

*As per National Education Policy
(NEP-2020)*

UPDATED

Computer

(An Interactive series on Computer Science)

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4



New Edition

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Computer-4

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Preface

Computer : Computers is a comprehensive series of eight books designed specifically for the needs and requirements of the students studying in classes 1-8. This series perfectly complies with the NCERT syllabus criteria and the National Curriculum Framework's vision. In keeping with NEP 2020's guidelines, the series adopts an interactive approach to make it possible for the learners to enjoy computers. This book includes enough questions in accordance with the NEP criteria. The fundamental principles of NEP which are recognizing, identifying and fostering the unique capabilities of each student, respect for diversity, and consideration for the local context in all topics, are always kept in mind while framing the book.

The topics are introduced in a way that children experience and learn through exploration.

Child-friendly language and contextual images have been incorporated throughout the series to make the material more understandable for young readers. This allows them to connect what they read and relate it to the views, ideas, and experiences they encounter every day.

Salient Features of the series:

Learning Outcomes : It guides both the teacher and the students towards the correct direction of efficient learning. It establishes the path of learning for efficient and superior learning results.

Warm Up : Children can connect their prior knowledge to the chapter's topic through simple yet engaging activities.

Teacher's note : An outline of guidelines for teachers to follow in the classroom in order to make lessons interactive and discussion-based.

Let me answer : Questions related to the topic which are essential for checking pupil understanding and keeping them engaged with the task at hand.

Do You know : An interesting piece of information related to the topic.

Remember It : Additional information about the topic to encourage children to wonder about various surroundings.

Kids' IQ : These questions have been included to reinforce learners to think, analyse and apply.

Up skill your Intelligence : Ample exercises with a range of questions to support learning.

Critical Thinking : Questions which allow the learners to think clearly and rationally.

Team Work : It enables the students to collaborate with others.

The content is structured and well graded. Sincere efforts have been made to prevent any inconsistencies and make this series a perfect complement to the students' education. Any worthwhile recommendations for the improvement of the series are always welcome and greatly appreciated.

Author

FOCUS AREAS

1 EVOLUTION OF COMPUTERS

Learning Outcomes

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

- Learn about varieties of calculating devices.
- Comprehend the difference between various calculating devices.
- Explain the evolution of computers.

Activity

Look at the pictures carefully and circle the pictures which do calculations.

Learning Outcomes

It shows the right path of learning to the teacher as well as students. It establishes the direction of learning for efficient and superior learning results.

Warm-Up

Children can connect their prior knowledge to the chapter's topic through simple yet engaging activities.

2 ORGANISING FILES AND FOLDERS

Learning Outcomes

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

- Manage files and folders using Windows 10.
- Create a folder.
- Rename, delete and recover a file and folder.

Activity

Karna wants to organise the things in proper storage. Help her by matching the objects with their appropriate storage.

Teacher's Note:

An outline of guidelines for teachers to follow in the classroom in order to make lessons interactive and discussion-based.

NAPIER'S BONES

John Napier of Scotland invented Napier's bones in 1617, a manually driven calculator for calculating products and quotients of numbers. It made the method of multiplication simple and also increased the speed of performing multiplication. This reduced the risk of error in large multiplication problems. This invention was more compact than the earlier creations.

ANALOGUE MACHINE

Blaise Pascal created the mechanical calculator known as Pascal's calculator, often referred to as the arithmetic machine or Pascaline, in 1642. It represents the position of digits with the help of gears in it. Pascal designed the machine to add and subtract two numbers directly and to perform multiplication and division through repeated addition or subtraction.

STEPPED RECKONER

German scientist, Gottfried Wilhelm Leibniz, started the creation of the Stepped Reckoner, an automatic mechanical Leibniz calculator, in 1672 and finished it in 1694. The machine performs the basic operations of adding and subtracting as well as multiplication by repeated addition, and division by repeated subtraction.

Did You Know?
Sir Charles Babbage is also known as the 'father of the computer'.

Remember It

Additional information about the topic to encourage children to wonder about various surroundings.

RESTORING A FILE AND FOLDER

Sometimes you might unintentionally delete a file. To bring back the file from the recycle bin is called restoring. Follow the given steps to restore any file or folder.

Steps:

- Double-click on the Recycle bin icon on the desktop.
- The contents of the Recycle bin get displayed in a new window.
- Right-click on the file or the folder you want to restore.
- Click on the restore option from the context menu.
- The file or folder will be restored in its original location.

Kids' IQ

Can the page be moved just by when you right-click the mouse. Why not?

Let's Recall

- In Windows 10, multiple users can work on one computer system at the same time.
- A file is a collection of data or information.
- A folder serves to group the files or other folders.
- A folder within a folder is called a sub folder.
- A context menu provides options that can be accessed quickly.
- Restoring is to change the existing name of the file or folder.

Let's Recall

It aids in providing a brief summary of the entire chapter.

Kids' IQ

These questions have been included to reinforce learners to think, analyse and apply.

OF NEP 2020

Do You Know

An interesting piece of information related to the topic.

Critical Thinking

Questions which allow the learners to think clearly and rationally.

Critical Thinking

A. From the given grid, find out the 8 components of Point 3D.

1	2	3	4	5	6	7	8	9
5	7	W	H	S	L	2	1	2
1	7	R	B	S	R	7		
8	C	O	T	U	Z	7		
8	K	M	E	N	O	7		
8	2	P	S	A	1	U		
7	8	1	T	C	7	8		
A	3	8	V	R	8	Z		

B. Neha wants to create a park scene. For it, she needs to add some 3D objects on the canvas. Help her with the options through which she can add different objects and create a beautiful park scene.

Team Work

Choose a partner to 'Save a park' using 3D Library. Use the stickers, 3D models and 3D text to beautify it.



Team Work

It enables the students to collaborate with others.

Let me Answer

Questions related to the topic which are essential for checking pupil understanding and keeping them engaged with the task at hand.

3D LIBRARY
Creative 3D objects can be created using Paint 3D. The app allows using a variety of pre-defined objects in the 3D Library. There are many 3D objects freely available in the 3D library built by professionals. Follow the given steps to insert 3D models from the Paint 3D library.

Steps:

1. Start Paint 3D from Apps.
2. Select 3D shapes from the library and then Open the 3D library.

1. Type the object name into the search box and press enter.

A. Click on the model of your choice to add it to the canvas.

3D HOLOGRAMS
A hand-drawn sketch can be transformed quickly into a 3D object using Paint 3D. 3D doodles look very attractive.

Follow the given steps to rename an existing file or folder:

Steps:

1. Right-click on the folder or file that you want to rename.
2. Click on the Rename option from the context menu.
3. Type the new name for the folder or file.
4. Press enter.

DELETING A FILE AND FOLDER
There are some unwanted files and folders which you may want to delete. Deleted files or folders will be sent to the Recycle Bin. Follow the given steps to delete an existing file or folder.

Steps:

1. Right-click on the folder or file which you desire to delete.
2. Click on the delete option from the context menu.

Upskill Your Intelligence

Ample exercises with a range of questions to support learning.

Boost Your Intelligence

A. Fill in the blanks.

1. _____ enables you to edit from any angle.
2. _____ allows exploring the steps used in creating a drawing.
3. We can choose 3D Doodle from _____ option.
4. _____ enables you to move the text around the canvas.
5. _____ is the area where we can draw different drawings.

B. Answer the following in one word.

1. The option allows drawing lines and stars.
2. It is a collection of thousands of free 3D models.
3. The tool allows adding tongue stickers.
4. The number of options in paint 3D.
5. The tool which can reverse the action.

C. Write 'T' for True statements and 'F' for False statements.

1. We can rotate the 3D doodle after drawing it.
2. Each tool you use when making a new park 3D model is provided by the 3D text tool.
3. Windows 10 provides a free built-in creative app called Paint 3D.
4. 3D canvas apply texture to a 3D model.
5. Zoom-in is not allowed in Paint 3D.

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EVOLUTION OF COMPUTERS



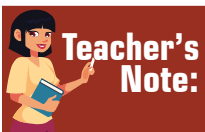
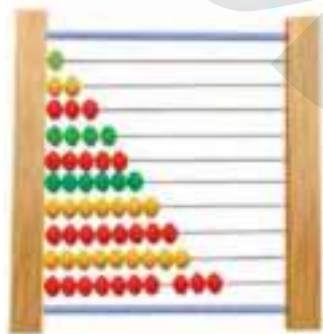
Learning Outcomes

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

- ♦ Learn about varieties of calculating devices.
- ♦ Comprehend the difference between various calculating devices.
- ♦ Explain the evolution of computers.

Warm-up

Look at the pictures carefully and circle the pictures which do calculations.



Teacher's Note:

Apprise students that earlier, computers were only designed to act like calculating devices.



“Hey Friends! We have already covered the components of computers in the previous class. Now, let’s learn about the changes that computers have undergone over time.”

Over the past few decades, computers have undergone significant advances. Many years ago, in their most basic form, computers were very huge and slow. Computers have evolved over time to become faster smaller and more compact. For e.g. Earlier, Abacus helped people to do calculations and now, computers are envisioned to perform this task.

Calculating devices have been developing ever since, giving rise to the potent computers we have today.



ABACUS

The abacus is considered to have been the earliest mechanical calculator. It was used to rapidly and easily conduct addition and subtraction.

An Abacus is made up of a wooden frame with rods, each having beads. It is divided into two parts called ‘Heaven’ - the upper part and ‘Earth’ - the lower part. By carefully positioning the beads, any number can be displayed.



Do You Know?

Abacus is also called a counting frame.



Figure 1.1: Abacus



Let Me Answer

Have you ever done calculation using an abacus?



NAPIER'S BONES

John Napier of Scotland invented Napier's bones in 1617, a manually driven calculator for calculating products and quotients of numbers. It made the method of multiplication simple and also increased the speed of performing multiplication. This reduced the risk of error in large multiplication problems. This instrument was more compact than the earlier creations.



Figure 1.2: Napier's Bones



ARITHMETIC MACHINE

Blaise Pascal created the mechanical calculator known as Pascal's calculator, often referred to as the arithmetic machine or Pascaline, in 1642. It represents the position of digits with the help of gears in it.



Figure 1.3: Pascaline

Pascal designed the machine to add and subtract two numbers directly and to perform multiplication and division through repeated addition or subtraction.



STEPPED RECKONER

German scientist, Gottfried Wilhelm Leibniz, started the creation of the Stepped Reckoner, sometimes referred to as the Leibniz calculator, in 1672 and finished it in 1694. The machine performs the basic operation of adding and subtracting as well as multiplication by repeated addition, and division by repeated subtraction.



Figure 1.4: Stepped Reckoner

REMEMBER IT!



Sir Charles Babbage is also known as the 'Father of the computer.'





ANALYTICAL ENGINE

English mathematician and computer pioneer, Charles Babbage, created a mechanical general-purpose computer called the Analytical Engine. It could perform any type of calculations. It had four different components or parts. These components are the reader, the store, the mill, and the printer which are essential components of every computer, even today.



Figure 1.5: Analytical Engine



Let Me Answer

Who is the 'Father of the Computer'? Discuss.



TABULATING MACHINE

Tabulating Machine was invented by an American Statistician, Herman Hollerith. This machine had the ability to read and process the data, further giving the desired output. Punch cards were used to give the inputs.



Figure 1.6: Tabulating Machine



ENIAC

Invented by American physicist John Mauchly and American engineer J. Presper Eckert in 1946, ENIAC was the first programmable, electronic, general-purpose digital computer. These features were available on other computers, but the ENIAC offered them all in one convenient package. It could solve “a vast category of numerical problems” through reprogramming.



Figure 1.7: ENIAC



UNIVAC I

UNIVAC I stands for Universal Automatic Computer I. It was the first commercially available general-purpose electronic digital computer designed in the United States for business applications.



Figure 1.8: UNIVAC-I



HARVARD MARK I

Howard Aiken at Harvard University and IBM developed the Harvard Mark I in 1944. It is also referred to as the Automatic Sequence Controlled Calculator.



Figure 1.9: Harvard Mark-I

It was a general-purpose electromechanical computer. It also provided vital calculations for the U.S. Navy during World War II. One of the earliest programs to run on the MARK I was initiated on 29th March 1944 by John Von Neumann.



Kids' IQ

Arrange the following devices in descending order according to their year of invention.



Let's Recall

- The abacus is considered to have been the earliest mechanical calculator.
- Blaise Pascal created the mechanical calculator known as Pascal's calculator.
- John Napier of Scotland invented Napier's bones, a manually driven calculator.
- Charles Babbage created a mechanical general-purpose computer called the Analytical Engine.
- UNIVAC I stands for Universal Automatic Computer I.
- ENIAC was invented by John Mauchly and J. Presper Eckert, in 1946.
- Howard Aiken of Harvard University and IBM developed the Harvard Mark I in 1944.

A. Fill in the blanks

1. Abacus is divided into two parts called ‘ ’ - the upper part and ‘ ’ - the lower part.
2. Over the past few decades, computers have undergone significant
3. UNIVAC I stands for
4. Charles Babbage created a mechanical general-purpose computer called the
5. One of the early programs to run on the MARK I was initiated by

B. Answer the following questions.

1. State the features of the Abacus.
.....
.....
2. List any two differences between Arithmetic Machine and Napier’s Bones.
.....
.....
3. Who invented Stepped Reckoner?
.....
.....
4. State any similarity between ENIAC and UNIVAC I.
.....
.....

5. State any two features of Harvard Mark I.

.....
.....

C. Match the following.

- | | |
|---------|------------------|
| 1. 1642 | ENIAC |
| 2. 1617 | Harvard Mark I |
| 3. 1694 | Pascaline |
| 4. 1646 | Napier's Bones |
| 5. 1944 | Stepped Reckoner |

E. Write 'T' for True statements and 'F' for False statements.

- | | |
|---|--------------------------|
| 1. Abacus is also called a counting frame. | <input type="checkbox"/> |
| 2. Analytical Engine had four different components. | <input type="checkbox"/> |
| 3. John Napier created the Stepped Reckoner. | <input type="checkbox"/> |
| 4. Sir Charles Babbage is also known as the Father of the Computer. | <input type="checkbox"/> |
| 5. Punch cards were used to give the outputs in Tabulating Machine. | <input type="checkbox"/> |

F. Tick the correct answers.

1. The Mill, Store, Reader, and Printer are components of the
- | | |
|--|--|
| <input type="checkbox"/> a. Napier's Bones | <input type="checkbox"/> b. Arithmetic Machine |
| <input type="checkbox"/> c. Abacus | <input type="checkbox"/> d. Analytical Engine |
2. was designed in the United States for business application.
- | | |
|--------------------------------------|--|
| <input type="checkbox"/> a. UNIVAC I | <input type="checkbox"/> b. Tabulating Machine |
| <input type="checkbox"/> c. MARK I | <input type="checkbox"/> c. Pascaline |
3. Tabulating Machine was invented by
- | | |
|--|---|
| <input type="checkbox"/> a. Charles Babbage | <input type="checkbox"/> b. Blaise Pascal |
| <input type="checkbox"/> c. Herman Hollerith | <input type="checkbox"/> c. Leibniz |
4. Which calculator represents the position of digits with the help of gears in it?
- | | | | |
|---------------------------------------|------------------------------------|-----------------------------------|------------------------------------|
| <input type="checkbox"/> a. Pascaline | <input type="checkbox"/> b. Abacus | <input type="checkbox"/> c. ENIAC | <input type="checkbox"/> d. UNIVAC |
|---------------------------------------|------------------------------------|-----------------------------------|------------------------------------|

I

5. One of the early programs to run on the MARK I was initiated on
- a. 29th April 1943
 - b. 29th March 1944
 - c. 27 March 1944
 - d. 21 May 1956



Critical Thinking

A. Rahul is taking his exam and he is stuck on the question which says, Tell the name of the calculating device which was invented by a German scientist in 1694. Help him to find the answer. Give reasons.

.....

.....

.....

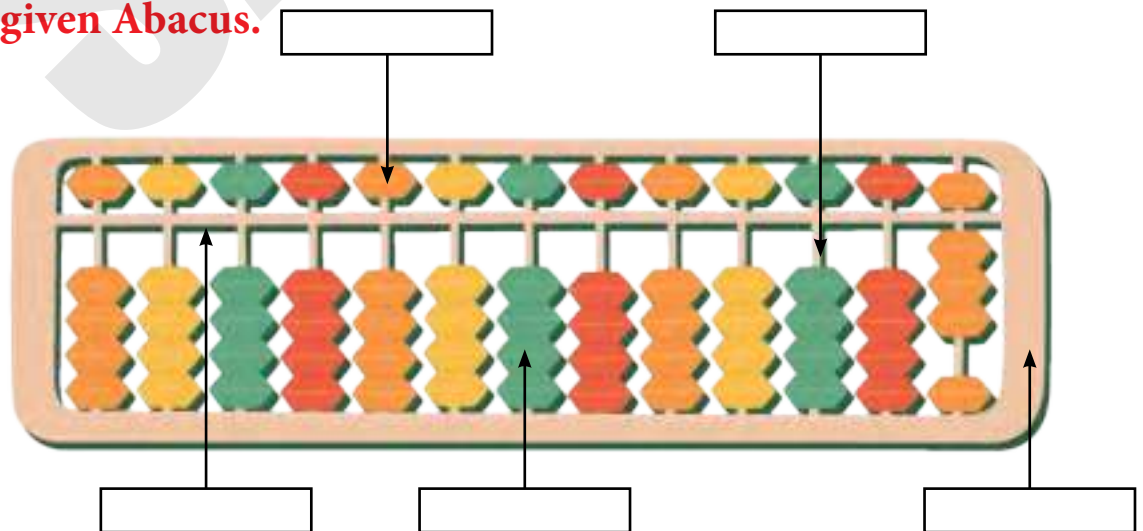
B. Unjumble the following devices:

- 1. ANIEC -
- 2. ELAASCNPI -
- 3. PNREIA EBSON -



Team Work

With the help of your Maths teacher, use the Abacus for doing mathematical calculations. Discuss the benefits of using an Abacus. Further, label the parts of the given Abacus.



ORGANISING FILES AND FOLDERS



Learning Outcomes

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

- ♦ Manage files and folders using Windows 10.
- ♦ Create a folder.
- ♦ Rename, delete and restore a File and Folder,



Warm-up

Reena wants to organise the things in proper storage. Help her by matching the objects with their appropriate storage.



Teacher's Note:

Inform students how we keep or arrange our items in our room. Similarly to this, we can use files and folders to keep our data on computers.



“Hi Friends! Let’s learn how to keep our data in files and folders on computers.”

We make files and folders which make it easier for us to remember where we have stored our work. Let us learn how to manage files and folders using Windows 10.



ATTRIBUTES OF WINDOWS 10

- ❖ In Windows 10, multiple users can work on one computer system at the same time.
- ❖ The search tool of Windows 10 is called Cortana which lets us search for any information on the system or on the internet directly.
- ❖ It also provides the feature of downloading free and paid apps from an application called the Microsoft Store.
- ❖ We can open numerous desktops simultaneously by using the task view button.
- ❖ The snap feature allows us to drag and drop a window to a corner of the screen, thereby making space for the other application.
- ❖ It enables to start more than one program at a time.



Figure 2.1:
Windows Logo



Let Me Answer

Which is the most commonly used operating system developed by Microsoft Corporation?



Do You Know?

Cortana interacts naturally via talking or typing and provides relevant recommendations, quick access to information, better searches and important reminders.

FILES

A file is a collection of data or information. When you save your work in a program, it is saved as a file. Files are represented on computers by icons.

The Windows 10 operating system allows us to generate many file types. The type of file can be recognised by its icon.



Word File



PowerPoint File



Picture File

FOLDERS

A folder serves as storage for files or other folders. A folder within a folder is called a Sub-folder. We can create any number of folders where each can hold any number of files and subfolders.



Pictures Folder



Desktop Folder



Documents Folder

CREATING A FOLDER

Follow the given steps to create a folder.

Steps:

- ❖ Go to the location where you want to create the folder.
- ❖ Right-click on a blank space.
- ❖ Select New Folder from the contextual menu.
- ❖ Windows will create the new folder at your current location.
- ❖ Enter your desired folder name and press enter.



Figure 2.2:
Creating a Folder

Shortcut Keys Combination: Press Ctrl + Shift + N key combination to create a new folder.



FILE EXPLORER WINDOW

File Explorer window provides comprehensive details of the drives, files, and folders that are present in our system. In this window, we can also create, open, move, or remove a folder.

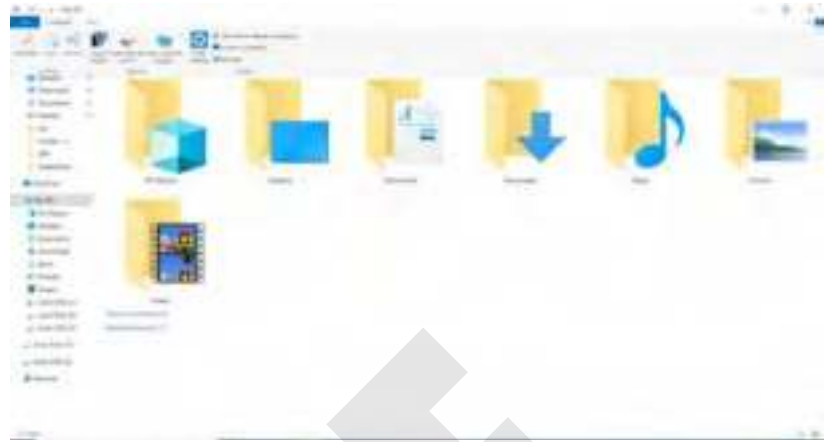


Figure 2.3: File Explorer Window



OPENING FILE EXPLORER

Follow the given steps to open File Explorer

Steps:

1. Click on the Start button.
2. Select the File Explorer.
3. The File Explorer window will open.



Figure 2.4: Opening File Explorer

Shortcut Keys Combination: Press Win + E key combination to open Window File Explorer.



OPENING A FILE AND FOLDER

Follow the given steps to open a file and a folder.

Steps:

1. Click on the Start button.
2. Open the file explorer window.
3. Choose the folder or a file you want to open. Or
1. Click the folder icon on the taskbar in Desktop view.



CONTEXT MENU

A context menu (also called a contextual, shortcut, and pop-up or pop-up menu) is opened when we right-click anywhere on the app. It provides options that can be accessed quickly. Let us know how to use the context menu.



USING CONTEXT MENU

By using the context menu, a folder can be opened. Follow the given steps to open a folder using the context menu.

Steps:

1. Choose the folder you want to open.
2. Right-click on it.
3. From the context menu, select the open option.
4. The desired folder will open.

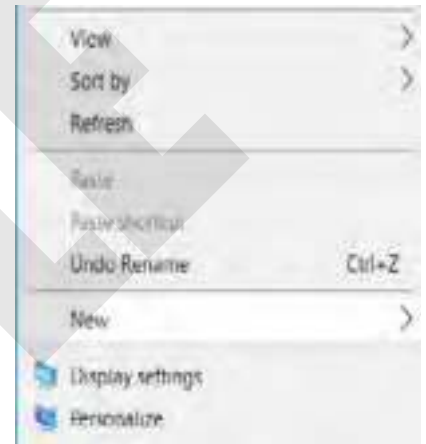


Figure 2.5: Context Menu



RENAMING A FILE AND FOLDER

Have you ever given a name to someone and wanted to change the name later? Similarly, sometimes you may want to change the name of an existing folder or file. In doing so, renaming is required. Renaming is to change the existing name of the file or folder.

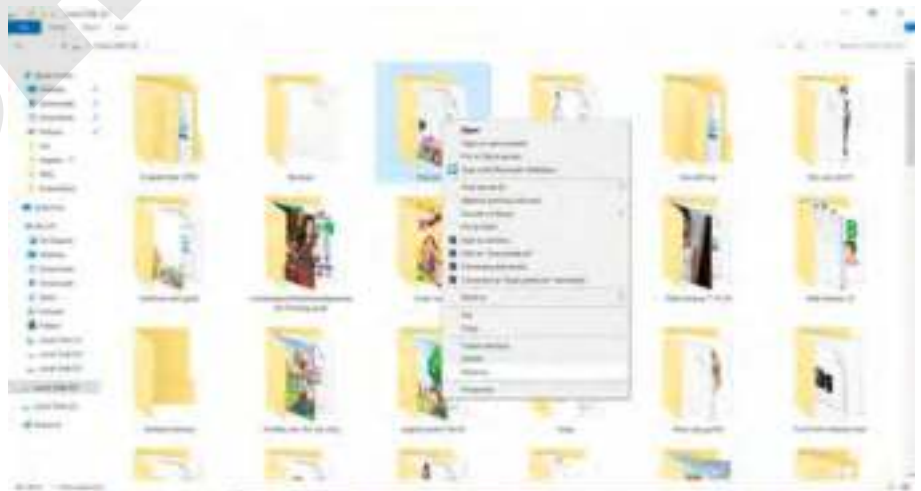


Figure 2.6: Renaming a File

Follow the given steps to rename an existing file or folder:

Steps:

1. Right-click on the folder or file that you want to rename.
2. Click on the Rename option from the context menu.
3. Type the new name for the folder or file.
4. Press enter.



Let Me Answer

What would you do if you save a Science project by the name of a Maths project?

Shortcut Keys: Press F2 to rename a folder.



DELETING A FILE AND FOLDER

There are some unused files and folders which you may want to delete. Deleted files or folders will be sent to the Recycle Bin.

Follow the given steps to delete an existing file or folder.

Steps:

1. Right-click on the folder or file which you desire to delete.
2. Click on the delete option from the context menu.

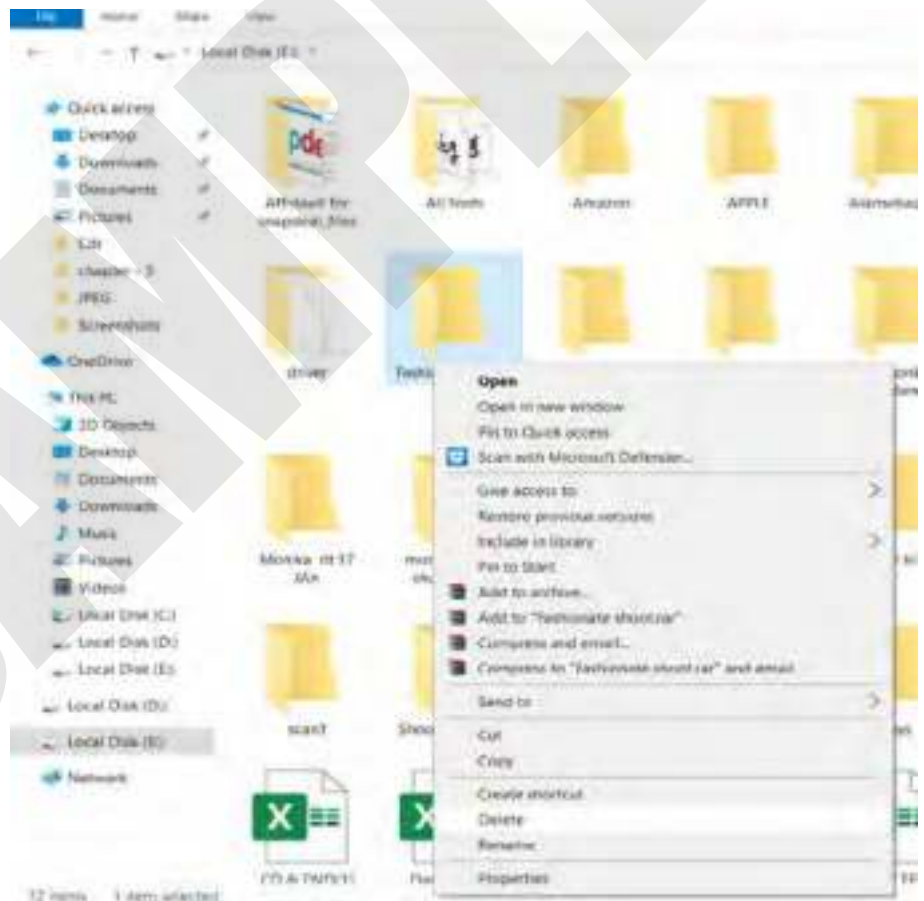


Figure 2.7: Deleting a File or Folder

Shortcut Keys Combination: Press the Shift + Del key combination.



RESTORING A FILE AND FOLDER

Sometimes you might unintentionally delete a file. To bring back the file from the recycle bin is called restoring.

Follow the given steps to restore any file or folder.

Steps:

1. Double-click on the Recycle bin icon on the desktop.
2. The contents of the Recycle bin get displayed in a new window.
3. Right-click on the file or the folder you want to restore.
4. Click on the restore option from the context menu.
5. The file or folder will be restored to its original location.

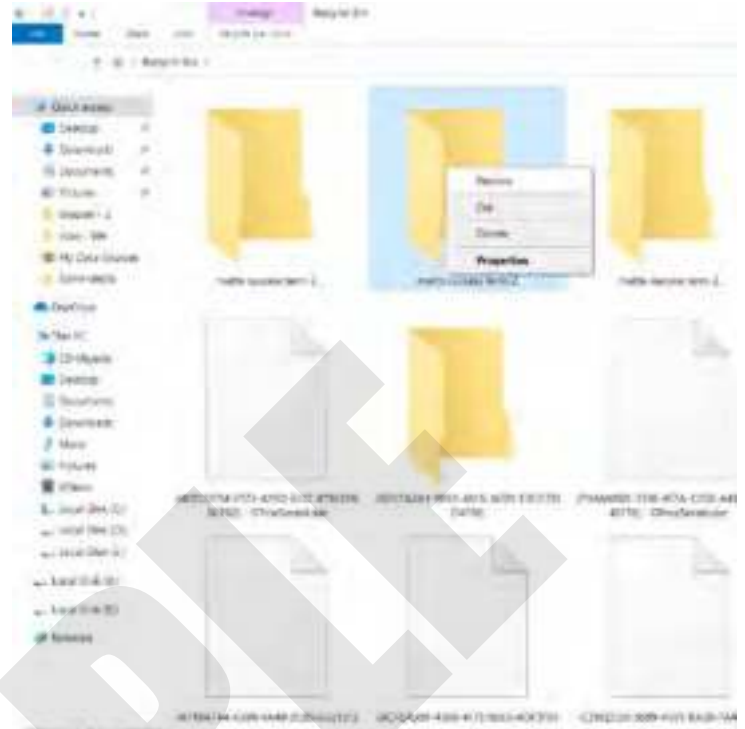


Figure 2.8: Restore



Kids' IQ

I am the pop-up menu you see when you right-click the mouse. Who am I?



Let's Recall

- In Windows 10, multiple users can work on one computer system at the same time.
- A file is a collection of data or information.
- A folder serves as storage for files or other folders.
- A folder within a folder is called a Sub-folder.
- A context menu provides options that can be accessed quickly.
- Renaming is to change the existing name of the file or folder.



A. Fill in the blanks.

1. The Search tool of Windows 10 is called
2. We can open numerous desktops simultaneously by using the button.
3. The type of file can be recognised by its
4. A folder serves as for files or other folders.
5. A context menu is also called a menu.

B. Match the following.

- | | |
|-------------------------|--------------------|
| 1. Ctrl + Shift + N key | Rename a folder |
| 2. Win + E key | Create a folder |
| 3. F2 | Delete a folder |
| 4. Shift + Del key | Open File Explorer |

C. Write 'T' for True statements and 'F' for False statements.

1. Search Tool is an application where you can get free and paid apps.
2. A folder is a collection of data or information.
3. Restoring is changing the existing name of the file or folder.
4. After restoring, the file will move to its original location.
5. By using the context menu, a folder can be opened.

D. Tick the correct answers.

1. Deleted files or folders will be sent to
 a. Search Tool b. Window Store
 c. Recycle Bin d. Window Explorer



Critical Thinking

Rahul wants to create a folder. The steps he has written are not in sequence. Number the steps to help him create a folder.

- Windows will create the new folder at your current location.
- Enter your desired folder name and press enter.
- Select New then Folder from the contextual menu.
- Go to the location where you want to create the folder.
- Right-click on the blank space.



Team Work

Shade the files in red colour and the folders in yellow. Further, discuss the steps of deleting a file with your partner.





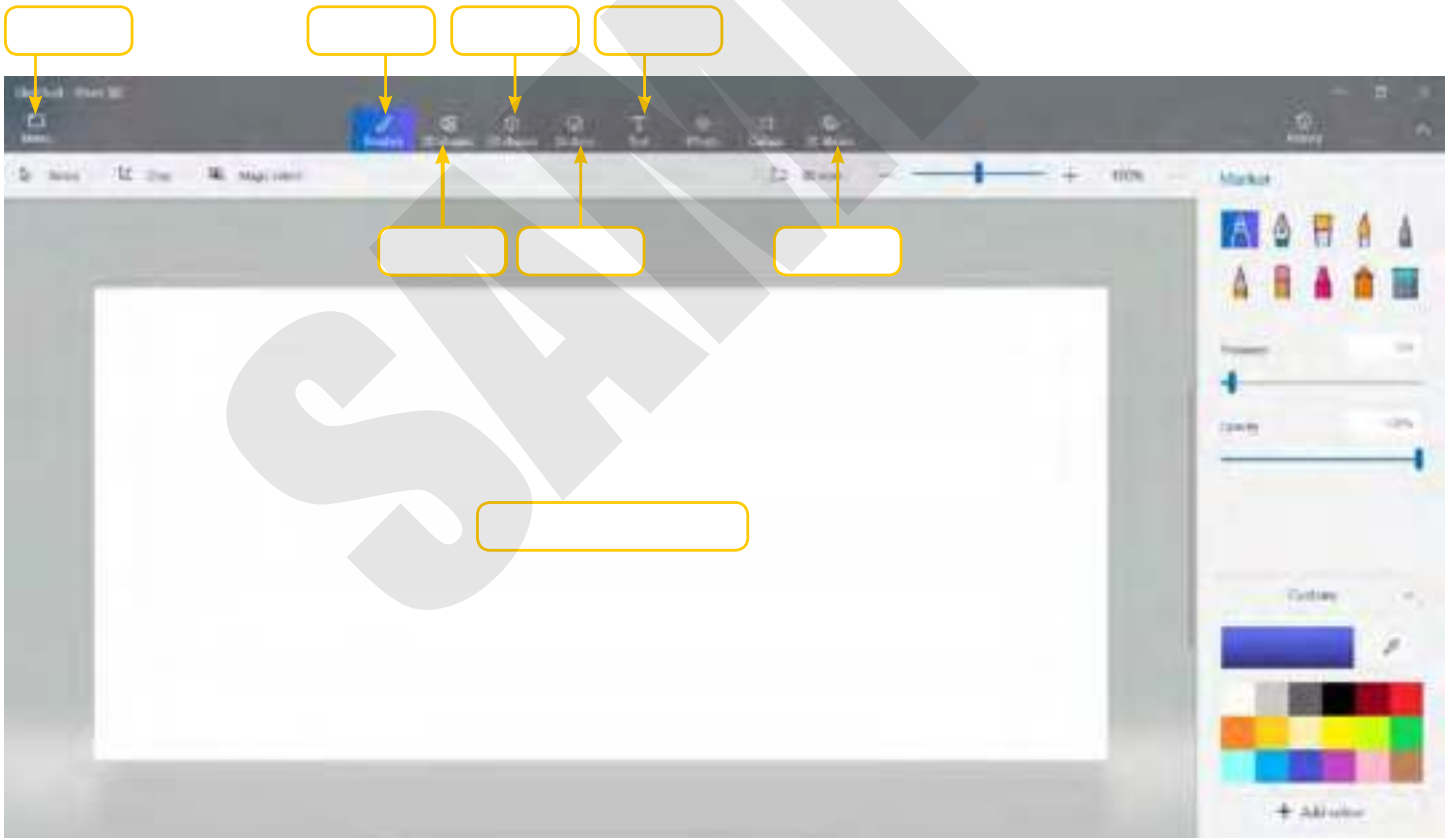
Learning Outcomes

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

- ♦ Transform a 2D drawing into a 3D model.
- ♦ Add texture and stickers in Paint 3D.



Identify and name the components of the 3D-Paint window.



Teacher's Note:

Apprise the students to recall what they learnt in class 3 about Paint 3D and assist them in identifying the components of the Paint-3D window.



“Hi friends! Let us learn how to add stickers and texture in Paint 3D.”

Windows 10 provides a free built-in creative app called Paint 3D. It is a fantastic programme that enables us to create either creative or professional projects. Both 2D and 3D tools are available.

Let us recapitulate what we learned in the previous class about the Paint 3D app.

The Paint 3D window has the following options:

- 1. Menu:** When you click on the expanded menu button, it opens a variety of list options such as New, Save, Save As and many more to perform multiple functions.
- 2. Brushes:** Brushes tool has different brush types, which are used to draw lines by hand in various styles. It can be used to paint on both 2D and 3D surfaces.
- 3. 2D Shapes:** This option is used to draw 2D shapes. This tool has many readymade shapes such as Line, Rectangle, Stars, Arrows, Triangle and many more.
- 4. 3D Shapes:** This option allows to draw 3D shapes, such as Cube, Cuboid, Cat, Woman, and many other 3D shapes.

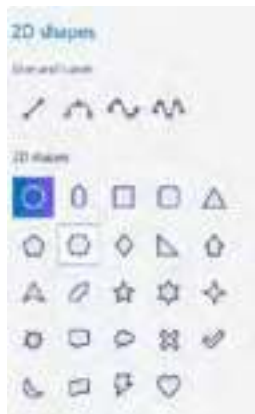


Figure 3.1: 2D Shapes



Let Me Answer

Discuss the difference between 2D and 3D shapes.



Figure 3.2: 3D Shapes

5. Stickers: With this tool, we can select images from a ready-made image collection and apply them as stickers to our designs. The opacity of the chosen and applied sticker can also be changed.

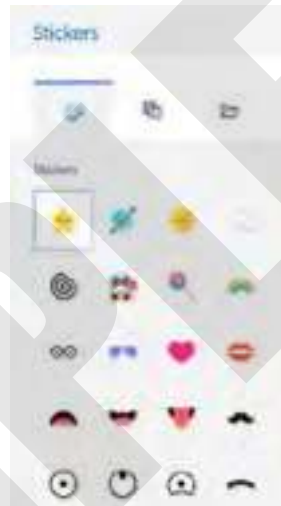


Figure 3.3: Stickers

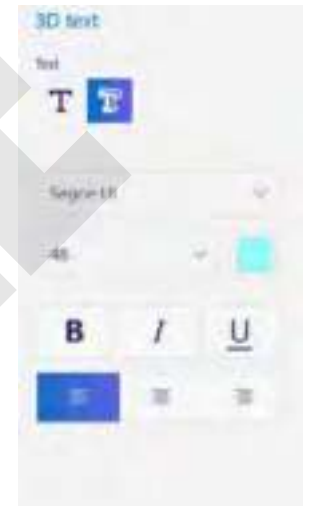


Figure 3.4: Text Tool

6. Text Tool: This tool allows to add 2D text or 3D text options in the drawings.

7. 3D Library: It is a collection of thousands of free 3D models divided into several categories.

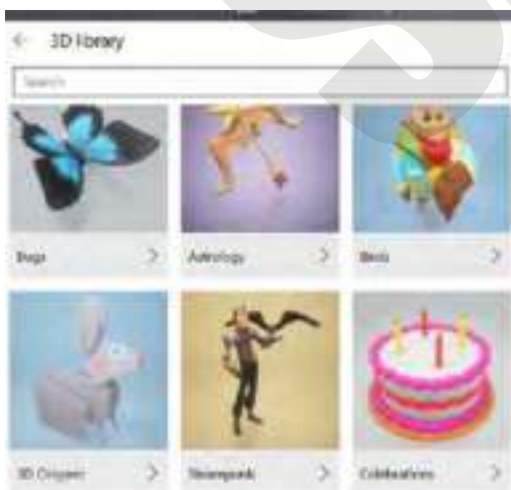


Figure 3.5: 3D Library

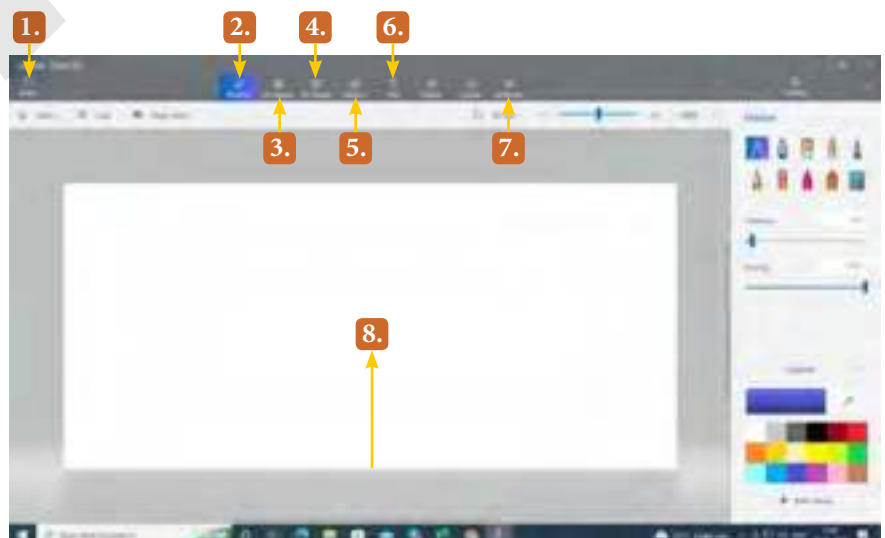



Figure 3.6: Canvas

8. Canvas: The canvas of the 3D Paint window is the area where we can draw different drawings.

 **Do You Know?**
By holding down the page up key, you can zoom in on the canvas.

3D LIBRARY

Creative 3D objects can be created using Paint 3D. The app allows using a variety of pre-defined objects in the 3D Library. There are many 3D objects freely available in the 3D library built by professionals.

Follow the given steps to insert 3D models from the Paint 3D library.

Steps:

1. Start Paint 3D from Apps.
2. Select 3D shapes from the ribbon and then Open the 3D library.



Figure 3.7: Paint 3D App Window Ribbon

3. Type the object name into the search box and press enter.



Figure 3.8: 3D Library Search Box



Figure 3.9: Adding 3D Model to Canvas

4. Click on the model of your choice to add it to the canvas.

3D DOODLES

A freehand sketch can be transformed quickly into a 3D object using Paint 3D. 3D doodles look very attractive.

 **Let Me Answer**
What does Doodle really mean?

Follow the given steps to create a 3D doodle in Paint 3D.

Steps:

1. Launch Paint 3D.

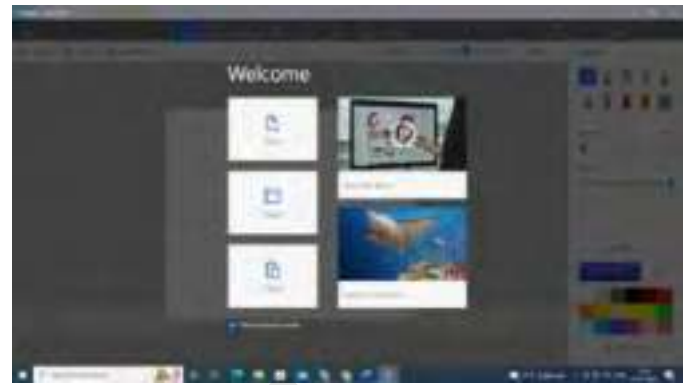


Figure 3.10: Paint 3D

2. Select 3D shapes from the ribbon.



3. Select any of the 3D doodles.

4. Just drag it on the screen and draw the 3D doodle on the canvas.

5. You may rotate, resize, and edit the colour of your 3D doodle after you've finished drawing it.

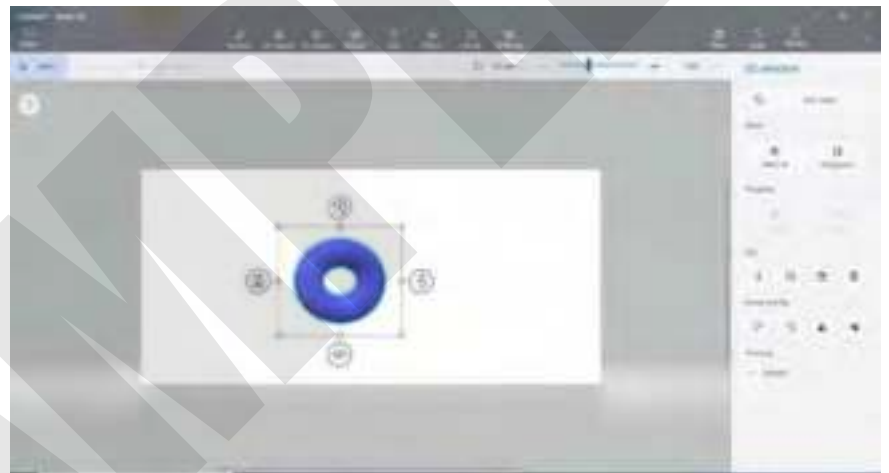


Figure 3.11: 3D Doodle



3D VIEWS

3D View enables you to edit from any angle, which means even more accurate and intuitive 3D creation. You can move around your 3D designs.

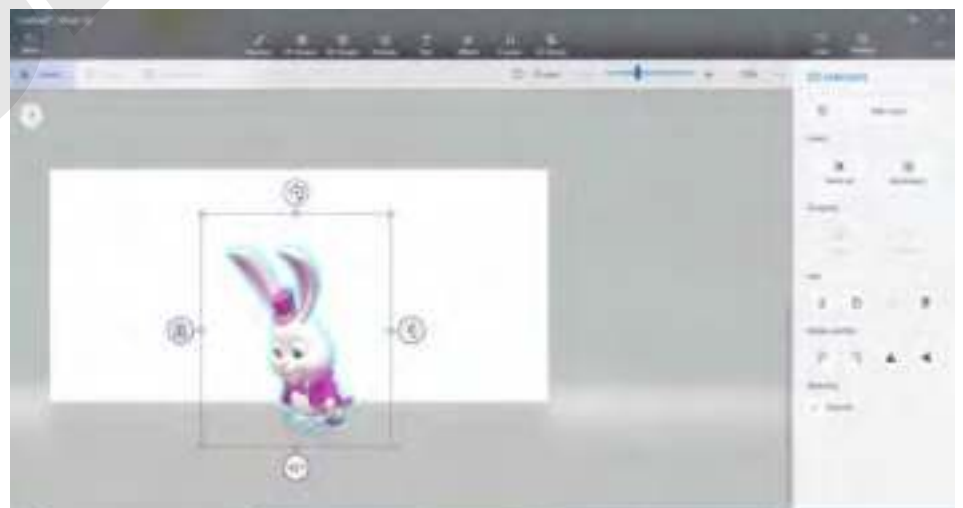


Figure 3.12: 3D View



APPLYING STICKERS AND TEXTURES

Follow the given steps to apply stickers and textures.

Steps:

1. Select the 3D shapes tool.
2. In the 3D shapes panel, select the dog given under the category 3D models.
3. Select the stickers tool.
4. Add eyes and tongue sticker to the cat.
5. Zoom in on the cat's tail to add the fur texture.
6. Size and rotate the texture as desired.

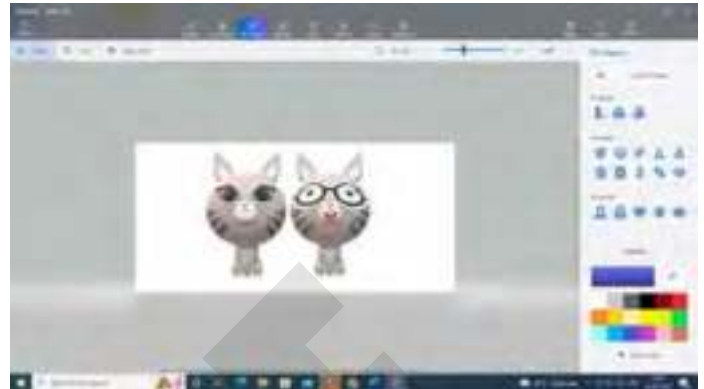


Figure 3.13: 3D Model



CREATING 3D TEXT

The 3D text enables you to move it around the canvas and rotate in different directions.

Follow the given steps to create some 3D Text.

Steps:

1. Select the text tool.
2. Click on the 3D text option.



Figure 3.14: 3D Text Tool

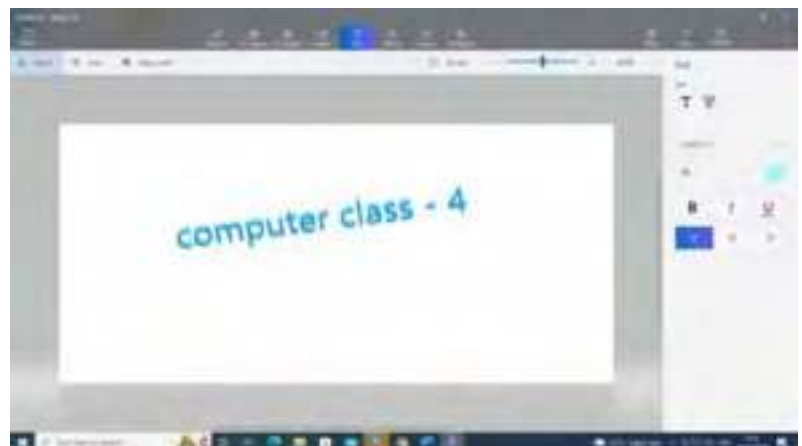


Figure 3.15: Creating 3D Text

3. Choose the desired font, font size, colour, style, and alignment to add 3D Text in the placeholder.
4. Click outside the placeholder to finish.



HISTORY TOOL

Each tool you use when making a new paint 3D model is recorded by the history tool. All of your actions can be reversed and undone; it's like having an endless undo button.

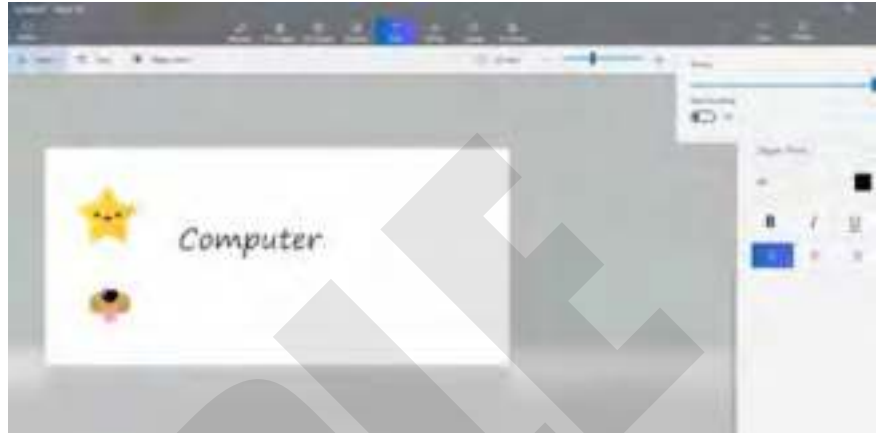


Figure 3.16: History Tool

By moving the History slider, you can replay the steps you used in creating a drawing.



Kids' IQ

Samaira was watching keenly her teacher while she was drawing a 3D cartoon. Now, she forgets the steps which her teacher followed. Suggest to her the way she can recall the steps.



Let's Recall

- Windows 10 provides a free built-in creative app called Paint 3D.
- With the sticker tool, we can select images from a ready-made image collection and apply them as stickers to our designs.
- 3D Library is a collection of thousands of free 3D models.
- A freehand sketch can be transformed quickly into a 3D object using Paint 3D.
- 3D View enables you to edit from any angle.
- History slider replays the steps you used in creating a drawing.



A. Fill in the blanks.

1. enables you to edit from any angle.
2. allows replaying the steps used in creating a drawing.
3. We can choose 3D Doodle from option.
4. enables you to move the text around the canvas.
5. is the area where we can draw different drawings.

B. Answer the following in one word.

1. The option allows drawing lines and stars.....
2. It is a collection of thousands of free 3D models.....
3. The tool allows adding tongue sticker.....
4. The number of options in paint 3D.....
5. The tool which can reverse the action.....

C. Write 'T' for True statements and 'F' for False statements.

1. We can rotate the 3D doodle after drawing it.
2. Each tool you use when making a new paint 3D model is recorded by the 3D text tool.
3. Windows 10 provides a free built-in creative app called Paint 3D.
4. We cannot apply texture to a 3D model.
5. Zoom-in is not allowed in Paint 3D.

D. Tick the correct answers.

- tool is like an unlimited undo button.
 a. 3D Text b. Brushes c. History d. Canvas
- allows to find the characters from the 3D library.
 a. Find b. Search c. Explore d. Locate
- We select 3D shapes from the
 a. Ribbon b. 3D Library c. Text d. Effects
- tool allows to add 2D or 3D text options.
 a. Stickers b. Brushes c. Canvas d. Text
- This view allows you to move around your 3D designs.
 a. 2D b. 3D c. Sticker d. Animation

E. Answer the following questions.

- What is the purpose of 3D tools?
.....
.....
- Why do we use the Text tool?
.....
.....
- Write the steps to apply stickers to the drawings.
.....
.....
- How does the brush help in Paint 3D?
.....
.....
- Write the use of 3D Views.
.....
.....



Critical Thinking

A. From the given grid, find out the 8 components of Paint 3D.

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

B. Neha wants to create a park scene. For it, she needs to add some 3D objects on the canvas. Help her with the options through which she can add different objects and create a beautiful park scene.



Team Work

Draw a poster on 'Save Earth' using 3D Library. Use the stickers, 3D models and 3D text to beautify it.



MORE ON MS WORD 2016



Learning Outcomes

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

- ♦ Move and copy the text.
- ♦ Insert bullets, numberings and symbols.
- ♦ Check the spelling and grammar.
- ♦ Print the document.



Warm-up

Following sentences have spelling and grammatical errors, rewrite the sentences on the lines below.



1. children is plaing in the park.

.....

2. There are betiful flowers.

.....

3. alia are swinging.

.....



Teacher's Note:

Apprise students that all the mistakes would have been underlined in MS Word 2016 if they had typed the above sentences with errors.



“Hello friends! We have already learnt how to edit the text in MS Word 2016. In this chapter, we will learn more about its editing features.”

As we know, one of the most widely used word processors produced by Microsoft is Microsoft Word. It facilitates the quick and simple creation, reading, editing, and sharing of files. It allows making changes in the content and appearance of the text. Text can be edited by inserting and deleting text, correcting grammatical errors and changing font settings.

Let us learn about more editing features of MS Word 2016.



MOVING TEXT

After you have done typing a section of text in Microsoft Word, you may need to move it somewhere else.

Follow the given steps to move the text.

Steps:

1. Select the text you want to move.
2. Click the Cut command on the Home tab. Alternatively, you can press Ctrl+X on your keyboard.
3. Place your cursor point where you want the text to appear.
4. Click the Paste command on the Home tab. Alternatively, you can press Ctrl+V on your keyboard.



Figure 4.1: Cutting Text



Figure 4.2: Pasting Text



COPYING TEXT

Word enables you to copy text which is already in your document and paste it to another location.

Follow the given steps to copy the text.



Let Me Answer

What is the easier way to copy a text?

Steps:

1. Select the text you want to copy.
2. Click the Copy command on the Home tab. Alternatively, you can press Ctrl+C on your keyboard.
3. Place your cursor point where you want the text to appear.
4. Select the Paste command on the Home tab.



Figure 4.3: Copying Text

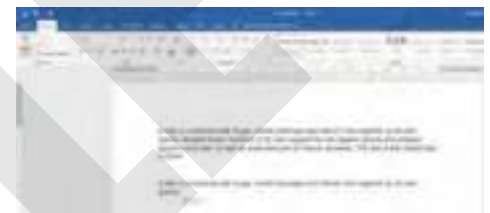


Figure 4.4: Pasting Text



BULLETS AND NUMBERING

The use of bullets and numbering, often known as ordered or unordered lists, can make writing easier to read.

Bulleted List

Bulleted list is used when order does not matter. These lists show a graphic symbol with the list.

Follow the steps to use the bulleted list.

Steps:

1. Select the text you want to change into a list.
2. Go to the Home tab, in the Paragraph group, and click the bullets command.
3. A drop-down menu with different bullet styles will appear, select the bullet style.
4. The selected text will have a bulleted list.



Figure 4.5: Bullet List

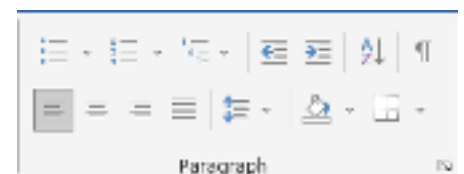


Figure 4.6: Paragraph

Numbered List

Numbered Lists follow some order and are used to display complete sentences or paragraphs in a series.

Follow the given steps to create a numbered list.

Steps:

1. Select the text you want to change into a numbered list.
2. Go to the Home tab, in the Paragraph group, and click the bullets command.
3. A drop-down menu with different numbering styles will appear, select the numbering style.
4. The selected text will have a numbered list.



Figure 4.7: Numbered List

Inserting Symbols

You can easily insert a special character, fraction, or other symbols such as currency, check marks, and many more symbols in your Word documents. These symbols are needed in the documents where some formulas are to be typed.

Follow the given steps to insert the symbols.

Steps:

1. Take the cursor in the file to the spot where you want to insert the symbol.
2. Go to Insert, and click on the symbol button located in the symbol group.
3. Choose the desired symbol or click on more symbols.
4. Use the Font selector above the symbol list to pick the font you desire.
5. Once you get the symbol of your choice, double-click it.
6. The symbol will be inserted, select the close button.

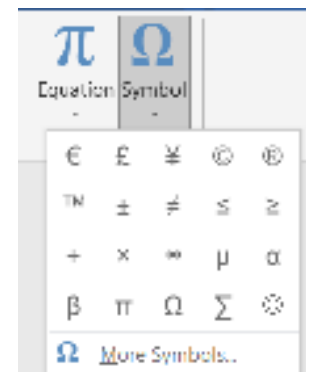


Figure 4.8:
Inserting Symbols



FIND AND REPLACE

Sometimes while typing, there are words which we type incorrectly. To correct the spellings, we can use the Find and Replace option. The 'find' feature allows finding the word or particular text in the document and the 'replace' feature allows to replace it with the corrected or another word.

Follow the given steps to find the text.

Steps:

1. Click on the Home tab.
2. Select the Find button in the Editing group.
3. A navigation panel will emerge on the left-hand side. Alternatively, you can press Ctrl + F key combination to open the navigation panel.
4. Mention the word you want to search in the 'Search Document' box.
5. The mentioned word will be highlighted in the entire document.

Following are the steps to replace the text.

Steps:

1. Click on the Home tab.
2. Select the Replace button in the Editing group.
3. Find and Replace box will appear. Alternatively, you can press Ctrl + H key combination to open the navigation panel.
4. In the 'Find What' box, type the word that needs to be changed.
5. In the 'Replace With' box, type the new word to replace the old word.
6. Press the 'Replace All' button.
7. The mentioned word will be replaced with the new word.

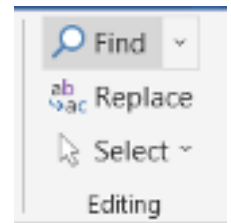


Figure 4.9: Find



Figure 4.10: Find and Replace Box



SPELLING AND GRAMMAR

Ms Word has an in-built tool which allows to correct spelling and grammatical errors.

Follow the given steps to check the spelling and grammar.

Steps:

1. Select the text.
2. Click on the review tab.
3. In the proofing group, select Spelling and Grammar.
4. The spelling panel will appear on the right side. Suggestions will be shown to edit the incorrect word.
5. Either select change or change all option.
6. Once done, a message will appear 'The spelling and grammar check is complete.'



Let Me Answer

Do you make errors while writing?

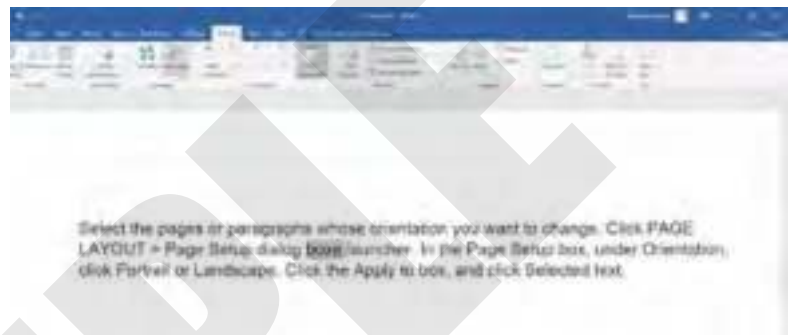


Figure 4.11: Spelling and Grammar



Do You Know?

We can open the spelling panel by pressing F7 key.



PRINT PREVIEW

A feature called print preview shows on the screen what a printed copy would look like. By checking the layout using a 'print preview' before printing, you can detect any possible problems and prevent the need for multiple prints, resulting in saving ink or toner and paper.

Follow the given steps to preview a document.

Steps:

1. Click on the File tab.
2. Select the Print option.
3. A preview of the document will appear.

REMEMBER IT!



By pressing Ctrl + P key, the print preview will be shown.

Printing the Document

Once the preview looks fine, follow the given steps to take the printout. Each tool you use when making a new paint 3D model is recorded by the history tool.

Steps:

1. Click on the File Tab.
2. Select the Print option.
3. Choose the printer from the Printer properties drop-down list.
4. Mention the number of copies required for printing.
5. Press the print button.
6. Hard copy of the document will be there.



Figure 4.12: Print Preview

Kids' IQ

Shreya has typed a letter. Now, she wants a hard copy of it. What should she do?

.....

Let's Recall

- Microsoft Word is one of the most widely used word processors produced by Microsoft.
- We can use the cut, copy and paste option for moving and copying the text.
- Editing can only be done by selecting the desired text.
- Numbered List follows some order while the bulleted list doesn't.
- Print preview shows on the screen what a printed copy would look like.

A. Fill in the blanks.

1. Bulleted list is used when does not matter.
2. Editing can only be done by the desired text.
3. The spelling panel appears on the side.
4. Replace button is present in the group.
5. The feature allows finding the word in the document.

B. Answer the following in one word.

1. The tab where the Cut option is present.
2. Spelling Panel will appear using this key.
3. The tab where the print option is present.
4. The list used for series.
5. This group has Spelling and grammar option.

C. Write 'T' for True statements and 'F' for False statements.

1. The Numbered list does not follow the proper order.
2. Spell and grammar checks make the document error-free.
3. Editing means making changes in the already typed text.
4. Division symbols can be added using bullets.
5. Press Ctrl + P key combination to open the spelling panel.

D. Match the following.

Ctrl + C

Ctrl + P

Ctrl + V

Ctrl + H

Ctrl + F

Paste

Find and Replace

Copy

Navigation Panel

Print preview

E. Answer the following questions.

1. Write the steps to move a text.

.....

.....

2. Explain the 'Symbols' feature in MS Word 2016?

.....

.....

3. What is the use of bullets and numbering?

.....

.....

4. What is the first step in copying any text?

.....

.....

5. What is the purpose of 'Find and replace'?

.....

.....



Critical Thinking

A. Gaurav typed an essay on Summer Vacations. By mistake, he typed the last paragraph as the first paragraph. Suggest to him the options he should opt to make the necessary changes in the essay.

.....

.....

B. Unjumble the Tabs.

1. SITNRE -
2. MHEO -
3. WVIERE -



Team Work

Make a list of your subjects according to Alphabetical order. Run spell check.

English maths science Hindi
computer Social studies Life skills. (books)

FORMATTING FEATURES OF MS WORD 2016



Learning Outcomes

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

- ♦ Use formatting features.
- ♦ Add pictures, shapes and symbols in a word document.



Warm-up

Some words are given in the box below, segregate them into the appropriate columns: Good Habits and Bad Habits.

Get up Early Morning

Addiction to social media

Play Outside

Eating Junk food

Be Punctual

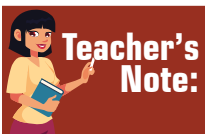
Exercise Daily

Use of Offensive Language

Focusing on the negatives

Be Happy

Good Habits	Bad Habits



Teacher's Note:

Apprise the students that in the above exercise, we have changed the appearance of the text. This is called Formatting.



“Hello friends! When we make our school projects, we always beautify them by adding stones, glitters and many more things. Let’s learn about different ways to make our typed document look attractive.”

Appealing documents always draw a reader’s attention. Microsoft Word has a number of tools that can be used to modify the document and give it a more attractive appearance by using various shapes, images, text styles, etc.



Let Me Answer

How do you make your projects attractive?



TABLES IN MS WORD

A document that includes several types of information, such as content, numbers, images and much more information, requires the information to be displayed in rows and columns. For example, the School Report card and timetable. All the pieces of information are placed in rows and columns.



Figure 5.1: Report Card



Figure 5.2: Time Table

We find it simpler to read and better able to comprehend information when it is presented in rows and columns. MS word allows us to represent the information in the row-column format in a Table.

Adding Tables

A table is made up of rows and columns. The intersection of a row and column is called a cell.

Follow the given steps to insert a table in a document.



Let Me Answer

Can you name some other things which are referred to as a cell?

Steps:

1. Click on the Insert tab and select the table button.



Figure 5.3: Insert Tab

2. A grid will appear, move the cursor over the grid until you highlight the number of columns and rows you want.

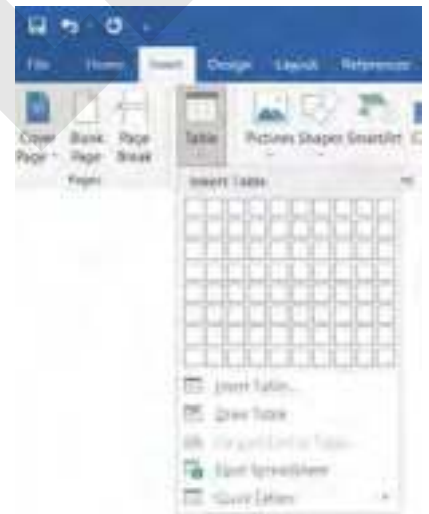


Figure 5.4: Insert Table

3. Click once, and the table will be inserted in the document.

Once the table is inserted, simply click in the cell and start typing the numbers, text, etc.



WORDART

WordArt is a text modifying feature in Microsoft Word with effects such as shadows, outlines, colours, gradients, and 3D effects that can be added to a word or phrase. It can be changed even after it is inserted in a document.

Follow the given steps to add WordArt in a document.

Steps:

1. Click Insert > WordArt, and pick the WordArt style you want.



Figure 5.5: Inserting WordArt



Figure 5.6: WordArt

2. Click on the desired style.

3. The placeholder text box in the document with the sample text will appear “Your text here”.

4. Enter your own text to replace the placeholder text.



Editing and Formatting Word Art Text

Follow the given steps to edit Word Art text.

Steps:

1. Select the Word Art you want to edit.

2. From the WordArt style drop-down list, select a WordArt style.

3. Select the Text effects from the different effects available in the Text Effects drop-down list.

4. Click outside the dotted box.

5. The edited WordArt will appear.



Figure 5.7: Format WordArt



Figure 5.8: Text Effect



INSERTING PICTURE

Adding pictures in the written document makes it look creative and interesting. Let us learn how to insert pictures in the word document.



Figure 5.9: Insert Tab

Follow the given steps to insert images in a document.

Steps:

1. Click on the Insert tab.
2. Under the illustrations group, select the pictures option.
3. The Insert picture box will appear.
4. Explore the library and choose the image you want.
5. Select the picture and click on the Insert button.
6. The chosen picture will be inserted in the document.



Figure 5.10: Insert Pictures



USING SHAPES

Shapes of all kinds, including boxes, rectangles, callouts, circles, arrows, lines, triangles, curves, equation shapes, and many more, are available in MS Word. Once the shape has been added, you can change its attributes, such as colour, style, format, size, and outline. Further, you can add 3D effects such as beveling, perspective, reflection or glow.

Follow the given steps to insert Shapes in a Word document.

Steps:

1. Click on the Insert tab.
2. From the illustration group, select the Shapes option.
3. Choose the shape from the long list of shapes available.
4. Once the shape is selected, a (+) shaped cursor will appear on the page.
5. Drag the mouse to draw out the shape.
6. Release the mouse to get the chosen shape.



Figure 5.11: Shapes Button



Figure 5.12: Shapes



Figure 5.13: Inserting Shapes

Follow the given steps to format the shape.

Steps:

1. Select the already inserted shape.
2. Under drawing tools, select the format tab.
3. Select the desired options to modify the shapes.



REMEMBER IT!
The default colour of the shape is blue.



Figure 5.14: Format Tab



FORMAT PAINTER

The format painter is a tool that enables us to apply a formatting effect

from a previous text to other words or sentences. It facilitates our job and saves a great deal of time, just like the copy and paste function.

Follow the given steps to apply formatting effect to any text.

Steps:

1. Select the text of which you want to copy the format.
2. Click on the Home tab.
3. From the clipboard group, select the format painter option.
4. Cursor will change to a brush symbol.
5. Position the cursor at the start of the text on which you want to apply the format.
6. Drag the brush over the text.
7. The selected text will be formatted.



Kids' IQ

You are the head girl/ boy of the school. You need to collect information about the students of all classes. (Name, Parent's name, age, address, number, and much more). You are really confused about what needs to be done in order to arrange the data in some order. How would you manage?



Let's Recall

- A table is made up of rows and columns.
- The intersection of a row and column is called a cell.
- WordArt is a text modifying feature in Microsoft Word.
- We can insert different types of shapes in the document.
- Format Painter copies the format of one text to other text.



A. Fill in the blanks.

1. and are the two types of style.
2. The text you enter into a new document by default is based on the style.
3. Lines, Basic shapes, Block Arrows are the options of button.
4. The feature allows to create special text effects.
5. is a placeholder where text can be typed in.

B. Answer the following in one word.

1. The default extension for MS-Word file.
2. The type of software is MS-Word.
3. The shortcut key to create a new document in MS-Word.
4. The use of combination keys Ctrl + S in Microsoft-Word.
5. The shortcut key to undo the last actions in the MS-Word.

C. Write 'T' for True statements and 'F' for False statements.

1. Text cannot be formatted within the text box.
2. You cannot insert text in Shapes.
3. The Ctrl+F1 key combination is used to hide/show the Ribbon.
4. Shape Fill tool is used for colouring a drawing object.
5. A theme is a set of formatting choices that can be applied to an entire document.

D. Match the following.

Column

Vertical Data

Row

To combine two or more cells

Merging

Horizontal data

Splitting

To change the size

Resize

Breaking of Multiple cells

E. Answer the following questions.

1. What exactly do you mean by “style”? List the various styles.

.....

.....

2. Describe the Textbox. How can a text box be resized?

.....

.....

3. Describe ClipArt. What distinguishes it from WordArt?

.....

.....

4. Why is the WordArt feature there?

.....

.....

5. Describe Microsoft Word’s Shapes feature.

.....

.....



Critical Thinking

Copy and paste the words and pictures into the matching boxes.

- Orange
- Green
- Yellow
- Purple
- Brown
- Black
- Pink
- Grey
- Blue

Green	
Yellow	
Black	
Purple	
Pink	
Blue	
Brown	
Grey	
Orange	



Baseball	
Basketball	
Kitty	
Fish	
Penguin	



Team Work

Award Certificate Lesson Activity for Teaching Microsoft Word Skills



Description

A fun assignment where students design their own award certificate for themselves or anyone else, they desire by adhering to specific instructions. Students will demonstrate their command of the following Microsoft Word abilities after completion.

- Font And Paragraph Formatting
- Page Orientation
- Applying Pictures as a Page Color
- Inserting Pictures And Text Boxes
- Picture Background Removal
- Inserting Signature Lines
- Text Wrap

MORE ABOUT SCRATCH 3.0



Learning Outcomes

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

- ◆ Know about different blocks in Scratch.
- ◆ Change different backdrops in Scratch projects.



Warm-up

Label the scratch Window Components.



Teacher's Note:

Assist the students in labelling the components of the Scratch Window. Motivate them to recall Scratch, which is a programming language that lets you create interactive stories, animations, games, music and art.



“Hello friends! In the previous class, we learnt about creating, opening and saving Scratch. Now, let’s learn about the different blocks in Scratch.”

Scratch doesn’t require any code for giving instructions to the computer. It uses blocks to perform a specific task. For using these blocks, all you have to do is to understand what these blocks can do for us.



BLOCKS PALETTE

A vertical strip located just beneath the Code tab is described as a block palette. The Block palette contains a total of nine blocks. There are numerous sub-blocks available when we click on a specific block.



MOTION BLOCK

One of the ten categories of scratch blocks is motion blocks. They are medium-blue in colour and are used to direct a sprite’s movement on stage.



Let Me Answer

Can you relate more with the characters which shows movement?

Follow the given steps to move a sprite using Motion Block.

Steps:

1. Click on the Motion Block button.



Figure 6.1:
Blocks Palette

2. The code palette will show a list of blocks that belong to Motion Block.
3. Click on the move 10 steps block, and drag this block to place it in the Script area.
4. Now, click on the turn 15 degrees block and place it just after the move 10 steps block in the script area.
5. Run the code by clicking on the blocks in the script area.



Figure 6.2:
Blocks Palette

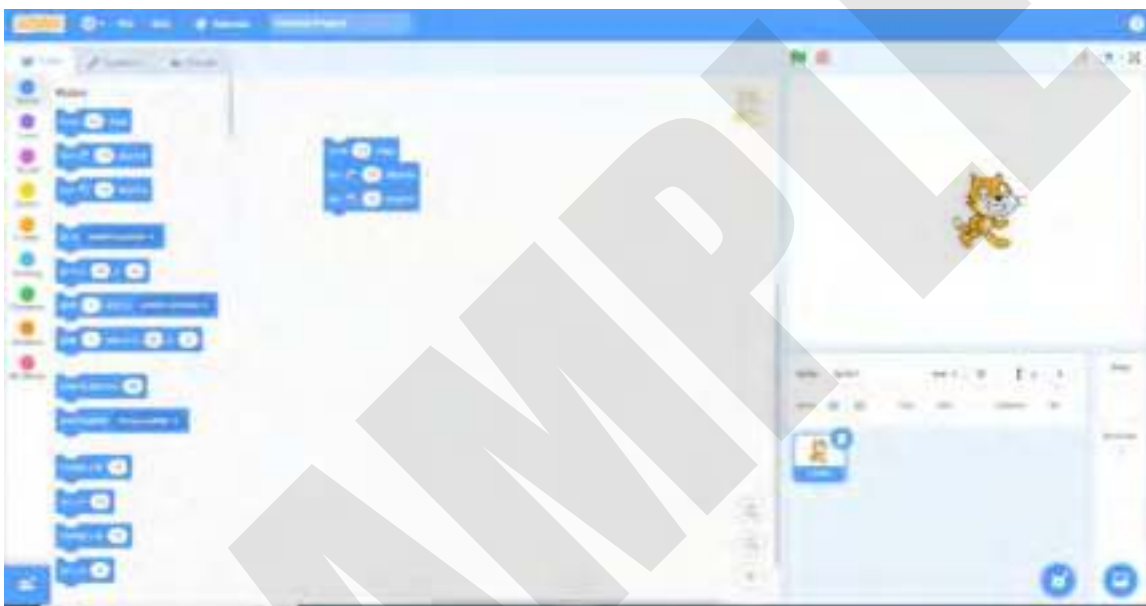


Figure 6.3: Blocks Palette



LOOKS BLOCK

Purple-coloured blocks are Looks blocks. They control a Sprite's appearance including its costume and backdrop.

- ❖ Use the Say hello for 2 seconds block to display the message with Sprite on the screen.
- ❖ Use Think hmm for 2 seconds to add a 'thinking cloud' to the Sprite. It will continue to appear until another speech or thinking block is activated, or the stop button is pressed.



Let Me Answer

Have you ever changed the costume of any ideal you worship or toy you have?

Follow the given steps to change the costume of a Sprite.

Steps:

1. Click on Choose a Sprite button on the bottom right side of the Scratch window.
2. Select Dani Sprite to click on the Costume tab.
3. From the list of costumes, select Dani-b costume.
4. The sprite's costume will be changed.

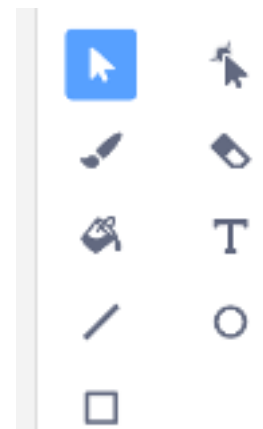


Figure 6.4:
Blocks Palette



PEN BLOCK

The Pen blocks are green in colour. These blocks draw a trail as the Sprite moves on the stage. Pen colour can be changed. This block is present as an extension to the Scratch 3.0

Follow the given steps to add pens to the block category.

Steps:

1. Click on the Add Extension button at the bottom left corner of the Code tab.
2. Click on the Pen option and it will be added to the Code tab.



Figure 6.5:
Blocks Palette



Figure 6.6: Drawing Shapes with Pen Block



SOUND BLOCK

Sound Blocks are in pink colour. They make animation lively by adding different sounds to a project. You can even record your voice and save it.

REMEMBER IT!



Blocks should be placed in order

Follow the given steps to add sound in a project.

Steps:

1. Click the sound block.
2. Select the play sound meow until done and drag this block and place it under the Script Palette.
3. Run the code by clicking on the blocks in the Script area.
4. To stop all sounds being played on all sprites, use the stop all sounds block.

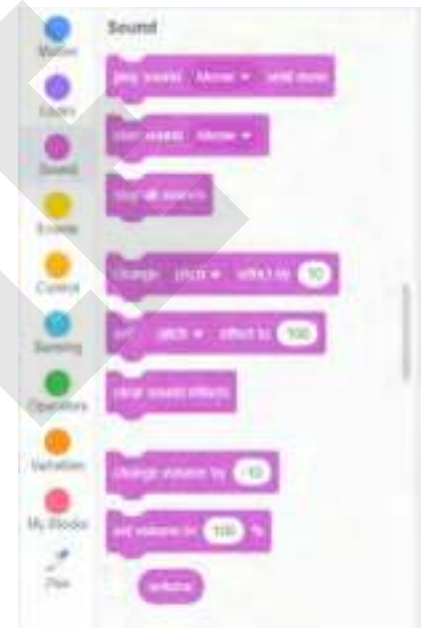


Figure 6.7: Sound Block



EVENTS BLOCK

Events Block is yellow in colour and controls the events and the starting of the scripts. You can click on the Sprite with a mouse or a keyboard to control it. The interaction with the Sprite is called Events.

- ❖ Used when green flag block is clicked to execute the attached blocks when the green flag is clicked.
- ❖ The space key pressed block executes the attached blocks when a keyboard key is pressed.



Figure 6.8: Event Block

There are four different options for changing the backdrop of the stage. They are:

- ❖ Choose a backdrop
- ❖ Paint
- ❖ Surprise
- ❖ Upload Backdrop

Follow the given steps to choose a backdrop for the sprite.

Steps:

1. Click on the Choose a Backdrop button.
2. Choose a Backdrop window appears.
3. From the preview list, select the Blue Sky backdrop. The Blue Sky backdrop at the background of the Sprite will be added.

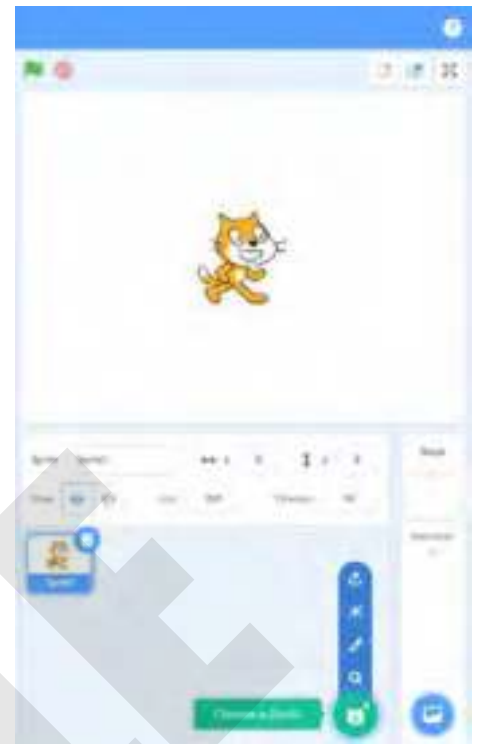


Figure 6.12:
Changing the Backdrop

Kids' IQ

Your friend is creating a project in Scratch. She wants to create a new sprite in her project. Suggest to her the steps to do the same.

.....

Let's Recall

- A vertical strip located just beneath the Code tab is described as a block palette.
- Numerous sub-blocks are available when we click on a specific block.
- Purple-coloured blocks are Looks blocks.
- Sound Blocks can record your voice and save it.
- Motion Blocks are used to direct a sprite's movement on stage.
- Backdrop is referred to as the background of the stage.



A. Fill in the blanks.

1. Scratch uses to perform a specific task.
2. Block Palette is a vertical strip located just beneath the tab.
3. Below the area, the backdrop option is present.
4. Purple-coloured blocks are blocks.
5. By default, the backdrop of the stage is

B. Write the functions of these blocks.

1. Turn 15 degrees -
2. Think hmm for 2 seconds -
3. Repeat 10 -

C. Write 'T' for True statements and 'F' for False statements.

1. Scratch requires code for giving instructions to the computer.
2. Control Block controls the flow of the scripts.
3. The interaction with the Sprite is called Events.
4. Pen colour cannot be changed.
5. Motion Block is used to direct a sprite's movement on stage.

D. Tick the correct option.

1. Which of the following blocks are used to control the appearance of Sprite?
 a. Control b. Sound c. Looks d. Event
2. The term is referred to as the background of the stage.
 a. Canvas b. Backdrop
 c. Workarea d. Foreground

3. Colour of Look blocks is

- a. Yellow b. Pink c. Green d. Purple

4. The block controls the events and the starting of the scripts.

- a. Looks b. Motion c. Event d. Pen

5. Pink colour is of block.

- a. Sound b. Motion c. Pen d. Control

E. Answer the following questions.

1. Write the use of Motion blocks.

.....
.....

2. What is the use of Pen block?

.....
.....

3. Name the different blocks available in Scratch.

.....
.....

4. How can we add music in Scratch?

.....
.....

5. Write the steps to change the background.

.....
.....



Critical Thinking

A. John is creating a story with audio in Scratch. He notices that the audio is playing even after the story is over. Suggest to him the way which he should use to stop the audio.

.....

.....

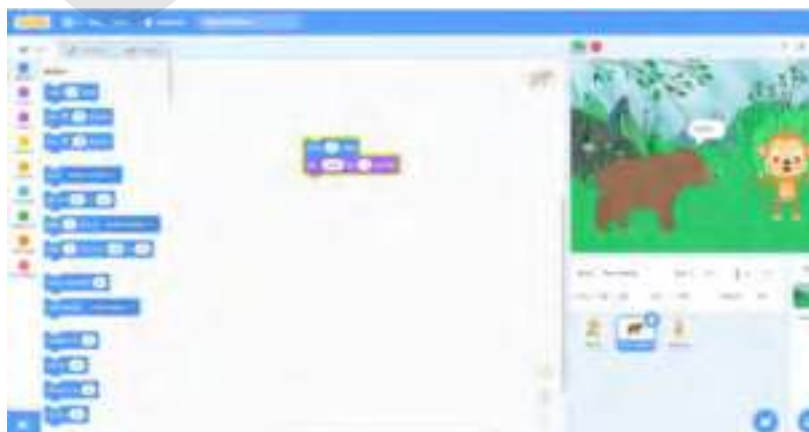
B. Search the names of the blocks in the grid given below.

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



Team Work

Work in Pairs. Create this project in Scratch and enjoy it. Further, continue the conversation.





Learning Outcomes





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

- ♦ Start PowerPoint 2016
- ♦ Differentiate between slides and presentation.
- ♦ Know the components of the PowerPoint window
- ♦ Create, save and close the presentation.



Rahul and Saumya are best friends. Rahul adopted a cat a few days back, and Saumya is curious about her. So, she asks several questions, and Rahul shows the pictures for her answer.

Match the questions asked by Saumya with the pictures shown by Rahul.

Column A	Column B
Q1. What is the colour of your cat?	
Q2. What do you feed your cat?	
Q3. What do its eyes look like?	
Q4. Which is its favourite posture?	



Teacher's Note:

Inform students that the human mind is capable of understanding visual clues better than words and introduce them to that one such program which allows us to present information effectively is, MS PowerPoint 2016.



“Hello friends! It’s always better to beautify the text file with pictures and animations. Let’s learn how to do it.”

PowerPoint is a popular application program that allows you to create and show slides to support a presentation. These presentations can include animation, narration, images, videos, backdrop, and more.

REMEMBER IT!



To create a shortcut for Microsoft PowerPoint 2016, drag its icon from the start menu to the desktop.



ADVANTAGES OF PRESENTING DATA IN POWERPOINT

Using a PowerPoint presentation has the following advantages:

1. Organise and structure your presentation.
2. Animate your slide to enhance the visual impact.
3. Make ideas more attractive so that others can easily understand.
4. Provide an illustrative backdrop for the content of your presentation.



STARTING MS POWERPOINT 2016

Follow the given steps to start MS PowerPoint 2016

Steps:

1. Click on the Start button.
2. Scroll down to Alphabet P and click on PowerPoint 2016.
3. PowerPoint Screen appears.



Do You Know?

Start Screen is also called Backstage View.

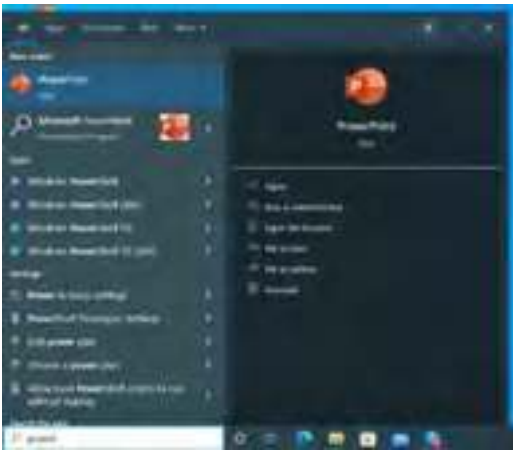


Figure 7.1: Starting PowerPoint



Figure 7.2: PowerPoint Home Window

Presentation and Slides are two very important components of PowerPoint 2016. A slide in PowerPoint is where information can be placed in the form of text, pictures, sounds, animation and much more. A collection of many slides is called a Presentation. The introductory slide of the Presentation is called the Slide Master. When all the combined slides of a presentation are shown to the audience, it is called a Slide Show.



COMPONENTS OF MS POWERPOINT 2016 WINDOW

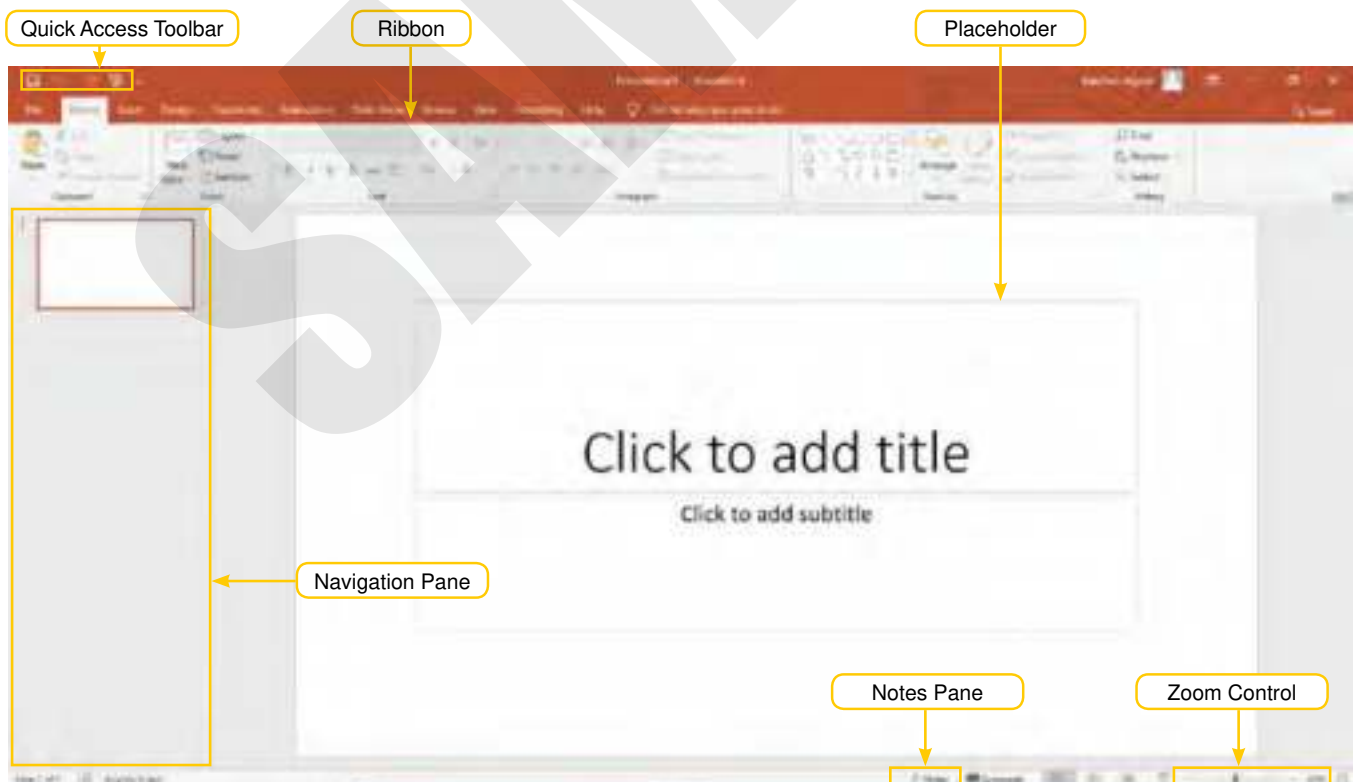


Figure 7.3: Components of PowerPoint Window

Quick Access Toolbar:

This toolbar appears on the left side of the PowerPoint 2016 title bar. It contains shortcuts for commonly used commands, such as Undo, Redo, Save, slideshow and many more.



Let Me Answer

Discuss the difference between a real ribbon and a ribbon in Ms PowerPoint.

The Ribbon:

The rectangular bar on the top of the PowerPoint window just below the Title bar is The Ribbon. A ribbon is made up of Tabs and Groups. It has multiple tabs, each with several groups of commands.



Figure 7.4: PowerPoint Ribbon

Slide Navigation Pane:

You can easily organise your slides using the Slide Navigation pane on the left side of the screen. From here, you can duplicate, rearrange, and delete slides in your presentation.

Vertical & Horizontal Scroll Bars:

In a presentation, we can view a particular slide section by clicking, holding, and dragging the vertical or horizontal scroll bar.

Slide Pane:

We can view and edit the chosen slide right here.

Zoom Control:

We can change the percentage view of a slide by adjusting the zoom. The number to the right of the slider reflects the zoom percentage.

Notes Pane:

Notes can be written here for the current slide. The speaker can only view them and doesn't appear when the presentation is running.

Slides View Option:

There are different slide viewing options:

Normal View:

It is the default view in which the selected slide is displayed, along with the slide navigation window.

Slide Sorter:

It displays smaller versions of all the slides in the presentation.

Reading View:

In this view, we can review slides more easily because all the modifying tools are hidden in this.

Slide Show:

Slides from a presentation will be played through this.

Backstage View:

Backstage View creates new presentations. You can also open, save, print, create PDF and share presentations from the Backstage view.



Let Me Answer

How do you like to view the slides?



Figure 7.5: Backstage View



CREATING A NEW PRESENTATION

Follow the given steps to create a new presentation.

Steps:

1. Click on the File Tab.
2. Select Blank presentation in the Backstage view.
3. A new blank presentation will appear with a blank slide.



Do You Know?

Ctrl + N is the shortcut key combination for making a new blank presentation.



Figure 7.6: New Slide Option



SLIDE LAYOUT

The arrangement of the slide's contents is referred to as the slide layout. Depending on the kind of information we want to include, we can choose a layout for our slide. Every time we make a new slide, we must select a slide arrangement that works with the information. A slide's default layout is "Title Slide Layout."

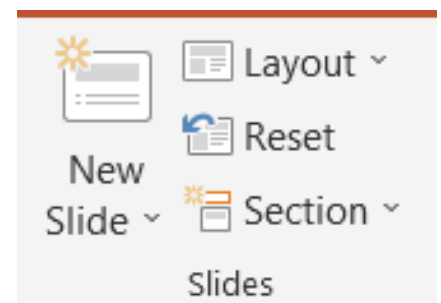


Figure 7.7: Layout Button

Follow the given steps to change the layout.

Steps:

1. Click on the home tab.
2. In the slides group, click on the Layout button.
3. Select an appropriate layout for your slide.



Figure 7.8: Slide Layout



SAVING A PRESENTATION

Always save the presentation before closing it. It allows to re-access the presentation in the future.

Follow the given steps to save a presentation.

Steps:

1. Click on the File tab.
2. Select the save or save as command and click on the Browse option.
3. The Save as dialogue box appears. Select the location of a file.
4. Give the name to the presentation.
5. Click on the Save button.
6. The presentation will be saved with an extension .pptx.



Figure 7.9: Backstage Window



Figure 7.10: Save As Dialog Box



CLOSING A PRESENTATION

Follow the given steps to close the presentation.

Steps:

1. Click on the File tab.
2. Select the close option.
3. The currently open presentation will be closed.

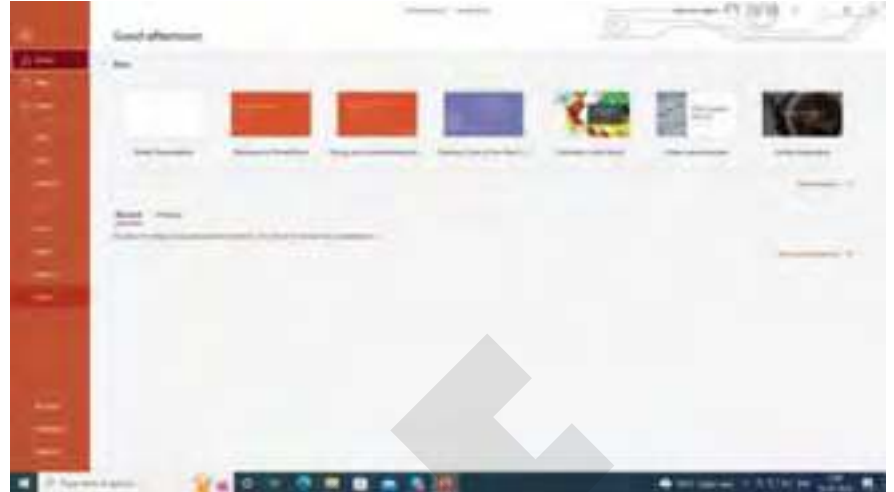


Figure 7.11: Closing a Presentation



EXITING A PRESENTATION

To exit PowerPoint, click on the Close button (x) on the Title bar.



Kids' IQ

What is the difference between closing a presentation and exiting the PowerPoint?



Let's Recall

- PowerPoint is a popular application program that allows you to create and show slides to support a presentation.
- PowerPoint provides an illustrative backdrop for the content of your presentation.
- A collection of many slides is called a Presentation.
- You can easily organise your slides using the Slide Navigation pane.
- Slide Sorter displays smaller versions of all the slides in the presentation.
- Different layouts can be chosen based on the information.
- Microsoft Office saves the presentation with an extension .pptx.



A. Fill in the blanks.

1. A collection of many is called a presentation.
2. view is the default view in PowerPoint.
3. Microsoft office saves the presentation with an extension
4. pane is used to write notes.

B. Answer in one word.

1. The arrangement of the slide's contents.....
2. The percentage view of a slide can be changed by adjusting the zoom.
.....
3. We can view and edit the chosen slide right here.....
4. This toolbar appears on the left side of the PowerPoint 2016 title bar.
.....

C. Write 'T' for True statements and 'F' for False statements.

1. The introductory slide of the Presentation is called the Introduction.
2. A ribbon is made up of Tabs and Groups.
3. A slide's default layout is "Title Slide Layout."
4. MS PowerPoint doesn't allow to add animations.

D. Tick the correct option.

1. Quick Access toolbar doesn't contain a shortcut for this command.
 a. Redo b. Save c. Open d. Undo
2. displays smaller versions of all the slides in the presentation.
 a. Slide Sorter b. Normal View

c. Slide Show

d. Reading View

3. In which tab, Save As option is present?

a. Format

b. Insert

c. File

d. View

E. Answer the following questions.

1. What is the use of MS PowerPoint?

.....

2. Write the steps to change the layout of the slide.

.....

3. Explain different Slide view options.

.....

4. Write the difference between slides and presentation.

.....



Critical Thinking

A. Harman has made a beautiful presentation on “Save Earth”, but she forgets the steps to save it. Suggest to her the option she can use to complete the task.

.....
.....



Team Work

Find out information on ‘Global Warming’ and prepare 10 Slides in PowerPoint. Include causes and ways to prevent it.



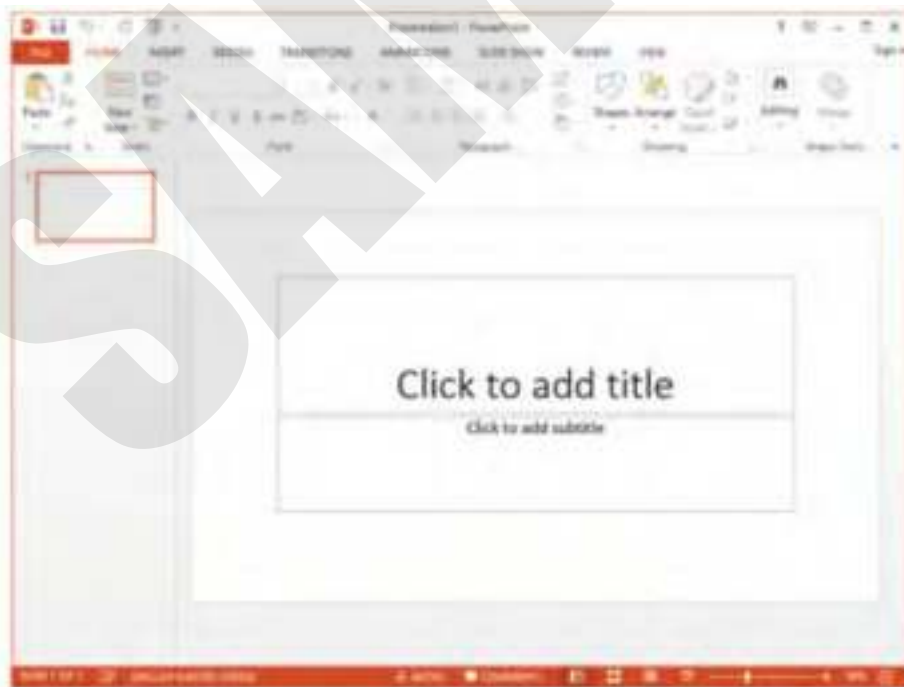
Learning Outcomes

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

- ♦ Insert a new slide and delete a slide.
- ♦ Format text in a slide.
- ♦ Insert pictures from a file or internet.
- ♦ Apply colour to the background of a slide.



Rohan and Sohan have learnt about MS PowerPoint 2016, but Sohan doesn't remember the components of MS-PowerPoint Window. Help Sohan to recall.



Teacher's Note:

Assist students with labelling the components of MS PowerPoint 2016. Also, ask them to recall why PowerPoint is a useful presentation tool.



“Hi friends! In the previous chapter, we learnt about the uses of MS PowerPoint. Now let’s learn using the slides in PowerPoint.”

You are already familiar with how to make slides and add text. You will discover more about PowerPoint’s advanced features in this chapter.



OPENING A PRESENTATION

Follow the given steps to open the saved presentation.

Steps:

1. Click on the File tab.
2. Select the open command from the left pane.
3. Locate and select the presentation you want to open.
4. Click on the Open button.



Figure 8.1: Opening a Presentation



INSERTING A NEW SLIDE

Any number of slides can be inserted in our presentation.

Follow the given steps to insert a new slide.

Steps:

1. Click on the Home tab.



Do You Know?

We can create a duplicate slide by pressing Ctrl + D key combination.

2. From the slides group, click on the New slide.
3. Select the type of slide you want.
4. A new slide is inserted.



Let Me Answer

How do you realise that something is irrelevant and needs to be deleted?

Alternatively, you can click on the Insert tab > New slide.



Figure 8.2: Inserting New Slide



DELETING A SLIDE

Some slides may look irrelevant, so we can delete them in the Normal view or in the Slide Sorter view.

Follow the given steps to delete a Slide.

Steps:

1. Choose the slide you want to remove.
2. Right-click on it in the Outline Pane.
3. From the shortcut menu, choose the Delete Slide option.
4. The slide will be deleted.

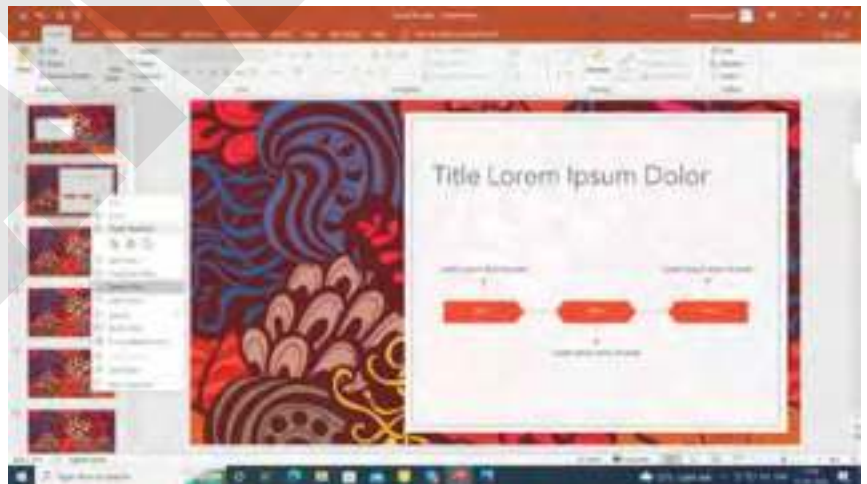


Figure 8.3: Deleting a Slide



FORMATTING TEXT IN A SLIDE

Making changes in the text's appearance to make it more exciting and attention-grabbing is referred to as formatting.

We can use the following features to format slides in a PowerPoint presentation:



FONT STYLE AND FONT SIZE

Follow the given steps to change the size of the selected text.

Steps:

1. Select the text you want to change.
2. On the Home tab, in the Font group, click on the drop-down arrow next to the Font Size box.
3. Click on the desired font size, and the text size will be changed.

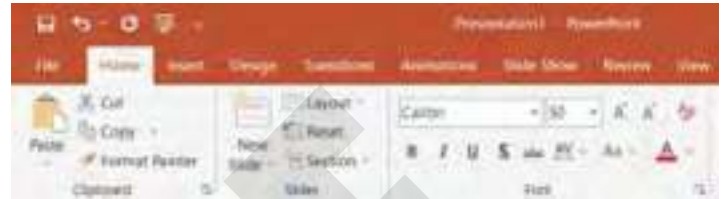


Figure 8.4: Font Size



Let Me Answer

What is the perfect font size according to you?

Follow the given steps to change the size of the selected text.

Steps:

1. Select the text you want to change.
2. On the Home tab, in the Font group, click on the drop-down arrow next to the Font Style box.
3. Move the cursor over the available font styles.
4. Select the desired font style.
5. The font style will be applied to the selected text.



Figure 8.5: Font Style



CHANGING FONT COLOUR

Follow the given steps to change the font colour.

Steps:

1. Select the text.
2. On the Home Tab, click on the drop-down arrow next to the Font colour box.
3. Choose the desired color.
4. The font color will be applied to the selected text.



Figure 8.6: Font Color



ADDING PICTURES

Pictures have more visual impact than the text. PowerPoint lets you insert images or pictures in your presentation.

Follow the given steps to insert an image from a file.

Steps:

1. Take the cursor where you want to insert a picture on the slide.
2. Click on the Insert tab; click on the Pictures button in the Images group.
3. A dialogue box will appear.
4. Browse to the location where you have saved your picture file.
5. Select the desired picture and click the insert button.
6. The picture will appear on the slide.



Figure 8.7: Inserting Picture

Follow the given steps to insert an image from a file.

Steps:

1. Take the cursor where you want to insert a picture from the internet.

2. Click on the Insert tab. Click on the drop-down arrow in the images group below the picture button.

3. Click on the Online Pictures button.

4. A dialogue box will appear. Type the name of the picture you want to search in 'Search Item name' and then press enter.

5. Related pictures will appear.

6. Select the desired picture and click on the Insert button.



Figure 8.8: Inserting Online Picture

Resizing Pictures

The size of the images can be increased or decreased.

Follow the given steps to resize the image.

Steps:

1. Click on the image.

2. Sizing handles will appear around the edges of the picture.

3. Move the mouse pointer over a sizing handle.

4. The shape of the cursor will change to a double-headed arrow.

5. While holding the mouse button, drag the mouse inwards to decrease or outwards to increase the size of the picture.

6. Release the mouse button once the picture is resized as desired.

Moving Pictures

The position of the pictures can be changed.

Follow the given steps to change the position of the picture.

Steps:

1. Click on the image.
2. Sizing handles will appear around the edges of the picture.
3. Move the mouse pointer over a sizing handle.
4. The shape of the cursor will change to a four-headed arrow.
5. While holding the mouse button, drag the mouse in the required direction.
6. Release the mouse once the picture is positioned.



Figure 8.9: Moving a Picture



ADDING COLOUR TO THE BACKGROUND OF A SLIDE

There are many ways of setting background color in a slide. Let's learn about the following ways:

Using the Themes Option

Follow the given steps to add a background style using the theme options.

Steps:

1. Click the desired slide.
2. Click on the Design tab. In the Themes group, choose the themes you want to apply.



Figure 8.10: Applying Themes

Using the Solid Fill Option

Follow the given steps to add a background style using the Solid Fill options.

Steps:

1. Select the Format Background button from the design tab.

2. In the format Background Pane, Choose solid or gradient fill.
3. Choose the desired color option.
4. The color of the slide changes.



Figure 8.11: Applying Themes

Select Apply to all on the format background pane if you want all slides to have the same background color.

Using the Picture or Texture fill Option

Follow the given steps to add a background style using the Solid Fill options.

Steps:

1. Select the Format Background button from the design tab.
2. In format Background Pane, Choose Picture or Texture fill.
3. Choose a picture in the Insert picture.
4. Browse and select the picture you want to apply on the slide and press the Insert button.
5. The chosen picture will be applied as a background to the slide.



Figure 8.12: Applying Background



SLIDE SHOW

Slide show is a series of slides which displays all the slides on the screen one by one. The slide show should be previewed so that any necessary modifications may be made before it is finalised.

Follow the given steps to view the Slide show.

REMEMBER IT!



Use the F5 key to view the slide show.

Steps:

1. Click on the Slide Show tab.
2. Select one of the following options in the Start Slide Show group:

- a. From Beginning

Starting the presentation with the first slide.

- b. From Current Slide

Starting the presentation with the current slide.

- c. Custom Slideshow

Starting the presentation with only the selected slides.

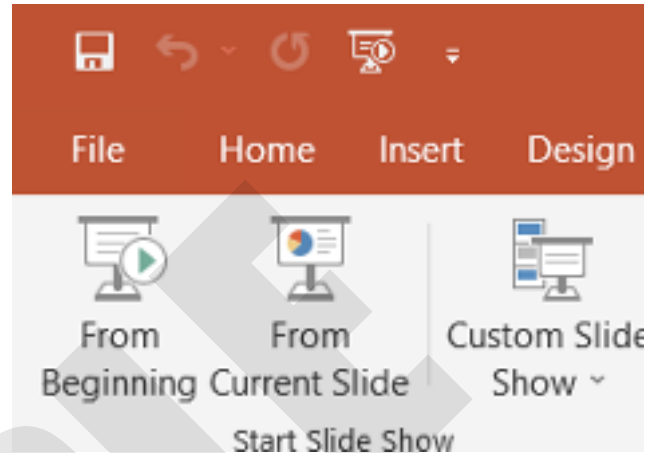


Figure 8.13: Viewing Slide Show



Kids' IQ

'You can add only 50 slides in one presentation,' said Mayank. Do you think Mayank is right?



Let's Recall

- PowerPoint 2016 helps you create beautiful presentations.
- Slide show is a series of slides which displays all the slides on the screen one by one.
- A presentation is made up of a series of slides.
- The size of the images can be increased or decreased.
- Pictures have more visual impact than text.



A. Fill in the blanks.

1. is a series of slides which displays all the slides on the screen one by one.
2. We can delete the slides in the view or in the view.
3. A is made up of a series of slides.
4. Select Apply to all on the if you want all slides to have the same background color.
5. Release the once the picture is positioned.

B. Match the following.

- | | |
|---------------|------------|
| 1. Slide Show | Slide Show |
| 2. Font Color | Font Color |
| 3. Font Style | Font Style |
| 4. Font Size | Font Size |
| 5. New Slide | New Slide |

C. Tick the correct option.

1. Which tab is used to add a font color in the text?
 a. Design b. View c. Home d. Insert
2. Which tab contains all the options to change the background of a slide?
 a. Format b. Design
 c. Slide Show d. Animations

3. While resizing the picture, The shape of the cursor will change to a
- | | |
|---|-------------------------------------|
| <input type="checkbox"/> a. Single-headed arrow | <input type="checkbox"/> b. Flower |
| <input type="checkbox"/> c. Double-headed arrow | <input type="checkbox"/> d. Pointer |
4. Making changes in the text's appearance is referred to as
- | | |
|--|-------------------------------------|
| <input type="checkbox"/> a. Formatting | <input type="checkbox"/> b. Viewing |
| <input type="checkbox"/> c. Resizing | <input type="checkbox"/> d. Moving |

D. Answer the following questions.

1. Write the steps to insert a new slide in a presentation.

.....

2. What do you mean by slide show?

.....

3. How can we move a picture in the presentation?

.....

4. What do you mean by formatting?

.....



Critical Thinking

A. Niharika has made slides on 'Water Pollution. She forgets to add the background to the slides. Suggest to her how to add slides with the background.

.....

.....



Team Work

In the previous chapter, you created 10 slides on 'Global Warming' . Now add more slides using background and formatting learnt in this chapter.

Model Test Paper

SAMPLE

Model Test Paper

SAMPLE