



# TOUCHPAD<sup>®</sup>

PLUS Ver. 3.1

## Teacher's Manual

*Extended Support for Teachers*



[www.orangeeducation.in](http://www.orangeeducation.in)  
[www.thetouchpad.com](http://www.thetouchpad.com)

## Teacher's Time Table

[illegible]



# DEVELOPMENT MILESTONES IN A CHILD

Development milestones are a set of functional skills or age-specific tasks that most children can do at a certain age. These milestones help the teacher to identify and understand how children differ in different age groups.

Age 5 - 8 Years	
<b>Physical</b>	<ul style="list-style-type: none"><li>• First permanent tooth erupts</li><li>• Shows mature throwing and catching patterns</li><li>• Writing is now smaller and more readable</li><li>• Drawings are now more detailed, organised and have a sense of depth</li></ul>
<b>Cognitive</b>	<ul style="list-style-type: none"><li>• Attention continues to improve, becomes more selective and adaptable</li><li>• Recall, scripted memory, and auto-biographical memory improves</li><li>• Counts on and counts down, engaging in simple addition and subtraction</li><li>• Thoughts are now more logical</li></ul>
<b>Language</b>	<ul style="list-style-type: none"><li>• Vocabulary reaches about 10,000 words</li><li>• Vocabulary increases rapidly throughout middle childhood</li></ul>
<b>Emotional/Social</b>	<ul style="list-style-type: none"><li>• Ability to predict and interpret emotional reactions of others enhances</li><li>• Relies more on language to express empathy</li><li>• Self-conscious emotions of pride and guilt are governed by personal responsibility</li><li>• Attends to facial and situational cues in interpreting another's feelings</li><li>• Peer interaction is now more prosocial, and physical aggression declines</li></ul>

"If you cannot do great things, do small things in a great way."

Age 9 - 11 Years	
<b>Physical</b>	<ul style="list-style-type: none"> <li>• Motor skills develop resulting enhanced reflexes</li> </ul>
<b>Cognitive</b>	<ul style="list-style-type: none"> <li>• Applies several memory strategies at once</li> <li>• Cognitive self-regulation is now improved</li> </ul>
<b>Language</b>	<ul style="list-style-type: none"> <li>• Ability to use complex grammatical constructions enhances</li> <li>• Conversational strategies are now more refined</li> </ul>
<b>Emotional/Social</b>	<ul style="list-style-type: none"> <li>• Self-esteem tends to rise</li> <li>• Peer groups emerge</li> </ul>

Age 11 - 20 Years	
<b>Physical</b>	<ul style="list-style-type: none"> <li>• If a girl, reaches peak of growth spurt</li> <li>• If a girl, motor performance gradually increases and then levels off</li> <li>• If a boy, reaches peak and then completes growth spurt</li> <li>• If a boy, motor performance increases dramatically</li> </ul>
<b>Cognitive</b>	<ul style="list-style-type: none"> <li>• Is now more self-conscious and self-focused</li> <li>• Becomes a better everyday planner and decision maker</li> </ul>
<b>Emotional/Social</b>	<ul style="list-style-type: none"> <li>• May show increased gender stereotyping of attitudes and behaviour</li> <li>• May have a conventional moral orientation</li> </ul>

Managing the children's learning needs according to their developmental milestones is the key to a successful teaching-learning transaction in the classroom.



“Family is the most important thing in the world.”



# TEACHING PEDAGOGIES

Pedagogy is often described as the approach to teaching. It is the study of teaching methods including the aims of education and the ways in which such goals can be achieved.

## Lesson Plans

A lesson plan is the instructor's road map which specifies what students need to learn and how it can be done effectively during the class time. A lesson plan helps teachers in the classroom by providing a detailed outline to follow in each class.

A lesson plan addresses and integrates three key components:

- Learning objectives
- Learning activities
- Assessment to check the student's understanding

A lesson plan provides an outline of the teaching goals:

### Before the class:

1. Identify the learning objectives.
2. Plan the lesson in an engaging and meaningful manner.
3. Plan to assess student's understanding.
4. Plan for a lesson closure.



### During the class:

Present the lesson plan.



### After the class:

Reflect on what worked well and why. If needed, revise the lesson plan.

"Knowing yourself is the beginning of all wisdom."

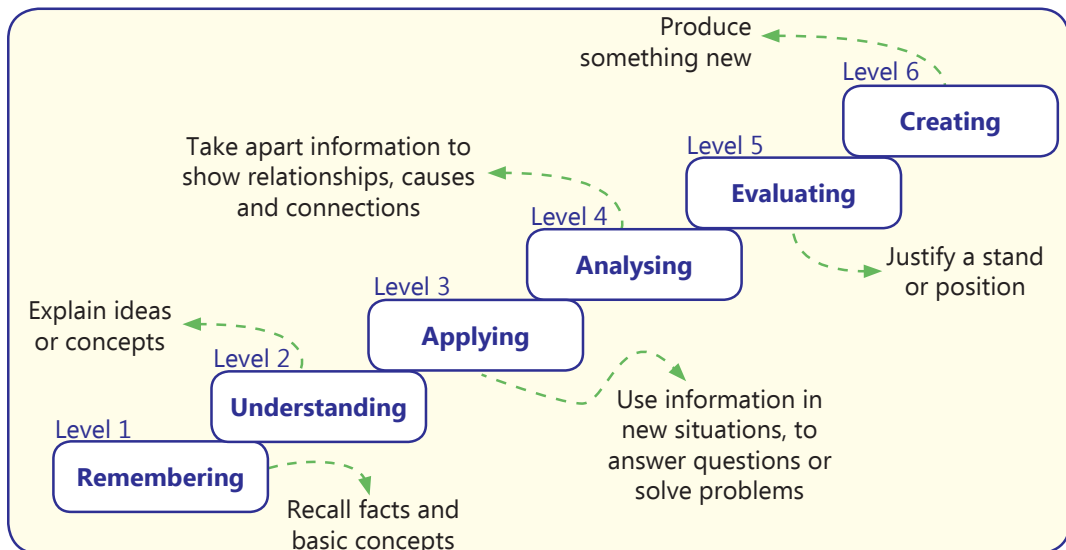
## Teaching Strategies

Numerous strategies have evolved over the years to facilitate the teaching-learning process in the classrooms.



## Bloom's Taxonomy

Bloom's Taxonomy was created by **Dr Benjamin Bloom** and several of his colleagues, to promote higher forms of thinking in education instead of rote learning. There are three domains of learning: cognitive (mental), affective (emotional), and psychomotor (physical). However, when we refer to Bloom's Taxonomy we speak of the cognitive domain. Bloom's Taxonomy is a list of cognitive skills that is used by teachers to determine the level of thinking their students have achieved. As a teacher, one should attempt to move students up the taxonomy as they progress in their knowledge.



Teachers should focus on helping students to remember information before expecting them to understand it, helping them understand it before expecting them to apply it to a new situation, and so on.

*"If you have no confidence in self, you are twice defeated in the race of life."*

## 1. Fundamental of a Computer

### Teaching Objectives

Students will learn about

- ☞ Data and Information
- ☞ Limitations of a Computer
- ☞ Input Devices
- ☞ Output Devices
- ☞ Memory
- ☞ Characteristics of a Computer
- ☞ Working of a Computer
- ☞ Processing Device
- ☞ Motherboard
- ☞ Measuring the Computer's Memory

### Number of Periods

Theory

3

Practical

1

### Teaching Plan

While teaching this chapter, tell the students that the computer is an electronic device which accepts input, processes the data and produces the output.

Tell the students about the meaning of data and information as well as the difference between the two (processed data is information).

Make the students recall the

- Characteristics of a computer covering speed, accuracy, diligence, versatility, compactness, reliability and power of remembering.
- Limitations of a computer covering lack of decision-making ability, lack of intelligence, lack of feelings and time take in planning and programming.

Share with the students that a computer needs input, processing, output and storage devices as hardware and programs as software to work.

Ask the students to recall the Input-Process-Output (IPO) cycle taken by a computer for functioning.

Tell the students that a computer accepts data and instructions through input devices like:

- Keyboard (having alphanumeric, control, function, special and punctuation keys)
- Mouse (allows point, click and drag-drop)

- Scanner (covering hand-held scanner, flatbed scanner and sheetfed scanner)
- Webcam
- Graphic tablet
- Joystick
- Microphone
- Touch screen (See Suggested Activity also)

Tell the students that a computer processes data through CPU (having three components – Arithmetic Logic Unit, Control Unit and Memory Unit).

Tell the students that a computer shows results through output devices like:

- Monitor or Visual Display Unit (VDU)
- Printer (impact printers like dot matrix printers and non-impact printers like inkjet printer, laser printer, etc.)
- Plotters (both flatbed plotter and drum plotter)
- Speakers

Show a motherboard to the students and tell them it is the system or the main circuit board of the computer.

Give a brief introduction about the ports available at the back of the CPU box to the students.

Explain what is memory to the students and also tell them what is the purpose of computer memory.

Tell the students about the types of memory which are:

- Primary Memory
- Secondary Memory

Also, explain how these types of memory further divided into more sub types.

Explain the types of primary and secondary memory with their examples and purpose.

Explain magnetic disk, optical disc and flash drive along with their examples to the students.

Define how to measure computer memory to the students along with the meaning of byte, bits and nibble.

## Extension

Ask the students some oral questions based on this chapter.

- Q. What is data and information?
- Q. Differentiate between data and information.
- Q. Name any three characteristics of a computer.
- Q. State any two limitations of a computer.
- Q. What is the principal cycle on which a computer works?



- Q. Expand IPO.
- Q. What are input devices?
- Q. Name some input devices.
- Q. What are the different types of keys present on a standard keyboard?
- Q. How many keys are present on a standard keyboard?
- Q. What is CPU?
- Q. Name the components of CPU.
- Q. What are output devices?
- Q. Name some output devices.
- Q. What is a motherboard?
- Q. What are ports used for?
- Q. What is memory?
- Q. What is computer memory?
- Q. What is primary memory?
- Q. What is secondary memory?
- Q. Define the following with examples:
- |                  |                 |
|------------------|-----------------|
| a. Magnetic Disk | b. Optical Disc |
| c. Flash Drive   | d. Bits         |
| e. Byte          | f. Nibble       |
- Q. How to measure computer memory?

### Evaluation

After explaining the chapter, let the students do the exercises given on Pages 18, 19 and 20 in the main course book as Checkpoint. Tell the students to try different activities under Hands-On and Mind Boggler given on Pages 21 and 22 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Pages 22 and 23 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.

### Suggested Activity

Ask the students to prepare a collage of different types and models of input / output devices.

## 2. Managing Files or Folders in Ubuntu

### Teaching Objectives

Students will learn about

- ☞ Home Directory
- ☞ File or Folder
- ☞ Creating a Folder
- ☞ Selecting File or Folder
- ☞ Moving a File or Folder
- ☞ Deleting a File or Folder
- ☞ Status Menu
- ☞ Managing Files or Folders
- ☞ Creating a File
- ☞ Copying a File or Folder
- ☞ Renaming a File or Folder
- ☞ Restoring a File or Folder

### Number of Periods

Theory

2

Practical

2

### Teaching Plan

While teaching this chapter, tell the students that Ubuntu is a GUI based operating system.

Make the students recall desktop as the first screen on which they can work.

Make them familiar about Home Directory and its purpose.

Tell students about Status Menu and its option of setting date & time.

Tell the students about File and Folder.

Demonstrate to the students how to manage files or folders and the steps used to:

- Selecting a file/folder
- Creating a file/folder
- Renaming a file/folder
- Copying a file/folder
- Moving a file/folder
- Deleting a file/folder
- Restoring a file/folder
- Searching a file/folder

### Extension

Ask the students some oral questions based on this chapter.

Q. What is Ubuntu?

Q. Define Home Directory.

Q. What Status Menu?

Q. What is a file?



Q. What is a folder?

### Evaluation

After explaining the chapter, let the students do the exercises given on Pages 33 and 34 in the main course book as Checkpoint. Tell the students to try different activities under Mind Boggler given on Page 35 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Page 35 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.

### Suggested Activity

Ask the students to make a folder on desktop and add files in the folder. Rename the files in that folder and copy them to some other folder.

## 3. Drawing Objects in LibreOffice Writer

### Teaching Objectives

Students will learn about

- ✎ Opening Drawing Toolbar
- ✎ Formatting Shapes
- ✎ Applying Fontwork Gallery
- ✎ Inserting Image from Gallery
- ✎ Deleting an Object or Image
- ✎ Inserting Shapes
- ✎ Adding Stars and Banners
- ✎ Inserting Image from a File
- ✎ Adding Text Box

#### Number of Periods

Theory

3

Practical

3

### Teaching Plan

While teaching this chapter, tell the students that although Writer is a word processor, yet it allows three types of graphics to work upon – Shapes, FontWork Gallery and Pictures.

Familiarize the students with various categories of Shapes and explaining use of Lines, Basic Shapes, Flowchart, Stars and Banners and Callouts.

Demonstrate to the students the steps involved in the process of:

- Drawing a shape
- Adding text to the shape

Tell the students the various types of modifications that can be done on the inserted shape – changing outline colour, changing fill colour, adding shape effects like 3-D rotation and bevel.

Introduce WordArt as application to create text effects which are not possible through text formatting.

Demonstrate to the students the steps to:

- Insert FontWork in a document
- Insert Pictures (from a file)
- Insert Symbols (punctuations or special characters not found on keyboard)

### Extension

Ask the students some oral questions based on this chapter.

- Q. Name any three categories of Shapes.
- Q. What do you mean by formatting a shape?
- Q. What does Add Text option do?
- Q. What does Bevel do?
- Q. What is FontWork Gallery?
- Q. Define Symbols.

### Evaluation

After explaining the chapter, let the students do the exercises given on Pages 49, 50 and 51 in the main course book as Checkpoint. Tell the students to try different activities under Mind Boggler and Hands-On given on Page 51 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Page 51 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.

### Suggested Activity

Ask the students to write a paragraph in Writer on 'Festivals of India'. The paragraph must be supported with relevant pictures.

## 4. Creating Tables in LibreOffice Writer

### Teaching Objectives

Students will learn about

- |  |  |
|--|--|
| ✎ Inserting a Table                    | ✎ Entering Data in the Table               |
| ✎ Converting Text into the Table       | ✎ Selecting Rows, Columns and Entire Table |
| ✎ Inserting Rows, Columns in the Table | ✎ Deleting Row, Column and Table           |
| ✎ Changing Column Width or Row Height  | ✎ Changing the Text Alignment              |



- ☞ Merging Cells
- ☞ Inserting an Image
- ☞ Applying Border and Background

- ☞ Splitting Cells
- ☞ Performing Calculations

Number of Periods	
Theory	Practical
2	3

## Teaching Plan

While teaching this chapter, tell the students that a table is an arrangement of text in the form of columns and rows.

Also tell them that an intersection of a row and a column is called a cell.

Demonstrate to the students the method of inserting a table in a Writer document.

Show to the students how to select a cell, a group of cells, a row, a column or the whole table.

Demonstrate to the students the steps to:

- Add more rows to a table
- Delete rows from a table
- Add more columns to a table
- Delete columns from a table
- Change width of a column

Introduce merging of cells as combining two or more cells in the same row or the same column into a single cell.

Show to the students the steps to merge two or more cells. Introduce splitting of cells as dividing one cell into two or more cells.

Show to the students the steps to split a cell.

Demonstrate to the students the steps to move a table and resize a table.

Tell the students that Writer allows to apply borders to tables and cells as well as to shade the cells and table.

Make the students understand that Writer offers some built-in formats as Table Styles to apply to a table.

## Extension

Ask the students some oral questions based on this chapter.

- Q. What is a table?
- Q. Define a cell.
- Q. What is the shape of the mouse pointer while selecting a cell / row / column / table?
- Q. Can more rows or columns be added to a table?

- Q. Define merging / splitting of cells.
- Q. What is the difference between moving a table and resizing a table?
- Q. What is the use of Table Styles feature of Writer?

### Evaluation

After explaining the chapter, let the students do the exercises given on Pages 65 and 66 in the main course book as Checkpoint. Tell the students to try different activities under Mind Boggler given on Pages 66 and 67 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Page 67 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.

### Suggested Activity

Ask the students to create a comparative mark sheet for your marks in different subjects for last three classes.

## 5. Customizing Slides in LibreOffice Impress

### Teaching Objectives

Students will learn about

- ☞ Slide Layouts
- ☞ Inserting Images
- ☞ Slide Views
- ☞ Inserting Fontwork Gallery
- ☞ Changing Background

Number of Periods	
Theory	Practical
2	3

### Teaching Plan

While teaching this chapter, tell the students that LibreOffice Impress is used to create electronic presentations.

Tell the students that a theme is a set of predefined layouts that can be used to add a professional touch to the presentations.

Demonstrate the steps to choose a theme, change theme colours, fonts and backgrounds.

Explain to the students the names of different types of slide views in Impress covering:

- **Normal View**
- **Outline View**
- **Slide Sorter View**
- **Reading View**



- **Notes View**
- **Handout View**

### Extension

Ask the students some oral questions based on this chapter.

- Q. What is a theme?
- Q. What do you mean by customizing a theme?
- Q. Can you change background, colour, fonts, etc. of a theme?
- Q. Define slide layout.
- Q. When is Normal / Outline / Slide Sorter / Reading View used?

### Evaluation

After explaining the chapter, let the students do the exercises given on Pages 80, 81 and 82 in the main course book as Checkpoint. Tell the students to try different activities under Mind Boggler given on Page 82 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Page 83 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.

### Suggested Activity

Create presentation on the topic "Are we conserving natural resources?". Use pictures to increase the effectiveness of the presentation.

## 6. Animation and Special Effects in LibreOffice Impress

### Teaching Objectives

Students will learn about

- ☞ Master Slides
- ☞ Animations in the Slides
- ☞ Modifying Animation Effects
- ☞ Modifying Slide Transition Effects
- ☞ Working on Master Slides
- ☞ Applying Animation Effects
- ☞ Applying Slide Transition Effects
- ☞ Moving Slides using Navigator

Number of Periods	
Theory	Practical
2	2

### Teaching Plan

While teaching this chapter, tell the students that LibreOffice Impress is used to create electronic presentations.

Introduce students with Slide Master and the steps involved in using this action into a presentation. Explain to the students that transitions are used to determine how the presentation moves from one slide to the next.

Tell the students about the various categories of slide transitions available in Impress.

Demonstrate the application of transitions to slides in a presentation.

Introduce animation as the feature that gives a moving effect to text and other objects on the slide.

Show to the students the steps involved in applying custom animation to various objects on a slide.

Tell the students the animation effects applied to different objects on a slide can be reordered.

Share the steps involved in moving the slides using Navigator.

### Extension

Ask the students some oral questions based on this chapter.

Q. What is Slide Master?

Q. What is an Animation?

Q. What is a Transition?

Q. How to add animation in a slide?

Q. How to add transition in a presentation?

### Evaluation

After explaining the chapter, let the students do the exercises given on Pages 91, 92 and 93 in the main course book as Checkpoint. Tell the students to try different activities under Mind Boggler given on Page 93 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Page 93 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.

### Suggested Activity

Divide the class into two teams. Ask one team to prepare presentation on different planets of the solar system. Use appropriate animation and transition effects.

## 7. Introduction to LibreOffice Calc

### Teaching Objectives

Students will learn about

☞ Features of LibreOffice Calc

☞ Starting LibreOffice Calc

☞ Components of LibreOffice Calc Window

☞ Data Types in LibreOffice Calc



- ☞ Entering Data in Spreadsheet
- ☞ Performing Simple Calculation
- ☞ Saving a Spreadsheet

- ☞ Using Auto Fill Feature
- ☞ Selecting Items in a Spreadsheet
- ☞ Closing the LibreOffice Calc

Number of Periods	
Theory	Practical
3	3

## Teaching Plan

While teaching this chapter, tell the students that Calc is an application software that helps us to store and analyse data.

Explain to the students the features of Calc in detail.

Demonstrate to the students the steps to start Calc.

Familiarize the students with the various components of LibreOffice Calc window covering Title Bar, Menu bar, Window control buttons, Standard Toolbar, Formatting Toolbar, Formula Bar, Worksheet Tab, Scroll bars, Status Bar, Row, Column, Row and Column Heading Buttons, Cell, Active Cell,

Tell the students that Calc offers various data types to be entered in a cell covering Numbers, Text, Date and Time.

Tell the students that to enter data in a cell, simply click on the cell and enter data.

Introduce to the students AutoFill feature of Calc as automatically filling a series of data in the worksheet and the steps involved in the same.

Tell the students how to perform simple calculations in Calc.

Demonstrate the students and show the steps involved in:

- Selecting cells
- Selecting columns and rows
- Selecting entire spreadsheet

Demonstrate to the students the steps to:

- Save a spreadsheet
- Close LibreOffice Calc

## Extension

Ask the students some oral questions based on this chapter.

- Q. What is LibreOffice Calc?
- Q. What are the features of Calc?
- Q. Name any five components of Calc.
- Q. Define Formula Bar / Row / Column / Cell / Active Cell / Cell Range.
- Q. State the situation when Number / Text / Date and Time data type used for.

Q. State the shortcut key to save an Calc worksheet.

### Evaluation

After explaining the chapter, let the students do the exercises given on Pages 103, 104 and 105 in the main course book as Checkpoint. Tell the students to try different activities under Mind Boggler given on Page 105 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Page 105 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.

### Suggested Activity

Ask the students to design their marksheet in Calc.

## 8. More on Internet

### Teaching Objectives

Students will learn about

☞ Internet

☞ Requirements to Connect to Internet

☞ Uses of Internet

☞ Common Terms

#### Number of Periods

Theory

2

Practical

1

### Teaching Plan

While teaching this chapter, tell the students that computers connected to a network can share data and files efficiently without any delay.

Make the students recall that the internet is a global network of millions of computers and computer networks.

Introduce Uniform Resource Locator (URL) is a unique address or website address used for locating websites.

Explain the various uses of internet covering:

**E-mail** – an online communication system

**Information** – through search engines like Google, Yahoo, etc.

**Online shopping**

**Online chatting**

**Downloading data**

**Uploading data**



**Social Networking** – Facebook, Instagram, Twitter, YouTube, WhatsApp, etc.

Share with the students the various requirements for an internet connection covering computer system, telephone/cable line, modem, web browser and Internet Service Provider (ISP).

Explain the meaning of some common internet terms like URL, Hyperlink, Offline, Online, Surfing, Website and Web page.

### Extension

Ask the students some oral questions based on this chapter.

- Q. What is a computer network?
- Q. What is internet?
- Q. What are the uses of internet?
- Q. What are the requirements for an internet connection?
- Q. What do you understand by Downloading / Uploading data?
- Q. Define URL / Hyperlink / Offline / Online / Surfing / Website / Web Page.

### Evaluation

After explaining the chapter, let the students do the exercises given on Pages 111 and 112 in the main course book as Checkpoint. Tell the students to try different activities under Mind Boggler given on Page 112 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Page 113 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.

### Suggested Activity

Ask the students to prepare a report on some more uses of internet and present the observations to the class.

## 9. Data Processing

### Teaching Objectives

Students will learn about

- ☞ Data and Information
- ☞ Sorting Data
- ☞ Representing Information
- ☞ Decoding

**Number of Periods**

Theory

1

Practical

1

**Teaching Plan**

Introduce Data and Information to the students in details with the help of proper examples for better understanding.

Tell the students how to sort data and demonstrate the same with proper examples which are easy to understand.

Tell the students about how to represent information with the help of proper charts and tables. is a puzzle. Also, tell them how solve by giving some examples which will improve their understanding of the topic.

Explain the meaning of Decoding to the students and ask them use the reference given in the book to understand the concept.

Show examples for all the topics for better clarity of the lesson at the end.

**Extension**

Ask the students some oral questions based on this chapter.

Q. What is data?

Q. What is information?

Q. What is sorting?

Q. How can you sort data?

Q. How can you represent information?

Q. What is a decoding?

**Evaluation**

After explaining the chapter, let the students do the exercises given on Pages 117 and 118 in the main course book as Checkpoint. Tell the students to try different activities under Mind Boggler and Hands-On given on Page 118 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Page 118 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.

**Suggested Activity**

Ask the students to practice to find out more types of picture puzzles.



# 10. Programming in Scratch

## Teaching Objectives

Students will learn about

☞ Sprite's Direction

☞ Drawing a Polygon

☞ Drawing a Square

☞ Drawing Patterns

### Number of Periods

Theory

3

Practical

3

## Teaching Plan

While teaching this chapter, tell the students that Scratch is a block-based programming language.

Tell the students that Scratch allows changing the appearance of the selected sprite.

Tell the students about pen block and explain its use with using appropriate examples. Also, show the steps involved in creating programs using pen blocks.

Show the steps involved in drawing a line in Scratch.

Tell the steps involved in drawing polygons in Scratch.

Explain the steps involved in drawing a square in Scratch.

Demonstrate the steps involved in drawing a rectangle in Scratch. Also, show the steps involved in drawing a circle in Scratch.

Explain the steps involved in drawing patterns in Scratch.

## Extension

Ask the students some oral questions based on this chapter.

Q. How can you draw a line in Scratch?

Q. How can you draw a polygon in Scratch?

Q. How can you draw a rectangle in Scratch?

Q. How can you draw a square in Scratch?

Q. How can you draw a circle in Scratch?

## Evaluation

After explaining the chapter, let the students do the exercises given on Pages 125, 126 and 127 in the main course book as Checkpoint. Tell the students to try different activities under Mind Boggler given on pages 127 and 128 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Page 128 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.



### Suggested Activity

Ask the students to draw a triangle and circle together in a program.

## 11. Concept of Smart Living

### Teaching Objectives

Students will learn about

- ☞ Students will learn about
- ☞ Smart Homes
- ☞ Devices Used in Smart Homes

#### Number of Periods

Theory

2

Practical

1

### Teaching Plan

While teaching this chapter, make sure that the students are well aware about AI and related topics taught in previous classes.

Start the chapter with an introduction of variety of gadgets used in our homes to make the life easier.

Explain the meaning and purpose of Smart Homes to the students. Also, tell them how these devices are beneficial like:

- Power Saver
- Increased energy Efficient
- Protect Home and its Belongings
- Interactive Home
- One Point Access
- Flexibility
- Remote Control
- Climate Control
- Protection
- Share the devices which are used in smart homes to the students:
- Smart Hubs
- Video Doorbells
- Smart Cameras
- Smart Smoke Detectors
- Smart Lighting



- Smart Speakers
- Relate all these to their daily life routine.

### Extension

Ask the students some oral questions based on this chapter.

- Q. What are smart devices?
- Q. What is the concept of smart home?
- Q. What are the benefits of smart home?
- Q. Define the following:
- Smart Hubs
  - Smart Cameras
  - Smart Lighting
  - Video Doorbells
  - Smart Smoke Detectors
  - Smart Speakers

### Evaluation

After explaining the chapter, let the students do the exercises given on Pages 132 and 133 in the main course book as Checkpoint. Tell the students to try different activities under Mind Boggler and Hands-On given on Page 133 in the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Session section on Page 133 in the main course book. This will enhance the ability of the students and serve as a Subject Enrichment activity.

### Suggested Activity

Ask the students to search more smart devices in Google and make a list of them.