

# Class 4

## 1. Data Storage in Computer

### Let's Relate (Page-5)

I, O, S, I, S, I

### Brush Up (Page-6)

(a) (iii), (b) (i), (c) (iv), (d) (ii)

### Brush Up (Page-9)

1. Mouse, 2. (a) Random Access Memory, (b) Read Only Memory, (c) Compact Disc, (d) Digital Versatile Disc, (e) Universal Serial Bus

### Exercise Session

**A.** 1. (c), 2. (d), 3. (a), 4. (c)

**B.** 1. bit, 2. primary, 3. memory, 4. secondary, 5. circular

**C.** 1. F, 2. F, 3. F, 4. F, 5. T

**D.** 1. Raw facts and figures such as numbers, characters or symbols are known as data. Processed data is known as information. 2. The storage space in a computer is called memory. 3. **Random Access Memory (RAM)** – The working memory of a computer is called RAM. It stores the data, instructions and information temporarily. It is also called volatile memory, which means it loses its data once the power is turned OFF. When we turn OFF the computer, the information and data stored in this memory is lost. **Read Only Memory (ROM)** – It stores permanent instructions required for proper functioning of the computer system. It is a type of memory from which we can only read the information stored in it, but cannot write on it. Thus, it is also called permanent memory or non-volatile memory. Data and instructions stored in ROM are not lost even when the power is turned OFF. 4. We need some additional storage device to store the data. This storage device is called secondary memory. 5. Hard disk, CD and DVD.

### Skill Task

1. Hard disk

2. CD-ROM drive

3. 4, 3, 1, 2

4. **Across** : A. BIT, C. PEN DRIVE, D. COMPACT DISC, G. BIOS

**Down** : B. INFORMATION, E. CIRCULAR, F. SECONDARY

## 2. More on Windows 10

### Let's Relate

This PC, Documents, Recycle Bin, Start Button

### Brush Up (Page-18)

Do it yourself.

### Brush Up (Page-21)

1. (a), 2. (b), 3. (b), 4. (a)

### Exercise Session

**A.** 1. (c), 2. (d), 3. (b), 4. (a), 5. (b)

**B.** 1. Windows, 2. subfolder, 3. current, 4. Paste, 5. Cut

**C.** 1. F, 2. T, 3. F, 4. T, 5. F

**D.** 1. When we click the **Start** button, the **Start menu** opens. The Start menu has two panes. The left pane displays an alphabetical list of all the programs installed on our computer. The right pane contains tiles. 2. File Explorer is also known as Windows Explorer. It is a core part of the operating system. It is available on the taskbar. When we click on it, it opens a window which has two panes: right pane and left pane. 3. A file is a collection of data or information stored in the computer memory. A folder is a type of container that holds the files and subfolders. 4. **Copying** a file or a folder means creating a copy of it and placing it at another location. Copying does not remove the original file or folder from its location. **Moving** a file or a folder means shifting the file/folder from its current location to another location. Moving removes the file from the original location. 5. All the files and folders that we delete are moved to the Recycle Bin. If we delete a file/folder by mistake, we can restore it from the Recycle Bin.

### Skill Task

1. (a) (ii), (b) (v), (c) (iii), (d) (i), (e) (iv)

2. (a) FILE, (b) FOLDER, (c) FILE EXPLORER, (d) RECYCLE BIN, (e) LIVE TILES

## 3. Working with Objects in MS Word 2016

### Let's Relate (Page-26)

- (a) Center align, (b) Left align, (c) Superscript, (d) Bulleted list,  
(e) Uppercase, (f) Font style

### Exercise Session

**A.** 1. (c), 2. (c), 3. (b), 4. (a), 5. (a)

**B.** 1. Insert Picture, 2. resize, 3. Text Outline, 4. Picture Layout, 5. Symbols

**C.** 1. F, 2. T, 3. F, 4. T, 5. T

**D.** 1. To insert a picture, follow these steps: **Step 1** : Place the cursor where you want to insert the picture. **Step 2** : Click on **Insert** tab. Select the **Pictures** option in the Illustrations group. **Step 3** : The **Insert Picture** dialog box will appear. **Step 4** : Browse to the location of the picture

you wish to insert. Select the picture. **Step 5** : Click on the **Insert** button. The selected picture will appear in the document. **2.** This option helps us to cut the unwanted part of a picture. **3.** Stretching is used to stretch drawing objects either larger or smaller. Cropping a picture means removing unwanted part from the picture. **4.** WordArt is the special effect in Word to change the appearance of the text. The WordArt gallery includes various designs that can be used to create attractive looking text. We can edit or format the WordArt text by changing the styles, fill colour, line colour and other settings. **5.** To insert shapes, follow these steps: **Step 1** : Click on the **Insert** tab. Click on the drop-down arrow below the **Shapes** option in the **Illustrations** group. **Step 2** : Select the desired shape. **Step 3** : Click and drag the mouse to draw the shape and release the mouse button when the shape is of the desired size. **6.** To change fill colour, outline colour and thickness of the shape, follow these steps: **Step 1** : Select the shape. **Step 2** : Click on the **Format** tab. **Step 3** : Click on **Shape Fill** option. A drop-down menu appears. Select the desired colour. **Step 4** : Click on the **Shape Outline** option. A drop-down menu appears. Select the outline colour and weight from the drop-down menu. **7. Text Fill** : Fill the text with a solid colour and gradient. **Text Outline** : Customise the outline of our text by choosing the colour, width and line style. **Text Effects** : Add a visual effect such as Shadow, Reflection, Glow, etc. **8.** To insert symbol and character, follow these steps: **Step 1** : Place the cursor at the position where the symbol is to be inserted and click on the **Symbol** option on the Insert tab in the **Symbols** group. **Step 2** : To add a symbol that is not present in the list, select the **More Symbols** option. The **Symbol** dialog box will appear on the screen. **Step 3** : Choose a symbol from the list and click on the **Insert** button. To get more symbols, click on the **Font** drop-down arrow. **Step 4** : Click on the **Cancel** button to close the dialog box.

### Skill Task

1. (a) WordArt, (b) Symbols, (c) Shapes
2. and 3. Do it yourself.

## 4. More Features of Word 2016

### Let's Relate (Page-38)

1. calculator, 2. information, 3. processor, 4. communication

### Brush Up (Page-42)

Stories are always a favoured area for students that call their love and interest. This is one of the reasons why teachers use this as a gadget to push them in many areas.

### Exercise Session

**A.** 1. (c), 2. (c), 3. (a), 4. (c)

**B.** 1. spell check, 2. Thesaurus, 3. Review, 4. Layout, 5. centimetre

**C.** 1. F, 2. T, 3. T, 4. F, 5. F

**D.** 1. Find tool is used to search for a word or text in a document. Replace tool replaces a specific word or text in a document. **2. Step 1** : Select the word. **Step 2** : Click on **Thesaurus** option in **Proofing** group on the Review tab. **Step 3** : The Thesaurus Pane opens on the right side of the window. It displays a list of synonyms and antonyms for the selected word. **Step 4** : Click the drop-down arrow of the suggested word and select **Insert** or **Copy**. **3.** To find a specific word and replace it with other word, follow these steps: **Step 1** : Click on **Replace** option in the **Editing** group on the **Home** tab. **Find and Replace** dialog box appears. **Step 2** : Enter the text to search in the **Find what** box and the new text to replace the existing text in the **Replace with** box. **Step 3** : Click on either of the following options : Replace, Replace All, Find Next. **Step 4** : Click on **Close** or  button to close the dialog box. **4.** To change paragraph spacing, follow these steps: **Step 1** : Click on the **Layout** tab. **Step 2** : Click on the **Before** and **After** boxes under **Spacing** in **Paragraph** group. **Step 3** : Click on the arrows in the boxes to choose the required spacing. **5.** You might have seen that the news articles written in newspaper are arranged in a specific manner. This is done with the help of **Columns** option in Word. **6.** A page break starts a new page. A column break starts a new column.

### Skill Task

1. (a) Find and Replace, (b) The red wavy lines indicate spelling mistakes. This can be corrected using Spelling and Grammar option. (c) Thesaurus

2. Do it yourself.

## 5. Introduction to PowerPoint 2016

### Let's Relate (Page-52)

2, 4, 3, 1

### Brush Up (Page-55)

1. slides, 2. Status Bar, 3. top, 4. slide show

### Brush Up (Page-61)

Do it yourself.

### Exercise Session

**A.** 1. (b), 2. (b), 3. (b), 4. (c), 5. (a)

**B.** 1. left, 2. thumbnail, 3. Title slide, 4. F5, 5. corners

**C.** 1. F, 2. F, 3. T, 4. T, 5. F

- D.** 1. A single page of the presentation is called slide. 2. A presentation is an interesting way of describing something to an audience. 3. (i) **Title Bar** : Title bar is located at the top of the PowerPoint window. It shows the name of the current presentation and the name of the program. It also contains the Quick Access toolbar on the left and control buttons on the right. (ii) **Quick Access Toolbar** : It contains commonly used command buttons such as Save, Undo, Redo and Slide Show. (iii) **Ribbon** : It is located below the title bar. A ribbon is made up of Tabs. Each tab contains many commands arranged in different groups. (iv) **Slides Pane** : The slides pane is located on the left side of the window. It shows the thumbnail of each of the slides in the presentation. (v) **Slide Area** : It displays the active slide. 4. To add a slide, follow these steps: **Step 1** : Click on the drop-down arrow next to the **New Slide** option in the **Slides** group on the **Home** tab. A list of available slide layouts is displayed. **Step 2** : Choose the **Title and Content** layout for the second slide. A new slide gets added to the presentation. **Step 3** : Enter the required information in the placeholders on the new slide. 5. To delete a slide, follow these steps: **Step 1** : Right-click on the slide in Slides pane which you want to delete. **Step 2** : From the pop-up menu, choose the **Delete Slide** option. The slide will be deleted.

### Skill Task

1. Click on the **Slide Show** tab and click on **From Beginning**. This will start the slide show from the very start slide.

or

Click on the Slide Show button on the status bar. This will start the slide show from the current slide.

2. To change the slide layout, right-click on the slide and select **Layout** option.

3. (a) (ii), (b) (iii), (c) (iv), (d) (i) 4. F5; Page Down, Enter; P; ESC; Delete

## 6. More About the Internet

### Let's Relate (Page-68)

1. (✓), 3. (✓), 5. (✓), 6. (✓)

### Brush Up (Page-70)

1. World Wide Web, 2. linked, 3. Uniform Resource Locator, 4. link

### Exercise Session

**A.** 1. (a), 2. (b), 3. (b), 4. (d)

**B.** 1. linked, 2. website, 3. downloading, 4. tab

**C.** 1. F, 2. T, 3. T, 4. T

**D.** 1. The term Internet is a short form of International Network. It is the communication system of a network of millions of computers

connected with each other across the globe. **2. (i) World Wide Web (www)** : The World Wide Web is an important part of the Internet. The World Wide Web refers to the largest collection of information in the form of websites on the Internet. The information can be a combination of text, graphics, audio, video, etc. **(ii) Web Page** : A web page is the basic unit of every website. A web page is created using a language called HTML (Hyper Text Markup Language). **(iii) Web Browser** : A web browser is a software that allows to view page on the World Wide Web. Some examples of web browsers are Google Chrome, Firefox, Microsoft Edge, Opera and Safari. **(iv) Website** : A website is a collection of linked web pages. The first page of a website is called the home page.


**3.** The Internet was started as ARPANET (Advanced Research Project Agency Network) in 1960s. The US defence department established an agency for research and analysis in the field of defence. Later on, the US government opened ARPANET for educational purposes. Many universities and institutions started using this network of computers. **4.** Microsoft Edge is the default web browser in the Windows10 operating system. **Parts of Microsoft Edge**— **(i) Tab** : In Microsoft Edge, website opens in a tab. If we want to open a new website, we must first open a new tab through the New tab (+) button. **(ii) Back Button** : This button is used to view a previously visited web page. **(iii) Forward Button** : This button is used to view next visited web page.

### Skill Task

- (a) INTERNET, (b) SEARCH ENGINE, (c) HYPERLINK, (d) MICROSOFT EDGE
- Do it yourself.

## 7. More on Scratch 3

### Let's Relate (Page-76)

move 10 steps, turn  15 degrees, go to random position, say Hello!

### Brush Up (Page-80)

- blue, 2. purple, 3. magenta, 4. amber, 5. yellow

### Exercise Session

- A.** 1. (a), 2. (b), 3. (a), 4. (b), 5. (a)
- B.** 1. Event, 2. C, 3. magenta, 4. trail, 5. 360
- C.** 1. T, 2. F, 3. T, 4. T, 5. F
- D.** 1. **Stack Blocks** : These blocks have a bowl shape cut at the top-left corner and a bump at the bottom-left corner. Some stack blocks are direct functions, while some contain values that can be changed. **Reporter Blocks** : A reporter block is a code block that has either rounded or angled sides and is designed to provide information for other code

blocks to process. **2.** This block moves the sprite to a specified x and y position on the stage. **3.** These blocks are used to draw a trail as the sprite moves on the stage. **4.** Erase all **5.** Stamp block creates a duplicate copy of the current sprite. The image is stamped on the stage.

### Skill Task

1. (a) Triangle, (b) Square, (c) Pentagon, (d) Hexagon, (e) Heptagon, (f) Octagon



## 8. Evolution of Artificial Intelligence

### Let's Relate (Page-87)

Do it yourself.

### Exercise Session

**A.** 1. (c), 2. (b), 3. (a), 4. (b), 5. (c)

**B.** 1. 1943, 2. Dartmouth, 3. decision-making, 4. Deep Blue, 5. rovers

**C.** 1. T, 2. F, 3. F, 4. T, 5. F

**D.** 1. Artificial Intelligence is an ability of a machine to think and learn.  
2. Alan Turing was a mathematician who pioneered machine learning in 1950. 3. WABOT was the first intelligent humanoid robot. WABOT walked with his lower limbs and was able to grip and transport objects with his hands. 4. A smart speaker Google Home was released by **Google**, which uses AI to act as a personal assistant. 5. Microsoft launched **Kinect** for Xbox 360, the first gaming device that tracked human body movement using a 3D camera and Infrared detection.

### Skill Task

1. (i) (d), (ii) (a), (iii) (c), (iv) (b)

2. (a) WABOT, (b) SOPHIA, (c) ALEXA, (d) CORTANA, (e) SIRI