

Memory and Its Types

LEARNING OUTCOMES

In this chapter, you will learn about :

- ▶ Computer Memory
- ▶ Types of Computer Memory
- ▶ Units of Memory

COMPUTER MEMORY

CPU is the brain of a computer. It processes all the information it receives through input devices and stores it in computer memory. A computer also has a memory just as we have to remember things. The storage capacity of a computer is called its **memory**. Computer memory is used for storing data and instructions.

UNITS OF MEMORY

A computer can understand only binary language. It processes and stores data and instructions in the form of binary language. A binary language consists of 0's and 1's called **binary digits** or **bits**.

A **bit** is the smallest unit of information which a computer can process and store. A group of 4 bits is called a **nibble** and a group of 8 bits is called a **byte**. A computer memory is stored in the form of bits and bytes. Every computer has a certain amount of memory. The memory capacity of a computer determines how much data can be stored in the computer.

There are other higher units of measuring memory as given below :

1 Byte	=	8 Bits	
1 Kilobyte (KB)	=	1024 Bytes	(2^{10} Bytes)
1 Megabyte (MB)	=	1024 KB	(2^{10} KB)
1 Gigabyte (GB)	=	1024 MB	(2^{10} MB)
1 Terabyte (TB)	=	1024 GB	(2^{10} GB)

1 Petabyte (PB)	=	1024 TB	(2 ¹⁰ TB)
1 Exabyte (EB)	=	1024 PB	(2 ¹⁰ PB)
1 Zettabyte (ZB)	=	1024 EB	(2 ¹⁰ EB)
1 Yottabyte (YB)	=	1024 ZB	(2 ¹⁰ ZB)

Fact to Know

Local Knowledge

Byte is the unit of measurement of a computer memory.

TYPES OF COMPUTER MEMORY

Computer memory can be classified into two categories. They are **primary memory** and **secondary memory**.

1. Primary Memory– (i) RAM, (ii) ROM
2. Secondary Memory– (i) CD-ROM, (ii) Hard Disk, (iii) Blu-ray Disc, (iv) DVD, (v) Pen Drive, (vi) Memory Cards

Primary Memory

Primary memory is also known as the **main memory** or the **internal memory**. It is the in-built memory that is fixed inside the CPU. It stores data or instructions currently used by the computer. The minimum size of primary memory is 256 MB. We can increase its size any time.

Primary memory can be divided into two parts – RAM and ROM.

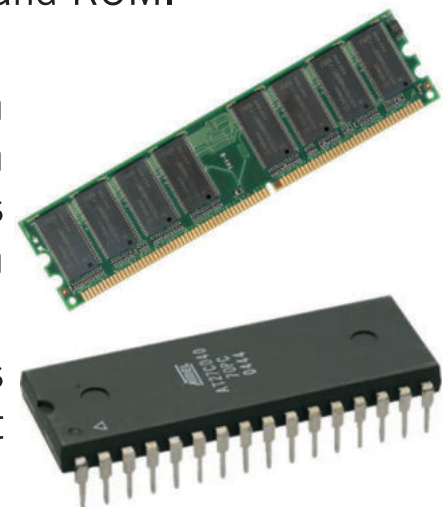
1. RAM : RAM stands for **Random Access Memory**.

RAM refers to read and write memory. Information can be written onto and read from RAM. RAM is volatile in nature. So, whenever power fails or the computer is switched off, all the information that has been stored in RAM is lost. It stores information on a temporary basis.

2. ROM : ROM stands for **Read Only Memory**. It keeps the data permanent. It is non-volatile in nature. It retains the data even when a computer is switched off.

In most computers, ROM is used for storing a special program called **BIOS (Basic Input Output System)**. This program helps to load the operating system when the computer is switched on.

There are three different kinds of ROM.



(i) PROM	PROM stands for Programmable Read Only Memory . It is a memory chip on which we can store a program. But once it has been used, we cannot erase its stored information or use it to store something else. It can be programmed only under special conditions.
(ii) EPROM	EPROM stands for Erasable Programmable Read Only Memory . We can erase its stored information by exposing it to ultraviolet light. EPROMs are cheap and reliable and hence they are widely used.
(iii) EEPROM	EEPROM stands for Electrically Erasable Programmable Read Only Memory . The information written on it can be erased using electrical signals.

Secondary Memory

Secondary memory is known as **auxiliary memory** or **external memory**. It is used to store information for a longer period of time. It is needed because primary memory of a computer is insufficient to store and save large amount of data for future reference and retrieval.

Let us now discuss some of the secondary storage devices.

1. CD-ROM : CD-ROM stands for **Compact Disc-Read Only Memory**. It is popularly known as CD. It is the most commonly used storage device. It is a thin circular disk with a reflective metal coating. The diameter of a CD ranges from 10 cm to 30 cm. A typical CD measures 4.7 inches in diameter. One CD can store 600 to 750 MB data on it.



Nowadays, we get two kinds of CDs.

CD-R	CD-R stands for Compact Disc-Recordable . In this type of CD, data once written cannot be changed or deleted.
CD-RW	CD-RW stands for Compact Disc-Rewritable . Data in this CD can be erased or rewritten.

2. Hard disk : A hard disk is also known as a **fixed disk**. It is the main secondary storage device found inside the cabinet of a CPU. It can store large amount of data upto 8 TB. All the work done on a computer can be stored in a hard disk. A



hard disk is made up of many rigid metal plates coated to store data magnetically.

Nowadays, external hard disks are also available. They are small in size and can be carried anywhere.

3. Blu-ray Disc : A Blu-ray disc is similar to a CD or a DVD in appearance but it can hold up to 128 GB of data. It uses blue-violet lasers to read and hold a large amount of data. A Blu-ray reader is required to use a Blu-ray disc. It is mainly used for storing very high-quality video files and video games that require large amount of storage space.



4. DVD : DVD stands for **Digital Versatile Disc** or **Digital Video Disc**. It is very similar to a CD but can store much more data. It is an optical disc storage device. Its capacity may range from 4.7 GB to 17 GB.

5. Pen Drive : A pen drive is also known as a **flash drive**. It is very small in size. It can be used to store and transfer data from one computer to another. It can be connected to the USB (Universal Serial Bus) port of a computer. It can easily be carried in the pocket. It can store a large amount of data like 1 GB, 2 GB or more.



6. Memory Cards : A memory card is used to store data in various electronic devices like mobile phones, digital cameras, MP3 players and many other portable devices. It is small in size and can store upto 32 GB of data. We can transfer the data stored in a memory card to our computer.



Fact to Know

Local Knowledge

Floppy disks and Zip disks are also examples of secondary storage devices. They are outdated and not in use now.



Let's

Do it...

Match the following :

- | | |
|--------------|-----------------------------|
| 1. RAM | (a) non-volatile in nature |
| 2. CD | (b) volatile in nature |
| 3. ROM | (c) known as flash drive |
| 4. Pen Drive | (d) stands for compact disc |





Recollect the Chapter

- The storage capacity of a computer is called its memory. Computer memory is used for storing data and instructions.
- A bit is the smallest unit of information which a computer can process and store.
- A group of 4 bits is called a nibble and a group of 8 bits is called a byte.
- Computer memory is of two types – primary memory and secondary memory.
- Primary memory is of two types – RAM and ROM.
- ROM is of three types – PROM, EPROM and EEPROM.

Computer MANNER

Always cover your computer when it is not in use.



Exercise

A. Tick (✓) the correct answer :

1. Which of the following is not a secondary storage device?
 (a) Hard disk ☐ (b) RAM ☐ (c) CD ☐ (d) Blu-ray disc ☐
2. A group of 8 bits is called–
 (a) Bit ☐ (b) Nibble ☐ (c) Byte ☐ (d) Kilobyte ☐
3. Which of the following is volatile in nature?
 (a) RAM ☐ (b) ROM ☐ (c) Pen drive ☐ (d) DVD ☐
4. 1 TB is equal to–
 (a) 1024 MB ☐ (b) 1024 KB ☐ (c) 1024 GB ☐ (d) 1024PB ☐
5. Which type of memory is known as main memory?
 (a) Primary memory ☐ (b) EEPROM ☐
 (c) Secondary memory ☐ (d) RAM ☐

B. Write 'T' for true and 'F' for false in the given circles :

1. ROM is volatile in nature. ☐
2. A hard disk is also known as a fixed disk. ☐
3. 1 MB is equal to 210 KB. ☐
4. Secondary memory is also known as external memory. ☐
5. In most computers, RAM is used for storing a special program called BIOS. ☐

C. Fill in the blanks :

1. A computer memory is stored in the form of _____ and _____ .
2. A pen drive is also known as a _____ .
3. A computer can only understand _____ language.
4. A _____ uses blue-violet lasers to read and hold a large amount of data.
5. A _____ memory is the in-built memory that is fixed inside the CPU.

D. Answer the following questions :

1. Explain primary memory.
2. What do you mean by secondary memory?
3. What is computer memory? Also, name its types.
4. Explain blu-ray disc and memory cards.
5. What is the difference between RAM and ROM?

Creativity Skills



Art Integration

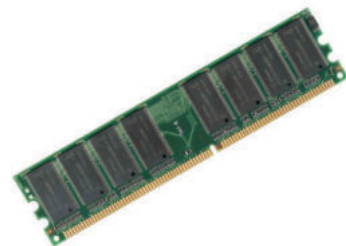
Draw and colour the picture of a pen drive in your notebook.

Experience-Based Questions

Higher Order Thinking Skills

Observe the given picture and answer the following questions :

- (a) Identify the storage device.
- (b) Which type of memory is this?
- (c) What is the nature of this memory?



Think & Answer

Life Skills & Values

Your friend is trying to open CPU of a computer in the lab. What will you do?

Activity Work

Cutting & Making Skills

Collect the pictures and prepare a collage on 'Computer memory'.

Discussion

Communication

Discuss the types of primary memory in class in detail.

Teacher's Help

- Demonstrate how to use CDs, DVDs and pen drives to students.





Personalizing the Windows 10 Environment

LEARNING OUTCOMES

In this chapter, you will learn about :

- ▶ Opening the Personalization Settings
- ▶ Changing the Colour Scheme used throughout Windows 10
- ▶ Changing the Windows 10 Theme
- ▶ Setting the Desktop Background
- ▶ Customizing the Windows 10 Lock Screen
- ▶ Changing the Appearance of the Start Menu

Microsoft Windows is the most popular operating system. MS Windows has many versions.

Some of the popular versions of Windows are Windows 98, Windows XP, Windows Vista, Windows 7, Windows 8, Windows 10 and Windows 11. Windows 11 is the latest version of MS Windows.

The first screen that appears after loading the operating system with labelled pictures on it is called **Desktop**. It consists of icons and taskbar.

One of the most popular ways of personalizing a Windows 10 PC has to be changing its appearance. There are quite a few ways to change how our Windows 10 computer looks, but the first step for all of them is accessing the personalization settings.

OPENING THE PERSONALIZATION SETTINGS

To open the personalization settings, follow any one of the methods.

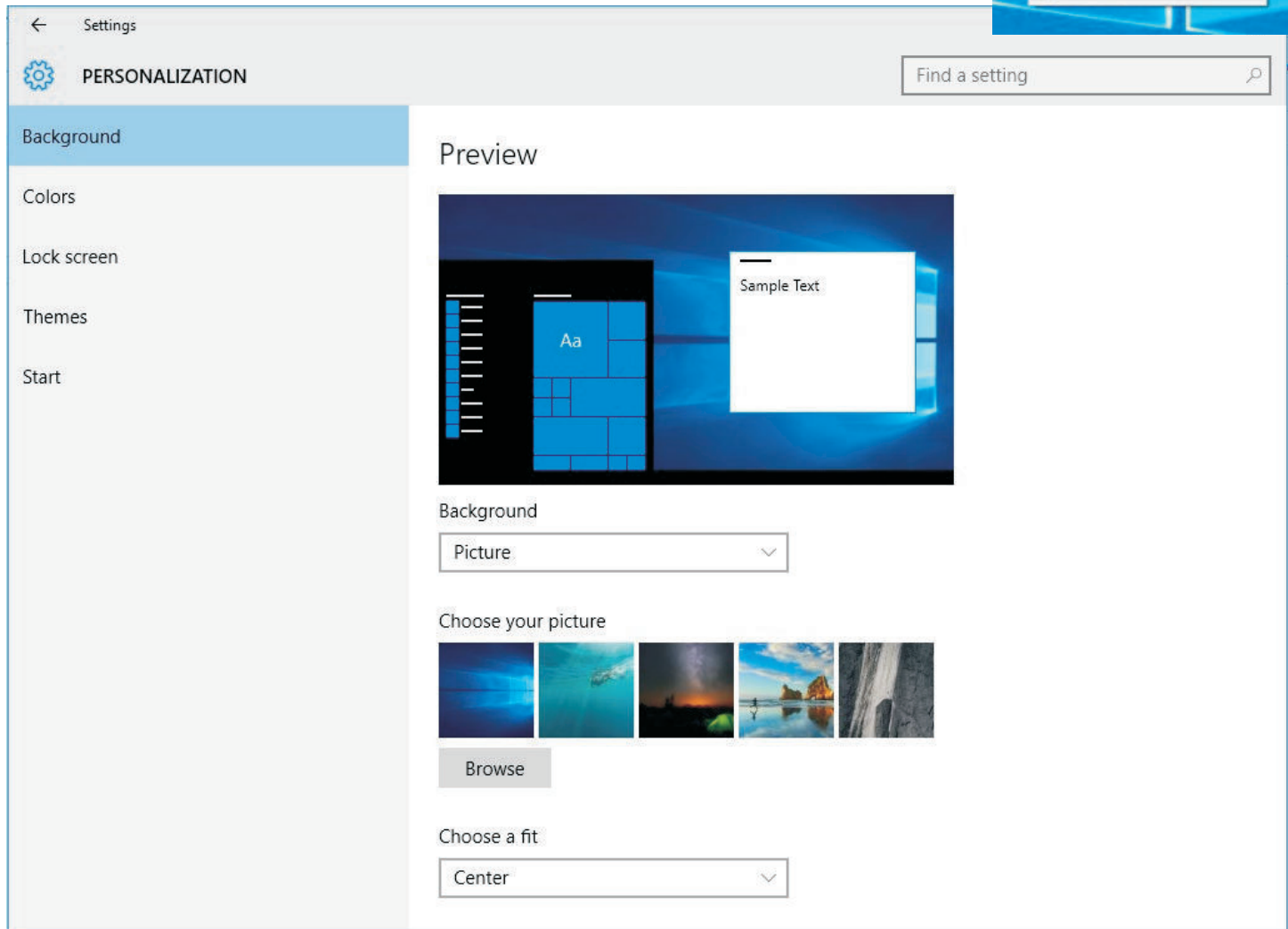
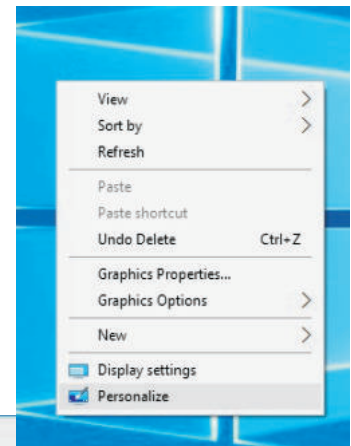
First Method :



- Step 1.* Click on the **Start** button.
- Step 2.* Click on the **Settings** option.
- Step 3.* Click on the **Personalization** option.

Second Method :

- Step 1.* Right-click on the blank area on the desktop.
- Step 2.* Click on the **Personalization** option.



The **PERSONALIZATION** window appears. It allows you to :

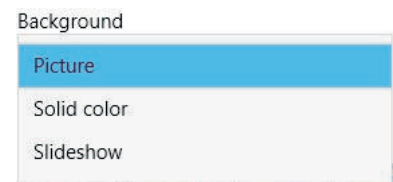
- ◉ Change the colour scheme used throughout Windows 10.
- ◉ Set the desktop background.
- ◉ Change the Windows 10 theme.
- ◉ Customise the Windows 10 lock screen.
- ◉ Change the appearance of the Start menu.



Write down the steps of opening the personalization settings.

SETTING THE DESKTOP BACKGROUND

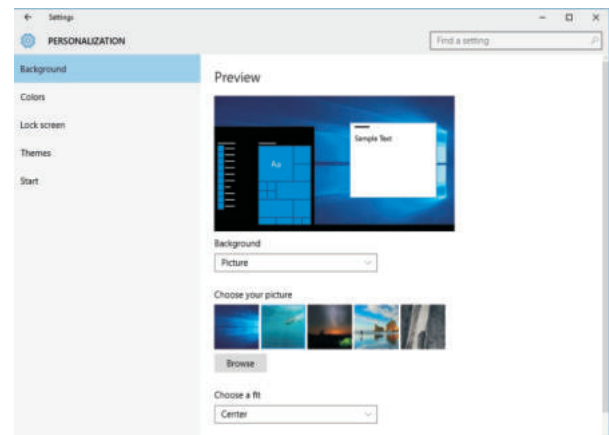
The picture appears as a background on the desktop is called **wallpaper**. Our choice of desktop background usually reflects our personal taste— what we like to see when our application is minimized or closed. We can set our desktop background to any of the three types of background— **Picture**, **Solid color** and **Slideshow**.



Picture

To set a picture as a desktop background, follow these steps :

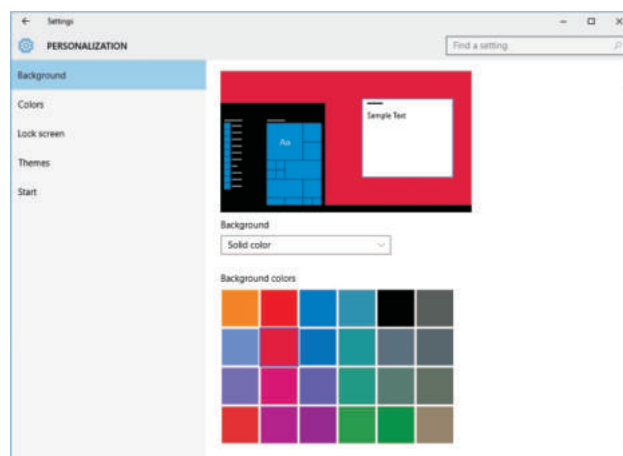
- Step 1.** Select the **Background** option.
- Step 2.** Select the **Picture** option from **Background** drop-down menu.
- Step 3.** Select the desired picture.
- Step 4.** Select the suitable option from the **Choose a fit** drop-down menu.



Solid Color

To set a solid color as a desktop background, follow these steps :

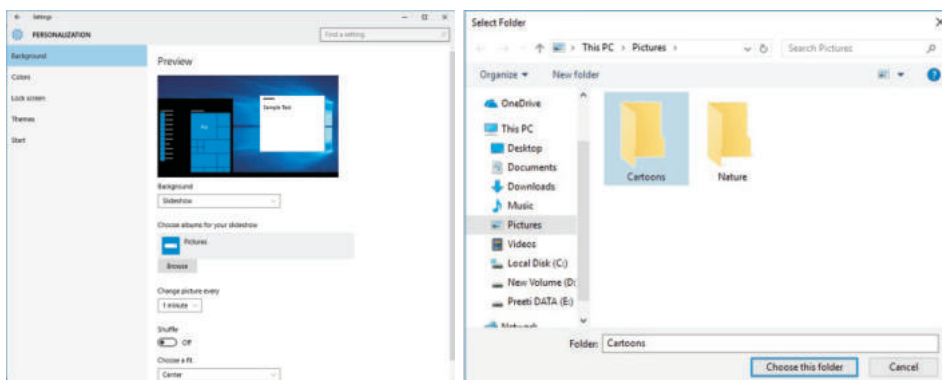
- Step 1.* Select the **Background** option.
- Step 2.* Select the **Solid color** option from **Background** drop-down menu.
- Step 3.* Select the desired colour.



Slideshow

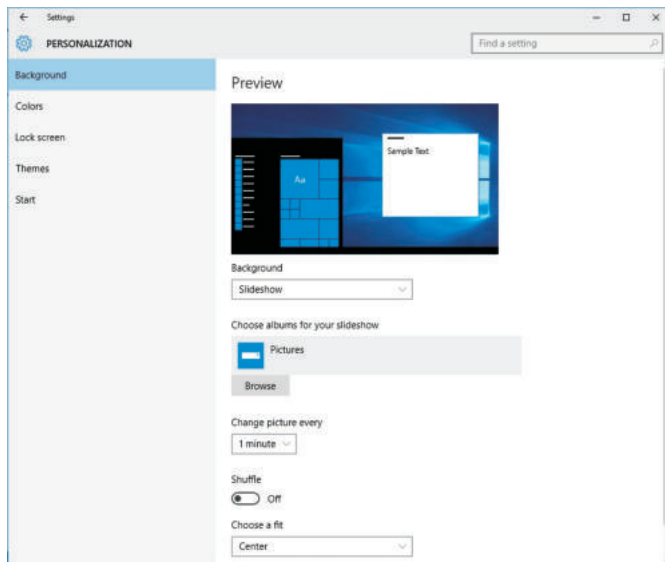
To use a slideshow for desktop background, open the PERSONALIZATION window and follow these steps :

- Step 1.* Select the **Background** option.
- Step 2.* Select the **Slideshow** option from **Background** drop-down menu. The **Select Folder** dialog box appears.
- Step 3.* Click on the **Browse** button.
- Step 4.* Select the folder.
- Step 5.* Click on the **Choose this folder** button.



Step 6. Specify the time after which you want the picture to change by choosing a value from the **Change picture every** drop-down menu.

Step 7. Select the suitable option from the **Choose a fit** drop-down menu.



CHANGING THE COLOUR SCHEME USED THROUGHOUT WINDOWS 10

By default, Windows 10 will use a black taskbar, a dark grey Start menu, and the accent colour (the colour used on tiles, borders, in the action center and on taskbar icons) will be automatically chosen from your background. These are pretty easy to change, though— so read on to learn how to tweak those colours to your own preferences.

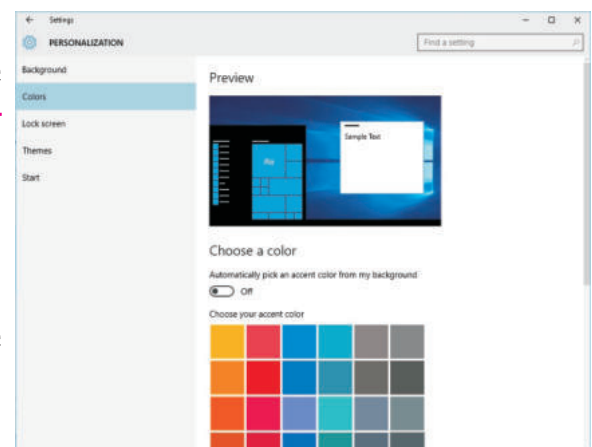
To change the colour scheme used throughout Windows 10, open the PERSONALIZATION window and follow these steps :

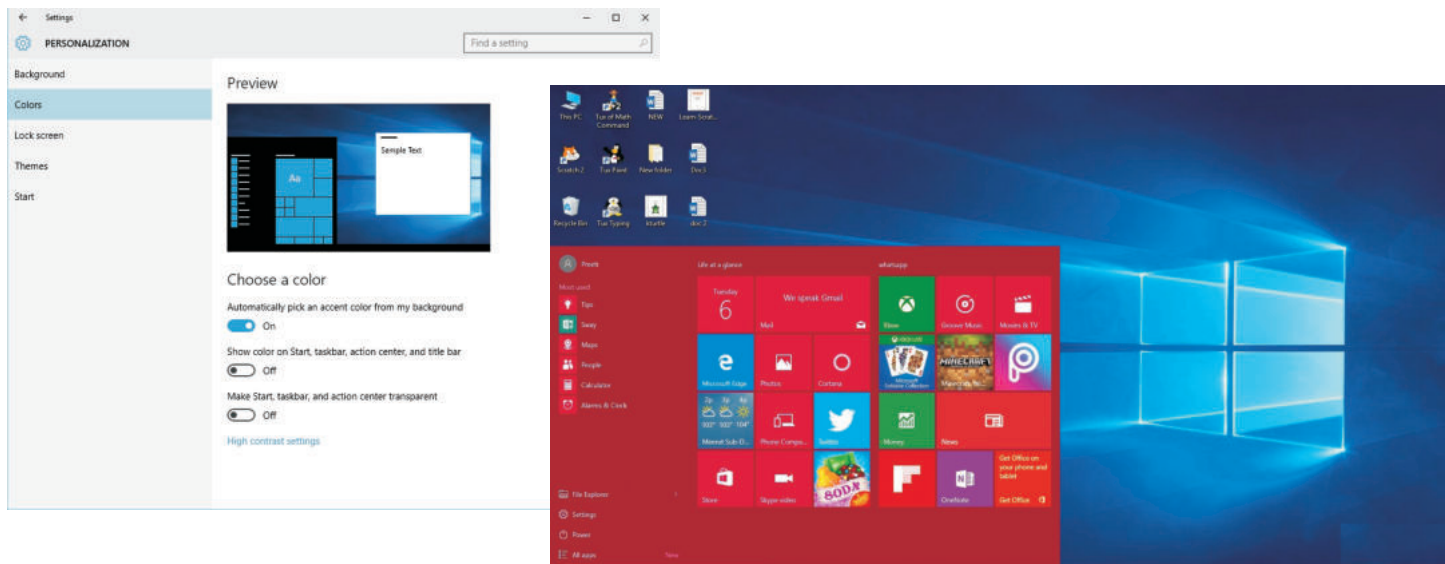
Step 1. Select the **Colors** option.

Step 2. To set window accent colour, set the **Automatically pick an accent color** from **background** option to **Off** and choose a colour.

Step 3. To set a colour for start menu, taskbar and action center, set the **Show color on Start, taskbar, action center, and the title bar** option to **On** and choose a colour.

Step 4. To make the start menu and taskbar transparent, set the **Make Start, taskbar, and action center transparent** option to **On**.





Fact to Know

Local Knowledge

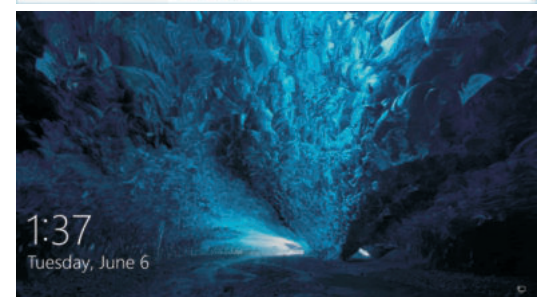
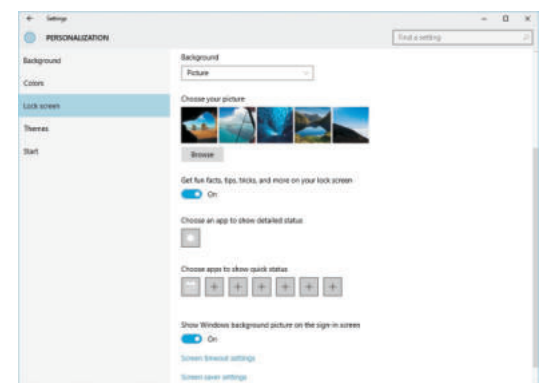
Action Center icon is located on the right-hand side of the Windows taskbar in the notification area. In Windows 10, Action Center is where you will find your app notifications.

CUSTOMIZING THE WINDOWS 10 LOCK SCREEN

Lock screen is the screen that appears at the time of Windows start up and when you don't work on the system for some time. The Lock screen will always show the time and date while it sits there waiting for us to click on it to log in, but we can do so much more with it too. We can customise the appearance of the Lock screen. We cannot only change the picture displayed, but also show information from some apps. Changing the lock screen image is just as simple as changing the background.

To change the Windows 10 lock screen, open the PERSONALIZATION window and follow these steps :

- Step 1.** Select the **Lock screen** option.
- Step 2.** Select the **Picture or Slideshow** option.
- Step 3.** Click on the **Browse** button and select the picture.
- Step 4.** Choose an app to show a detailed status and seven other apps to show quick access.



CHANGING THE WINDOWS 10 THEME

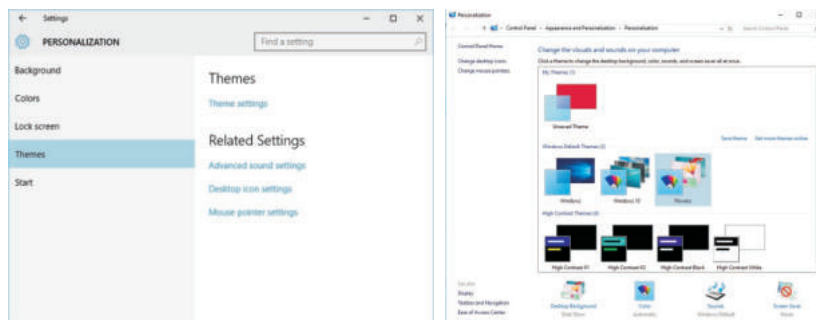
A theme is a combination of desktop background pictures, window accent colours and sounds. We can apply a theme if we do not want to make personal settings for desktop background picture, window accent colours, lock screen, etc.

To change the Windows 10 theme, open the PERSONALIZATION window and follow these steps :

Step 1. Select the **Themes** option.

Step 2. Select the **Theme settings** option.

Step 3. Select the desired theme.



Fact to Know

Local Knowledge

We can also click the link to **Get more themes online**, which will open our browser and show us hundreds of user-created themes that we can download to our computer.

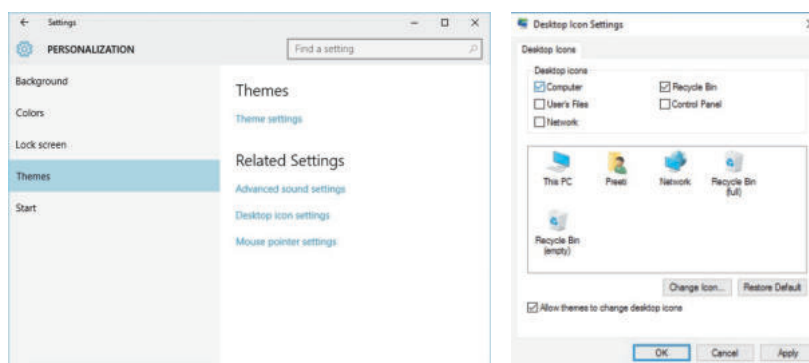
Desktop Icon Settings

By default, Windows 10 desktop contains the Recycle Bin icon. In order to place other icons, open the PERSONALIZATION window and follow these steps :

Step 1. Select the Themes option.

Step 2. Select **Desktop icon settings** option.

Step 3. Tick and choose the icons that you want to place on the desktop. The **Desktop Icon Settings** dialog box appears.



Step 4. Click on OK button.

CHANGING THE APPEARANCE OF THE START MENU

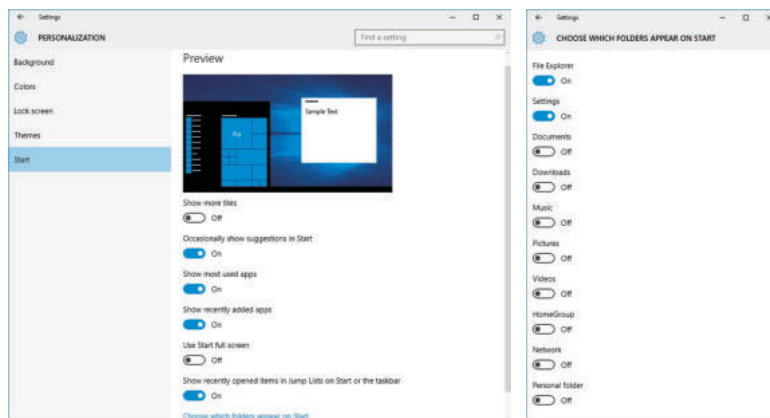
To change the appearance of the Start menu, open the PERSONALIZATION window and follow these steps :

Step 1. Select the **Start** option.

Step 2. To ensure that the apps or programs that have been used recently are displayed in the Start menu, set the **Show most used apps** option **On**.

Step 3. To display the Start menu in full screen, set the **Use Start full screen** option **On**.

Step 4. Click on **CHOOSE WHICH FOLDERS APPEAR ON START** option and choose the folders to be displayed in the Start menu.



Recollect the Chapter

- The first screen that appears after loading the operating system with labelled pictures on it is called Desktop.
- The picture appears as a background on the desktop is called wallpaper.
- A theme is a combination of desktop background pictures, window accent colours and sounds.

Computer MANNER

A computer should not be kept on the edge of a table. It may fall and get damaged.











Exercise






A. Tick (✓) the correct answer :

1. The picture appears as a background on the desktop is called _____.
(a) Desktop ☐ (b) Picture ☐ (c) Wallpaper ☐ (d) Theme ☐
2. Which of the following options is not present in the PERSONALIZATION window?
(a) Picture ☐ (b) Background ☐ (c) Themes ☐ (d) Colors ☐
3. _____ is the latest version of MS Windows.
(a) Windows 7 ☐ (b) Windows 8 ☐ (c) Windows 10 ☐ (d) Windows 11 ☐



4. Where does the Action Center located?
 (a) Left side of the taskbar  (b) Right side of the taskbar 
 (c) Middle of the taskbar  (d) None of these 
5. Which of the following options is not a type of background?
 (a) Picture  (b) Screenshot  (c) Solid color  (d) Slideshow 

B. Write 'T' for true and 'F' for false in the given circles :

1. By default, Windows 10 will use a dark grey Start menu. 
2. We cannot customize the appearance of the Lock screen. 
3. The desktop consists of icons and taskbar. 
4. By default, Windows 10 desktop contains the Recycle Bin icon. 
5. We cannot change the wallpaper of our desktop. 

C. Fill in the blanks :

1. By default, the taskbar of the Windows 10 is _____ in colour.
2. _____ is the screen that appears at the time of Windows start up and when we don't work on the system for some time.
3. The first screen that appears after loading the operating system with labelled pictures on it is called _____.
4. A _____ is a combination of desktop background pictures, window accent colours and sounds.
5. _____ is where we will find our app notifications.

D. Answer the following questions :

1. What is a Lock screen?
2. What are the different ways of opening the PERSONALIZATION window in Windows 10?
3. What is a theme? Write the steps of changing the theme.
4. How can you change the appearance of the Start menu in Windows 10?
5. What is wallpaper?

Creativity Skills



Art Integration

Draw and colour the icons of Windows 7 and Windows 10 in your notebook.

Project Time

Practical Skills

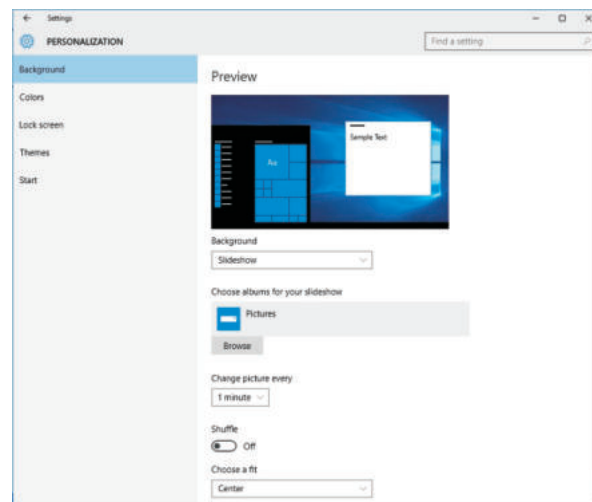
Visit your computer lab and perform the following tasks :

1. Set the desktop background.
2. Change the colour scheme used throughout Windows 10.
3. Customize the Windows 10 lock screen.
4. Change the Windows 10 theme.
5. Change the appearance of the Start menu.

Experience-Based Questions

Higher Order Thinking Skills

1. Akash wants to display the Calendar and time on the Lock Screen. What steps should he follow to complete his task?
2. Observe the given figure and answer the following questions :
 - (a) Name the figure.
 - (b) For what purpose this window is used?
 - (c) Name the options present in the Background drop-down menu.



Think & Answer

Life Skills & Values

If your friend has Windows 7 on his computer and he needs to work with some of the features of Windows 10 then what will you do to help him?

Activity Work

Cutting & Making Skills

Prepare a chart on 'Different versions of Windows operating system'.

Discussion

Communication

Discuss the different features of Windows 10 in class in detail.

Teacher's Help

- The teacher should give enough practice to the students on how to customize the appearance of computer in Windows 10.

Extra Skills

Alphabet Coding

Form a word using the given letters, and tick (✓) the category which it belongs to. One has been done for you.

1. RIDAYF FRIDAY

- (a) Bird (b) Day ✓ (c) Month (d) Year

2. TWIENR _____

- (a) Season (b) Vehicle (c) Water animal (d) Food item

3. TOSUL _____

- (a) Season (b) Flower (c) Animal (d) Vehicle

4. SIJENAM _____

- (a) Vegetable (b) Tree (c) Fruit (d) Flower

5. LABKC _____

- (a) Animal (b) Colour (c) Fruit (d) Body part

6. RESARE _____

- (a) Sport (b) Furniture (c) Dress (d) Stationery

7. VAUGA _____

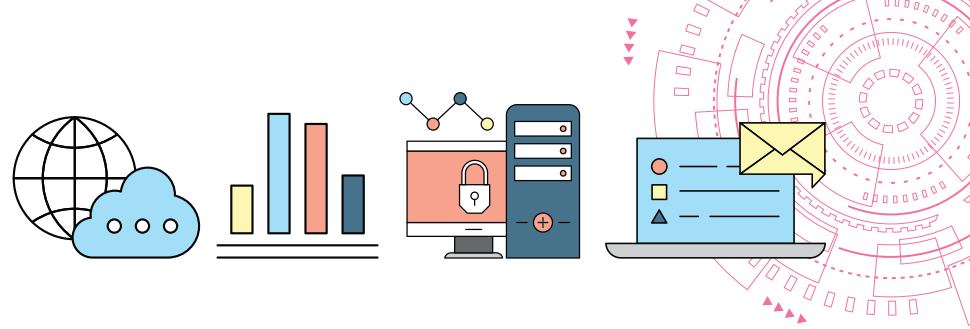
- (a) Vegetable (b) Fruit (c) Tree (d) River

8. BAIRTB _____

- (a) Measuring Unit (b) Utensil (c) Stationery item (d) Animal

9. RCOKF _____

- (a) Sport (b) Kitchen tool (c) Beverage (d) Dress



Editing in MS Word 2019

LEARNING OUTCOMES

In this chapter, you will learn about :

- ▶ Selecting the Text
- ▶ Moving the Text
- ▶ Undo and Redo Options
- ▶ Spelling and Grammar
- ▶ Inserting the Text
- ▶ Copying the Text
- ▶ Find and Replace
- ▶ Thesaurus

Making changes after typing the text in a document is called **editing**. We edit a document to insert text, copy text, delete text, move text or rectify errors. To perform the actions like copying, moving or deleting the text, we need to select the text first.

SELECTING THE TEXT

We can select the text using the mouse or the keyboard.

Selecting the Text Using the Mouse

Various methods of selecting the text using the mouse are :

Selection	Method
A word	Double-click on the word.
A sentence	Move the pointer to the left of the line. When the cursor's shape changes to a right-pointing arrow, click it.
A paragraph	Triple-click anywhere in the paragraph or double-click to the left of the paragraph, when the shape of the cursor changes to a right-pointing arrow.
Entire document	Triple-click to the top-left of the document text, when the shape of the cursor changes to a right-pointing arrow.

Selecting the Text Using the Keyboard

Various methods of selecting the text using the keyboard are :

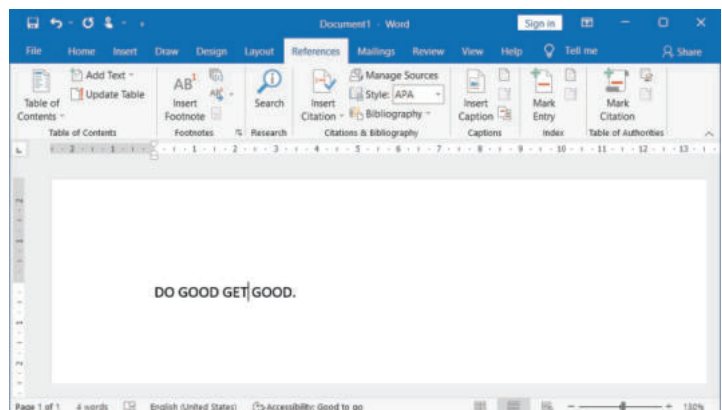
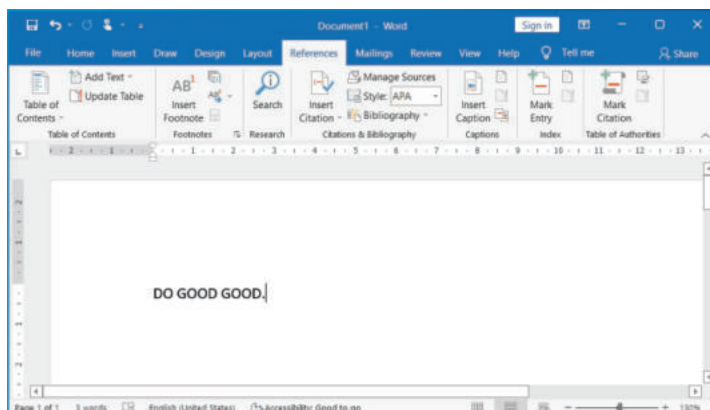
Selection	Method
One character to the right	Ctrl + →
One character to the left	Ctrl + ←
One word to the right	Ctrl + Shift + →
One word to the left	Ctrl + Shift + ←
Text from the current position to the beginning of a line	Ctrl + Home
Text from the current position to the end of a line	Ctrl + End
Text from the current position to the end of a paragraph	Ctrl + Shift + ↓
Text from the current position to the beginning of a paragraph	Ctrl + Shift + ↑
The entire document	Ctrl + A

INSERTING THE TEXT

We can insert new text to an already existing document.

Step 1. Place the cursor where you want to insert the text.

Step 2. Now start typing the text.



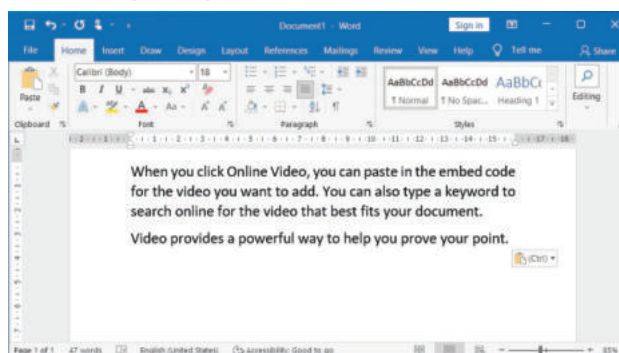
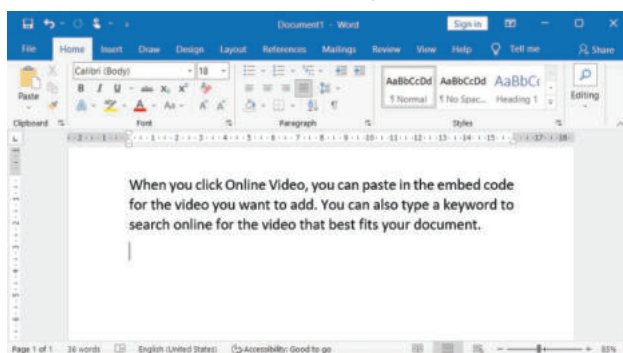
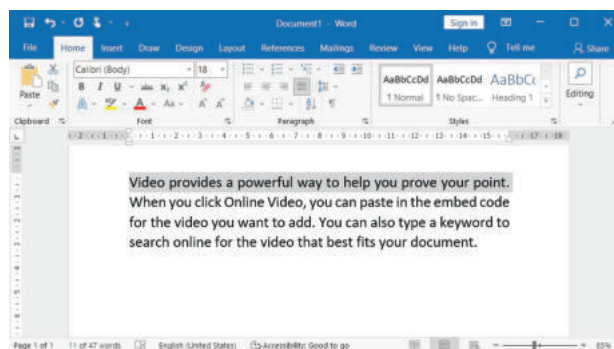
The existing text which is placed after the cursor will be shifted to the right side and the new text will be inserted.

MOVING THE TEXT

The Cut and Paste commands are used to move the text from its original location to a new location. The Cut command removes the text from its original location and the Paste command inserts the cut text at the new location.

To move the text, follow these steps :

- Step 1.** Select the text that you want to move.
- Step 2.** Click on **Cut** option in the **Clipboard** group on the **Home** tab.
- Step 3.** The text disappears from the document. Place the cursor at the location where you want to place the cut text.
- Step 4.** Click on the **Paste** option in the **Clipboard** group on the **Home** tab.



Fact to Know

Local Knowledge

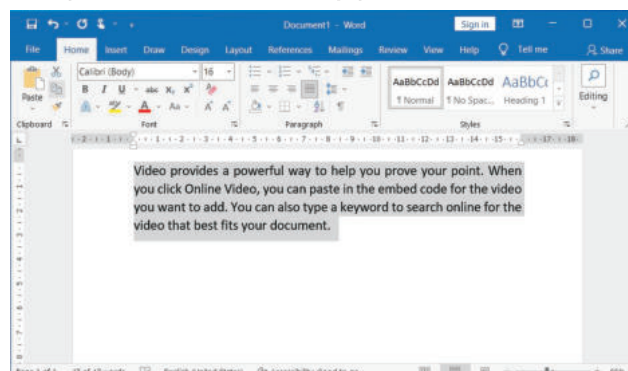
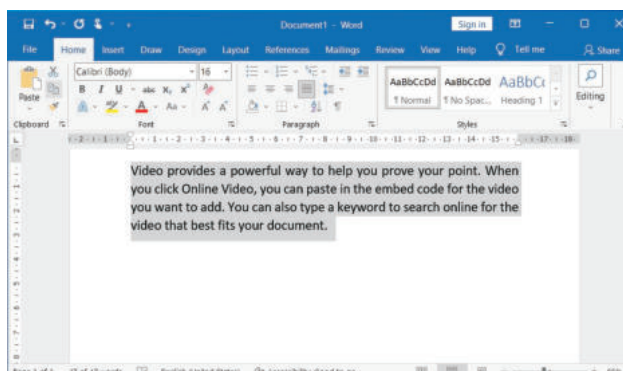
We can press the **Ctrl + X** key combination to cut the selected text.

COPYING THE TEXT

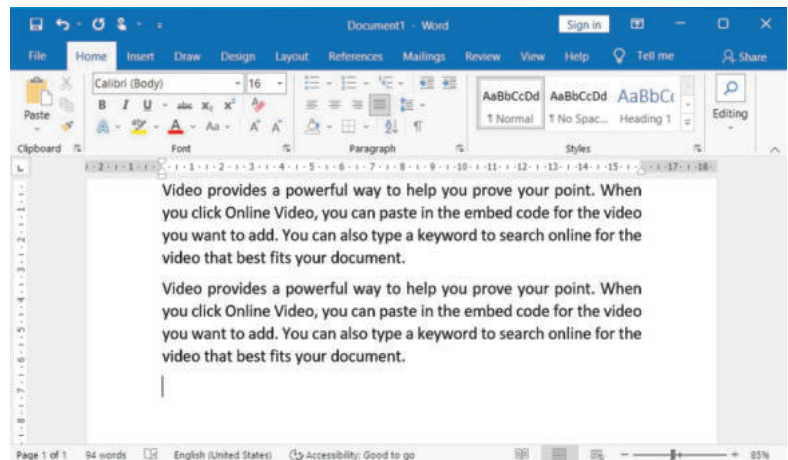
The **Copy** and **Paste** commands are used to duplicate the text. We can copy the text from one location to another within a document or even from one document to another. This feature helps in reducing our time and effort in typing.

To copy the text, follow these steps :

- Step 1.** Select the text that you want to copy.
- Step 2.** Click on **Copy** option in the **Clipboard** group on the **Home** tab.
- Step 3.** Place the cursor at the location where you want to copy the text.



Step 4. Click on the **Paste** option in the **Clipboard** group on the **Home** tab.






Fact to Know

Local Knowledge

We can press the **Ctrl + V** to paste the cut/ copied text.

UNDO AND REDO OPTIONS

MS Word keeps track of all the changes that we make in a document. We can easily undo the change and restore the original text. The Undo  and Redo  buttons are available on the Quick Access Toolbar .

The Undo command is used to reverse the last action performed, while the Redo command is used to reverse the effect of the Undo command.

Fact to Know

Local Knowledge

Ctrl + Z and **Ctrl + Y** are the shortcut keys for Undo and Redo commands respectively.

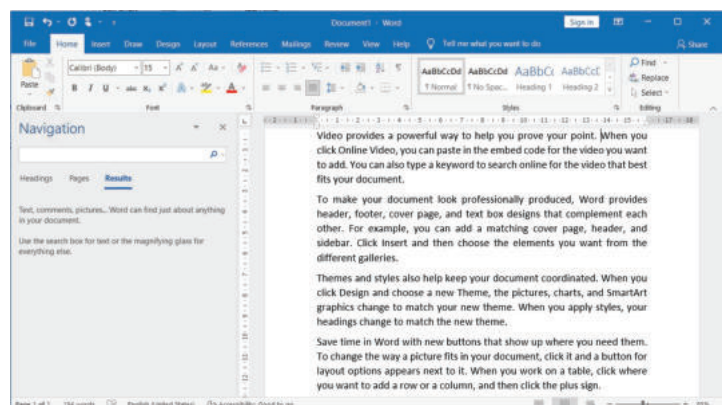
FIND AND REPLACE

When we're working with longer documents, it can be difficult and time consuming to search for a particular word or text in a document. Word can automatically locate a specific word or text in a document using the Find feature, and it allows us to quickly change a specific word or text in a document using Replace option.

Finding Text

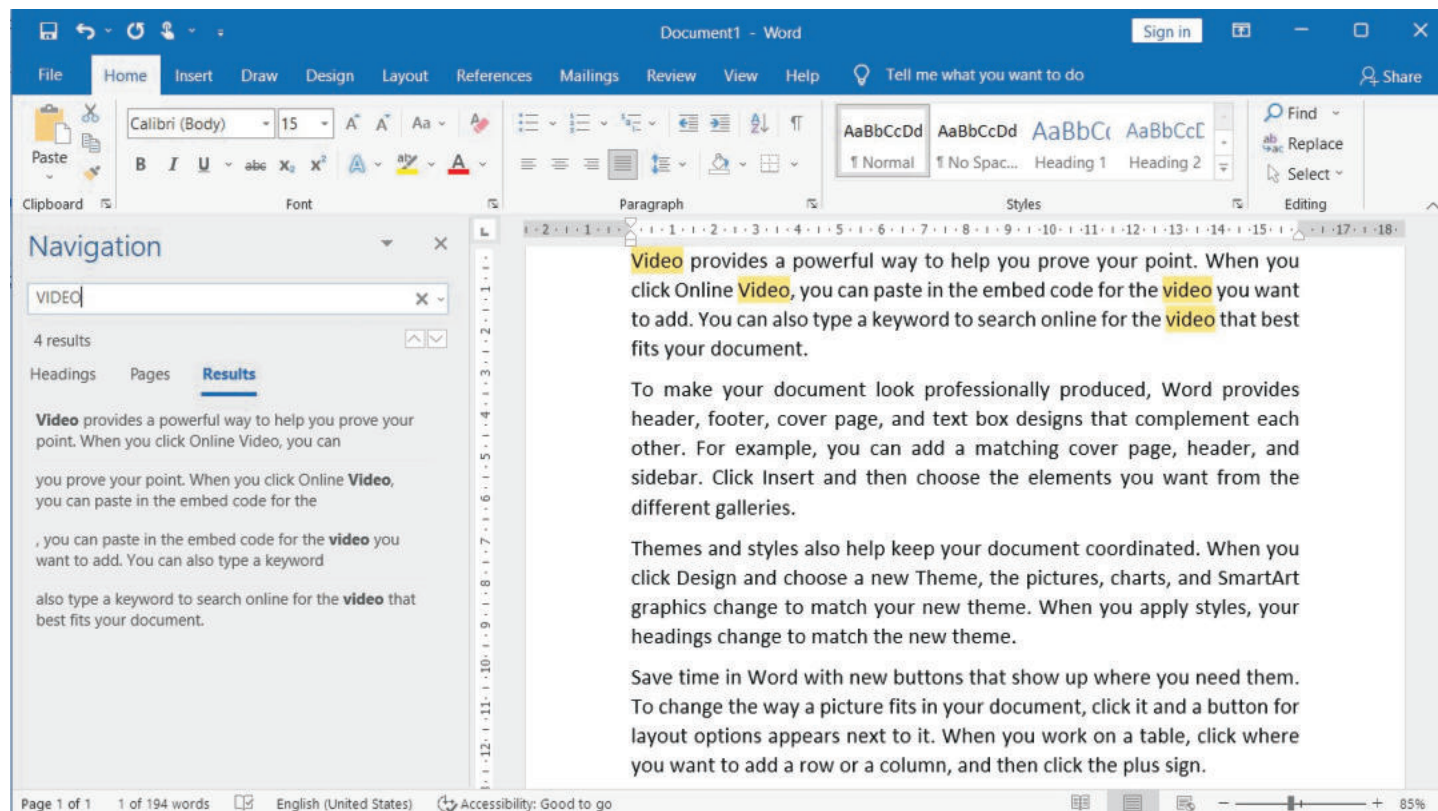
To find a word or text in a document, follow these steps :

Step 1. Click on the **Find** option in the **Editing** group on the **Home** tab.



Step 2. Type the word that you want to find in the **Search Document** box.


Step 3. Now, click on a result in the **Navigation** pane to see it in the document.



We can look at all the results by clicking on the Next Search Result and Previous Search Result arrows in the Navigation Pane.

Fact to Know

Local Knowledge

When we are finished, click the  to close the navigation pane. The highlight will disappear.

Replacing the Text

The Find and Replace commands can be combined to find a particular word or text in a document and replace it with another word or text.

To find and replace text, follow these steps :

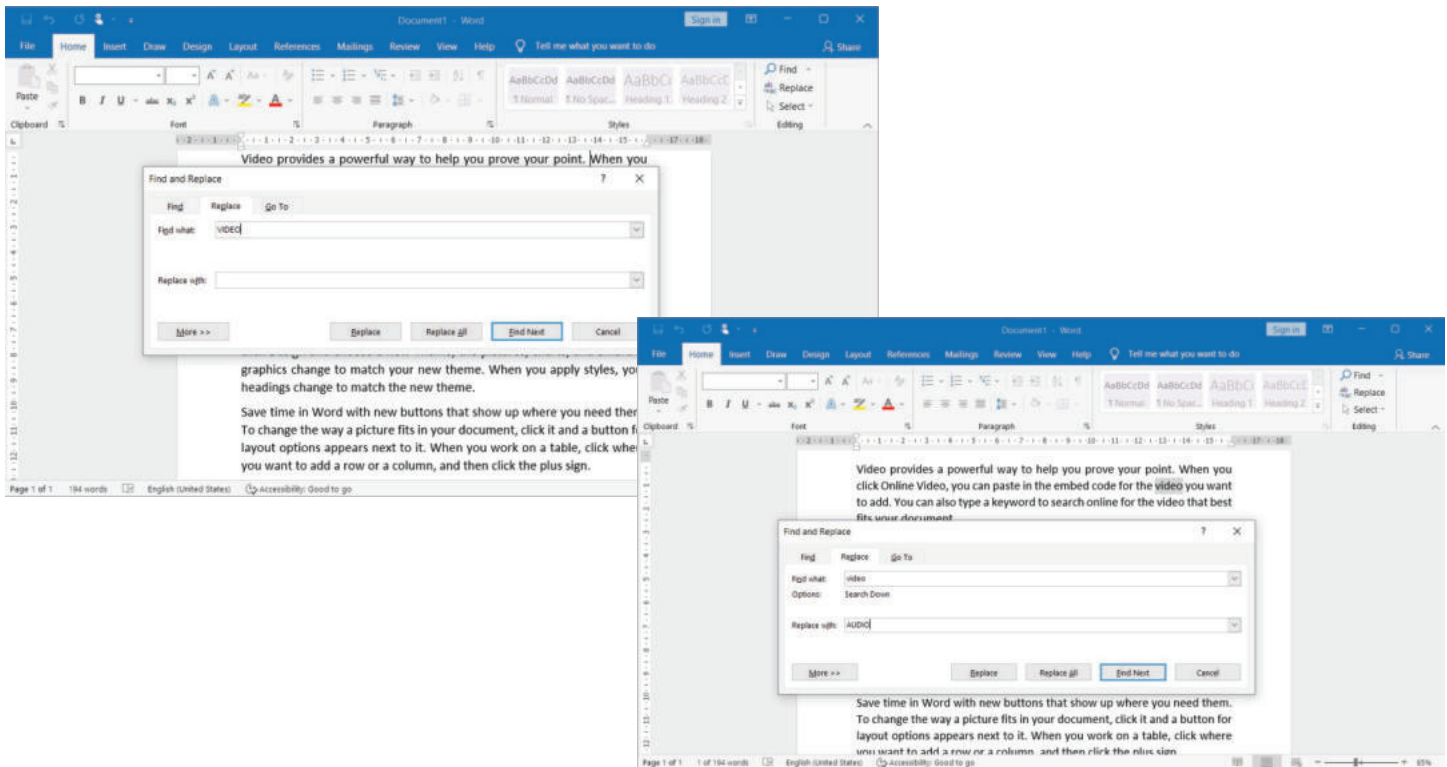
Step 1. Click on the **Replace** option in the **Editing** group on the **Home** tab.

Step 2. Enter the text you want to search and replace in the **Find what:** box.

Step 3. Enter the new text to replace the existing text in the **Replace with:** box.

Step 4. Click **Find Next**.

Step 5. Click on the **Replace** to change individual instances of text or **Replace All** to replace every instance of the text throughout the document.



Fact to Know

Local Knowledge

We can press the **Ctrl + F** keys to find the text and **Ctrl + H** keys to replace the text.

SPELLING AND GRAMMAR

MS Word provides us with several proofing features—including the Spelling and Grammar tool that can help us produce error-free documents. For each error in our document, Word will try to offer one or more suggestions. We might have noticed that when we are typing some text in Word 2019, we get red or blue wavy lines under some words.

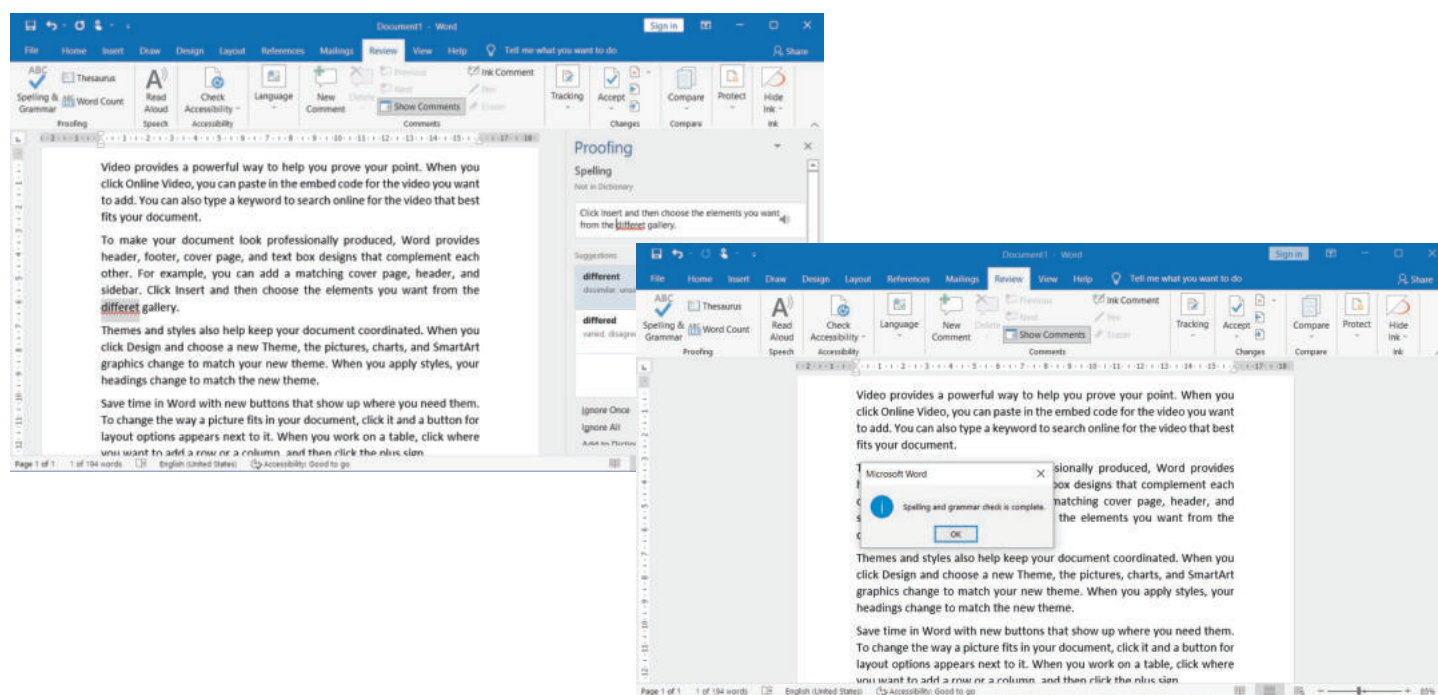
- A red wavy underline indicates a misspelled word. Any word that is not there in the Word dictionary is marked as misspelled.
- A blue wavy line indicates grammatical mistakes, including misused words (also known as a contextual spelling error, occurs when a word is spelled correctly but used incorrectly).

To check spelling and grammar, follow these steps :

Step 1. Click on the **Spelling & Grammar** option in the **Proofing** group on the **Review** tab.

Step 2. The **Spelling and Grammar** pane will appear. You can select a suggestion and click **Change to correct each error**.

Step 3. Click on the **OK** button.



Fact to Know

Local Knowledge

Right-click the underlined word or phrase. A menu will appear. Then, select the correct spelling or phrase from the list of suggestions.

You can press the **F7** key to check the Spelling and Grammar in your document.

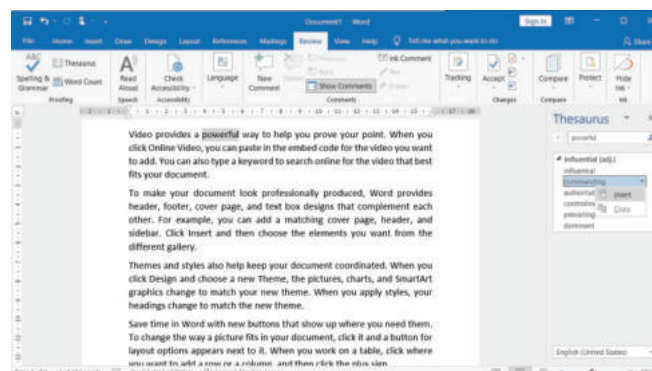
THESAURUS

MS Word has an in-built dictionary called Thesaurus. This feature provides a list of synonyms (i.e., words with similar meaning) for a given word and antonym (i.e., opposite of a word). It proves to be useful by helping us improve our vocabulary and can be used to replace a word with one of its synonyms.

To use the Thesaurus, follow these steps :

Step 1. Place the cursor anywhere within the word for which you want to look for a synonym.

Step 2. Click on the **Thesaurus** option in the **Proofing** group on the **Review** tab.



Step 3. A list of synonyms (and antonyms, if any) appears in **Thesaurus pane** on the right side of the window. To use one of the words from the list, point to it. Then, click on the down arrow next to it and select the **Insert** option.

Step 4. Click on the **Insert** option.

Fact to Know

Local Knowledge

We can press the **Shift + F7** keys to use the Thesaurus.



Recollect the Chapter

- Making changes after typing the text in a document is called editing. We edit a document to insert text, copy text, delete text, move text or rectify errors.
- The Cut and Paste commands are used to move the text from its original location to a new location.
- The Copy and Paste commands are used to duplicate the text.
- The Undo command is used to reverse the last action performed, while the Redo command is used to reverse the effect of the Undo command.
- Word can automatically locate a specific word or text in a document using the Find feature, and it allows us to quickly change a specific word or text in a document using Replace option.
- Word provides us with several proofing features—including the Spelling and Grammar tool that can help you produce error-free documents.
- Word has an in-built dictionary called Thesaurus. This feature provides a list of synonyms (i.e., words with similar meaning) for a given word and antonym (i.e., opposite of a word).

Computer MANNER



Maintain proper posture while working on the computer.



Exercise

A. Tick (✓) the correct answer :

1. The Copy option is present in the _____ group.

(a) Clipboard ☐ (b) Proofing ☐ (c) Editing ☐ (d) Font ☐



2. Where is Undo option present?
 (a) Font tab ☐ (b) Home tab ☐
 (c) Quick Access Toolbar ☐ (d) None of these ☐
3. To select the text from the current position to the end of a line, press _____ keys.
 (a) Ctrl + Shift + End ☐ (b) Shift + End ☐
 (c) End ☐ (d) Ctrl + End ☐
4. Press the _____ key to check the Spelling and Grammar in your document.
 (a) F5 ☐ (b) F6 ☐ (c) F7 ☐ (d) F8 ☐
5. The Spelling & Grammar tool is present on the _____ tab.
 (a) File ☐ (b) Home ☐ (c) Review ☐ (d) Insert ☐

B. Write 'T' for true and 'F' for false in the given circles :

1. The Copy and Paste commands are used to duplicate the text. ☐
2. A blue wavy line indicates grammatical mistakes, including misused words. ☐
3. To select the entire document, press Ctrl + E key combination. ☐
4. Thesaurus provides a list of synonyms and antonyms. ☐
5. The Find option is used to locate a specific word or text in a document. ☐

C. Fill in the blanks :

1. The _____ command is used to reverse the last action performed.
2. Making changes after typing the text in a document is called _____.
3. Word has an in-built dictionary called _____.
4. Ctrl + X is the shortcut key for _____ option.
5. A _____ wavy underline indicates a misspelled word.

D. Answer the following questions :

1. What do you mean by editing?
2. What are the uses of Copy and Paste options?
3. What is the difference between Undo and Redo options?
4. What is the use of Spelling & Grammar option?
5. What is the use of Thesaurus option in Word 2019?

Draw and colour the logo of MS Word 2019 in your notebook.

Open MS Word 2019 and type the given text. Then, edit the text according to the given instructions :

- Move the first paragraph after the second paragraph.
- Then, read the story.
- Now, search the word 'Frog' and replace it with 'Cat' in the whole document.
- Correct all the incorrect spellings using Spelling & Grammar option.
- Save the file with the name 'Story'.

The Frogs' Race

Little by little, the frogs felt disapointed and discouraged, except for one of them that continued to run. And everybody cried out : "Give up! Give up! You'll never get to the top!" Listening repeatedly to these negative words led the frogs to abandon the race after all, except for the one frog that, despite what people were saying, and though alone and with great pain, continued to run and finally reached the top.

One day, a group of frogs decided to make a racce and get to the top of a high tower. A loot of people came to see them and give them their support, but the race had just begun and everybody was already saying that the frogs would not get there: "It doesn't make any sense going on! You'll never reach the top of the tower!"

Think & Answer

Life Skills & Values

Your friend is unable to move the text from one place to another after trying many times. What will you do? Justify your answer.

Activity Work

Cutting & Making Skills

Prepare a chart on 'Selecting text in MS Word 2019'.

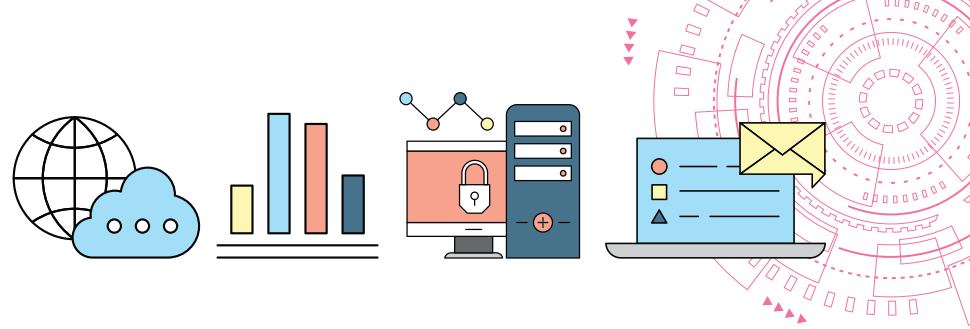
Discussion

Communication

Divide the class into two groups and conduct a group discussion on 'Editing Text in MS Word 2019'.

Teacher's Help

- The teacher should ensure that the students are comfortable using both mouse actions and keyboard shortcuts for simple commands like Cut, Copy, Paste, etc.



Formatting in MS Word 2019

LEARNING OUTCOMES

In this chapter, you will learn about :

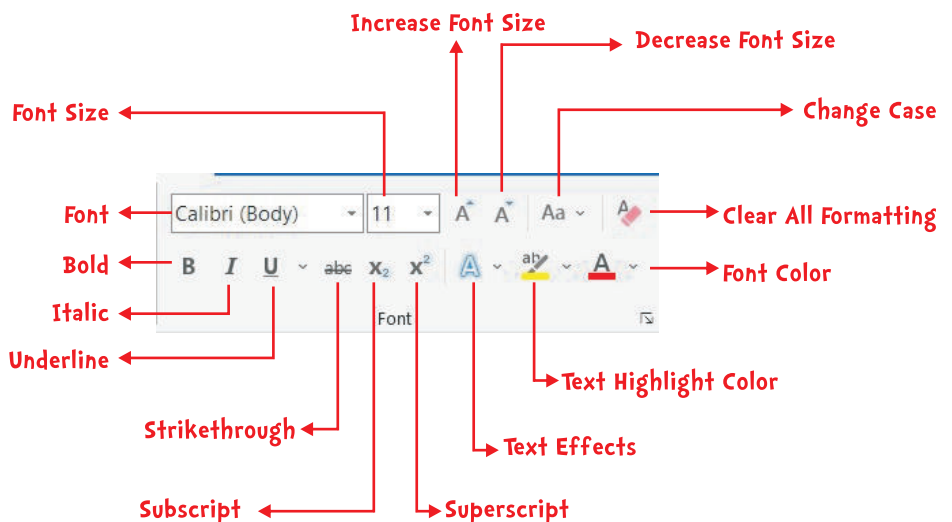
- ▶ Character Formatting
- ▶ Paragraph Formatting
- ▶ Bullets and Numbering
- ▶ Applying Borders

The process of changing the appearance and arrangement of text to make it look attractive is known as **formatting**. Formatted text can draw the reader's attention to specific parts of a document and emphasize important information.

CHARACTER FORMATTING

The process of displaying the selected text in a certain manner is called **character formatting**. It consists of text properties like bold, italic, underline, font style, font colour, font size, etc.

In class 3, we have already learnt how to change the font style, colour and size. Let us now look at some more formatting options available in the Font group.

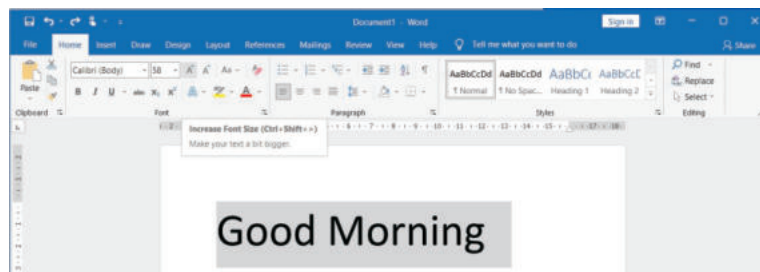


Increase Or Decrease Font Size

The Increase Font Size and Decrease Font Size options are used to make your text a bit bigger and smaller respectively. To increase or decrease font size, follow the given steps :

Step 1. Select the text.

Step 2. Click on the **Increase Font Size** to make the text bigger and **Decrease Font Size** to make the text smaller in the **Font** group on the **Home** tab.



Fact to Know

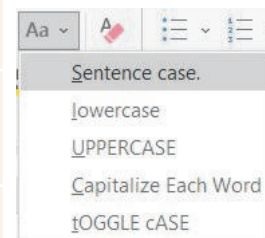
Local Knowledge

We can press the **Ctrl + >** keys for Increase Font Size and **Ctrl + <** for Decrease Font Size options.

Changing the Case

When we need to quickly change text case, we can use the Change Case command instead of deleting and retyping text. Word 2019 allows us to change the case of typed text to any of the following five options :

Sentence case	Only the first letter of a sentence is displayed in uppercase. The rest of the letters are displayed in lowercase.
lowercase	All the letters are displayed in small letters (lowercase).
UPPERCASE	All the letters are displayed in capital letters (uppercase).
Capitalize Each Word	The first letter of each word is displayed in uppercase. The rest of the letters are displayed in lowercase.
tOGGLE cASE	It changes the case of every letter. The uppercase letters are changed to lowercase and the lowercase letters are changed to uppercase.

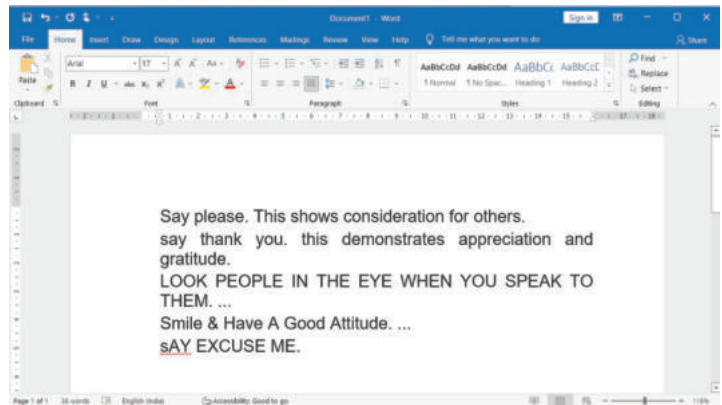
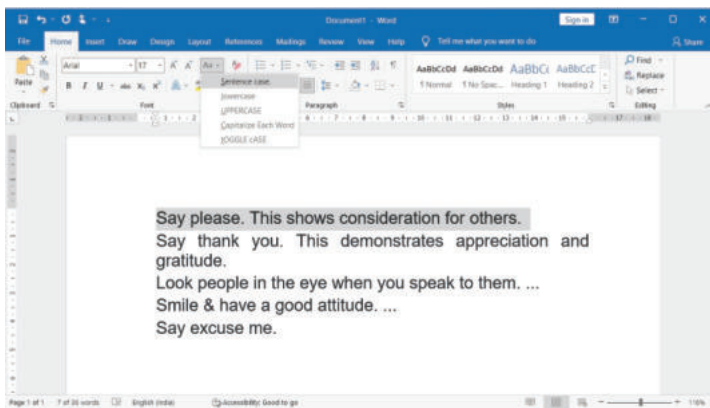


To change the case of the text, follow the given steps :

Step 1. Select the text.

Step 2. Click on the **Change Case** option in the **Font** group on the **Home** tab.

Step 3. Select the desired option.



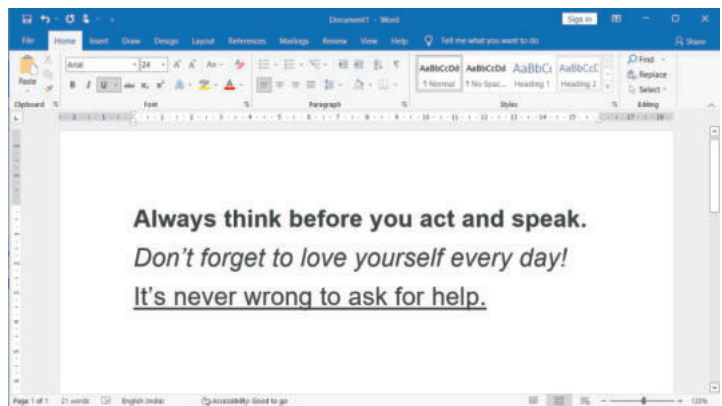
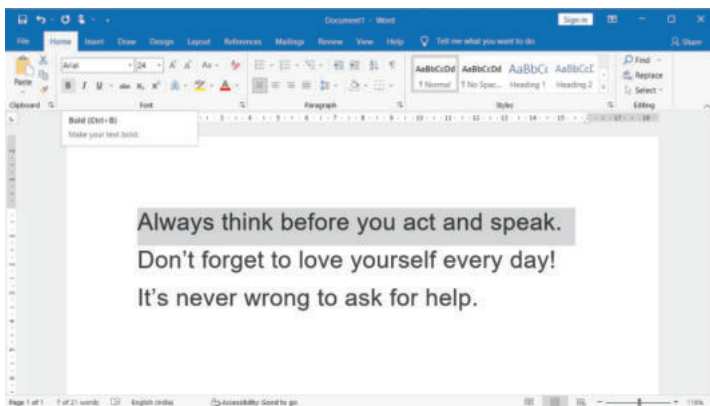
Bold, Italic and Underline

The Bold, Italic or Underline options can be used to emphasize the text to make it stand out. These options can be used to help draw attention to important words or phrases.

To apply the Bold, Italic or Underline effect to the text, follow these steps :

Step 1. Select the text.

Step 2. Click on the **Bold** option to bold the text, **Italic** option to italicize the text and **Underline** option to underline the text in the **Font** group on the **Home** tab.



Fact to Know

Local Knowledge

We can press the **Ctrl + B** for Bold, **Ctrl + I** for Italic and **Ctrl + U** keys for Underline options.

The Bold **B** , Italic **I** and Underline **U** buttons have two states – On and Off. When the buttons are in the 'On' state, the required style is applied on the text. When the buttons are in the 'Off' state, the required style is removed from the selected text.



Strikethrough, Superscript and Subscript

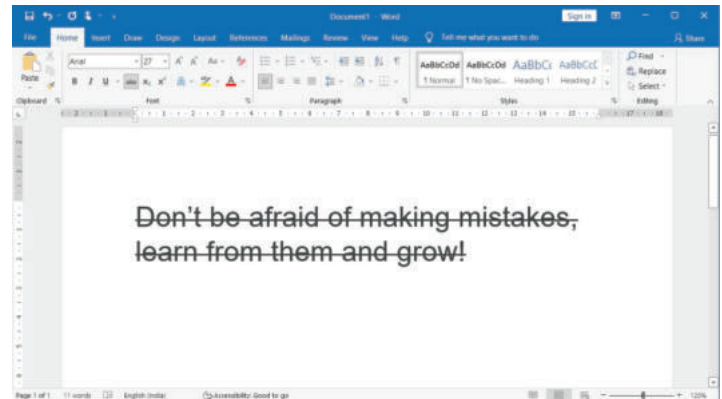
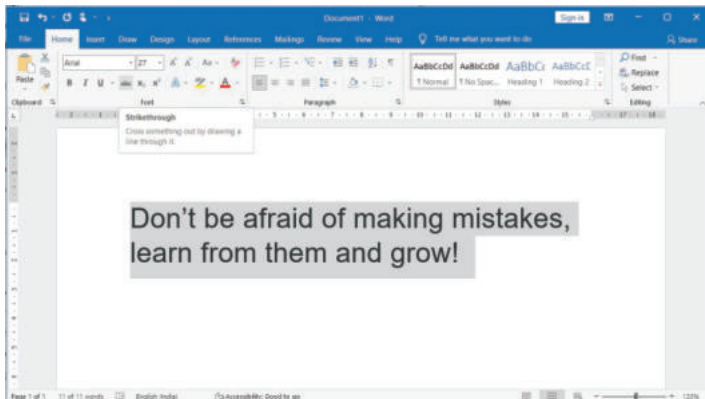
Strikethrough is a font effect that cross something out by drawing a line through it.

To apply Strikethrough, follow these steps :

Step 1. Select the text.

Step 2. Click on the **Strikethrough** in the **Font** group on the **Home** tab.

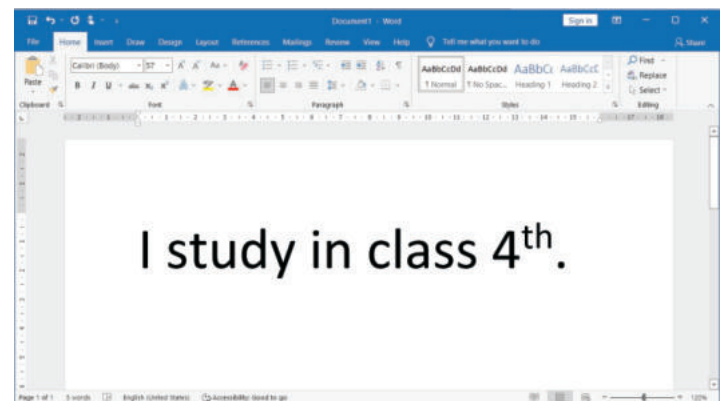
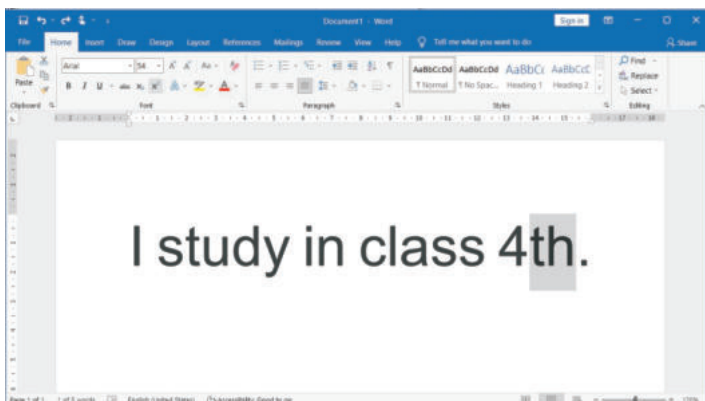
It cross the text out by drawing a line through it.



Superscript refers to the text that is positioned slightly higher than the line of text. To apply Superscript, follow these steps :

Step 1. Select the text.

Step 2. Click on the **Superscript** in the **Font** group on the **Home** tab. It positions the selected text slightly higher than the line of the text.

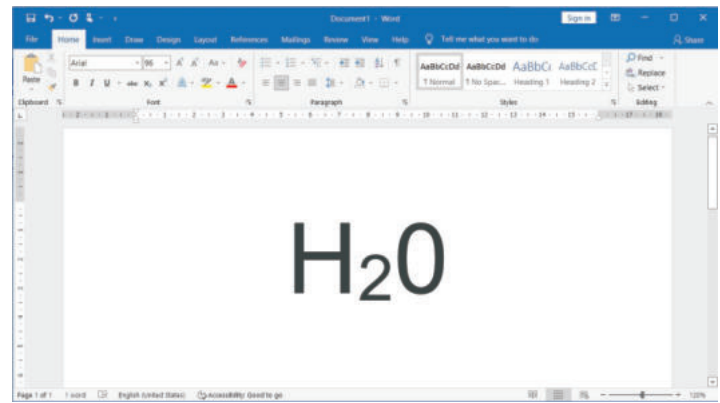
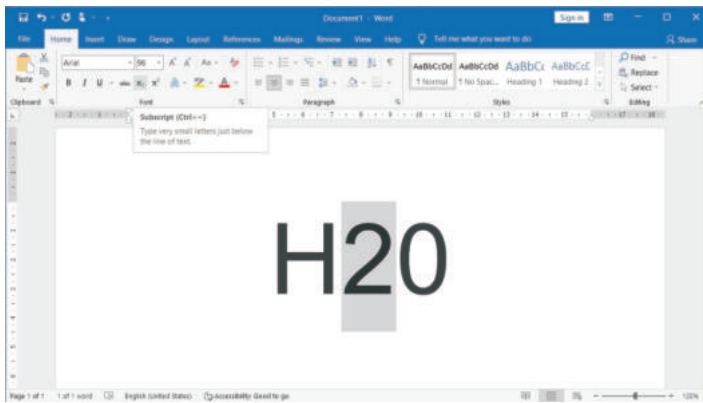


Subscript refers to the text that is positioned slightly lower than the line of text. To apply Subscript, follow these steps :

Step 1. Select the text.

Step 2. Click on the **Subscript** in the **Font** group on the **Home** tab.

It positions the selected text slightly lower than the line of the text.



Text Effects

We can modify the appearance of the text by changing the fill or outline colour and adding effects like shadow, glow, reflection effects, etc. using the **Text effects** option.

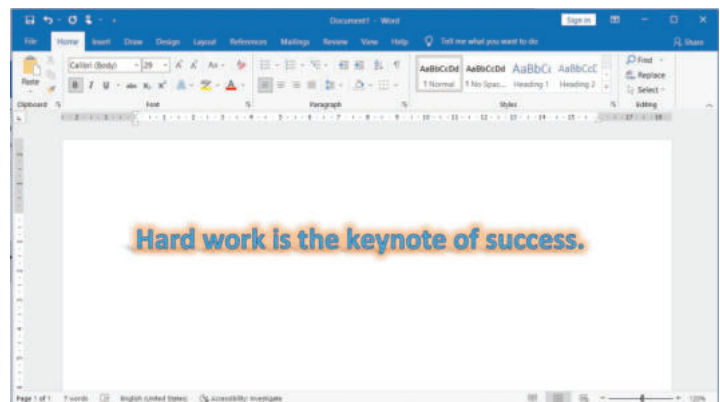
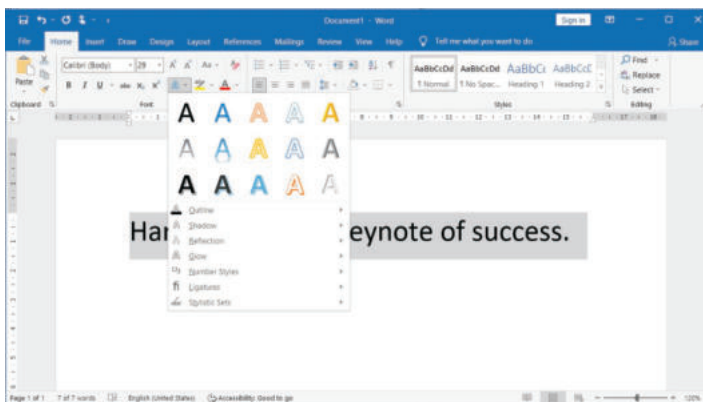
To apply text effects, follow these steps :

Step 1. Select the text.

Step 2. Click on the **Text Effects** and **Typography** option in the **Font** group on the **Home** tab.

Step 3. Select the desired option.

It changes the appearance of the text.



Clear All Formatting

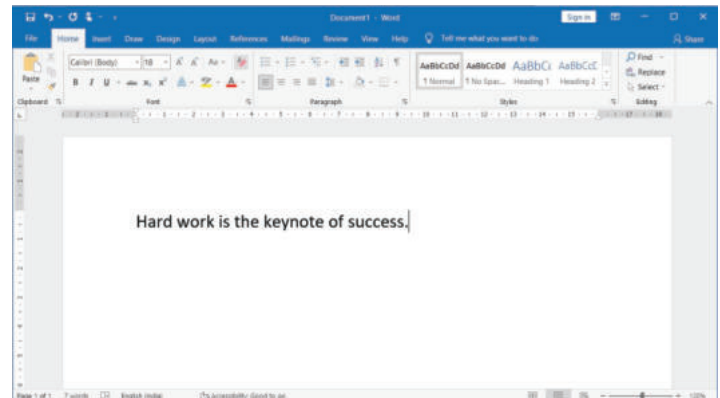
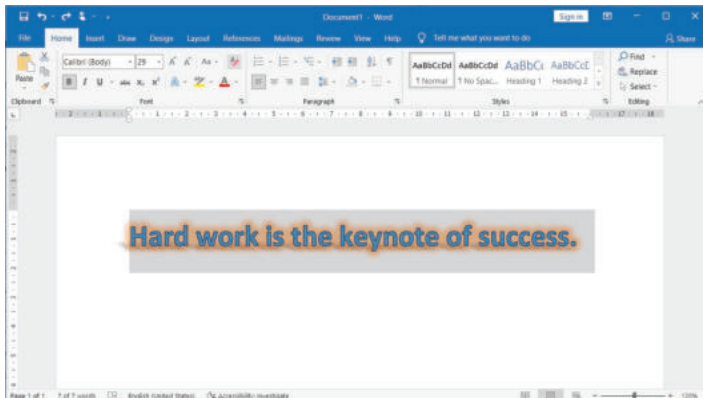
We can easily clear all formatting (such as bold, underline, italic, colour, superscript, subscript, and more) from our text and return our text to its default formatting styles. The Clear All Formatting option is used to remove all formatting from the selection, leaving only the normal, unformatted text.

To use the **Clear All Formatting** option, follow these steps :

Step 1. Select the text.

Step 2. Click on the **Clear All Formatting** option in the **Font** group on the **Home** tab.

It clears all the formatting.



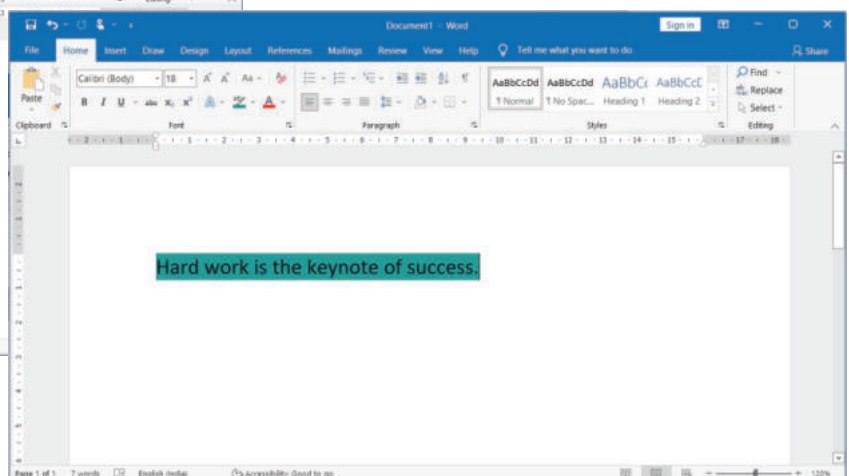
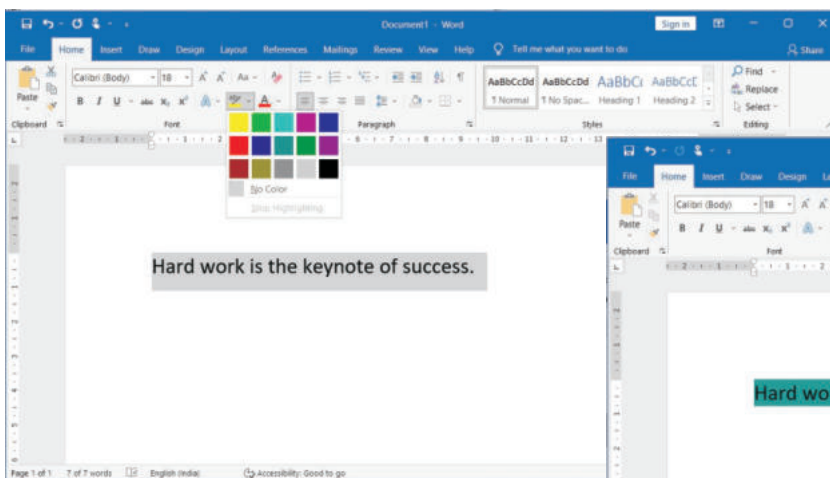
Highlighting Text

Highlighting means making the text look different to draw the reader's attention towards it. We can highlight important parts using the Text Highlight Color option.

To highlight the text, follow these steps :

Step 1. Select the text.

Step 2. Click on the **Text Highlight Color** option in the **Font** group on the **Home** tab.



Fact to Know

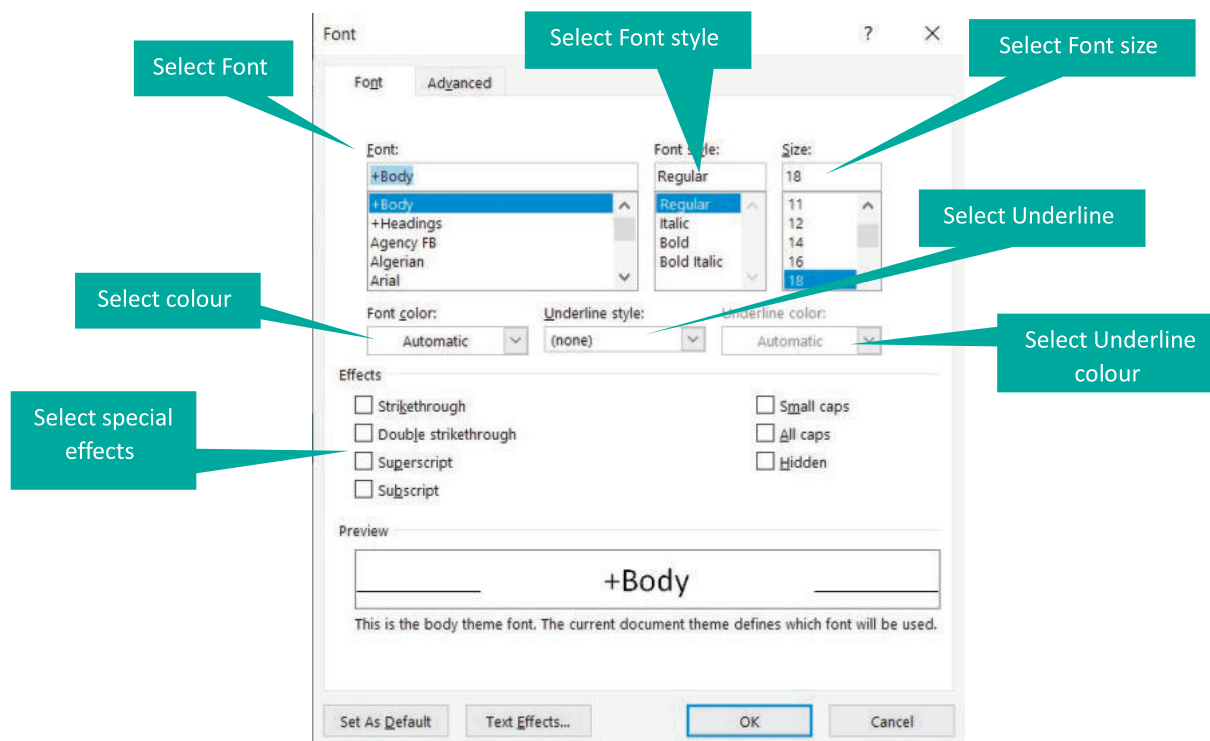
Local Knowledge

If you want to remove highlighting then select **No Color** option from the drop-down menu of **Text Highlight Color** option in the **Font** group on the **Home** tab.



Character Formatting Using the Font Dialog Box

We can use the more formatting options using the Font dialog box. To open the Font dialog box, click on the **Font** dialog box launcher in the **Font** group on the **Home** tab.







PARAGRAPH FORMATTING

The paragraph formatting feature of Word 2019 can be used to format the appearance of text in a paragraph.

Aligning Text

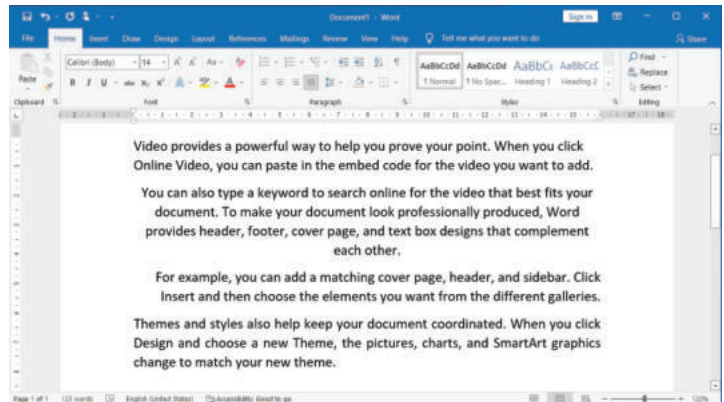
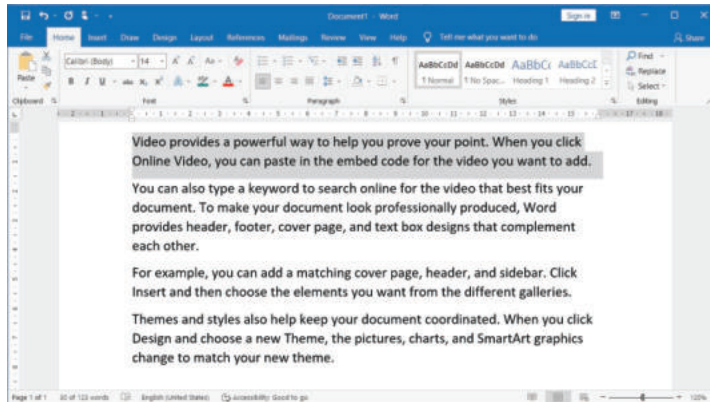
The manner in which text is placed between the margins of a page is called alignment. Word 2019 allows us to change the alignment of the text to any of the following four options :

Align Left		It places the text towards the left margin leaving a ragged right edge. By default, the text is always aligned to the left margin.
Center		It places the text in the centre of the left and right margins.
Align Right		It places the text towards the right margin leaving a ragged left edge.
Justify		It places the text evenly between the left and right margin.

To align the text, follow these steps :

Step 1. Select the text.

Step 2. Select the required **Alignment** options in the **Paragraph** group on the **Home** tab.



Fact to Know

Local Knowledge

We can press the **Ctrl + L** for left, **Ctrl + E** for center, **Ctrl + R** for right and **Ctrl + J** for justify alignment.

Line Spacing

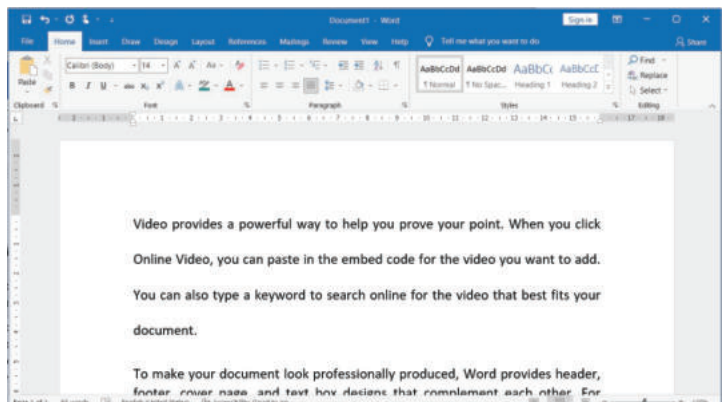
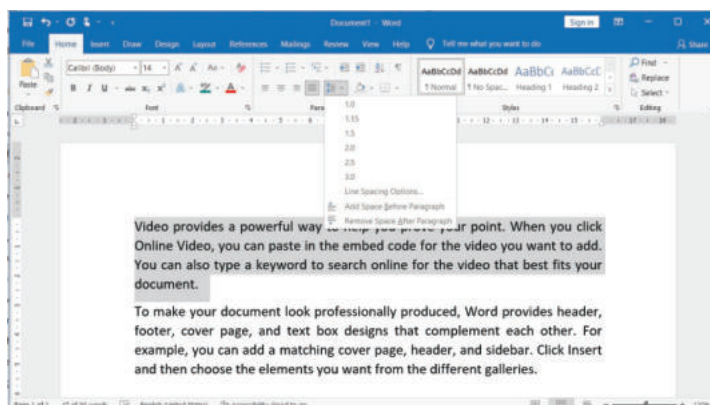
The amount of blank space left between the lines of text in a paragraph is called **line spacing**. It is measured in lines or units called **points**.

To increase or decrease the space between the lines, follow these steps :

Step 1. Select the text.

Step 2. Click on the **Line and Paragraph Spacing** option in the **Paragraph** group on the **Home** tab.

Step 3. Select the desired spacing value.



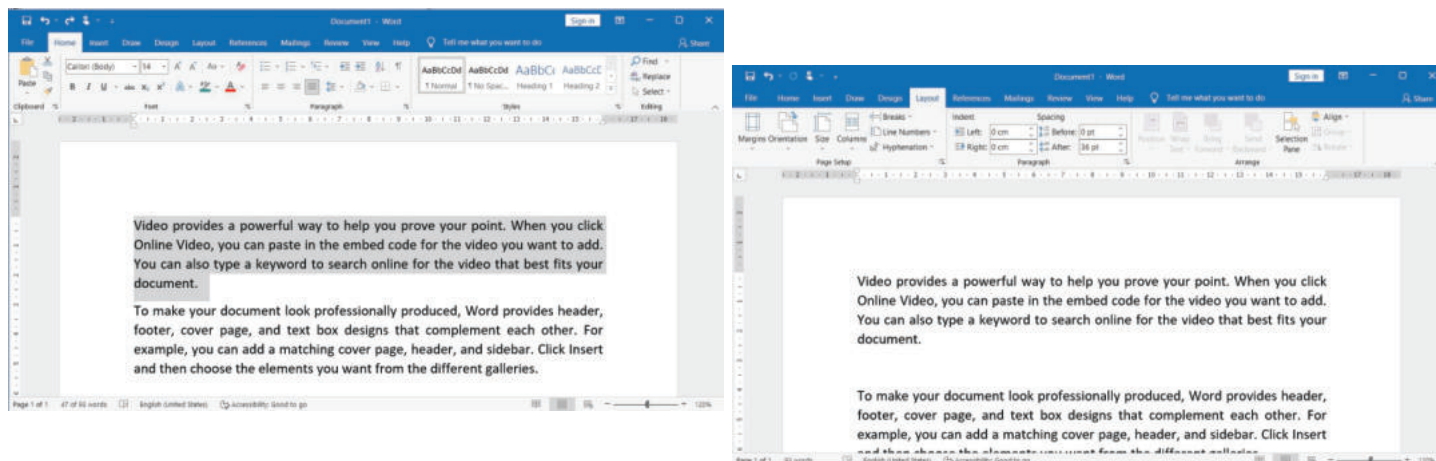
Paragraph Spacing

The amount of blank space above or below a paragraph is called **paragraph spacing**. To set the paragraph spacing, follow these steps :

Step 1. Select the text.

Step 2. Click on the **Layout** tab.

Step 3. Specify the required values in the **Before:** and **After:** spin boxes in the **Paragraph** group.



Indenting Text

The amount of spacing between the text and the page margins is called **indentation**. Various types of indentations are as follows :

Left Indentation	It is used to specify the amount of spacing to be given from the left margin.	
Right Indentation	It is used to specify the amount of spacing to be given from the right margin.	
Special Indents	They are divided into two parts :	
	First Line	It makes the first line of the paragraph indented more towards the right, compared to the subsequent lines.
	Hanging	It makes the first line of the paragraph indented more towards the left, compared to the subsequent lines.

To set the indentation for the text, follow these steps :

Step 1. Select the text.

Step 2. Click on the **Layout** tab.

Step 3. Specify the required values in the **Left and Right spin boxes** in the **Paragraph** group.

Paragraph Formatting Using the Paragraph Dialog Box

We can apply the paragraph formatting using the Paragraph dialog box. To open the Paragraph dialog box, do one of the following :

- Click on the **Paragraph** dialog box launcher in the **Paragraph** group on the **Home** tab.
- Or
- Click on the **Paragraph** dialog box launcher in the **Paragraph** group on the **Layout** tab.



BULLETS AND NUMBERING

It is an important feature of Word 2019. It is useful when we want to present our text as a list of items. Lists make it easy to find information that you are looking for.

There are two types of lists.

- Bulleted list
- Numbered list

Bulleted List : A **bulleted list** is usually used when the order of items in the list does not matter (unordered). By default, Word uses a simple black dot as a bullet.

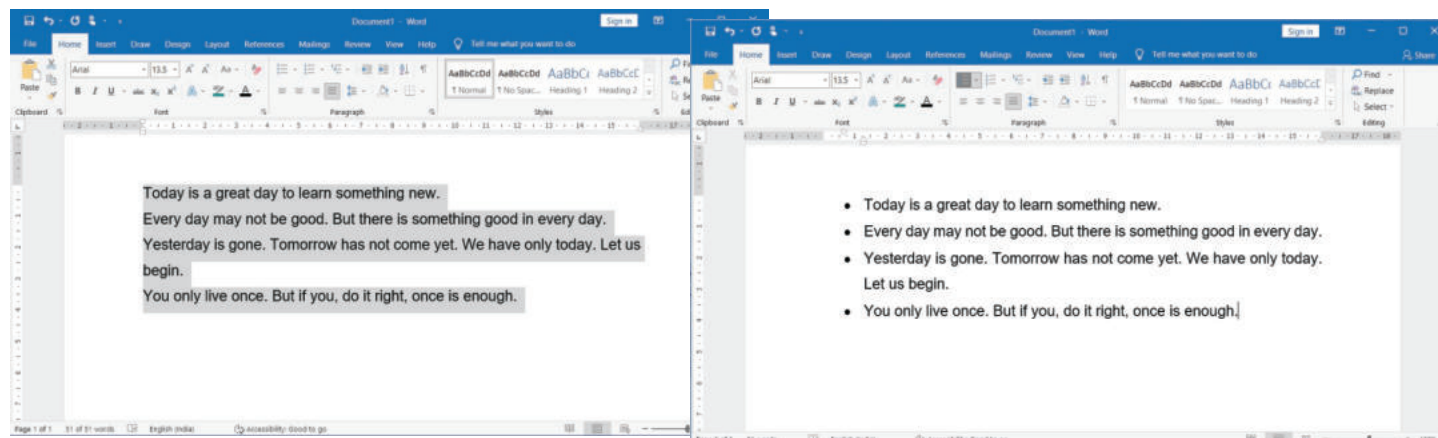
Creating a Bulleted List

To create a bulleted list, follows these steps :

Step 1. Select the text.

Step 2. Click on the **Bullets** option in **Paragraph** group on the **Home** tab.

Step 3. Select the desired bullet.



Numbered List : A **numbered list** is used for listing when the order of items is important, e.g. a sequence of events or steps.

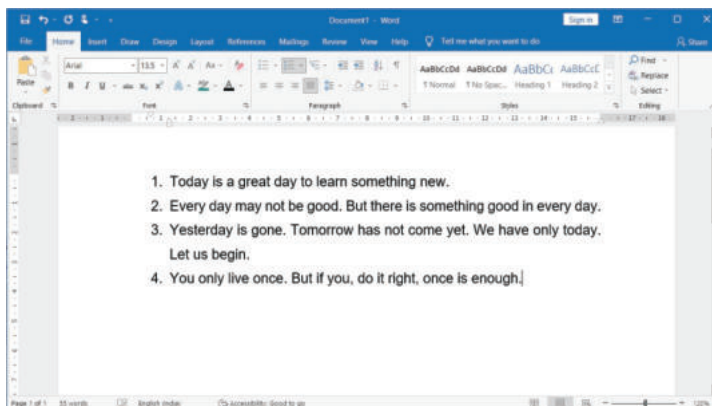
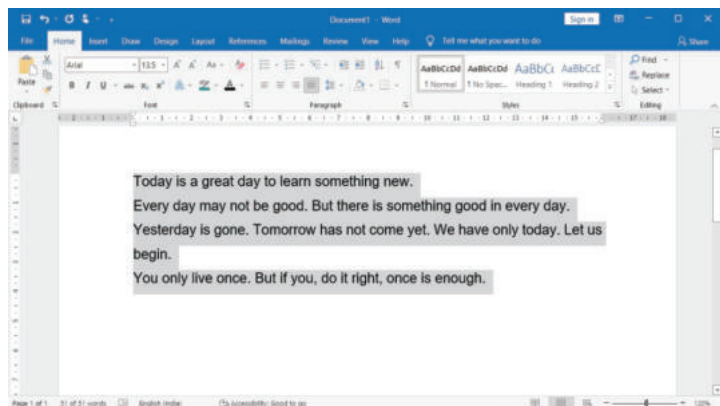
Creating a Numbered List

To create a numbered list, follows these steps :

Step 1. Select the text.

Step 2. Click on the **Numbering** option in **Paragraph** group on the **Home** tab.

Step 3. Select the desired numbering style.



Fact to Know

Local Knowledge

We can convert the bulleted list into numbered list by clicking the **Numbering** option and numbered list into bulleted list by clicking the **Bullets** option in the **Paragraph** group on the **Home** tab.

APPLYING BORDERS

We can add borders around the text, a paragraph or a page.

To add a border around the text or a paragraph and a page, follow these steps :

Step 1. Select the text.

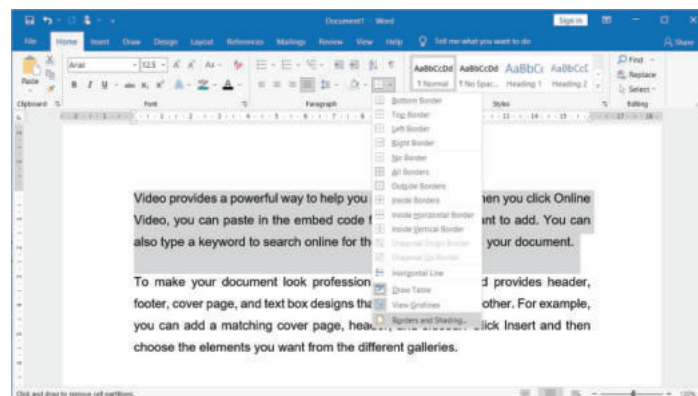
Step 2. Click on the **Borders** option in **Paragraph** group on the **Home** tab.

Step 3. Select **Borders and Shading...** option.

Step 4. Select the appropriate option under **Setting:** section.

Step 5. Select the border style under **Style:** list box.

Step 6. Select the border colour under **Color:** list box.



Step 7. Select the border thickness under **Width:** list box.

Step 8. To add a border around the page, click on the **Page Border** tab.

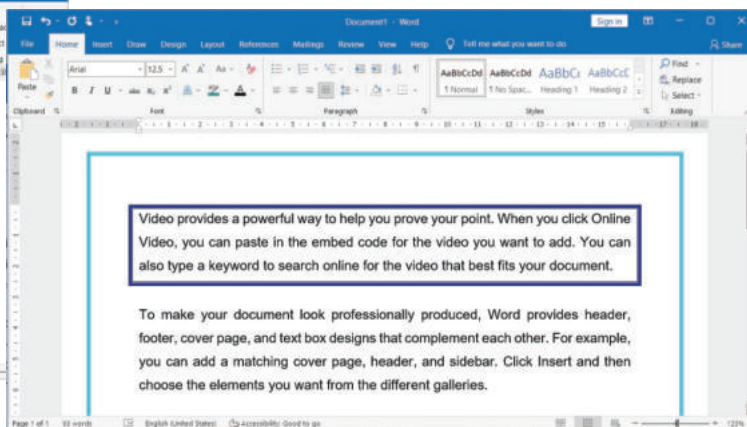
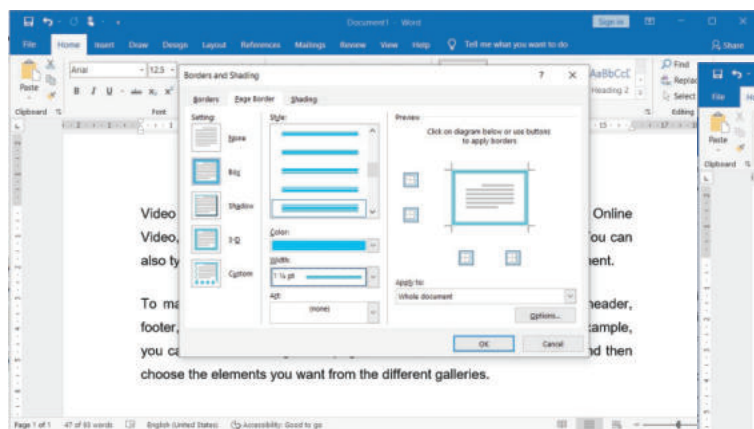
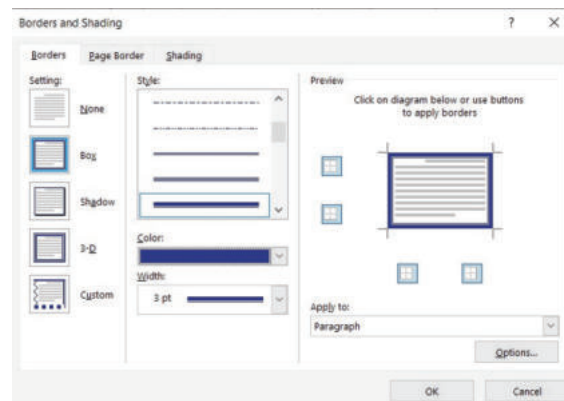
Step 9. Select the appropriate option under **Setting:** section.

Step 10. Select the border style under **Style:** list box.

Step 11. Select the border colour under **Color:** list box.

Step 12. Select the border thickness.

Step 13. Click on **OK** button.



Recollect the Chapter

- The Increase Font Size and Decrease Font Size options are used to make your text a bit bigger and smaller respectively.
- The Bold, Italic or Underline options can be used to emphasize the text to make it stand out. These options can be used to help draw attention to important words or phrases.
- Strikethrough is a font effect that crosses something out by drawing a line through it.
- Highlighting means making the text look different to draw the reader's attention towards it.
- The manner in which text is placed between the margins of a page is called alignment.
- The amount of blank space left between the lines of text in a paragraph is called line spacing. It is measured in lines or units called points.

Computer MANNER

You should save your files and shut down the computer after finishing your work.





A. Tick (✓) the correct answer :

1. The Strikethrough option is present in the _____ group.
(a) Font ☐ (b) Paragraph ☐ (c) Editing ☐ (d) Clipboard ☐
2. Which of the following options changes the case of every letter?
(a) Upper case ☐ (b) Toggle case ☐ (c) Sentence case ☐ (d) Lower case ☐
3. The shortcut keys for Increase Font Size option is :
(a) Ctrl + Shift + < ☐ (b) Ctrl + < ☐
(c) Ctrl + Shift + > ☐ (d) Ctrl + > ☐
4. Which option positions the text slightly higher than the text on the base line?
(a) Subscript ☐ (b) Superscript ☐ (c) Strikethrough ☐ (d) None of these ☐
5. Which of the following options is not available on the Home tab?
(a) Bold ☐ (b) Italic ☐ (c) Thesaurus ☐ (d) Underline ☐

B. Write 'T' for true and 'F' for false in the given circles :

1. We can add effects like shadow, glow, reflection, etc. using the Text effects option. ☐
2. The amount of blank space above or below a paragraph is called indentation. ☐
3. Subscript refers to the text that is positioned slightly lower than the line of the text. ☐
4. By default, Word uses a blue square as a bullet. ☐
5. If we want to remove highlighting then we should click on Clear All Formatting option. ☐

C. Fill in the blanks :

1. _____ is a font effect that crosses something out by drawing a line through it.
2. Line spacing is measured in lines or units called _____ .
3. The manner in which text is placed between the margins of a page is called _____ .
4. A _____ list is used for listing when the order of items is important.
5. By default, the text is always aligned to the _____ margin.

D. Answer the following questions :

1. Name all the options available in Change Case menu.
2. What do you mean by formatting?

3. What is the difference between bulleted list and numbered list?
4. What is the use of Superscript and Subscript options?
5. What do you mean by alignment? Name all the alignment options.

Project Time

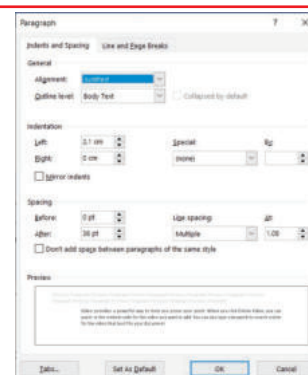
Practical Skills

Open MS Word 2019 and type a text of your choice. Then, format the text beautifully.

Experience-Based Questions

Higher Order Thinking Skills

1. **Observe the given figure and answer the following questions :**
 - (a) Name the dialog box that is shown in the figure.
 - (b) How can you open this dialog box?
 - (c) Which option has been selected in the Alignment category?
2. **Rohan's teacher asked him to create a list of his favourite books in Word 2019. He has created a bulleted list.**
 - (a) Which tab and group has the option for creating a bulleted list?
 - (b) Can she convert the list to a numbered list? If yes, how?



Think & Answer

Life Skills & Values

Your teacher gave you a project in MS Word 2019 to format. But, you are not able to format in accordance to what your teacher asked for. She asks you to format it again. How will you react in such a situation?

Activity Work

Cutting & Making Skills

Create an attractive and beautiful poster in MS Word 2019 on the topic “Eat Healthy, Stay healthy” using various formatting features available in MS Word 2019.

Discussion

Communication

Discuss the different options of Change Case button in class.

Teacher's Help

- Demonstrate to the students how the appearance of a Word document can be improved.



Introduction to PowerPoint 2019

LEARNING OUTCOMES

In this chapter, you will learn about :

- ▶ Microsoft PowerPoint
- ▶ Creating a New Presentation
- ▶ Inserting Text in a Placeholder
- ▶ Formatting the Text
- ▶ Saving a Presentation
- ▶ Opening an Existing Presentation
- ▶ How to Start MS PowerPoint 2019?
- ▶ Themes for a Blank Presentation
- ▶ Inserting a New Slide
- ▶ Adding a Bulleted List
- ▶ Closing a Presentation
- ▶ Running a Presentation

MICROSOFT POWERPOINT

MS PowerPoint is the part of **Microsoft Office** package. It is a software used to create presentations. A presentation includes text, pictures, charts, audio, video and some animated effects. There are so many softwares used to create presentations like Microsoft PowerPoint, Open Office Impress, etc. But, the most common and user-friendly software used to create presentation is MS PowerPoint.

Slides

Slides are the individual pages of a presentation which display one by one on a screen.

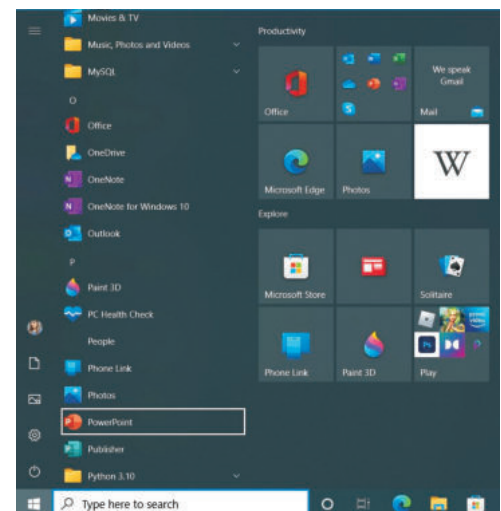
Presentation

A presentation is a collection of slides arranged in systematic order which display the information on a particular topic.

HOW TO START MS POWERPOINT 2019?

To start MS PowerPoint 2019, follow these steps :

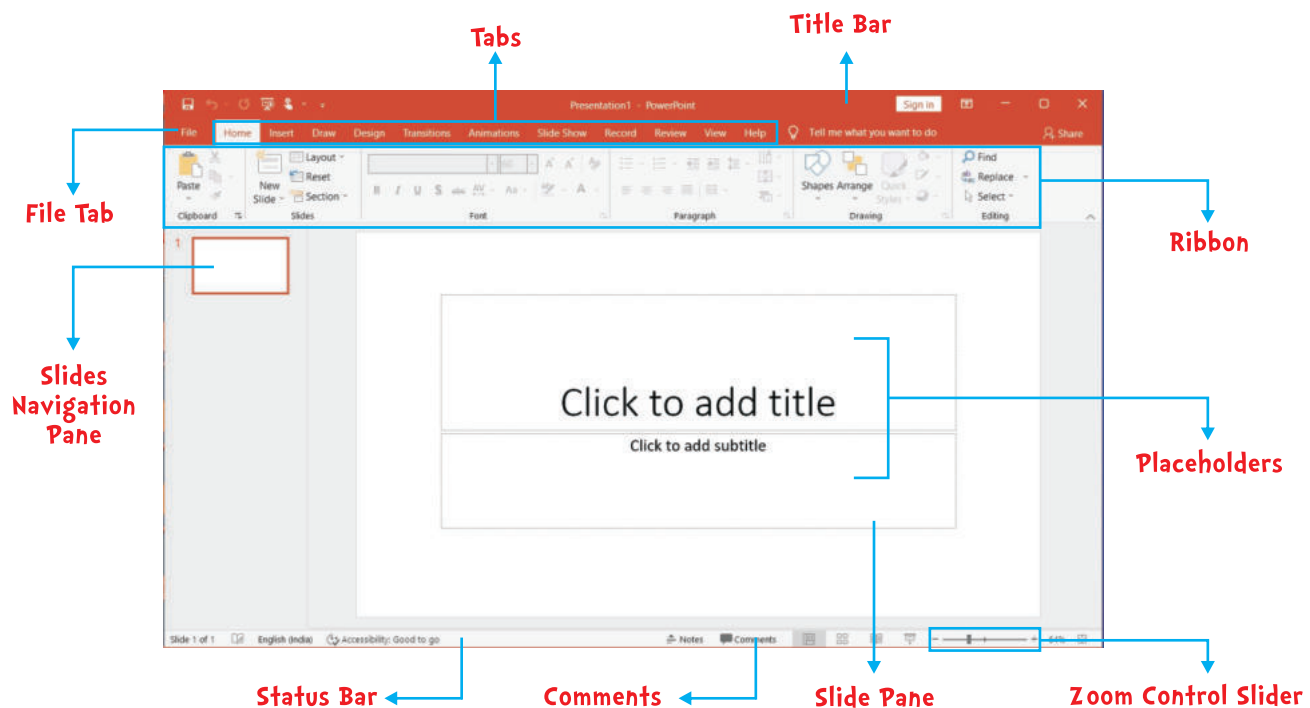
- Step 1.** Click on the **Start** button.
- Step 2.** Click on the **PowerPoint**.
- Step 3.** Click on the **Blank Presentation** to create a new presentation.



There is no “All apps” option in Windows 10 Anniversary Edition. Instead, all of your installed apps appear in a list on the left side of the Start menu.

When we open PowerPoint 2019, the Start Screen will appear. From here, we’ll be able to create a new presentation, choose a template, or access our recently edited presentations.

Microsoft PowerPoint window will appear named **Presentation1**. The various parts of PowerPoint 2019 window are as follows :



Quick Access Toolbar

It is present at the left-most corner of the PowerPoint window. It contains frequently-used commands. By default, it shows the Save, Undo and Repeat commands. We can add other commands depending on your preference.

Title Bar

It is present at the top of the PowerPoint window. It shows the name of the document followed by the program name. There are five buttons in the right side of title bar. They are Microsoft PowerPoint Help, Ribbon Display Options, Minimize, Restore Down/Maximize and Close.

Ribbon

A Ribbon is designed to respond to your current task. It contains multiple tabs

File, Home, Insert, Design, Transitions, Animations, Slide Show, Review and View, each with several groups of commands. We will use these tabs to perform the most common tasks in PowerPoint.

Collapse the Ribbon Button

We can collapse the ribbon if we need to see more of the presentation we are creating. To collapse the ribbon, click the arrow at the bottom right. When we click on this button, it will minimize the ribbon, only the tab names get displayed.

Placeholder

It is a dotted rectangular box on a slide that holds text, images, etc.

Dialog Box Launcher

It is the small icon that appears in some groups. If we click on this icon, a dialog box related to that group opens. It may contain many options that we can select as per our choice.

Slide Pane

A slide is displayed in the slide pane at the centre of the PowerPoint window. We can edit a slide in the slide pane.

Slide Navigation Pane

It allows us to view all the slides present in our presentation. The selected slide will appear in the slide pane to the right. We can add, delete, duplicate and rearrange slides in the slide navigation pane.

Notes Pane

It provides the space to add notes to the current slide. It is also known as Speaker's Notes.

Rulers

The Rulers make easier to adjust our document with precision. If we want, we can hide the Ruler to create more screen space. There are two rulers Horizontal ruler and Vertical ruler (present at the top and to the left of the current slide).

Status Bar

It appears at the bottom of the PowerPoint window. It provides information such as the current slide number and number of slides. It contains the Notes button, Comments button, View buttons and Zoom Slider.

- (a) **Notes** : Click the Notes to view the notes in the Notes Pane.
- (b) **Comments** : It is the area where reviewer may leave comment for any slide. Click on the Comments to view the comments for the current slide.
- (c) **Zoom Slider** : It is available for zooming in and out of slide quickly and easily.
- (d) **View Buttons** : It is present to the left of the Zoom slider on the status bar. You can view the slides using one of the following buttons :
 - ◉ **Normal** : It is the default view. This view shows the slide navigation pane and the selected slide.
 - ◉ **Slide Sorter** : It displays miniature form of all the slides in a presentation.
 - ◉ **Reading View** : It hides all the editing tools to make your slides easier to review.
 - ◉ **Slide Show** : It displays the slides in a presentation one by one on the screen.

Scroll Bars

By default, the Vertical scroll bar and Horizontal scroll bar are shown. We can hide scroll bars if we want to display more of the document. Click, hold and drag scroll bar, depending on what part of the slide we want to see.

CREATING A NEW PRESENTATION

A presentation can be created in the following two ways :

- ◉ Using Blank Presentation
- ◉ Using Templates and Themes

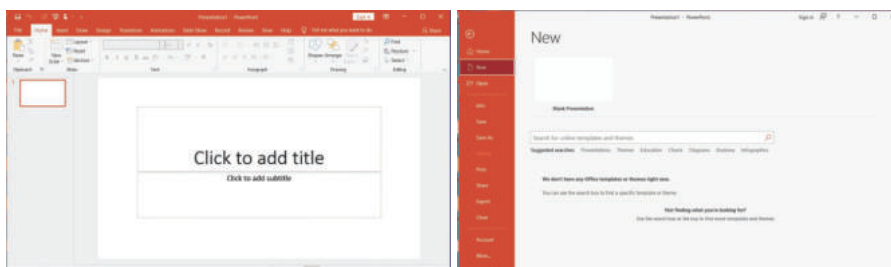
Creating a Blank Presentation

To create a new blank presentation, follow these steps :

Step 1. Click on the **File** tab. The **Backstage view** will appear.

Step 2. Select **New** option.

Step 3. Click on the **Blank Presentation**.



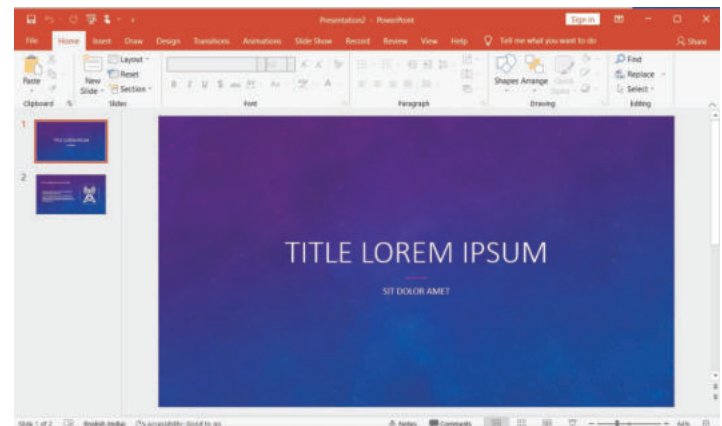
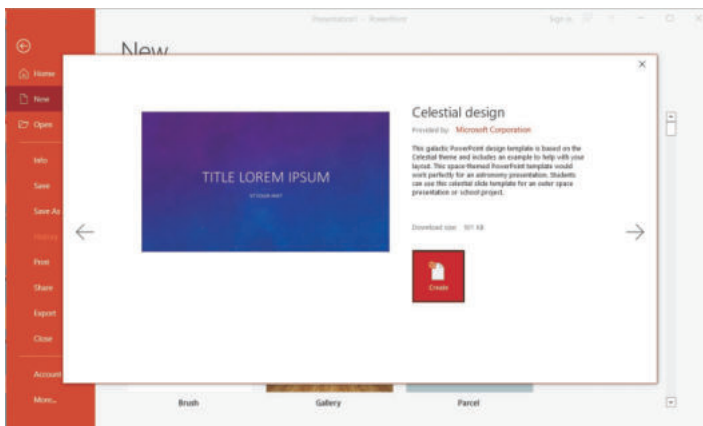
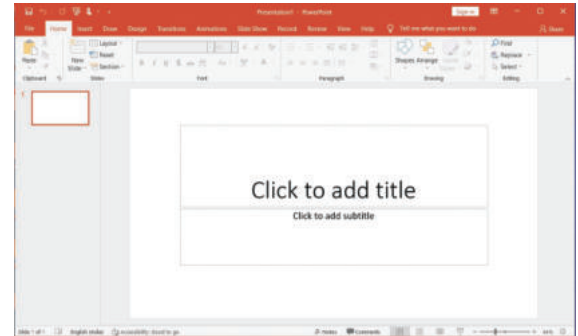
A new blank presentation will appear on the screen. By default, it contains two placeholders.

We can press the **Ctrl+N** keys to create a new presentation.

Creating a New Presentation Using Templates and Themes

To create a new presentation using Templates and Themes, follow these steps :

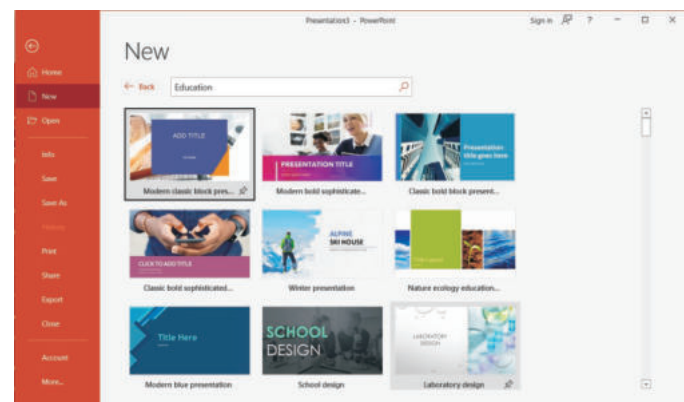
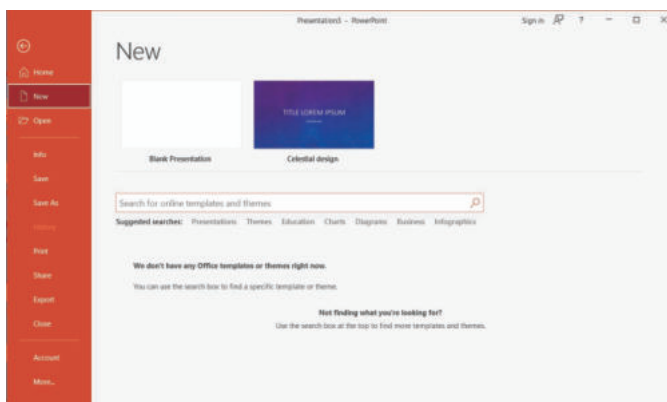
- Step 1.** Click on the **File** tab. The **Backstage view** will appear.
- Step 2.** Select **New** option.
- Step 3.** Double-click on the theme or template thumbnail you want to use.
- Step 4.** Click on the **Create** button.



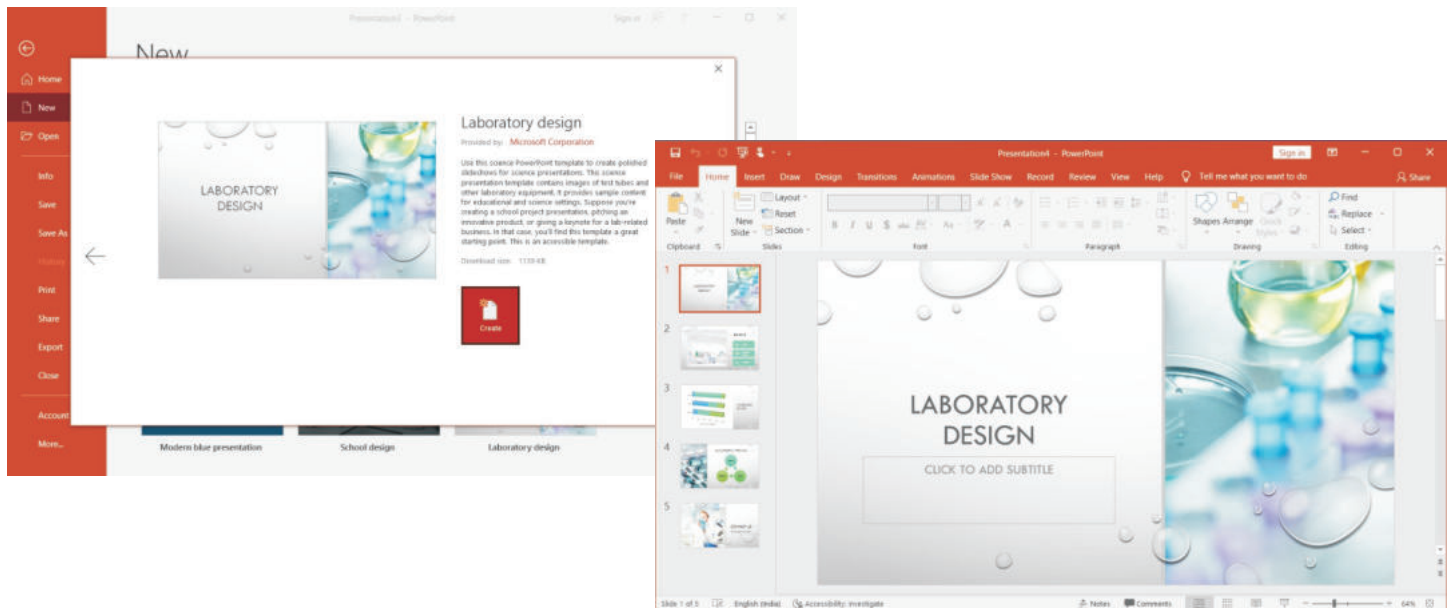
A **template** is a pre-designed presentation which includes custom formatting and designs.

To use online templates and themes, follow the given steps :

- Step 1.** Select the category.
- Step 2.** A gallery of online templates and themes will open. Click on the desired theme or template.



Step 3. Click on the **Create** button.



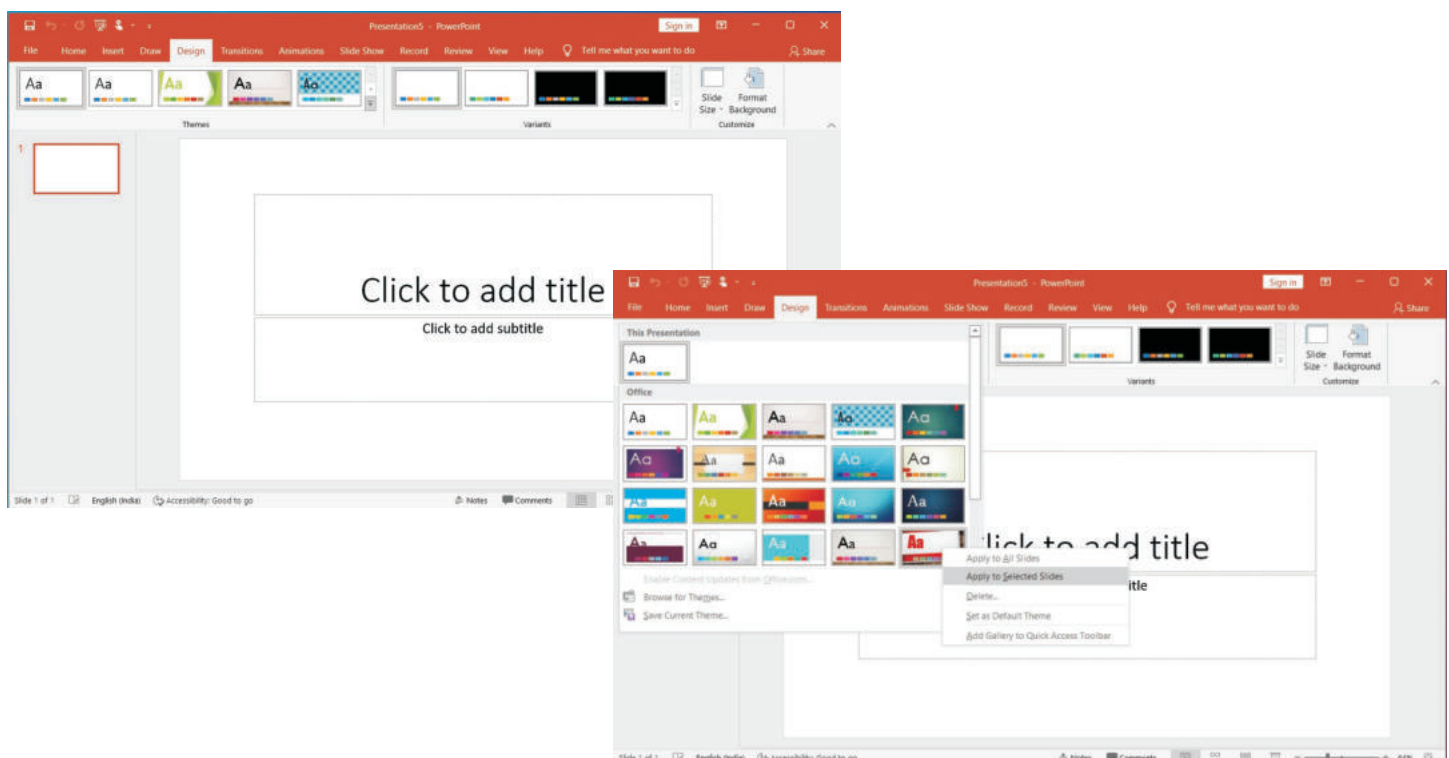
THEMES FOR A BLANK PRESENTATION

If you have opened a blank presentation, you will still apply a theme to it. Follow the given steps :

Step 1. Click on the **Design** tab.

Step 2. Click on the **More** button in the **Themes** group.

Step 3. Right-click on selected theme to view the different ways of applying the theme and select the required option.



If we simply click on the desired theme then the theme will be applied to the entire presentation. So, right-click on the theme and select **Apply to All Slides** option to apply theme to all slides and **Apply to Selected Slides** option to apply it to selected theme.

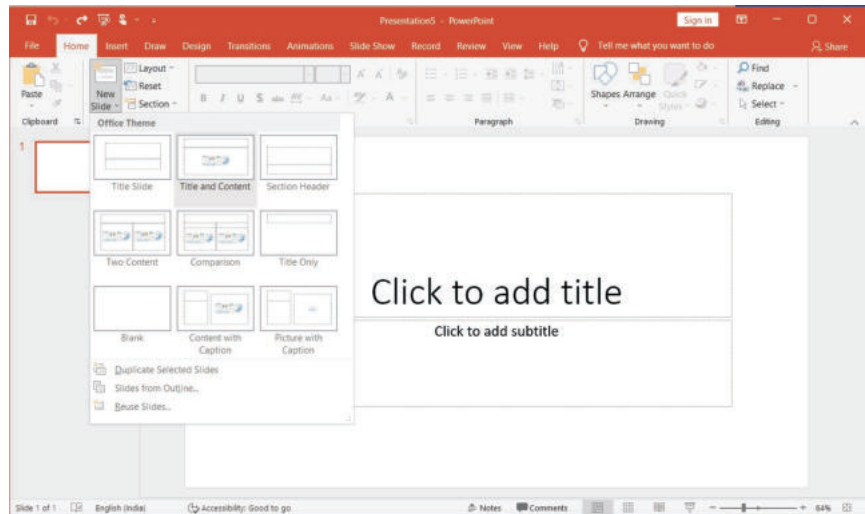
INSERTING A NEW SLIDE

Whenever we start a new presentation, it will contain one slide with Title Slide layout by default. We can insert as many slides as we need from a variety of different layouts.

To insert a new slide, follow these steps :

Step 1. Click on the **New Slide** drop-down menu arrow in the **Slides** group on the **Home** tab.

Step 2. Select the desired slide layout.



Fact to Know

Local Knowledge

- To quickly add a slide having the same layout as the selected slide, simply click on top-half of the **New Slide** button in the **Slides** group on the **Home** tab.
- We can also press the **Ctrl + M** keys to insert a new slide.

To change the layout of an existing slide, click on **Layout** button in the **Slides** group on the **Home** tab and then choose the desired layout from the drop-down menu that appears.

FORMATTING THE TEXT

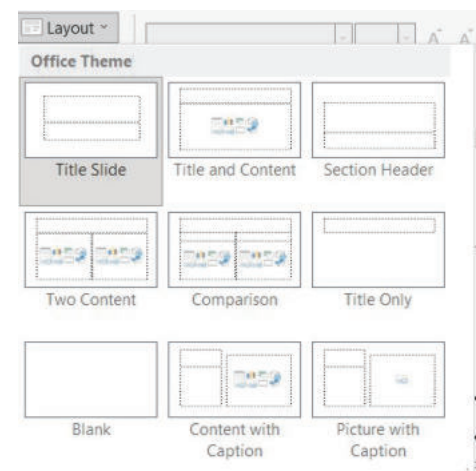
Text formatting options are available in the **Font** group on the **Home** tab.

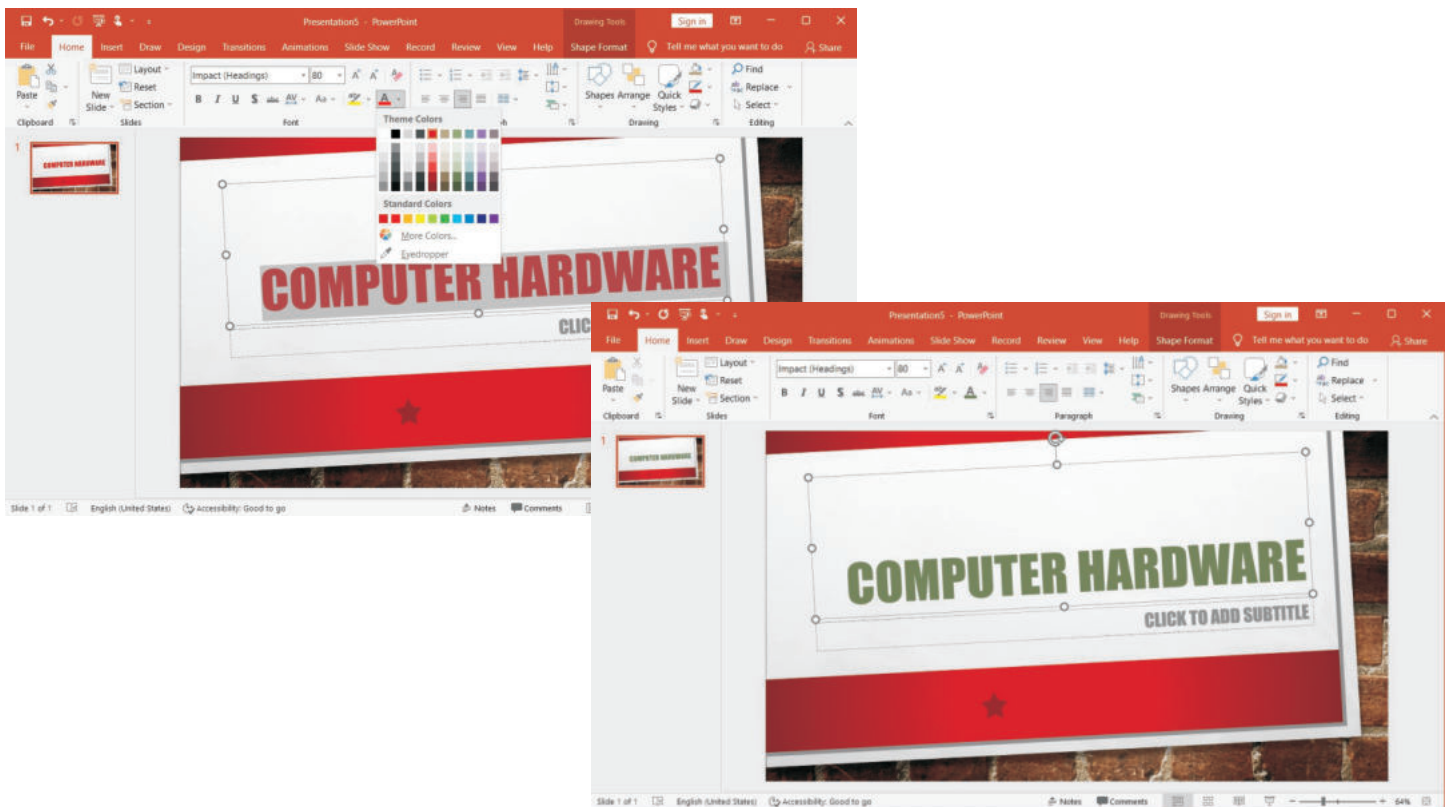
To apply formatting, follow the given steps :

Step 1. Select the text.

Step 2. Click on the **Font Color** option in the **Font** group on the **Home** tab.

Step 3. Select the desired colour.





In the similar way, we can change the font type and size. The **B** , **I** and **U** tools make the text bold, italic and underlined, respectively.

ADDING A BULLETED LIST

To add bullets, follow these steps :

- Step 1.** Click on the **Bullets** option under the **Paragraph** group of the **Home** tab.
- Step 2.** Choose appropriate bullet style.

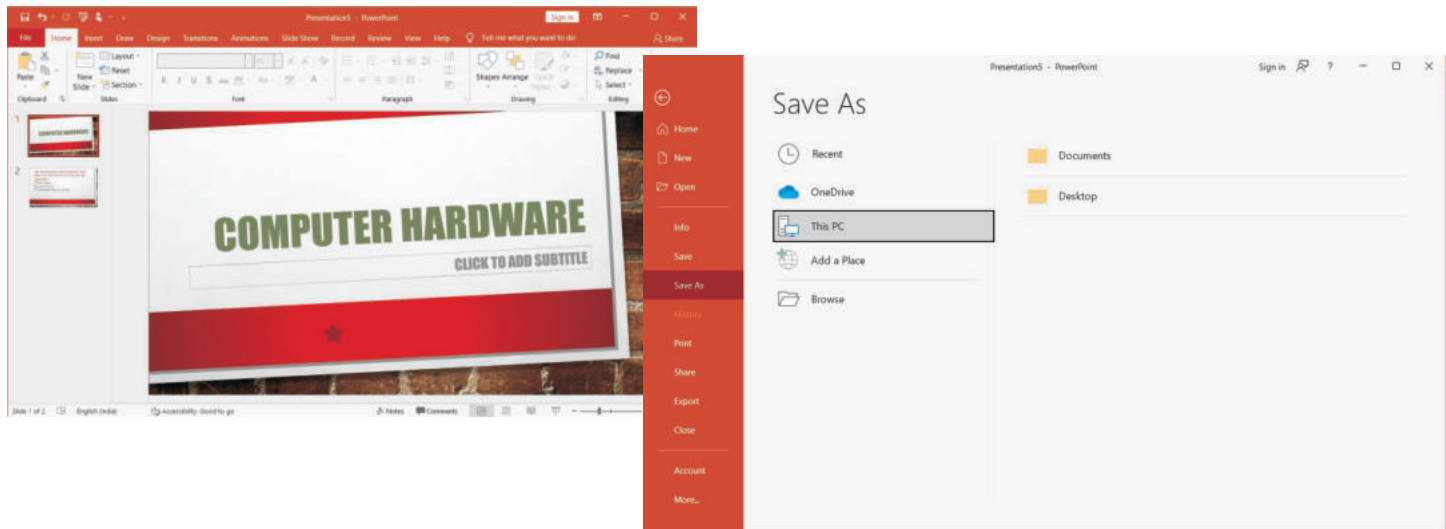


SAVING A PRESENTATION

To save a presentation, follow these steps :

Step 1. Click on the **File** tab.

Step 2. Click on the **Save** option.



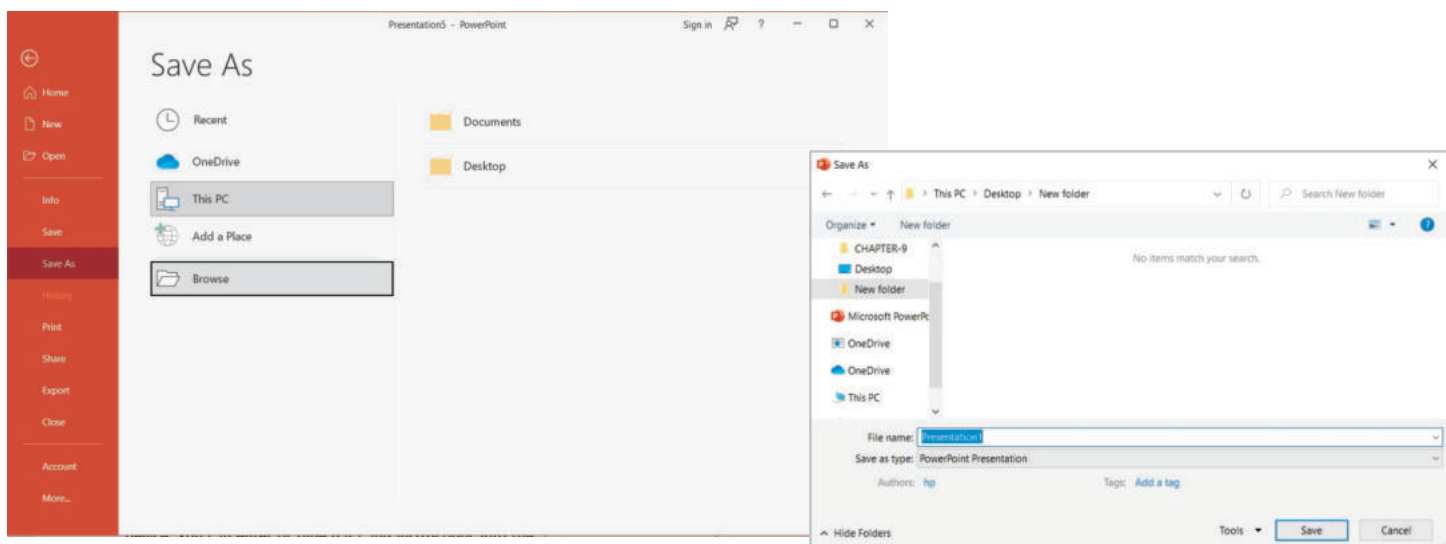
Step 3. Select the **Computer** option.

Step 4. Click on the **Browse** button. The **Save As** dialog box appears.

Step 5. Select the location where you want to save your presentation.

Step 6. Type the file name.

Step 7. Click on the **Save** button.



Fact to Know

Local Knowledge

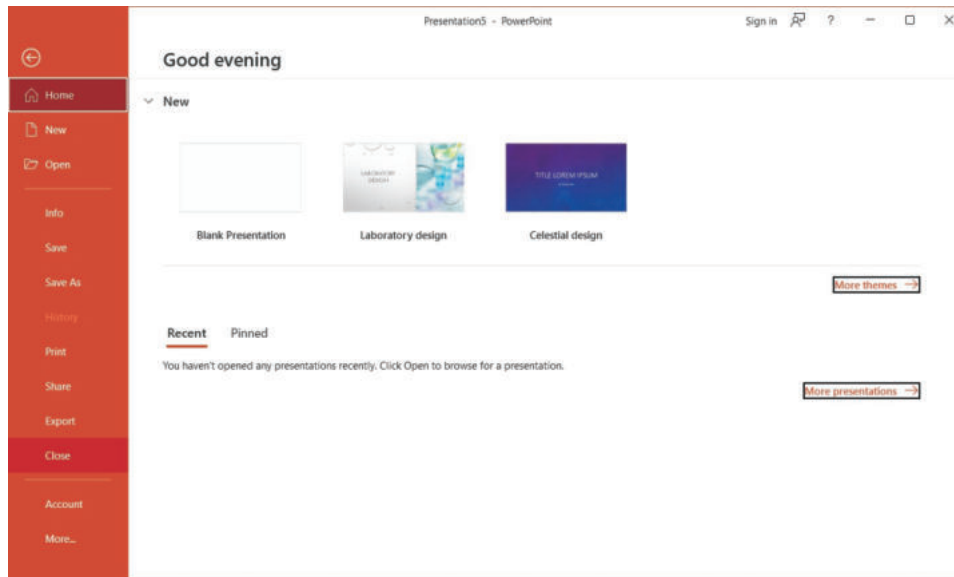
- We can press the **Ctrl+S** keys to save the file in PowerPoint 2019.
- The default extension of PowerPoint 2019 is **.pptx**.

CLOSING A PRESENTATION

To close a presentation, follow these steps :

Step 1. Click on the **File** tab.

Step 2. Click on the **Close** option.



PowerPoint 2019 will ask to save the changes, if there are changes in the presentation that have not been saved. We should close the presentation only after saving it.

Fact to Know

Local Knowledge

We can press the **Ctrl + W** keys to close a presentation.

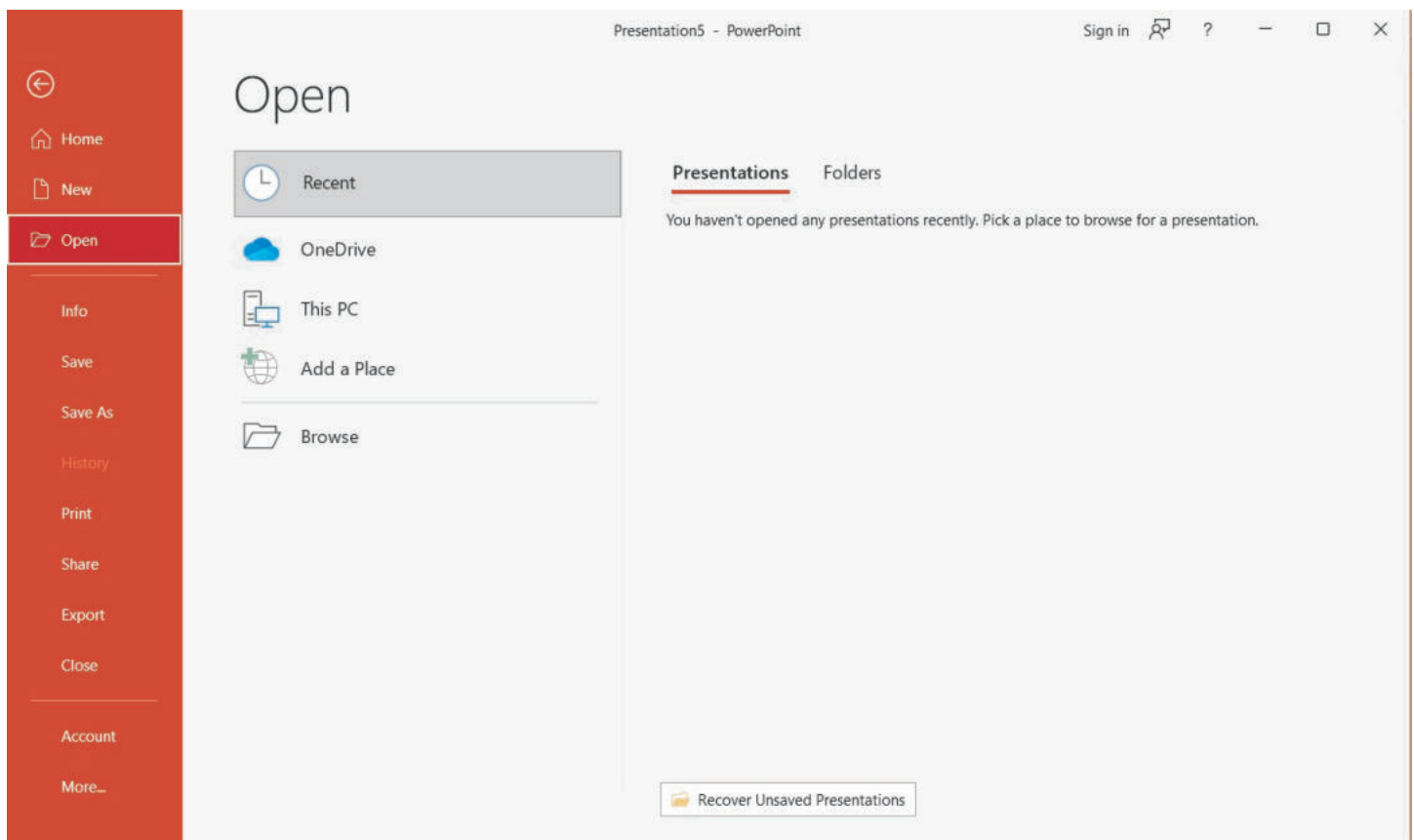
OPENING AN EXISTING PRESENTATION

To open an existing presentation, follow these steps :

Step 1. Click on the **File** tab. The **Backstage view** will appear.

Step 2. Select the **Open** option.



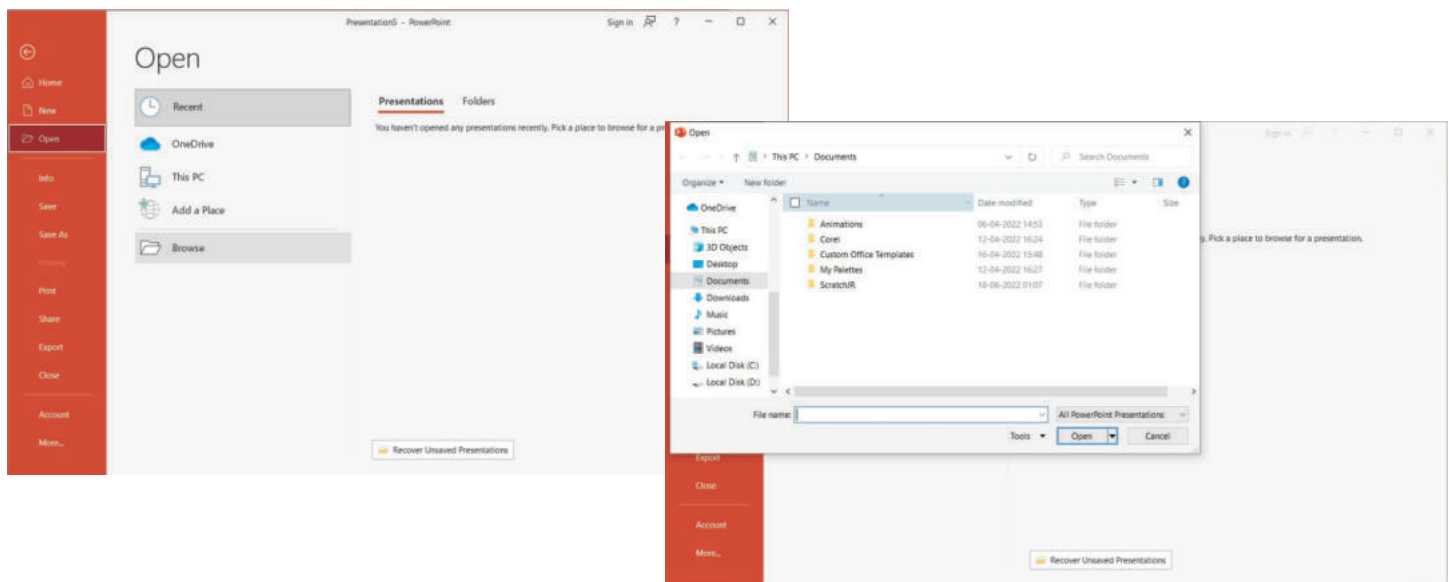


Step 3. Click on **Browse** button.

Step 4. Click on **This PC** option.

Step 5. Select the presentation.

Step 6. Click on **Open** button.



Fact to Know

Local Knowledge

We can press the **Ctrl + O** keys together to open an existing presentation in PowerPoint 2019.



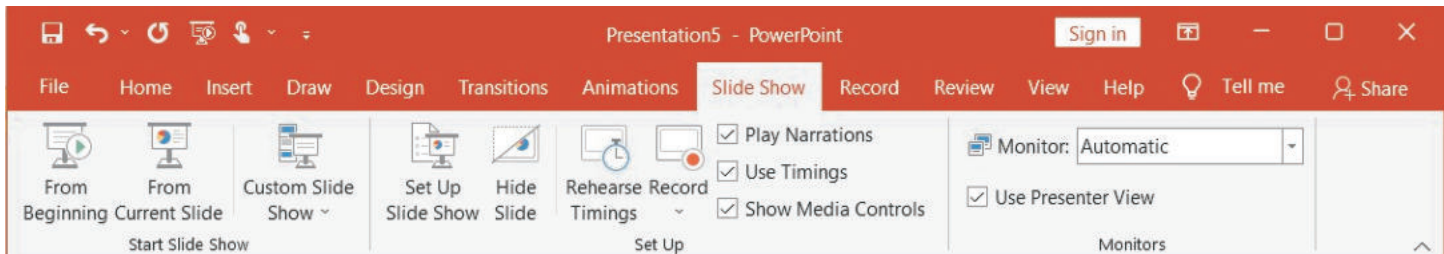
RUNNING A PRESENTATION

After creating slides, we can run our presentation. PowerPoint gives us the option of presenting a series of slides called **slide show**. In a slide show, all the slides in our presentation are displayed one by one. A slide show can be started in one of the following ways :

- Click on the **Slide Show** button on the **Quick Access Toolbar**.
- Click the **Slide Show** button present at the **Status bar** of PowerPoint window to begin a slide show from the current slide.



- Click the **Slide Show** tab. Click the **From Beginning** button in the **Start Slide Show** group.



Fact to Know

Local Knowledge

We can also press the **F5** key to start a slide show.



Recollect the Chapter

- MS PowerPoint is a software used to create presentations. A presentation includes text, pictures, charts, audio, video and some animated effects.
- A presentation is a collection of slides arranged in systematic order which display the information on a particular topic.
- Slides are the individual pages of a presentation which display one by one on a screen.
- We can view the slides using the Normal, Slide Sorter, Reading View or Slide Show buttons.
- To insert a text in a placeholder, click inside it and start typing.

Computer MANNER



Always share your computer with your friend, brother or sister. Never fight near the computer.





A. Tick (✓) the correct answer :

1. A slide is displayed in the _____ at the centre of the PowerPoint window.
(a) Placeholder ☐ (b) Slide Navigation Pane ☐
(c) Slide Pane ☐ (d) Notes Pane ☐
2. To change the layout of a selected slide, click on the _____ option.
(a) New Slide ☐ (b) Reset ☐ (c) Layout ☐ (d) Theme ☐
3. Which of the following view buttons displays miniature form of all the slides in a presentation?
(a) Normal ☐ (b) Slide Sorter ☐ (c) Reading View ☐ (d) Slide Show ☐
4. Which key is pressed for a slide show?
(a) F2 ☐ (b) F3 ☐ (c) F4 ☐ (d) F5 ☐
5. _____ tab has the options to apply themes to a blank presentation.
(a) File ☐ (b) Insert ☐ (c) Design ☐ (d) Themes ☐

B. Write 'T' for true and 'F' for false in the given circles :

1. Reading View hides all the editing tools to make your slides easier to review. ☐
2. Once we select a slide layout, we cannot change it. ☐
3. We cannot edit a slide in the slide pane. ☐
4. The Layout button is present in the Slides group on the Home tab. ☐
5. Whenever we start a new presentation, it will contain one slide with Title Slide layout by default. ☐

C. Fill in the blanks :

1. _____ is the default view.
2. In a _____, all the slides in our presentation are displayed one by one.
3. _____ view hides all the editing tools to make our slides easier to Review.
4. Notes Pane is also known as _____.
5. _____ is a dotted rectangular box on a slide that holds text, images, etc.

D. Answer the following questions :

1. What are slides?
2. What do you mean by presentation?
3. What is the use of Slide Navigation pane?

4. Explain the different view buttons available on the status bar.
5. Write the steps to start PowerPoint 2019.

Creativity Skills



Art Integration

Draw and colour the logo of PowerPoint 2019 in the space given alongside :



Project Time

Practical Skills

Prepare a presentation of 6-7 slides on the topic 'Computer Software'.

Experience-Based Questions

Higher Order Thinking Skills

1. Swati has created a blank presentation, but later she decided to apply a theme to the presentation. Can you suggest her how she can add a theme to the selected slides and to all the slides of the presentation?
2. Nitin has made a presentation on the topic 'Health is Wealth', and saved the presentation by the name 'Health'. Next day, he has made the changes and saved the presentation again.
 - (a) What will he do to save the changes in the same file 'Health'?
 - (b) What will he do to save the changes by another file name 'Health is wealth'?

Think & Answer

Life Skills & Values

Your teacher teaches you a new application but you are unable to understand, then what will you do? You will pretend that you understand, or ask with your friend or teacher to understand it. Justify your answer.

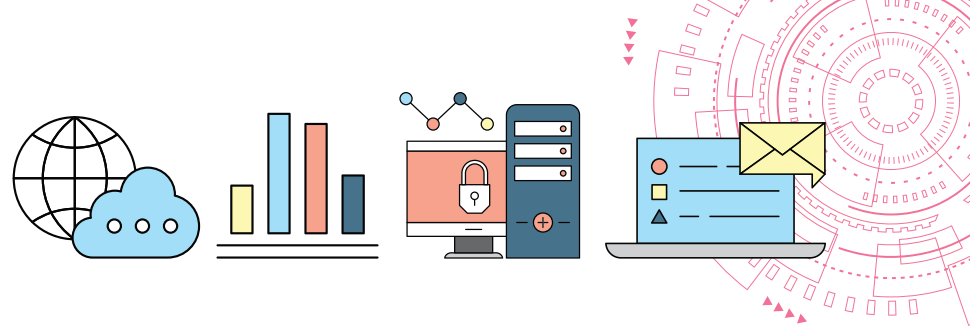
Discussion

Communication

Discuss the different components of PowerPoint 2019 in class in detail.

Teacher's Help

- Explain how PowerPoint is beneficial in the present scenario to the students?
- Give the tips to students on how to present the slide in an impressive way in front of a large audience.



More on KTurtle

LEARNING OUTCOMES

In this chapter, you will learn about :

- ▶ PRINT Command
- ▶ GO Command
- ▶ MESSAGE Command
- ▶ FONTSIZE Command
- ▶ ASK Command
- ▶ Maths in KTurtle

We have learnt about KTurtle commands in previous chapter. Now, we will learn about the commands used to write on the canvas. We will also learn how to perform simple mathematical calculations in KTurtle.

PRINT COMMAND

The print command is used to write the text or numbers on the canvas by the turtle.

The steps for using the print command are as follows :

Step 1. Type the print.

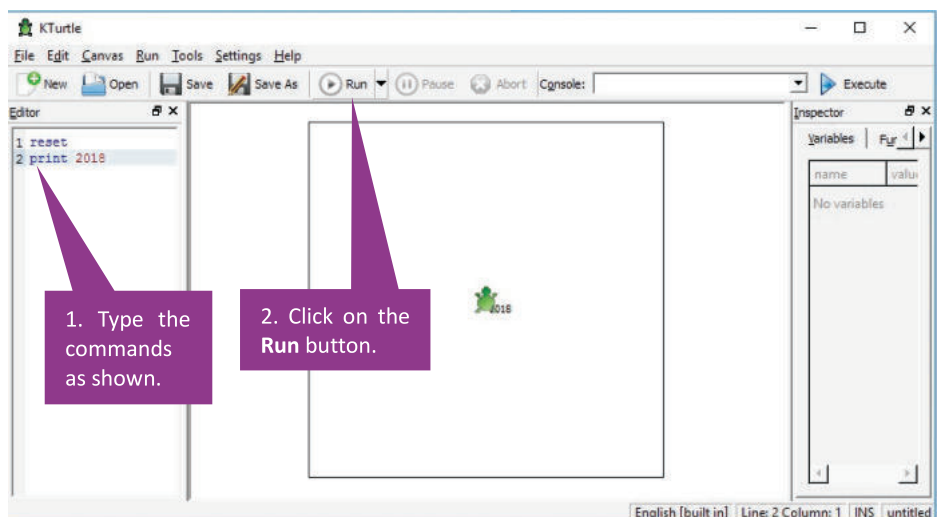
Step 2. Press the **Spacebar** key.

Step 3. Do the following :

(a) To display any number, type the number.

(b) To display text, enter the text using double quotes (“”).

It will display the number 2018 as shown.

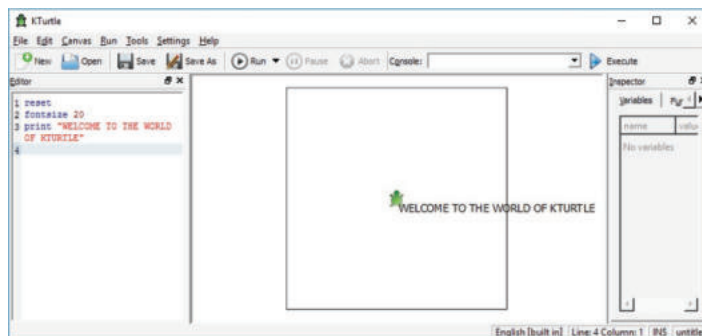
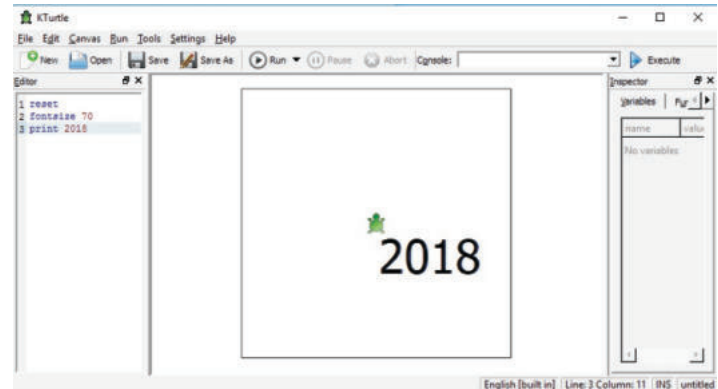


FONTSIZE COMMAND

The fontsize command is used to set the size of the font that is used by the turtle. It takes one input which should be number.

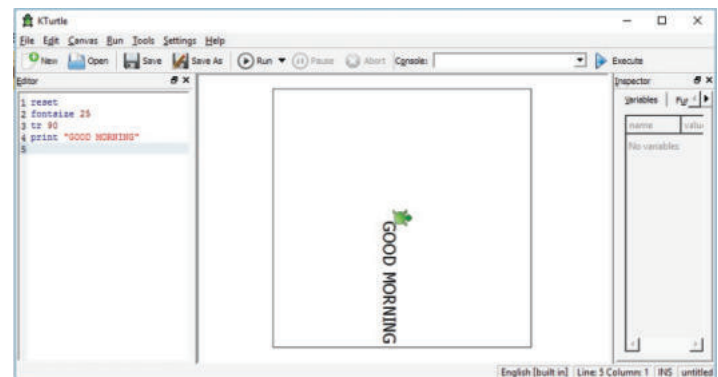
The steps for using the fontsize command are as follows :

- Step 1. Type the print.
- Step 2. Press the Spacebar key.
- Step 3. Type the number of units for fontsize.



It will display the number 2018 bigger as shown.

Now, let us type the text on canvas.

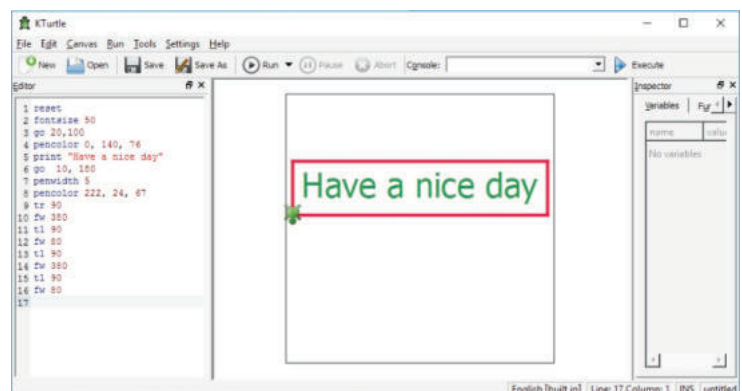


Let us type the text vertically.

It will display the text vertically.

GO COMMAND

The go command is used to move the turtle to a certain place on the canvas without drawing a line. The position of the upper left corner of the canvas is given by 0, 0.



The number of steps the turtle will move is calculated from that position. For example, go 60, 100 moves the turtle 60 steps to the right (counted from the upper left corner of the canvas) and 100 steps down on the canvas.

The go command moves the turtle from upper left corner, 20 steps to the right and 100 steps down on the canvas. Then it writes the text at the position of the turtle horizontally. Now, it moves the turtle from upper left corner, 10 steps to the right and 180 steps down on the canvas. Then, draw the border around the text.

ASK COMMAND

The ask command is used to enter a number or text, so that we can give answer to the question. This command starts with \$n followed by an equals to (=) sign. On the right side of the equals to (=) sign, type ask followed by some text enclosed in double quotes ("").

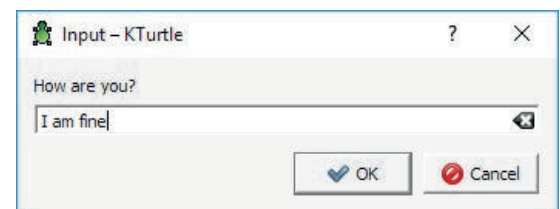
Syntax :

\$n= ask "Type the text here"

For example :

\$n= ask "How are you?"

It will display a question asking us to enter the answer as shown in figure given alongside. Enter the answer and click on the OK button to answer the question.

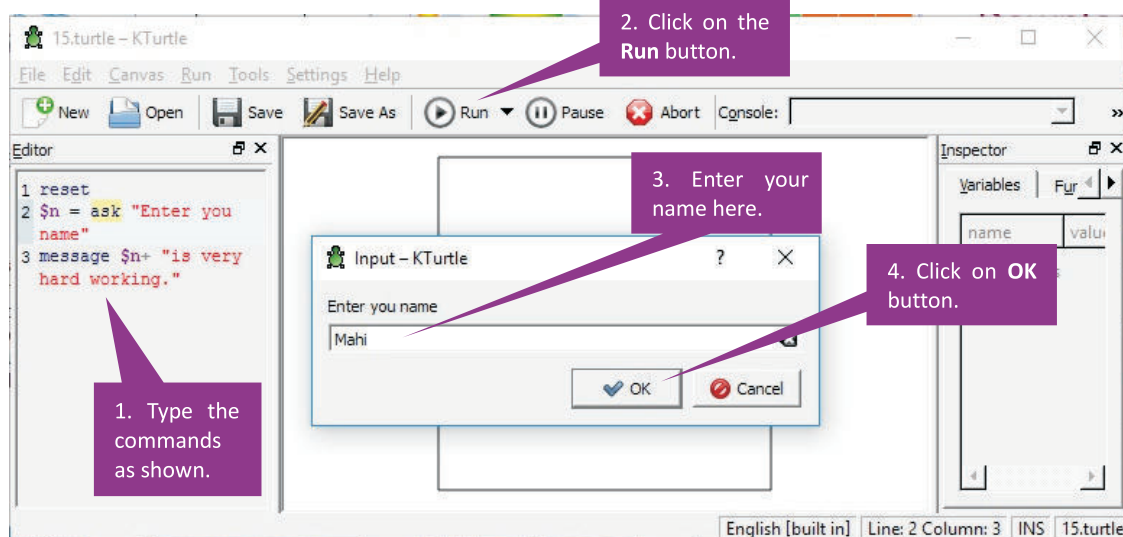
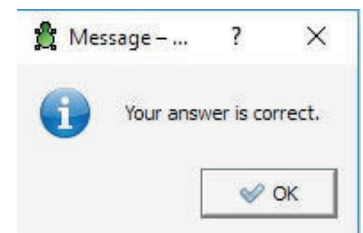


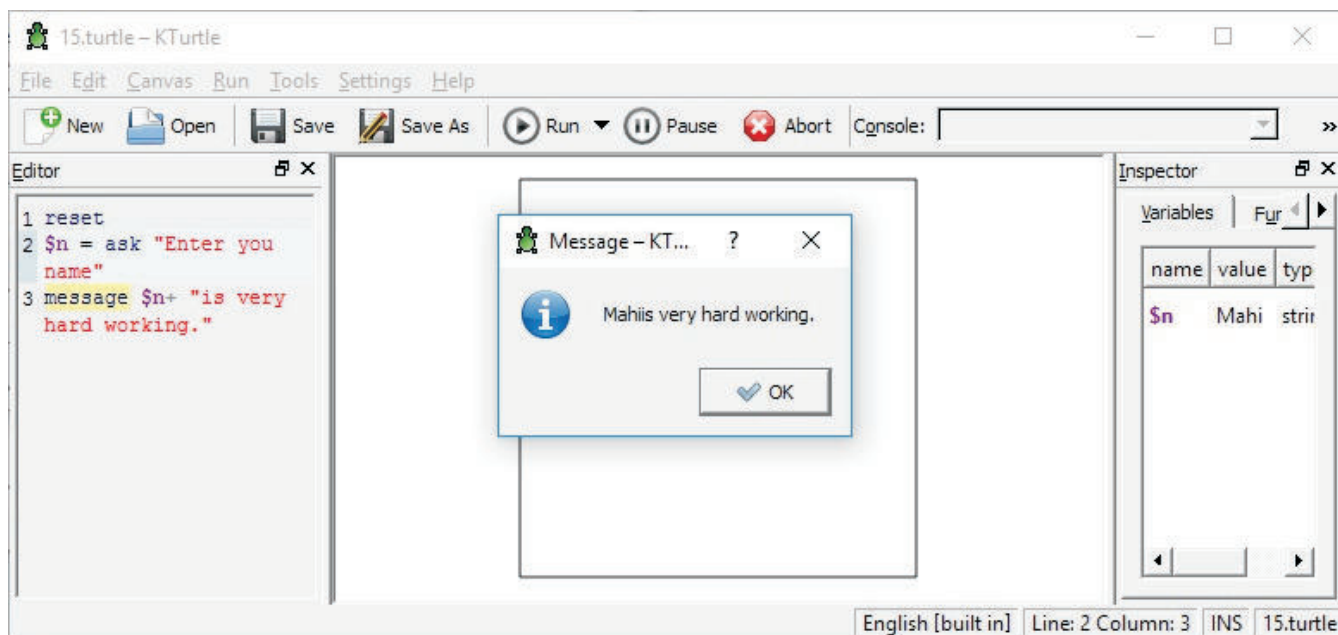
MESSAGE COMMAND

The message command is used to give some information by showing the text typed by us.

For example :

message "Your answer is correct."





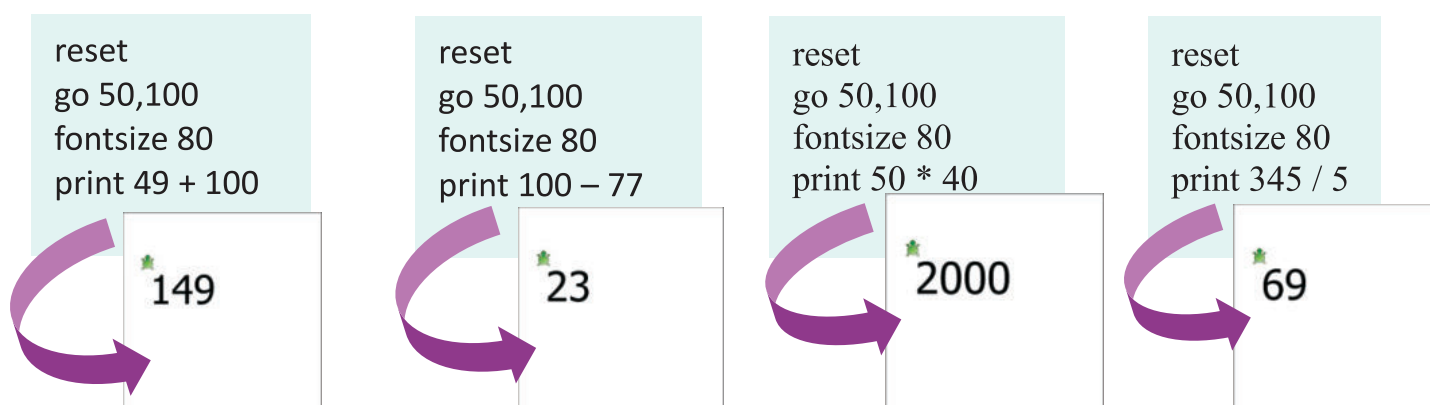
It will display the message box as shown.

MATHS IN KTURTLE

We can perform addition, subtraction, multiplication and division using the symbols $+$, $-$, $*$ and $/$ respectively. These symbols are also known as arithmetic operators. These symbols are used with the print, forward, backward, turnright, turnleft, direction and go commands and usually take two inputs.

Using Print Command

Let us understand the use of arithmetic operators using the print command with the help of some examples.

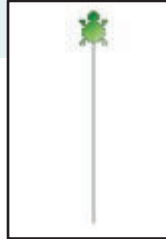
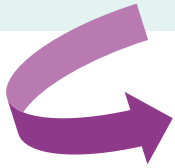


Using Other Commands

Let us understand the use of arithmetic operators using other commands with the help of some examples.

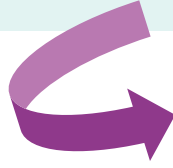
`fw 100+70`

It moves the turtle by 170 steps in forward direction.



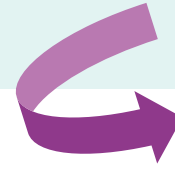
`bw 20 * 5`

It moves the turtle by 100 steps in backward direction.



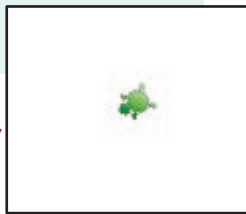
`tr 45 * 3`

It turns the turtle right by 135 degrees.



`tl 240 / 2`

It turns the turtle left by 120 degrees.



`Dir 10 * 3 * 5`

It turns the turtle right by 150 degrees.



`go 100 + 40, 50 + 50`

It moves the turtle from the upper left corner, 140 steps to the right and 100 steps down on the canvas.



Recollect the Chapter

- The print command is used to write the text or numbers on the canvas by the turtle.
- The fontsize command is used to set the size of the font that is used by the turtle. It takes one input which should be number.
- The go command is used to move the turtle to a certain place on the canvas without drawing a line. The position of the upper left corner of the canvas is given by 0, 0.
- The ask command is used to enter a number or text, so that we can give answer to the question. This command starts with \$n followed by an equals to (=) sign. On the right side of the equals to (=) sign, type ask followed by some text enclosed in double quotes ("").
- The message command is used to give some information by showing the text typed by you.

Computer **MANNER**

Always keep your fingers, pens and pencils away from the computer screen.





A. Tick (✓) the correct answer :

1. Which of the following operators is used for addition?
(a) * ☐ (b) – ☐ (c) + ☐ (d) All of these ☐
2. Which of the following commands turns the turtle right by 180 degrees?
(a) tl 90 + 90 ☐ (b) tr 180 – 90 ☐ (c) dir 90 * 2 ☐ (d) None of these ☐
3. Which of the following commands moves the turtle 30 steps to the right and 40 steps down on the canvas from the upper left corner?
(a) go 20 + 10, 20 * 2 ☐ (b) go 40, 30 ☐
(c) fw 30 + 40 ☐ (d) None of these ☐
4. The ask command starts with _____ followed by an equals to (=) sign.
(a) &n ☐ (b) \$n ☐ (c) =n ☐ (d) All of these ☐
5. Which of the following operators is used for multiplication?
(a) / ☐ (b) * ☐ (c) – ☐ (d) Both (a) & (b) ☐

B. Write 'T' for true and 'F' for false in the given circles :

1. We cannot change the size of the font used in print command. ☐
2. The fontsize command takes one input which should be number. ☐
3. The ask command starts with \$n followed by an equals to (=) sign. ☐
4. The output of the command print 60 + 60 is 180. ☐
5. The arithmetic operators can also be used with go command. ☐

C. Fill in the blanks :

1. The _____ command is used to move the turtle to a certain place on the canvas without drawing a line.
2. The +, –, * and / symbols are called _____ operators.
3. The _____ command is used to set the size of the font that is used by the turtle.
4. The _____ command is used to write the text or numbers on the canvas by the turtle.
5. The _____ command is used to give some information by showing the text typed by us.

D. Answer the following questions :

1. What is the use of fontsize command?
2. What is the use of go command? Write the command to move the turtle 100 steps to the right and 150 steps down on the canvas.

3. What is the use of print command?
4. What is the use of message command?
5. What is the use of ask command?

Creativity Skills



Art Integration

Draw and colour the picture of KTurtle in your notebook.

Project Time

Practical Skills

Write the commands for the following in KTurtle :

1. Add 100, 200 and 300.
2. Divide 450 by 5.
3. Multiply 245 by 7.
4. Subtract 1987 from 3456.
5. Type your name vertically with font size 70.
6. Type the name of your friend horizontally with font size 50.
7. Ask a question using ask command.
8. Display a message using message command.

Experience-Based Questions

Higher Order Thinking Skills

1. Atul wants to change the size of the text while using the print command. Can you help him in completing the task?
2. Rachit wants to type his father's name vertically from 100 steps right and 200 steps down from the upper left corner on the canvas. Suggest him appropriate commands to complete the task.

Think & Answer

Life Skills & Values

What do you prefer– solve the mathematical calculations in a notebook or in KTurtle? How will the option that you choose saves your time?

Activity Work

Cutting & Making Skills

Prepare a chart on 'Mathematical Calculations in KTurtle'.

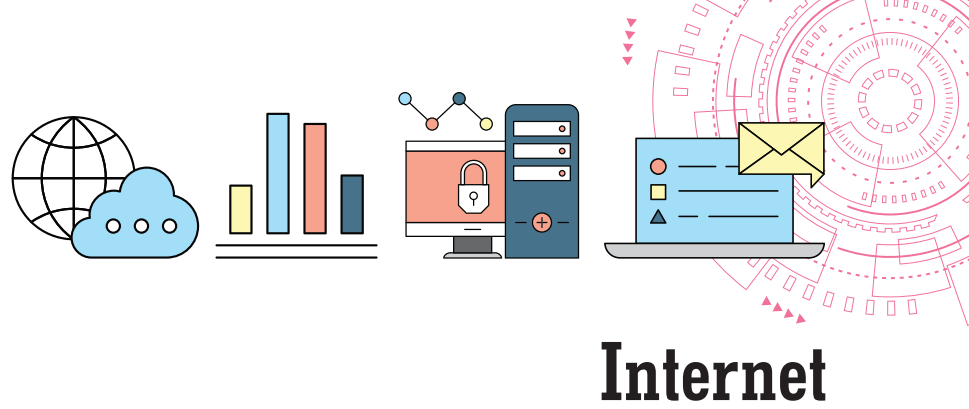
Discussion

Communication

How can you write text in KTurtle? Discuss the different commands in class.

Teacher's Help

- Demonstrate how the arithmetic operations used with print command and other commands to perform mathematical calculations in KTurtle to the students in detail.



Internet

LEARNING OUTCOMES

In this chapter, you will learn about :

- | | |
|---------------------------------------|------------------------|
| ▶ Internet | ▶ Uses of the Internet |
| ▶ History of the Internet | ▶ Internet Terms |
| ▶ Accessing a Webpage using a Browser | ▶ Search Engines |

INTERNET

Internet, popularly known as the **net**, is one of the greatest scientific achievements of the modern man. It has brought the entire world at our fingertips. The Internet stands for **International Network**. When millions of networks are interconnected together to share information, it is called the **Internet**.



USES OF THE INTERNET

Some of the uses of the Internet are :

1. We can buy and sell products on the Internet.
2. We can book airline/railway/movie tickets.
3. We can get a lot of information on any topic on the Internet.
4. We can chat with people on the Internet.
5. We can pay bills through the Internet.
6. We can send messages, known as e-mails to any part of the world.



HISTORY OF THE INTERNET

The Internet was initially known as **ARPANET** (Advanced Research Projects Agency Network). It was implemented by the DOD (Department of Defence) of the USA. Later on, it connected different universities and defence organisations to share information on research and development in scientific and military fields. It was a big success. Subsequently, it was made available commercially to the people and has taken the shape of the present-day INTERNET.

INTERNET TERMS

Let us learn about some important terms related to the Internet.

Webpage

The pages which collectively form the World Wide Web are known as webpages. A webpage is created using a language called HTML (Hypertext Markup Language). These pages may contain text, images, videos, audios and links to other pages.

ISP

ISP stands for **Internet Service Provider**. An ISP is a company that provides Internet access to the users. Some of the popular ISPs are Jio, Airtel, Idea, Vodaphone, Tata Docomo, and BSNL (Bharat Sanchar Nigam Limited).



Hyperlinks

The link that connects one page to another is known as a hyperlink. Thus, a hyperlink allows you to move to some other webpage with related information. When the mouse pointer is moved over a hyperlinked image or text, the pointer changes to a hand symbol. Clicking on the hyperlink takes you to a different page.

WWW

WWW stands for **World Wide Web**. It is a collection of interconnected pages that contain text, pictures, audios and videos. The various pages are connected using links and can be accessed through the Internet by the people all over the world. Shareable information on the Internet is called the World Wide Web.

World Wide Web is popularly known as the Web or W3.

Web Browser

Information on a website is accessed by using the Internet application called the browser. A web browser is a software that lets you access the pages on the World Wide Web. Some popular browsers are Microsoft Edge, Internet Explorer, Google Chrome, Mozilla Firefox, Opera, Apple Safari and UC Browser.

Website

The location where the information is available on the web is called a **website**. It is a collection of one or more related webpages linked together.



Home Page

Each website has a main page which contains links to other pages. When you visit any site, the first page that opens is called the home page.

The home page of a website can be changed or updated by the owner of the website.

URL

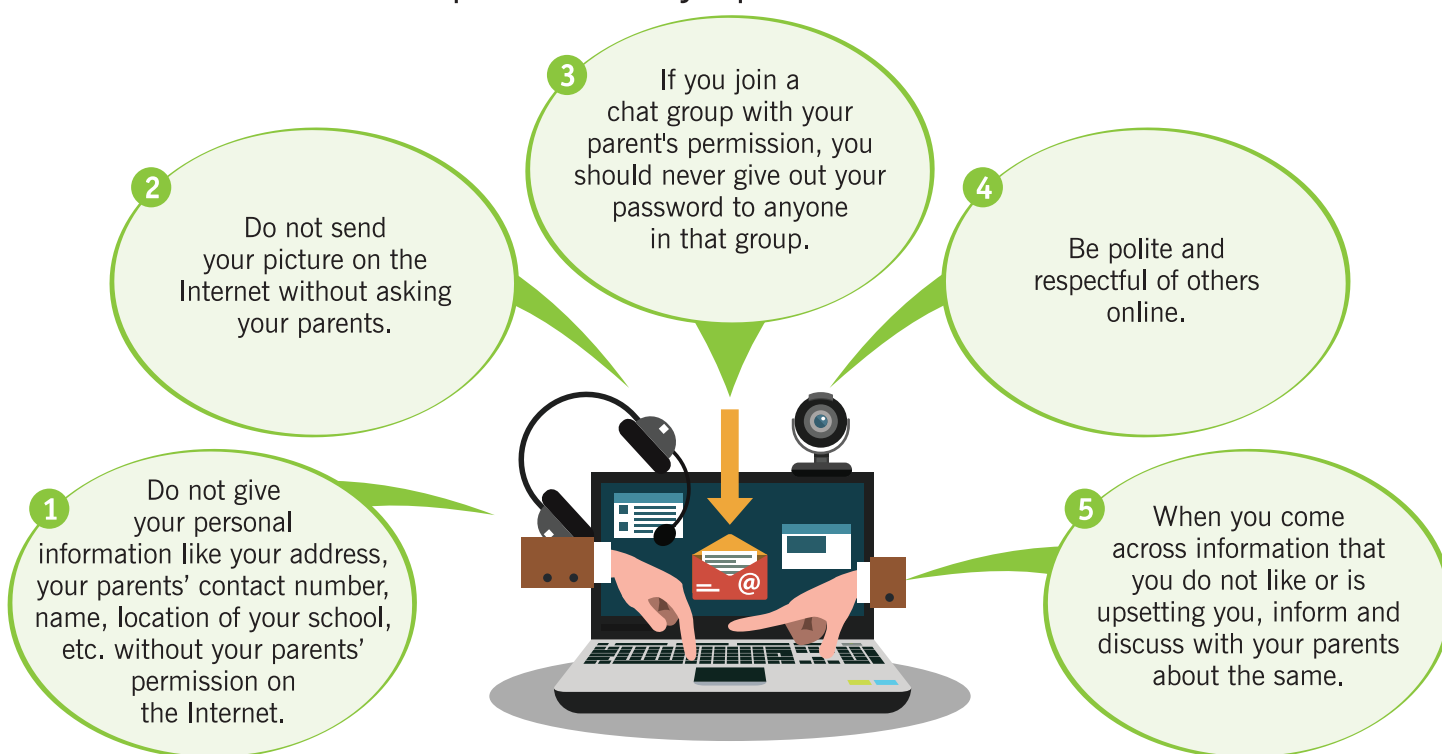
URL stands for **Uniform Resource Locator**. Every website or webpage has a unique address. The address of a website or a webpage is known as the URL. All the addresses start with either http: or https: (where 's' stands for secures). You would find such an address on bank websites in which money is involved.

Some of the URLs are :

- http://www.discovery.com
- http://www.indianrail.gov.in
- http://www.nationalgeographic.com
- http://www.history.com

Never leave a space in between the words/letters while typing the URL of a website.

Internet is a very useful tool. However, at times, it can also be dangerous and harmful. Some of the important safety tips are as follows :



ACCESSING A WEBPAGE USING A BROWSER

As a web browser is required to access a webpage, we are taking up an example of Internet Explorer here. Let us look at its general features.

Starting Internet Explorer

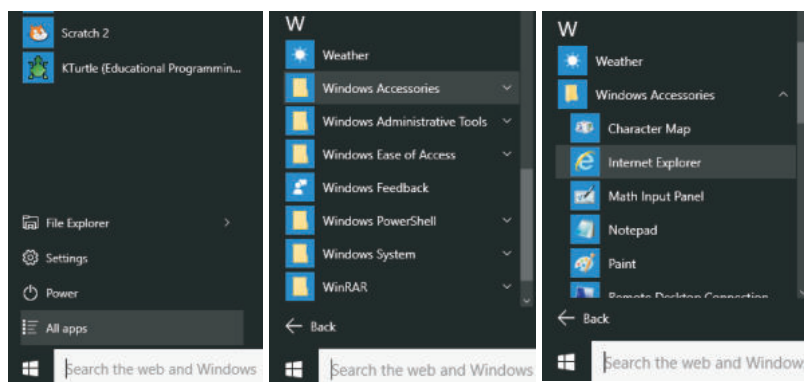
To start Internet Explorer, follow these steps :

Step 1. Click on the **Start** button.

Step 2. Click on the **All apps**.

Step 3. Click on the **Windows Accessories**.

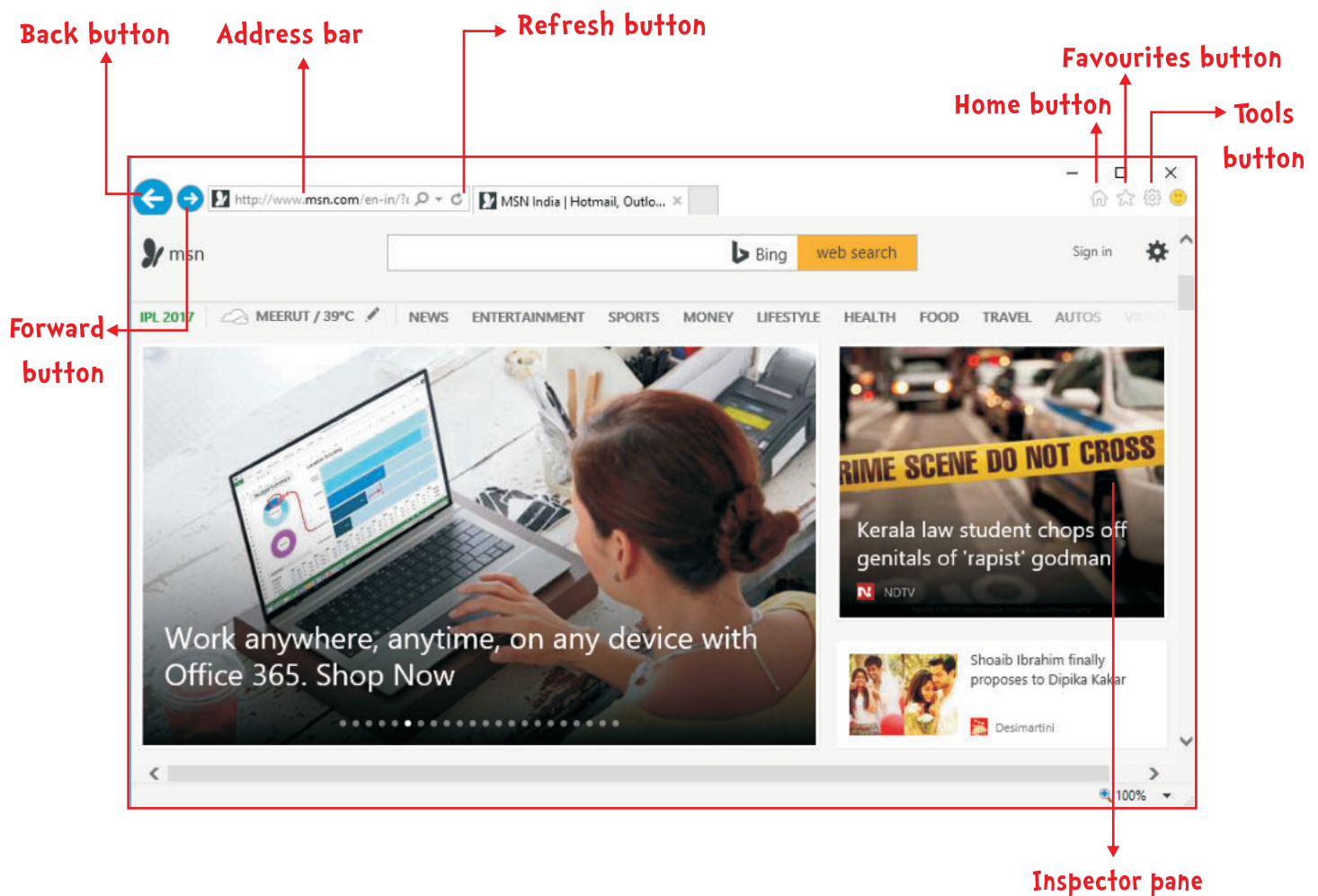
Step 4. Select **Internet Explorer**.



The Internet Explorer window opens.

Parts of the Internet Explorer

The various parts of Internet Explorer are as follows :



Address Bar

The URL of the website is entered in the address bar. After entering the URL, press the Enter key.

Back Button

The Back button takes us to the web page which we were viewing, before coming to the present page.

Forward Button

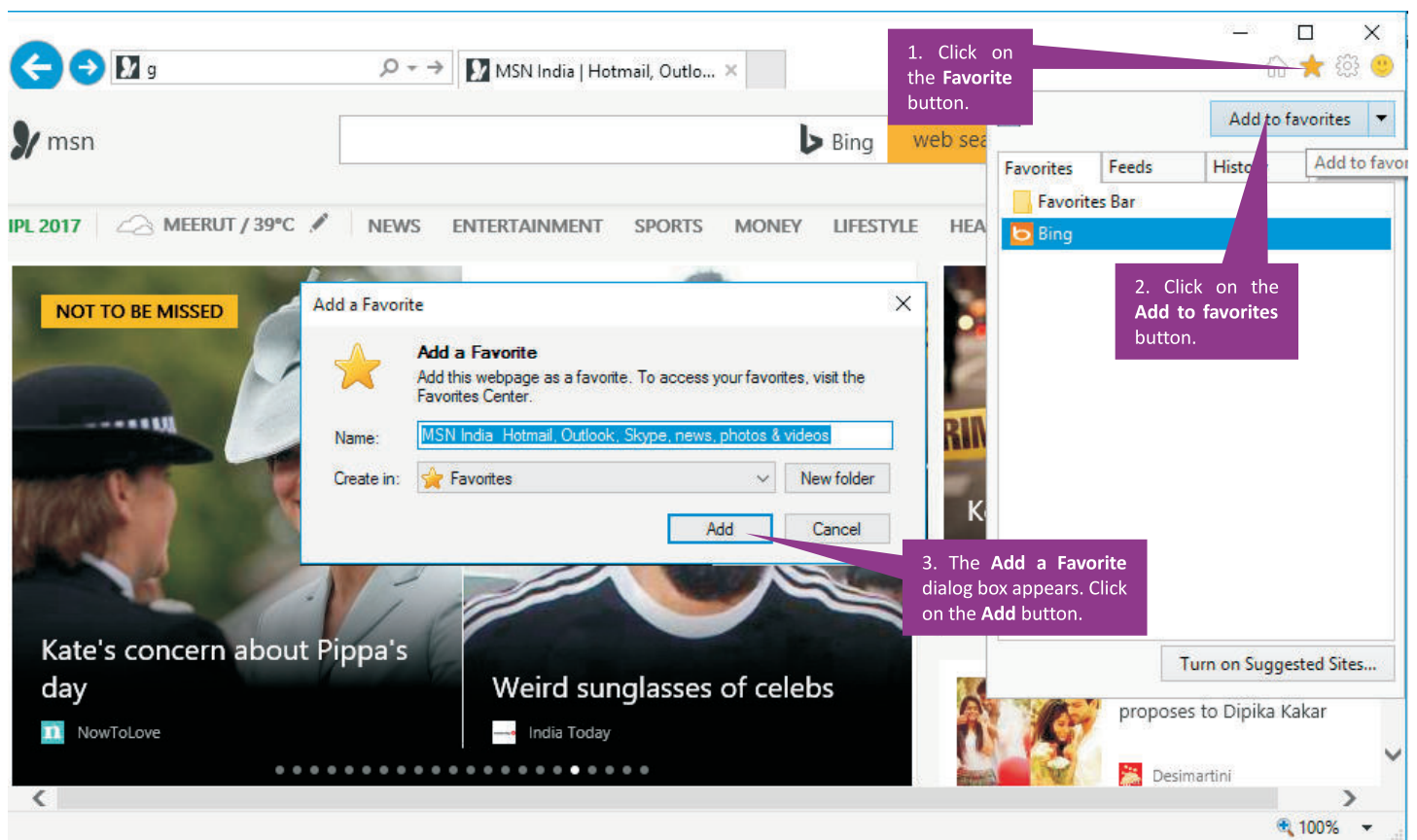
The Forward button has the opposite function of the Back button. It takes us forward to the next web page, within a sequence of pages that we have already accessed.

Refresh Button

The Refresh button is used to reload a webpage. It can be used when the page has not displayed properly or to check and see if any changes have been made to a page since the last visit.

Favorites Button

The **Favorites button** is used to save the URL that we like and may want to visit later. If we want to make any URL favorite, follow these steps :



Fact to Know

Local Knowledge

Sir Tim Berners-Lee is the founder of the World Wide Web.

The URL gets added to the list of favorites. You can click on it to access the website.

Tools Button

It allows the user to use features like Print, History, etc.

Home Button

It is used to display the home page of the browser that opens on its own when you open a browser.

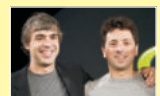
SEARCH ENGINES

A web search engine is a website that helps us search for information on the

Fact to Know

Local Knowledge

Larry Page and Sergey Brin are the founders of Google.



World Wide Web. Search engines allow the user to enter a keyword related to the information we require and search the websites containing a particular information. These websites are popularly known as search engines. The search results are usually presented as a list of links. The links may point to text, images, audio or video files.

Examples of search engines are :

Google : <http://www.google.com>

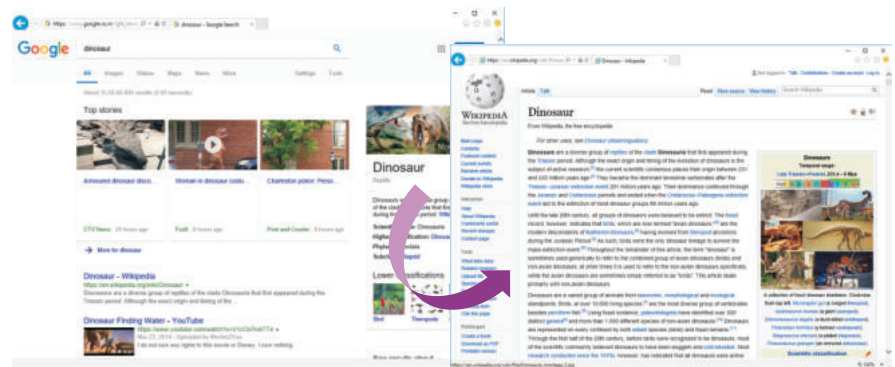
Alta Vista : <http://www.altavista.com>

Bing : <http://www.bing.com>

To search any information on the net, follow these steps :

Step 1. Open the Browser and go to the search engine website.

Step 2. Enter the word, phrase or sentence related to the information that you want to search for.



Step 3. Click on the hyperlinks that the search engine shows as results.



Recollect the Chapter

- The term Internet stands for International Network. It is a huge network of computers around the world.
- ISP stands for Internet Service Provider. An ISP is a company that provides Internet access to the users.
- WWW stands for World Wide Web. It is a collection of interconnected pages that contain text, pictures, audios and videos.
- The link that connects one page to another is known as a hyperlink. Clicking on the hyperlink takes you to a different page.
- The location where the information is available on the web is called a website. It is a collection of one or more related webpages linked together.
- URL stands for Uniform Resource Locator. The address of a website or a webpage is known as the URL.

Computer MANNER

Do not attempt to repair, open, temper or interfere with any of the computer, printing, cabling, air conditioning or other equipment in the computer lab.



A. Tick (✓) the correct answer :

1. Which of the following is not an ISP?
(a) Jio ☐ (b) BSNL ☐ (c) Airtel ☐ (d) Google Chrome ☐
2. We can use Internet to _____.
(a) buy products ☐ (b) pay bills ☐
(c) chat with people ☐ (d) all of these ☐
3. Which of these is used to reload a webpage?
(a) Forward button ☐ (b) Refresh button ☐
(c) Stop button ☐ (d) Back button ☐
4. Which of the following is an example of a web browser?
(a) Search Engine ☐ (b) ISP ☐
(c) WWW ☐ (d) Internet Explorer ☐
5. What is a collection of related webpages linked together called?
(a) Web Browser ☐ (b) Hyperlink ☐ (c) URL ☐ (d) Website ☐

B. Write 'T' for true and 'F' for false in the given circles :

1. We can get a lot of information on any topic on the Internet. ☐
2. A webpage is created using a language called HTML. ☐
3. The Forward button takes us to the web page which we were viewing, before coming to the present page. ☐
4. The pages which collectively form the World Wide Web are known as hyperlinks. ☐
5. Home button is used to display the home page. ☐

C. Fill in the blanks :

1. When we visit any site, the first page that opens is called the _____.
2. The Internet was initially known as _____.
3. The _____ button is used to save the URL that we like and may want to visit later.
4. _____ is a collection of interconnected pages that contain text, pictures, audios and videos.
5. The URL of the website is entered in the _____.

D. Answer the following questions :

1. Define ISP and WWW.

2. What is the difference between webpage and website?
3. What is the Internet? Give any two uses of the Internet.
4. What do you mean by search engines? Name any two search engines.
5. What is the role of web browsers?

Creativity Skills



Art Integration

Draw and colour the picture of any two web browsers in your notebook.

Project Time

Practical Skills

Open the Internet Explorer and type the URL of Google search engine and search information on 'History of Internet'.

Experience-Based Questions

Higher Order Thinking Skills

1. **You want to buy some books through the Internet but you don't know which websites you should visit for that purpose.**
 - (a) What should you do to get the websites addresses?
 - (b) What is the term used for moving from one webpage to another?
2. **Your father wants to pay electricity bill through the Internet but he does not know which website he should visit for that purpose. Suggest him the method to get the website addresses.**

Think & Answer

Life Skills & Values

Is it right to spend most of the time on the internet and using it every time you do your homework? Justify your answer.

Activity Work

Cutting & Making Skills

Prepare a project file on 'Internet'.

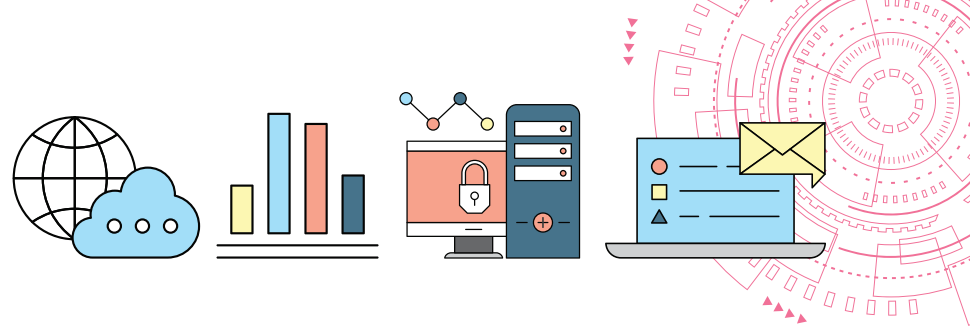
Discussion

Communication

Divide the class into groups of five each. Discuss the different uses of Internet in detail.

Teacher's Help

- Summarize the lesson and allow the students to do Internet based activities on the computer.



More About Scratch

LEARNING OUTCOMES

In this chapter, you will learn about :

- ▶ Components of Scratch
- ▶ Setting the Rotation Style
- ▶ Changing the Stage Backdrop
- ▶ Working with Two Sprites
- ▶ Changing the Pen Shade

A programming language has a set of instructions called program, for instructing a computer to perform specific tasks.

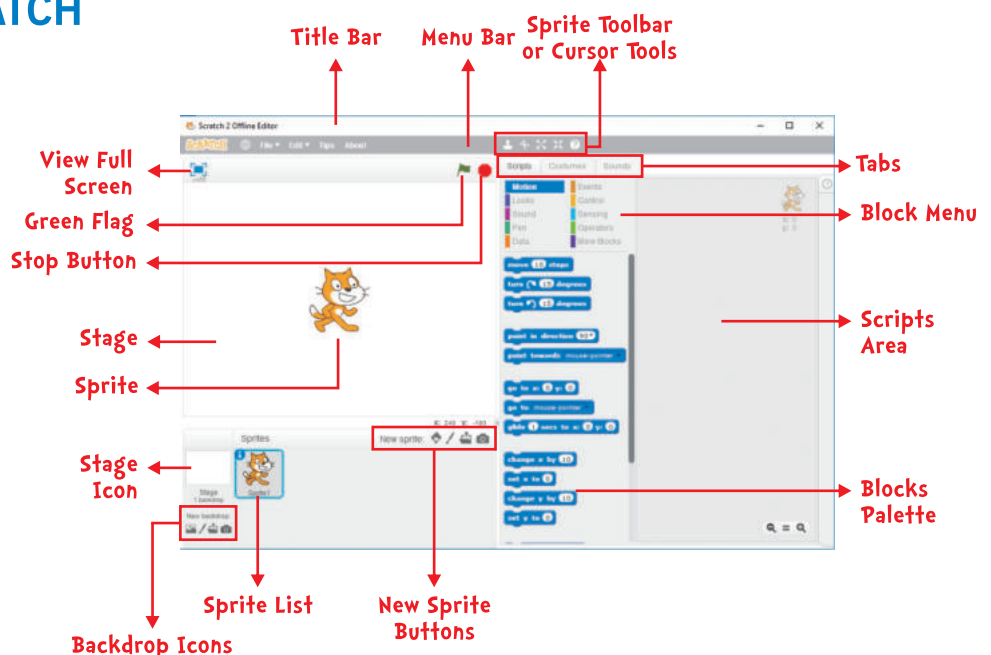
Scratch is a simple programming language that lets us create our own interactive stories, animations, games, music, and art.

Playing video games is fun, but programming in own video games is a creative, challenging skill that lets us make our own fun. The free Scratch programming environment gives everyone an easy way to learn programming skills.

Scratch was designed by the MIT (Massachusetts Institute of Technology) Media Lab's Lifelong Kindergarten Group, led by Mitch Resnick in 2003.

COMPONENTS OF SCRATCH

The various parts of the Scratch window are shown in figure given ahead. In the previous class, we came to know about some of these parts. Let us learn about more of them.



Stage

It is the main working area where all of the action takes place by the Sprite as per the given instructions. It displays our creation. We can see our stories, games, and animations created by us. It is divided into (x, y) co-ordinates X: 81 Y: -84 present at the bottom-right corner of the stage, which shows the position of the mouse.

Sprite

Scratch projects are made up of objects. The most basic object in Scratch is the Sprite. It is a small graphic character that performs actions in Scratch projects. There are many in-built Sprites in Scratch. Cat is the default Sprite in Scratch.

New Sprite Buttons New sprite:

There are four new sprite buttons to add a sprite.






- **Choose sprite from library** : Using this option, we can pick one from Scratch's built-in library.
- **Paint new sprite** : Using this option, we can draw a new one.
- **Upload sprite from file** : Using this option, we can upload an image you already have.
- **New sprite from camera** : Using this option, we can take a photo with our computer's webcam and use it as a sprite.

View Full Screen

The View Full Screen button or presentation button is used to play our project in full screen mode.

Sprite Toolbar or Cursor Tools

Once we have created the Sprite, we can make duplicate of it, increase or decrease its size or delete it by using the Sprite toolbar or Cursor tools.

- **Duplicate**  : It creates another copy of the Sprite.
- **Delete**  : It deletes the Sprite.
- **Grow**  : It increases the size of the Sprite.
- **Shrink**  : It decreases the size of the Sprite.
- **Block help**  : On selecting this button, the mouse pointer will change into a question mark. If we click on any block in the block palette with

the question mark, a pop-up window appears which shows the quick tips for that specific block. We can also open the tips window by clicking on the Tips option present on the menu bar.

Tabs

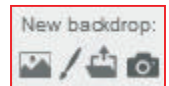
Scratch provides three different tabs- Scripts, Costumes and Sounds.

- **Scripts tab** : Script is a set of stepwise instructions given to the Sprite to do a specific task. Script is also called a program. Each instruction is also called a command. It consists of the block menu and allows you to write a script.
- **Costumes tab** : It allows us to draw, import or edit images for a Sprite.
- **Sounds tab** : It allows us to record or import sound files for a Sprite to use.

In addition of these tabs, the Backdrops appear in place of the Costumes tab when we select the Stage icon.

Backdrop Icons

The backdrop icons are used to change the stage background. Scratch provides four different options to change the backdrop of the stage.



1. **Choose backdrop from library** : Using this option, we can choose the backdrop from the Scratch library.
2. **Paint new backdrop** : Using this option, we can create a new backdrop window according to our requirements. It opens the 'Backdrops Window Editor'.
3. **Upload backdrop from file** : Using this option, we can upload the required file for backdrop.
4. **New backdrop from camera** : Using this option, we can take a photo with our computer's webcam and use it as a backdrop.


Stage Icon

On clicking this icon, the Backdrops tab appears in place of the Costumes tab. We can import any background on the stage using this tab.

Sprite List

Here are the characters and objects we've created, including the stage itself. Click the icons to edit each sprite individually.

Sprite Info Pane

We might have noticed a little blue icon  in the left corner of the sprite thumbnail in the Sprite List. It displays the **Sprite Info Pane** when we click on this icon. It includes the information about the selected sprite as well as a few tools for manipulating the Sprite. The tools include :






Sprite's Name : This is how we can rename the sprite.

x: and y: co-ordinates : The position of the sprite is indicated by these coordinates on the stage. The horizontal line is labelled as x-axis and the vertical line is labelled as y-axis.

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

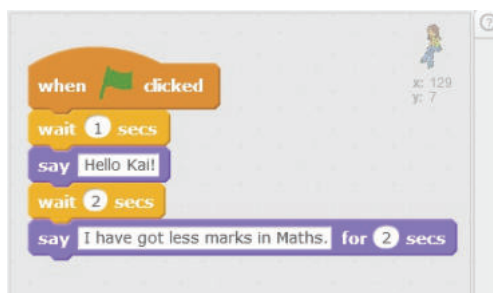
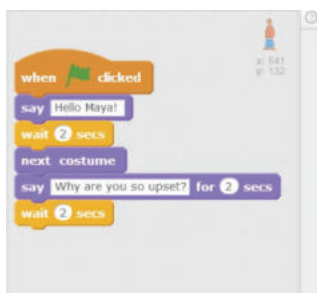
Rotation style : We can control how a sprite rotates in three ways:

- Can rotate freely 
- Can face only left or right 
- No rotation allow 

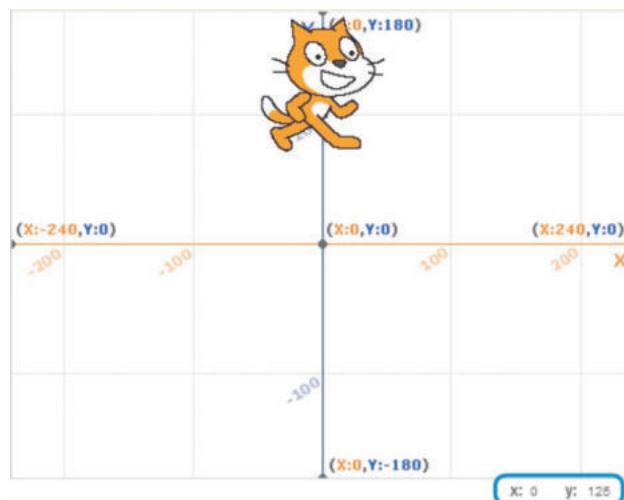
WORKING WITH TWO SPRITES

To create a project with two sprites, follow these steps :

- Step 1.** Click on the **Choose sprite from library** option. The **Sprite library** dialog box appears.
- Step 2.** Select the People from the **Category** section and select **Kai**. Then, click on the **OK** button.
- Step 3.** Again click on the **Choose sprite from library** option and add **Maya** Sprite from the People category of the **Sprite library** dialog box.
- Step 4.** Select the sprites one-by-one and start creating the block stack step-by-step as shown in figure.
- Step 5.** Click on the green flag button and observe the two sprites talking to each other.



Changing the Sprite Position



The Scratch is 480 pixels wide and 360 pixels high. Everything is on a grid with two axes— x-axis and y-axis.

x-axis : A horizontal line that marks left and right positions; ranges from –240 (farthest left) to +240 (farthest right).

y-axis : A vertical line that marks up and down positions; ranges from –180 (lowest) to +180 (highest).

The default position of sprite is at the point where the x-axis and y-axis meet called origin (X: 0, Y: 0).




As we move to the right from the origin, the x-value increases from 0 to 240. As we move left from the origin, the x-value changes from 0 to –240. Similarly, as we move up from the origin, the y-value increases from 0 to 180. As we move down from the origin, the y-value changes from 0 to –180.



Let us create a project to change the sprite's position.

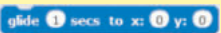
Drag the following commands and observe the result.

Blocks Used in the Project

	This block is used to set the x position of the sprite.
	This block is used to set the y position of the sprite.
	This block is used to go to the specified position on the stage.

Fact to Know



Local Knowledge

We can use the block  to move a sprite smoothly to an xy position on the stage.

SETTING THE ROTATION STYLE

We can set the rotation style of the sprite by using the Rotation Style button present in the Sprite Info Pane.

Let us create a project.

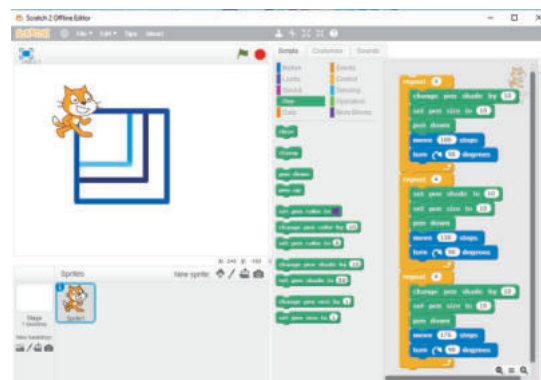
- Step 1.** Click on the Choose sprite from library option. The Sprite library dialog box appears.
- Step 2.** Select the People from the Category section and select Zara. Then, click on the OK button.
- Step 3.** Now, click on the  icon present on the left corner of the sprite to open the Sprite Info Pane.
- Step 4.** Set the rotation style to Linear Arrow .
- Step 5.** Drag the following commands and observe the result.



CHANGING THE PEN SHADE

As the Sprite moves on the stage, Pen block is used to draw a trail. Each pen colour has different shades that vary from 0 to 100 (lightest to the darkest) i.e. 0 is the lightest and 1 is the darkest shade.

Let us create a project.

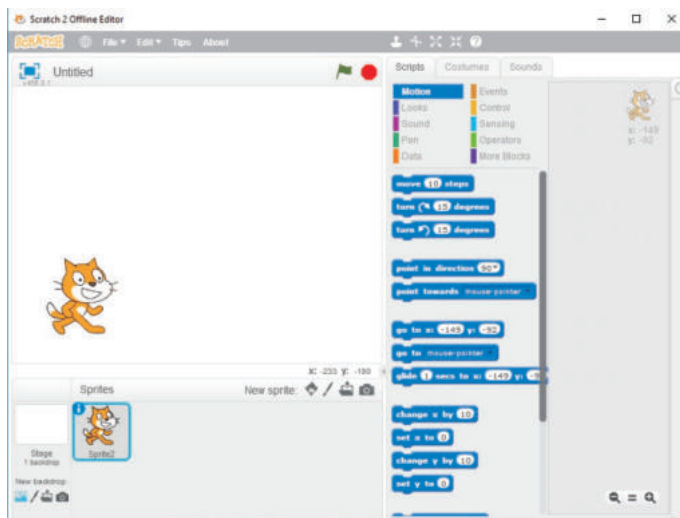


Drag the following commands and observe the result.

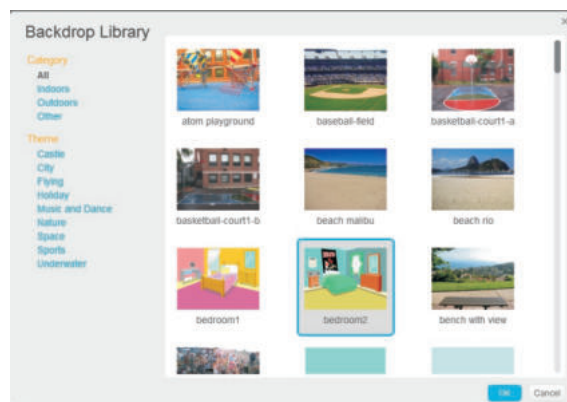
CHANGING THE STAGE BACKDROP

We can change the backdrop, i.e. background of the stage. To change the backdrop, follow these steps :

Step 1. Click on the **Choose backdrop** from library option available under **New backdrop** section.



Step 2. Select the desired backdrop.



Step 3. Click on the OK button.

Step 4. Drag the following blocks and observe the result.

Let us Create a Dancing Sprite project.

Step 1. Click on the **Choose sprite from library** option. The **Sprite library** dialog box appears.

Step 2. Select the **People** from the **Category** section and select **Ballerina**. Then, click on the OK button.

Step 3. Click on the **Choose backdrop from library** option available under **New backdrop** section.

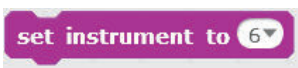



Step 4. Select the **spotlight-stage** backdrop.

Step 5. Click on the OK button.

Step 6. Now, drag the following commands and observe the result.

Blocks Used in the Project

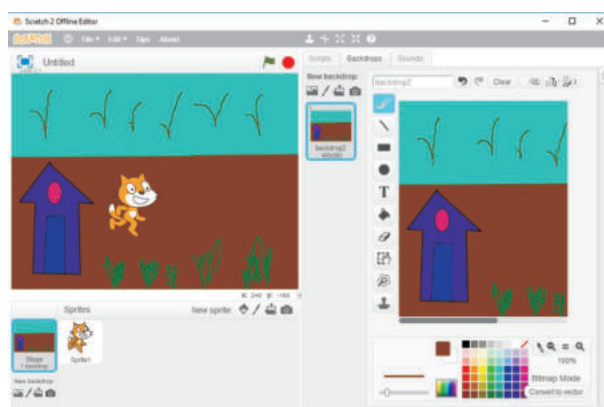
	This block sets the type of instrument that the sprite uses for play note blocks.
	This block plays a musical note for specified number of beats.

Paint New Stage Backdrop

To paint and create a backdrop of the stage, follow these steps :

Step 1. Click on the **Paint View backdrop** option available under **New backdrop** section.

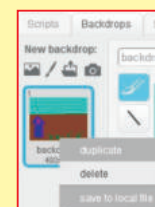
Step 2. Use the available tools to design a backdrop.



Fact to Know

Local Knowledge

To delete the backdrop, right-click on the backdrop in the backdrops list under the Backdrops tab and select the Delete option.




Recollect the Chapter

- A Scratch is a simple programming language that lets you create your own interactive stories, animations, games, music and art.
- The Scratch is 480 pixels wide and 360 pixels high. Everything is on a grid with two axes– x-axis and y-axis.
- The x-axis is a horizontal line that marks left and right positions; ranges from –240 (farthest left) to +240 (farthest right).
- The y-axis is a vertical line that marks up and down positions; ranges from –180 (lowest) to +180 (highest).
- The default position of sprite is at the point where the x-axis and y-axis meet called origin (X: 0, Y: 0).






A. Tick (✓) the correct answer :

1. When we click on  icon in the left corner of the sprite thumbnail, it displays the _____.
 (a) Sprite list ☐ (b) Block help ☐
 (c) Backdrops tab ☐ (d) Sprite info pane ☐
2. It creates another copy of the sprite.
 (a) Delete ☐ (b) Duplicate ☐ (c) Grow ☐ (d) Shrink ☐
3. There are _____ new sprites buttons to add a sprite.
 (a) two ☐ (b) three ☐ (c) four ☐ (d) five ☐
4. We can change the backdrop of the stage using _____ option.
 (a) Choose backdrop from library ☐ (b) Paint new backdrop ☐
 (c) Upload backdrop from file ☐ (d) All of these ☐
5. The x-axis ranges from–
 (a) –180 to 180 ☐ (b) –240 to 240 ☐
 (c) –480 to 480 ☐ (d) none of these ☐

B. Write 'T' for true and 'F' for false in the given circles :

1. On clicking the Stage icon, the Backdrops tab appears in place of the Costumes tab. ☐
2. We cannot delete the backdrop. ☐
3. A programming language has a set of instructions called program. ☐
4. The  block plays a musical note for specified number of beats. ☐
5. As the Sprite moves on the stage, Pen block is used to draw a trail. ☐

C. Fill in the blanks :

1. The _____ tab allows us to record or import sound files for a sprite.
2. The default position of sprite is at the point where the x-axis and y-axis meet called _____.
3. A _____ is a small graphic character that performs actions in Scratch projects.
4. The Scratch is _____ pixels wide and _____ pixels high.
5. The _____ tab allows us to draw, import or edit images for a sprite.

D. Answer the following questions :

1. What is Scratch?
2. What is the role of Sprite Info Pane?
3. How can you set the rotation style of the Sprite?
4. What is Sprite?
5. Explain new sprite buttons.

Creativity Skills



Art Integration

Draw and colour any one Sprite in your notebook.

Project Time

Practical Skills

Create a dancing sprite project in Scratch with the following Sprite and backdrop as shown alongside :

Sprite- Cassy Dance (Dance Theme)

Backdrop- spotlight-stage2



Experience-Based Questions

Higher Order Thinking Skills

1. Jatin wants to play a sound of Flute in his Scratch project. Suggest him the appropriate block to complete the task.
2. Nidhi is creating a project in Scratch. She wants to set the rotation style of the Sprite. Can you help her in completing the task?

Think & Answer

Life Skills & Values

If your teacher tells you to improve your project then what will you do– ignore what he/she says, copy from your friend and show to your teacher or listen to your teacher and improve your project?

Discussion

Communication

Discuss the uses of various components of Scratch window in class.

Teacher's Help

- Summarise the lesson and give the students enough activities for practice.



Extra Skills

Robots

Artificial Intelligence

Robots can be defined as machines that have **human-like** tendencies and capabilities. They can perform tasks according to their **programming**. For the past decade or so, robots have demonstrated immense significance by **decreasing the workload of humans**, especially in the industry sector.

Typically, robots are put into use in the **manufacturing industry**. Laborers usually find these jobs monotonous and repetitive. When people perform a specific role for a long time, it is natural for them to get bored of what they have been doing and want an out or complete the task unwillingly.



This will also **reduce the effectiveness of such people** as compared to when they began working. As a result, they end up feeling burned out without any eagerness or enthusiasm to continue the work. That is precisely where robots come in the picture to make the **lives of humans easier** than ever.

Even though in popular fiction a robot resembles a humanoid, in reality, they may have different shapes depending on their function and utility. They can undertake many types of tasks, from cooking and cleaning to heavier ones like assembling large machinery. The development of modern industrialization is dependent on the development of robotics.

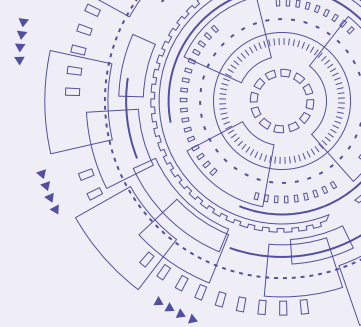
In the modern world, one can find robots anywhere, even in daily life.

- **Robot vacuum cleaner** : With a few instructions, the vacuum cleaner can clean the entire floor surface with no human intervention.
- **Robot lawn mower** : Again the owner can set a few instructions, and the entire lawn will be mowed while the owner can tend to other tasks.
- **Drones** : They are being developed as a surveillance device or for delivery of small items such as pizzas, etc.
- In **factories**, robots are used to set up assembly lines to minimize human labour.
- A lot of computer programs use robots to **hack** into other peoples' computers or software.

Using robots cuts down on a lot of human effort, yet its scope is limited and needs some supervision by human intelligence. Industries have reaped a lot of benefits from the applications of robots in the past few decades. Their utilization has also led to a massive increase in the company's productivity and profits. Robotics mixed with artificial intelligence has made it easy for humans to perform complicated or tedious tasks and this technology is only expected to grow in the future.



Model Test Paper-1



A. Tick (✓) the correct answer :

- Which of the following is not a secondary storage device?
(a) Hard disk ☐ (b) RAM ☐ (c) CD ☐ (d) Blu-ray disc ☐
- The picture appears as a background on the desktop is called _____.
(a) Desktop ☐ (b) Picture ☐ (c) Wallpaper ☐ (d) Theme ☐
- The Spelling & Grammar tool is present on the _____ tab.
(a) File ☐ (b) Home ☐ (c) Review ☐ (d) Insert ☐
- Which of the following options is not available on the Home tab?
(a) Bold ☐ (b) Italic ☐ (c) Thesaurus ☐ (d) Underline ☐

B. Write 'T' for true and 'F' for false in the given circles :

- Secondary memory is also known as external memory. ☐
- We cannot change the wallpaper of our desktop. ☐
- The Find option is used to locate a specific word or text in a document. ☐
- By default, Word uses a blue square as a bullet. ☐

C. Fill in the blanks :

- A pen drive is also known as a _____.
- _____ is where we will find our app notifications.
- Word has an in-built dictionary called _____.
- A _____ list is used for listing when the order of items is important.

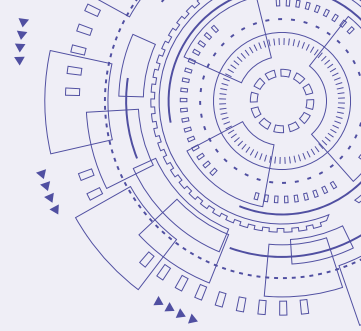
D. Answer the following questions :

- Explain blu-ray disc and memory cards.
- How can you change the appearance of the Start menu in Windows 10?
- What do you mean by editing?
- What is the use of Superscript and Subscript options?

E. Draw and colour the logo of MS Word 2019.



Model Test Paper-2



A. Tick (✓) the correct answer :

- To change the layout of a selected slide, click on the _____ option.
(a) New Slide ☐ (b) Reset ☐ (c) Layout ☐ (d) Theme ☐
- Which of the following operators is used for multiplication?
(a) / ☐ (b) * ☐ (c) – ☐ (d) Both (a) & (b) ☐
- Which of the following is not an ISP?
(a) Jio ☐ (b) BSNL ☐ (c) Airtel ☐ (d) Google Chrome ☐
- It creates another copy of the sprite.
(a) Delete ☐ (b) Duplicate ☐ (c) Grow ☐ (d) Shrink ☐

B. Write 'T' for true and 'F' for false in the given circles :

- Once we select a slide layout, we cannot change it. ☐
- We cannot change the size of the font used in print command. ☐
- A webpage is created using a language called HTML. ☐
- A programming language has a set of instructions called program. ☐

C. Fill in the blanks :

- _____ view hides all the editing tools to make our slides easier to Review.
- The +, –, * and / symbols are called _____ operators.
- When we visit any site, the first page that opens is called the _____.
- The _____ tab allows us to record or import sound files for a sprite.

D. Answer the following questions :

- What do you mean by presentation?
- What is the use of print command?
- Define ISP and WWW.
- What is Scratch?

E. Draw and colour any one Sprite.