on the Slide

> Click on the **Shapes** button on the **Insert** tab in the **Illustrations** group .

> In the **Basic Shapes** Category, select **Frame** and drag it on the slide.

> Enter text in the frame as given in the slide by right-clicking on it and selecting the **Edit Text.**

> Fill the shape with 'White' colour with the help of **Shape Fill** option.

> Apply effect to the shape by selecting the **Shape Effects > Glow > Orange, 18 pt glow, Accent color2.**

> Change the font of the text to 'Lucida Sans Unicode'.

Insert Picture on the Slide

> Search picture of flowers and place them on the corners as shown in the image.

GROUP DISCUSSION   For Concept Clarity

Discuss the topic - **Difference between Text Box and Shapes** with the students.

PROJECT WORK   Using Creativity

Create a presentation on the topic, **Cleanliness is next to Godliness**, by using the illustrated Themes.

ONLINE LINKS   Looking For More

To know more about PowerPoint 2016, visit the following websites:
> www.gcflearnfree.org/powerpoint2016/slide-basics/1
> www.gcflearnfree.org/powerpoint2016/inserting-pictures/1/
> www.gcflearnfree.org/powerpoint2016/shapes/1

BROWSING INTERNET

In today's times, the internet has emerged as the most effective communication tool due to the advent of the internet. It enables us to exchange ideas and share information with a large number of people in real time. Communication process has become easier and faster with the help of the computer network.

A computer network means two or more computers are connected together with special cables or devices to share information.

WHAT IS INTERNET?

Millions of computers around the world are connected with each other to share information through the internet. The internet stands for International Network. It has many features, but is generally used as a means to communicate and search endless amount of information from unlimited number of sources. It is like a huge library that offers various types of information.

USES OF THE INTERNET

- It provides information/news on any topic.
- It allows us to send and receive messages (text, images, sound, videos) anytime and anywhere.
- We can have video as well as text chat with our friends using the internet (video calls with the help of a computer, the internet, and web camera).
- We can buy or sell new/old goods.
- We can buy airline/railway/movie tickets.
- We can perform banking operations.
- We can check exam results.

In short, we can say that the internet has become an integral part of life.

BASIC REQUIREMENTS FOR AN INTERNET CONNECTION

To connect your computer with the internet, you need the following hardware and software:

- Modem
- Telephone line
- An internet connection
- Web Browser

⊗ INTERNET TERMS

WEBSITE

The information available on the internet is in the form of websites and web pages. As a book contains a number of pages, similarly, a website is a collection of related web pages, linked to one another.

WEB PAGE

Information is put on the internet in the form of digital pages called **Web Pages**. These pages may contain text, graphics, video, audio, and links to the other pages.

HOME PAGE

The main page of any website, which contains links to the other pages is called the **Home Page**. By default it is the first page of every website.

WEB BROWSER

A web browser is a software application or program that allows you to access the entire information available on the web. You can visit any website by entering its URL in the address bar of a web browser. Browsers make it very easy to move from one website to another. You can normally open your web browser from a shortcut on your desktop. Examples of some popular web browsers are internet Explorer, Google Chrome, Mozilla Firefox, Opera, etc.
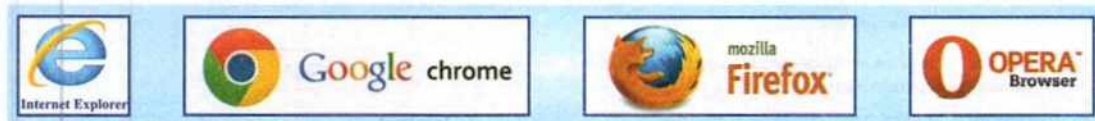
Figure 9.1: Popular Web Browsers

URL

To visit your friend's place, you need to know his address. Similarly, to visit any website, you need to know its address. Each website is identified by its unique address, which is known as the **Uniform Resource Locator** (URL). The URL should be entered in the address bar of a web browser.

For example – www.cartoonnetwork.com and www.discoverychannel.com are the URLs of Cartoon Network and Discovery channel, respectively.

ISP

ISP stands for internet Service Provider. An ISP is a company, which offers you the usage of the internet by paying a monthly

Figure 9.2: Internet Service Providers

fee. It provides software, username, and password to the user in order to get connected to the internet.

WORLD WIDE WEB (WWW)

The World Wide Web refers to a network of websites on the internet, which contains information in the form of text, pictures, animation, and videos. This information can be accessed by people all over the world.

ADDRESS BAR

The Address bar appears on the top of every web browser. To visit a website, you need to put its URL into the address bar.

To do this, place the cursor at the address bar and type the address. For example, www.wikipedia.org. After you finish typing, press the **Enter** key.

The website of Wikipedia appears as shown in Figure 9.3.

Figure 9.3: Website of Wikipedia

NOTE

While typing in the address bar, the browser suggests the recently or frequently visited websites.

⟫ USING A WEB BROWSER

Google Chrome is one of the most popular and widely used web browsers developed by Google. You can open it either by double-clicking on its icon on the Desktop or select the **Start >** scroll down to **Google Chrome.**

The Chrome toolbar is shown in Figure 9.4.

Figure 9.4: Google Chrome Toolbar

BACK ⬅ : Clicking on this button takes you back to the previous page that you have already visited.

FORWARD ➡ : Clicking on the **Forward** button will take you to the page that you were on before you pressed the **Back** button. To view the next pages in a serial order, click on the **Forward** button.

RELOAD THIS PAGE 🔄 : Clicking on this button will reload the most recent version of the current page.

BOOKMARKS: This option allows the user to store and organise the chosen websites so that he/she can revisit them anytime whenever needed.

NEW TAB: Clicking on this button allows you to open a web page in a new tab. You can also open a link in a New tab. Right-click on the link and select the **Open link in new tab** option.

CUSTOMISE AND CONTROL GOOGLE CHROME: Clicking on this button will display a drop-down menu with several options to customise and control the Google Chrome settings. Some of these options are:

Print: Clicking on this option prints a copy of the web page you are viewing.

History: This option displays a list of websites that you visited recently.

Zoom: The Zoom option allows you to increase or decrease the size of the content of a web page. Click on '+' symbol to zoom in the page. Click on '-' symbol to zoom out the page. Click on ⌜ ⌟ screen symbol to select the full-screen mode.

More Tools: Clicking on this option provides different options, like Save page as, Clear browsing data, Task Manager, etc.

RECAP

➤ The internet stands for International Network of computers.

➤ A website is a collection of web pages.

➤ The information available on the internet is in the form of digital pages, which are called the web pages.

➤ Web browser is a special program that allows the user to access information on the web.

➤ WWW refers to a collection of information on the internet that can be accessed by people all over the world.

➤ Each website is identified by its unique address, known as Uniform Resource Locator (URL).

➤ An internet Service Provider (ISP) is a company that offers you to use the internet in exchange for a monthly fee.

BRAIN DEVELOPER

SECTION - A

A. Fill in the blanks.

1. A network is a collection of two or more computers connected to one another so as to share

   ....

2. WWW stands for ....

3. A.. is a collection of web pages.

4. .... and .... are the two most popular web browsers.

5. The first page of any website is known as ....

HINTS
- Website
- Home page
- Google Chrome
- World Wide Web
- Internet Explorer
- Information

B. State True or False.

1. A website is a special program to access information. ☐

2. Clicking on the Back button on the Google Chrome window will take you back to the page you have already visited. ☐

3. An ISP is the company that gives us access to the internet for a fee. ☐

4. The World Wide Web is not a part of the internet. ☐

5. The Bookmarks option allows you to store and organise the chosen websites. ☐

SECTION - B

A. Multiple-choice questions.

1. .... is one of the most popular search engines, founded by Larry Page and Sergey Brin.

   a. Yahoo   b. Bing   c. Google

2. .... is regarded as the founder of the world wide web.

   a. Tim Berners-Lee   b. Sergey Brin   c. Larry Page

3. .... is a device that connects your computer with the telephone line.

   a. URL   b. Web Browser   c. Modem

B. Answer the following questions.

1. What is an internet? Explain any two uses of the internet.

   _____

   _____

   _____

2. Define the term Browser. Name any two browsers.

   _____

   _____

3. Explain the following options of Google Chrome:

   (i) Bookmark this page _____

(ii) New Tab ....

4. What do you understand by the term Web page?

....

....

5. Explain the term URL.

....

....

IDENTIFY THE BUTTONS THAT PERFORM THE GIVEN ACTIONS
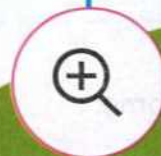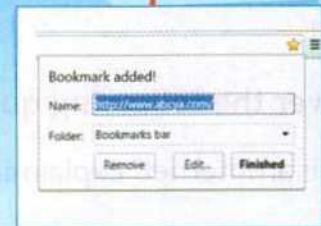
➤ Open Google Chrome.

➤ Visit the website of the newspaper whose subscription you have at home.

➤ Does your school have a website? If yes, browse it.

➤ Arnav and his parents want to go for a movie. His father has asked him to book movie tickets online. Help Arnav to find out and list some websites, which can help him to book the tickets.

GROUP DISCUSSION
For Concept Clarity

Discuss the following topic with the students:

Importance of internet in today's life

PROJECT WORK
Using Creativity

Type www.google.com in your web browser to find information on the topic - **Save Water Today, Make a Difference Tommorow**, and create a presentation on the subject.

ONLINE LINKS
Looking For More

To know more about History and Development of Internet, visit the following link:
https://en.wikipedia.org/wiki/History_of_the_Internet

A. Fill in the blanks.

1. A .... is a placeholder where text can be entered.

2. .... is a small graphic character that performs actions in a Scratch project.

3. To run a slide show, you can press the .... key.

4. WWW stands for ....

HINTS • Sprite • Text Box • World Wide Web • F5

B. State True or False.

1. Alignment guides help you to align the image around the text in Word 2016.

2. In Scratch, 0 is the lightest and 100 is the darkest Pen shade.

3. Paint New Backdrop option allows you to create a new Sprite on the stage.

4. An ISP is the company that gives us access to the Internet in exchange for a fee.

C. Match the following.

Modem	Shows or hides the Ribbon
Emoticon	Device that connects computer with the telephone line
Pen block	A combination of emotion and icon
Ctrl + F1	Draws a trail as sprite moves on the stage

D. Write the components of the Scratch window in the space provided.

1. ....

2. ....

3. ....

4. ....

5. ....

6. ....

WORKSHEET
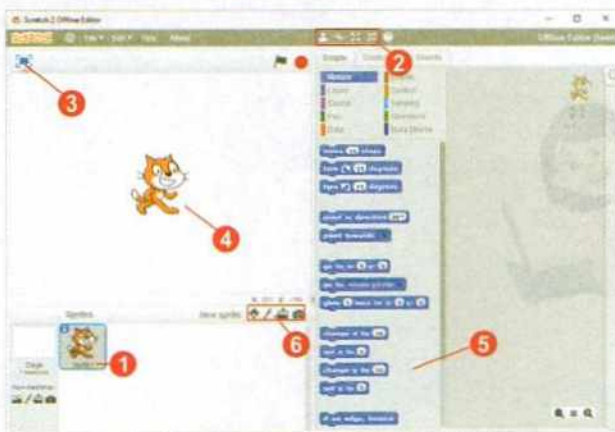
A. Choose the right answer.

1. The WordArt button is present on the .... tab.

   a. Format   b. Home   c. Insert

2. In which group, Rotate button is present?

   a. Format group   b. Paragraph group   c. Arrange group

3. .... is one of the most popular search engines, founded by Larry Page and Sergey Brin.

   a. Yahoo   b. Bing   c. Google

4. The .... button increases the size of the Sprite.

   a. Duplicate   b. Shrink   c. Grow

B. Answer in one word.

1. Which is the shortcut key to insert a new slide in a PowerPoint presentation?

2. What is the default name of a blank PowerPoint presentation?

3. Write the full form of URL.

4. Which key is pressed to maintain the height and width ratio of a shape?

5. Name the area that includes information about the selected Sprite.

C. Answer the following questions.

1. How is a presentation different from a slide?

2. Define the term Internet. Explain any two uses of the Internet.

3. List the names of different menus given under the Blocks menu.

4. What do you understand by Style? Name the different types of Styles.

Internet of Things (IoT)

What is IoT?

The Internet of things, or IoT, is a system where different computing devices interact with each other to share information and data using the internet. With the increased availability of the internet, IoT is gaining momentum as more and more devices are getting connected to the internet.

In our daily life, we see various scenarios where IoT is being used regularly. A person uses a smart watch to monitor heartbeat, a vehicle using a sensor for parking or experts monitor wild animals with a bio chip transponder. Nowadays, IoT is widely used in various industries to monitor production and improve customer experience.

History of IoT

The term IoT was coined by Kevin Ashton, co-founder of the Auto-ID Center at MIT. Kevin Ashton used the term Internet of Things (IoT) as he wanted to introduce radio frequency ID (RFID) to some of his team members. Although Ashton used the term the Internet of things for the first time in 1999, the idea of connected devices has been around since the 1970s, under the monikers embedded internet and pervasive computing. The concept of the IoT, however, did not really gain popularity until the middle of 2010.

The first internet appliance was a Coke machine at Carnegie Mellon University in the early 1980s. Using the web, programmers could check the status of the machine and determine whether there would be a cold drink when they visit the machine. Based on this they would decide to make a trip to the machine.

Components of IoT
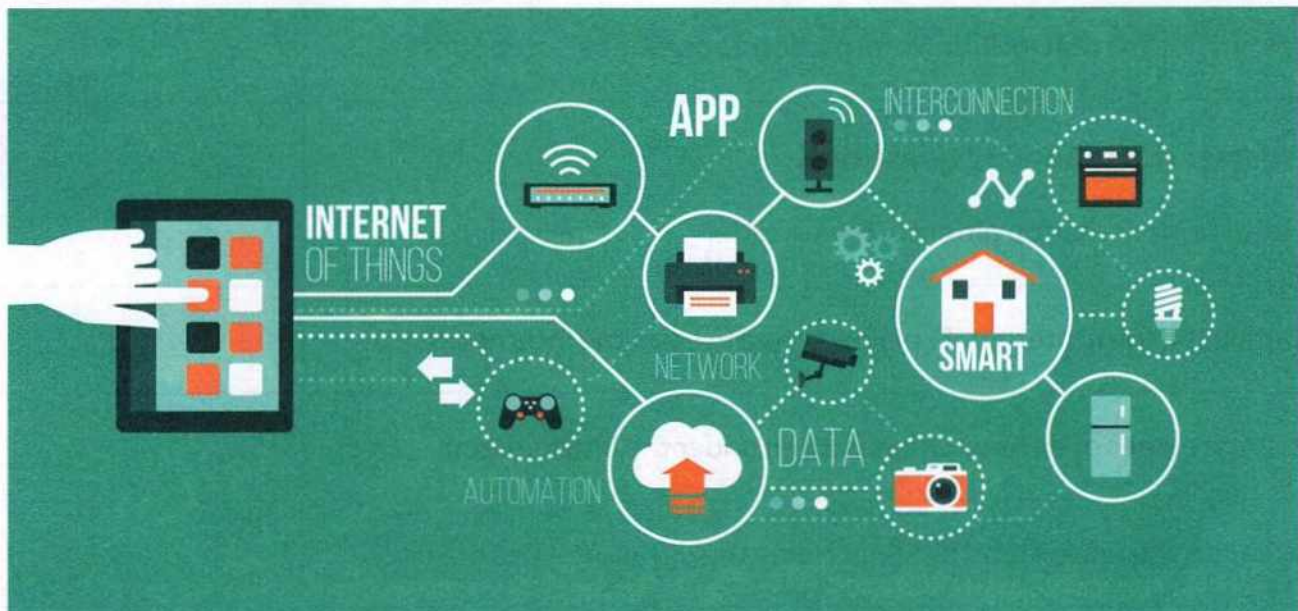
Features of IoT:

Connectivity: Connectivity is the fundamental feature of IoT. Multiple IoT devices interact with each other using the internet. In the absence of connectivity, the IoT devices would fail to share data with each other.

Analysing: After all the data is collected, it is first analysed and then processed. The processed data is then sent back either to the same device or other connected devices.

Sensing: The sensor devices used in IoT devices scan their environment for any significant change, accumulate the data, and send it to other connected devices.

Integrating: For its smooth working, the Internet of Things integrates various others technologies like cloud computing, data analysis services, artificial intelligence, and the internet services.

Artificial Intelligence: IoT makes things smart and enhances them, which that makes life easier. For example, if we have IoT enabled refrigerator in which stock of milk is going to end, then the refrigerator itself will access the stock and order the milk packet from your retailer store by sending a message.
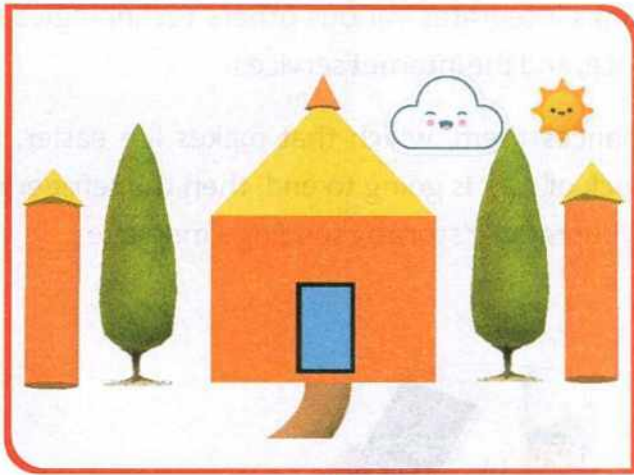
Application of IoT:

With Smart homes app you can control and monitor all the IoT devices.

With Smart door lock installed on your mobile phone app you can lock and unlock the lock of your doors.

Using IOT you can track the location of your vehicle.

IoT

Using IOT you can control all the security devices from your mobile

Using IOT you can manage different agricultural resources like water, soil, and tracking cattle and vehicles.
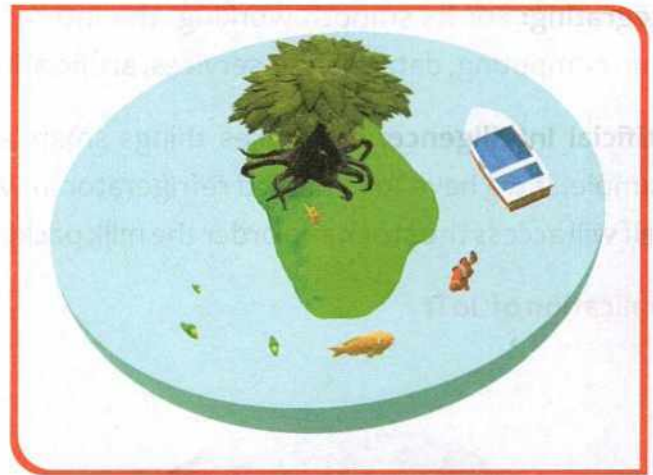
PROJECT WORK

➤ PAINT 3D

Create the given drawings in Paint 3D.

Temple

Pond

➤ WORD 2016

Make a banner on **Children's Day** in Word 2016.

HAPPY CHILDREN'S DAY

Let us make

Children's Day

Extra special by celebrating it together.
Participate in

FANCY DRESS COMPETITION

Make the Day Colourful

Date : 14th November
Time : 10:00 am - 12:00 pm
Venue : School Auditorium

Project 1: Create a project in Scratch on the **Importance of Physical Exercise**. Draw a girl/boy Sprite to show different exercise postures using Paint Editor and add them under Sprite's costumes. Add voice bubbles to each Sprite, explaining the importance of physical exercise.

- Change the Sprite's exercise posture after a gap of three seconds.
- Use next costume block to switch costumes.
- Add sound effect to your project.
- Add more exercise postures and make your project more interesting.

Create a beautiful presentation on **Animals and Habitats** in PowerPoint 2016. Add more slides to it.

1

Animals and Habitats

Habitat is the natural home or environment of an animal or any other organism.

Learning with **KIPS**

2

Terrestrial

Animals that live on land are called Terrestrial animals.
Example: Cat, Dog, Cow, Lion, etc.

Learning with **KIPS**

3

Aquatic

Animals that live in water are known as Aquatic animals.
Example: Fish, Octopus, Whale, etc.

Learning with **KIPS**

4

Amphibians

Animals that can live both on land and in water are called Amphibians.
Example: Frogs, Toads, etc.

Learning with **KIPS**

5

Aerial

Aerial animals are the animals that can fly. Birds and insects are aerial animals.

Learning with **KIPS**

6

Arboreal

Animals that live mostly on trees are called Arboreal animals.
Example: Monkeys, Squirrels, etc.

Learning with **KIPS**