TOUCHPAD

iPLUS (Ver. 2.1)

7

Teacher's Manual

Extended Support for Teachers

ORANGE
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Periods / Days	0	I	II	III	IV		V	VI	VII	VIII
Monday						B				
Tuesday						R				
Wednesday						E				
Thursday						A				
Friday						K				
Saturday										

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 identify and understand how children differ in different age groups.

Age
5 - 8 Years

Physical	• First permanent tooth erupts • Shows mature throwing and catching patterns • Writing is now smaller and more readable • Drawings are now more detailed, organised and have a sense of depth
Cognitive	• Attention continues to improve, becomes more selective and adaptable • Recall, scripted memory, and auto-biographical memory improves • Counts on and counts down, engaging in simple addition and subtraction • Thoughts are now more logical
Language	• Vocabulary reaches about 10,000 words • Vocabulary increases rapidly throughout middle childhood
Emotional/ Social	• Ability to predict and interpret emotional reactions of others enhances • Relies more on language to express empathy • Self-conscious emotions of pride and guilt are governed by personal responsibility • Attends to facial and situational cues in interpreting another's feelings • Peer interaction is now more prosocial, and physical aggression declines

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

Age 9 - 11 Years

Physical	• Motor skills develop resulting in enhanced reflexes
Cognitive	• Applies several memory strategies at once • Cognitive self-regulation is now improved
Language	• Ability to use complex grammatical constructions enhances • Conversational strategies are now more refined
Emotional/ Social	• Self-esteem tends to rise • Peer groups emerge

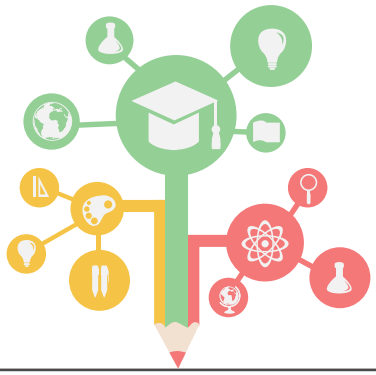
Age 11 - 20 Years

Physical	• If a girl, reaches peak of growth spurt • If a girl, motor performance gradually increases and then levels off • If a boy, reaches peak and then completes growth spurt • If a boy, motor performance increases dramatically
Cognitive	• Is now more self-conscious and self-focused • Becomes a better everyday planner and decision maker
Emotional/ Social	• May show increased gender stereotyping of attitudes and behaviour • May have a conventional moral orientation

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.

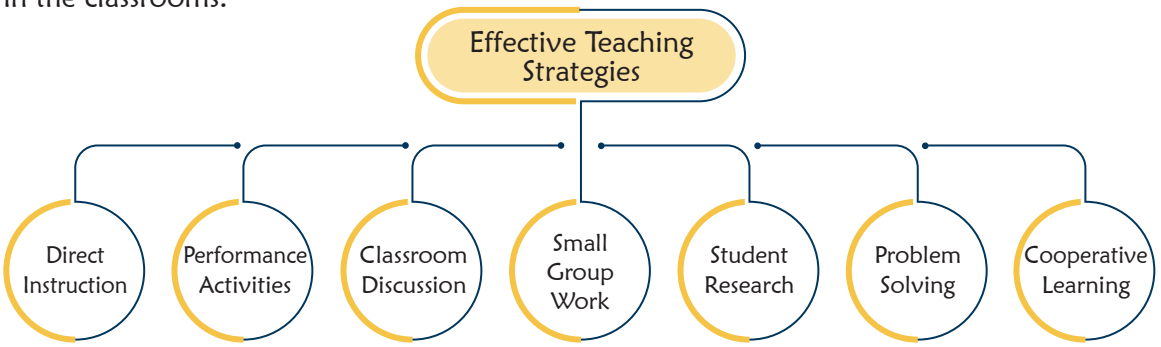
After the class

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

> "Knowing yourself is the beginning of all wisdom."

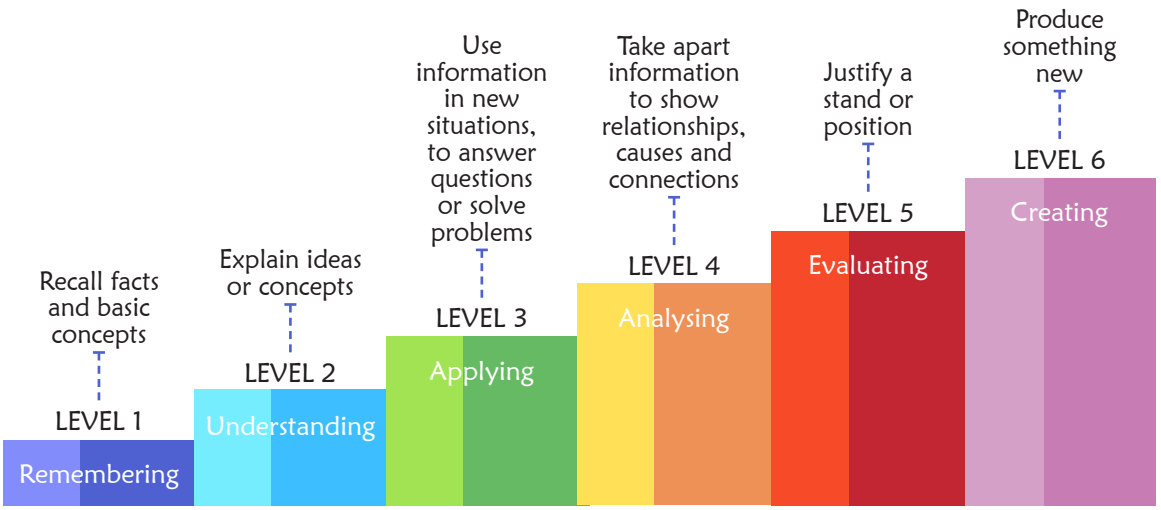
Teaching Strategies

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."

CLASS 7

LESSON PLAN

1 Computer—Hardware Components

Teaching Objectives

Students will learn about

- Hardware
- New Trends in Hardware

Number of Periods
Theory
3

Teaching Plan

While teaching this chapter, tell the students that a computer system is madeup of two components hardware and software.

Explain to the students what is hardware and some of the internal hardware components of a computer:

- CPU
- Motherboard
- SMPS
- Disk Drive
- Modem
- Ports
- Sound Card
- Video Card

Familiarise the students with the various external hardware components of computer system covering

- **Input Devices**
  - Keyboard
  - Mouse
  - Scanner–Hand-Held Scanner, Flatbed Scanner, Sheetfed Scanner
  - Webcam
  - Graphic Tablet
  - Joystick
  - Microphone
- **Output Devices**
  - Monitor
  - Printer–Dot matrix printer, Inkjet Printer, Laser Printer
  - Plotters
  - Speakers
  - Projector
- **Storage Devices**
  - Hard disks
  - External Hard Disks
  - Compact Disc—CD-ROM, CD-R, CD-RW
  - Digital Versatile Disc
  - Blu-Ray Disc
  - Flash Drive
  - Pen Drive
  - Memory Card
  - Solid State Drive

Ask the students to solve the activity in **LET'S CATCH UP** given on page 16 of the main course book to imbibe Problem Solving & Logical Reasoning and Digital Literacy skill.

Tell the students about new trends in hardware such as:

- Wireless Devices
- Virtual keyboard
- 3D Camera
- Skylake
- LaCie SAFE Hard Drive
- Portable Printers
- Finger Mouse

Ensure that the scope of **Teacher's Corner** given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. What is Hardware?

Q. What are the internal hardware components of a computer system?

Q. Name any five external hardware components.

Q. Differentiate between Hand-held and Sheetfed Scanner.

Q. Name any two types of printers and how they differ from each other.

Q. What is finger mouse?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 18 to 20 of the main course book as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 20 of the main course book to imbibe Digital Literacy skill in them. Help the students to solve these questions.

In Creative Assignment, activities like **Let's Explore**, **Be Creative** and **Practical Time** given on page 20 of the main course book will enhance the ability of the students and serve as Communication, Creativity & Innovativeness, Digital Literacy and Experiential Learning activities.

Suggested Activity

Ask the students to prepare a list of hardware devices in the computer lab and classify them as input/output devices.

2 Number System

Teaching Objectives

Students will learn about

- Number System
- Binary to Decimal Conversion
- Decimal to Binary Conversion
- Operations on Binary Numbers

Number of Periods
Theory
3

Teaching Plan

While teaching this chapter, tell the students that a number system is a way to express quantities used for counting, comparing amounts, performing calculations and representing values.

Introduce base or radix as the total number of digits used in a number system.

Inform them that there are four important types of number systems – Decimal (base 10), Binary (base 2), Octal (base 8) and Hexadecimal (base 16).

Make the students recall the method of writing expanded form of a number under Decimal number system.

Inform them that just like decimal number system:

- In decimal number system, the numbers are expressed using ten digits, 0 to 9 and expanded with base 10.
- In binary number system, the numbers are expressed using two digits, 0 and 1 and expanded with base 2.
- In octal number system, the numbers are expressed using eight digits, 0 to 7 and expanded with base 8.
- In hexadecimal number system, the numbers are expressed using sixteen symbols, 0 to 9 and A to F, and expanded with base 16.

Show to the students the method of converting:

- Decimal number to Binary number by successive division by 2 and arranging the remainders in reverse order.
- Binary number to Decimal number by multiplying digits with 2 raise to the power of place of that digit starting from 0 on the left.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 25 of the main course book to imbibe Problem Solving & Logical Reasoning skill.

Share the rules of binary addition and subtraction.

Show to the students the method of carrying out mathematical operations on binary numbers and verifying the results by corresponding conversions to decimal numbers.

Ensure that the scope of **Teacher's Corner** given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. What is a numbers system?

Q. What is the radix of decimal / binary / octal / hexadecimal number system?

Q. Which digits are used to express a decimal / binary / octal / hexadecimal number system?

Q. What is the value of addition of binary digits 1 and 1?

Q. What is the value of subtraction of binary digits 0 and 1?

Q. Which number system is used by computers?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 26 to 28 as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 28 of the main course book to imbibe Problem Solving & Logical Reasoning and Coding & Computational Thinking skills in them. Help the students to solve these questions.

In Creative Assignment, activities like **Let's Explore**, **Be Creative** and **Practical Time** given on pages 28 and 29 will enhance the ability of the students and serve as Communication, Collaboration & Teamwork, Digital Literacy, Interdisciplinary, Experiential Learning and Creativity & Innovativeness activities.

Suggested Activity

1. Convert the last four digits of your parents' mobile numbers into binary number.
2. Ask the students to prepare a comparative chart with four columns, the first one listing the digits used in Hexadecimal number system and in the remaining three columns, their equivalent value under decimal, binary and octal number systems.

3 Computer Virus

Teaching Objectives

Students will learn about

- What is a Computer Virus?
- How does a Computer get Infected with a Virus?
- How to Prevent Your PC from a Virus?
- The Most Dangerous Malwares Known
- Firewall
- Types of Computer Virus
- How do You Know Your PC has a Virus?
- Malware
- Antivirus

Number of Periods
Theory
3

Teaching Plan

While teaching this chapter, tell the students that a computer virus can destroy the programs and files saved in a computer.

Introduce computer virus as a type of unwanted computer program which is developed by individuals with an intention to infect the files of a computer, to corrupt a database or to hamper the functioning of a computer system

Share examples of some computer viruses with the students.

Tell the students about the harms that may be caused by a computer virus.

Explain to the students the various categories of computer viruses by which a computer system may get infected—Program File virus, Boot Sector virus, Macro virus, E-mail virus.

Tell the students about the several ways the computer viruses-spread from one computer to another.

Make the students aware of the symptoms that tell that a computer system is infected by a computer virus.

Explain in detail to the students the various methods by which prevention can be taken from a computer virus.

Introduce the students to malware as a malicious program that can affect the computer in a similar way a virus does.

Explain to the students about different types of malware programs like-- worm, trojan horse, spyware, ransomware, rootkit and backdoor.

Tell the students about the most dangerous known malwares till now.

Introduce the students to the concept of antivirus as a set of programs designed to identify, prevent, and remove malware from your computer.

Share the names of some commonly used antivirus programs.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 35 of the main course book to imbibe Digital Literacy skill.

Introduce the students to the term Firewall.

Ensure that the scope of **Teacher's Corner** given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. What is a computer virus?

Q. State any two harms caused by a computer virus.

Q. State any two methods by which a computer may get infected by computer virus.

Q. State any two symptoms that show that a computer system has been infected by a virus.

Q. State any two ways in which the user can prevent from a computer virus.

Q. What is antivirus program?

Q. What is the main purpose of an antivirus program?

Q. What is firewall?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 36 to 38 of the main course book as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 39 of the main course book. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore** and **Practical Time** given on page 39 of the main course book will enhance the ability of the students and serve as a Digital Literacy, Experiential Learning and Communication activity.

Suggested Activity

Ask the students to collect information about any computer virus and narrate it in the class.

4 Ethics and Safety Measures in Computing

Teaching Objectives

Students will learn about

- What is Internet?
- What are Internet Ethics?
- Safety Measures While Using Computer/Internet
- Indian Laws and Government Initiatives
- Computer Ethics
- What are Unethical Practices?
- Digital Footprints

Number of Periods
Theory
4

Teaching Plan

While teaching this chapter, tell the students that Internet is a global network that allows users in various locations around the world to communicate and exchange information with one another.

Introduce to the students to the advantages of Internet like:

- Treasure of information
- Web services
- Promoting business
- E-learning
- Entertainment
- Forum
- Easy Communication

Explain to the students about the disadvantages of Internet like:

- Cybercrimes
- Health problems
- Wastage of time
- Virus and spam attacks
- Loss of personal information

Introduce the students about computer ethics as the common guidelines that tell us how to use the computer wisely.

Explain the students about how the Internet ethics are important while using the Internet.

Share examples of some unethical practices involving computers:

- Plagiarism-copyright, patent, trademark
- Cyberbullying
- Phishing
- Hacking
- E-mail spoofing
- Spamming
- Online transaction fraud- identify theft, job frauds, banking frauds

Ask the students to solve the activity in **LET'S CATCH UP** given on page 48 of the main course book to imbibe Digital Literacy skill.

Tell the students about:

- Individual right to privacy
- Software Piracy
- Intellectual property rights-copyright, patent, trademark

Tell the students about the safety measures to be followed while using computer/internet.

Explain to the students what is digital footprints and how to delete digital footprints.

Introduce the students to the various legislations that enforce cybersecurity in India.

Ensure that the scope of **Teacher's Corner** given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. What is a plagiarism?

Q. State any two advantages and two disadvantages of Internet.

Q. State any two methods by which a computer may be used unethically.

Q. State any two types of intellectual property rights.

Q. What is digital footprint?

Q. What is the main purpose of computer ethics?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 53 and 54 of the main course book as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 55 of the main course book. Help the students to solve these questions.

In Creative Assignment, activities like **Let's Explore**, **Be Creative** and **Practical Time** given on page 56 of the main course book will enhance the ability of the students and serve as Experiential Learning, Creativity & Innovativeness, Communication and Collaboration & Teamwork activities.

Suggested Activity

Ask the students to collect information about ethical practices to be followed while using computer/ Internet and make a chart on the same using MS Word.

5 Spreadsheets—An Introduction

Teaching Objectives

Students will learn about

- Features of Excel 2016
- Components of Excel 2016 Window
- Creating a New Workbook
- Saving a Workbook
- Starting Excel 2016
- Types of Data
- Entering Data in the Worksheet

Number of Periods	
Theory	Practical
3	2

Teaching Plan

While teaching this chapter, tell the students that MS Excel is an application software that is used to store and analyse data.

Explain to the students the features of Excel 2016 in detail.

Demonstrate to the students the steps to start Excel 2016.

Familiarise the students with the various components of Excel 2016 window covering Title Bar, File Tab, Quick Access Toolbar, Ribbon, Formula Bar, Name Box, Worksheet, Worksheet Tab, Worksheet Tab Navigation Buttons, Status Bar, Row, Column, Row and Column Heading, Cell, Active Cell, Mouse Pointer, Workbook, Block and Cell Range.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 61 of the main course book to imbibe Digital Literacy skill.

Tell the students that Excel 2016 offers various data types to be entered in a cell covering Numeric Data, Text Data, Formula, Date and Time.

Demonstrate to the students the steps to:

- Create a new workbook
- Enter data in a worksheet
- Save a workbook

Ensure that the scope of **Teacher's Corner** given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. What is Excel 2016?

Q. What are the features of Excel 2016?

Q. Name any five components of Excel 2016.

Q. Define Formula Bar / Name Box / 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 Excel worksheet.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 64 and 65 of the main course book as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 66 of the main course book to imbibe Problem Solving & Logical Reasoning and Digital Literacy skill in them. Help the students to solve these questions.

In Creative Assignment, activities like **Let's Explore**, **Be Creative** and **Practical Time** given on page 66 of the main course book will enhance the ability of the students and serve as Experiential Learning, Collaboration & Teamwork, Creativity & Innovativeness and Digital Literacy activities.

Suggested Activity

Ask the students to prepare a table in this format for their family members.

S.No.	Name	Relation with Me	Date of Birth	Age

6 More on Spreadsheets

Teaching Objectives

Students will learn about

- Selecting Cells in a Worksheet
- Column Width and Row Height
- Merging Cells
- Autofill
- Order of Operation
- Copying/Moving Data
- Inserting Rows/Columns
- Formatting Spreadsheets
- Using Formulas to Perform Calculation

Number of Periods	
Theory	Practical
3	2

Teaching Plan

While teaching this chapter, tell the students that Excel allows us to perform various operations with data, such as modifying, inserting, moving/copying, and deleting.

Tell the students that to perform various operations with data, we can select a single cell, group of cells/range, entire row/column, entire worksheet.

Demonstrate to the students the steps to:

- Modify cell content
- Cut, copy and paste data

Explain to the students about the use of undo and redo features to correct the mistake.

Explain to the students the steps involved in changing row height and column width – both manually and automatically.

Tell the students that Excel allows inserting blank rows and columns at the required place in the worksheet.

Demonstrate to the students how two or more cells can be merged into one and also how a cell can be split up into two or more cells.

Explain to the students the steps of some spreadsheet formatting features of Excel like:

- Wrap text – displaying multiple lines of text in a cell.
- Format numbers – applying various data types to the cells.
- Cell borders – applying or removing boundary around a cell or a series of cells.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 75 of the main course book to imbibe Problem Solving & Logical Reasoning and Digital Literacy skill.

- Cell styles – custom border, colours and formatting.
- Cell fill – filling colour in the cells.
- Text Color – applying colour to the text.

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

Tell the students that Excel has some built-in formulas called functions.

Share with the students the basic elements and rules of writing a formula in Excel.

Tell them the order of operation followed in Excel.

Ensure that the scope of **Teacher's Corner** given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. What is the use of Excel software?

Q. What is the difference between Cut and Copy options?

Q. What does it mean when data in a cell is displayed as #####?

Q. Define merging of cells.

Q. Define splitting of cells.

Q. What is wrap text feature of Excel?

Q. Name any three number formats available in Excel.

Q. What is meant by border of a cell?

Q. What is the use of AutoFill feature?

Q. What are Functions in Excel?

Q. Name the different elements of a formula in Excel.

Q. What is the order of operation followed in Excel?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 78 to 80 as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 80. Help the students to solve these questions.

In Creative Assignment, activities like **Let's Explore**, **Be Creative** and **Practical Time** given on pages 80 and 81 will enhance the ability of the students and serve as Experiential Learning, Communication, Collaboration & Teamwork, Creativity & Innovativeness and Digital Literacy activities.

Suggested Activity

Ask the students to design their class time-table in Excel 2016.

7 Database and DBMS—An Introduction

Teaching Objectives

Students will learn about

- Concept of a Database
- Types of Databases
- Access 2016
- Creating a Database
- Types of Views in Access
- Advantages of a Database System
- Terms Related to a Database
- Components of Access 2016
- Data Types in Access 2016
- Conventions for Naming a Field

- Creating a Table
- Exiting Access 2016
- Opening an Existing Databse

Number of Periods	
Theory	Practical
3	2

Teaching Plan

While teaching this chapter, tell the students that the computerised database system was introduced in 1960s.

Introduce:

- Database as organising data in a manner which helps to store and retrieve a large amount of data efficiently.
- Database Management System as a collection of programs required to store and retrieve data from a database.

Share with the students the advantages of a database system.

Explain to the students the meaning of the two types of databases – Flat File Database and Relational Database.

Draw on board and explain the structure of a database to the students explaining about table, fields, records, primary key, query, report and form.

Introduce Access 2016 as a powerful and easy to use Relational Database Management System and is a part of MS Office Suite.

Demonstrate the steps to start Access 2016.

Familiarise the students with the various components of Access 2016 window covering Quick Access Toolbar, Title Bar, Ribbon, Navigation Pane, Navigation Buttons, Work Area, Status Bar and Objects Tabs.

Demonstrate to the students the two ways of creating a database as:

- Creating a blank database
- Creating a database using Templates

Show the students the method to open an existing database and close a database.

Explain different data types used in Access 2016 covering Short Text, Long Text, Number, Auto Number, Date/Time, Yes/No, OLE, Hyperlink, Lookup Wizard Currency and Attachment.

Discuss with the students the use of the different types of views in Access 2016 as Datasheet view and Design view.

Share with the students the rules for defining field names in Access 2016.

Tell the students that Tables can be created in three ways.

Demonstrate to the students the steps to:

- Creating a table in Design view
- Setting field properties
- Adding a record
- Editing a record
- Deleting a record
- Sorting the records in a table

Tell the student that the current database need to be closed after completing the work.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 93 of the main course book to imbibe Creativity & Innovativeness and Digital Literacy skill.

Demonstrate to the students the steps for:

- Opening an existing database in Access
- Exiting Access

Ensure that the scope of **Teacher's Corner** given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. Define database.

Q. What is Database Management System?

Q. Expand DBMS.

Q. Name the different types of databases.

Q. What type of database is Access 2016?

Q. Give any two advantages of Database System.

Q. Define Table / Query / Report / Form.

Q. Name any three data types used in Access 2016.

Q. What does OLE stands for?

Q. What are the rules for writing field names?

Q. What is the use of Field Name / Description in the Table design window?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 95 and 96 of the main course book as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 97 of the main course book to imbibe Problem Solving & Logical Reasoning and Digital Literacy skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore** and **Practical Time** given on page 97 of the main course book will enhance the ability of the students and serve as a Experiential Learning, Digital Literacy and Creativity & Innovativeness activity.

Suggested Activity

Ask the students to create a table storing information about details of their ten friends and sort the records in the table in alphabetical order.

8 More on Access

Teaching Objectives

Students will learn about

- Forms in Access
- Queries in Access
- Reports in Access

Number of Periods	
Theory	Practical
2	2

Teaching Plan

While teaching this chapter, tell the students that Access is used to create tables and maintain records in a database along with preparing Forms, Queries and Reports.

Introduce Forms as objects used to add, edit and display data from tables in a user friendly manner.

Share with the students that a Form can be displayed in three views – Form View, Design View and Layout View.

Demonstrate to the students the steps to create a Form.

Explain different types of Forms covering Multiple Items, Datasheet, Split Form and Modal Dialog.

Familiarise the students with the Navigation Bar of the Form window to view and navigate between records in a Table.

Tell the students that the appearance of the Form can be formatted using Design and Format tabs.

Introduce Query as the object that can give information which the user might not be able to find by looking at the Table directly.

Explain the different types of Queries as: Select Query, Parameter Query, Action Query and Crosstab Query.

Tell the students about the relationship between the Primary Key and the Foreign Key.

Show to the students the steps to define relationships between tables.

Demonstrate the steps to create a query.

Introduce Report as an object used to organise and present data in a user friendly format for printing purpose.

Demonstrate the steps to create a Report.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 105 of the main course book to imbibe Digital Literacy skill.

Ensure that the scope of **Teacher's Corner** given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. Define Form / Query / Report.

Q. Name the different views in which a Form can be displayed.

Q. Name the different types of Forms in MS Access.

Q. Where is Navigation Bar located?

Q. Name the different types of Queries.

Q. Define Primary Key / Foreign key.

Q. Name the different types of Queries in Access.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 105 to 107 of the main course book as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 107 of the main course book to imbibe Problem Solving & Logical Reasoning and Digital Literacy skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore** and **Practical Time** given on page 108 of the main course book will enhance the ability of the students and serve as a Experiential Learning, Digital Literacy and Creativity & Innovativeness activity.

Suggested Activity

Using the Table created in the previous chapter create a query to display names of friends whose name starts with A or D.

9 Lists and Tables in HTML

Teaching Objectives

Students will learn about

- Creating Lists
- Creating Tables

Number of Periods	
Theory	Practical
2	2

Teaching Plan

While teaching this chapter, tell the students that HTML tags are also used to create lists and tables on the web page.

Introduce list as collection of related items.

Tell the students that there are three types of lists – Ordered List (Numbered List), Unordered List (Bulleted List) and Definition List (Description List).

Explain the use of <OL> tag to create ordered lists, <UL> tag to create unordered lists and <DL> tag to create definition lists.

Explain the use of <TABLE> tag and its child tags covering <TR>, <TD>, <Caption> and <TH>.

Explain the use of different CSS Properties Used with <TABLE> Tag covering border property, border-style property, border-color property, border-spacing property, width property, padding property, background-color property and color property.

Discuss the use of attributes of <TD> tag explaining about ROWSPAN and COLSPAN attributes.

Tell the students that all the attributes except ROWSPAN and COLSPAN are taken up by <TR> tag also.

Demonstrate the code to create a table and its data in HTML.

Ensure that the scope of **Teacher's Corner** given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. Define List / Table.

Q. How many types of Lists can be created in HTML?

Q. Name the different types of Lists that can be created in HTML.

Q. What is an Ordered / Unordered / Definition List?

Q. Name the attributes of <OL> tag.

Q. Name the tags used to create Definition List.

Q. Name the tags that can used to create different kinds of tables.

Q. What are the CSS properties used with <TABLE> / <TD> tag?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 119 to 121 of the main course book as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 121 of the main course book to imbibe Problem Solving & Logical Reasoning and Digital Literacy skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Practical Time** given on page 122 of the main course book will enhance the ability of the students and serve as a Communication and Collaboration & Teamwork activity.

Suggested Activity

Ask the students to create:

1. List of favourite games of 10 friends.
2. Table of car names and their models.

10 More on HTML

Teaching Objectives

Students will learn about

- Inserting Images
- Adding Audio & Video
- FORMS in HTML5
- Teaching Plan
- Linking Web Pages
- Frames

Number of Periods
Theory
4

Teaching Plan

While teaching this chapter, tell the students that HTML allows inserting images and frames on web pages as well as interlinking them.

Tell the students that <IMG> tag is used to insert images and it takes the attributes as SRC, WIDTH, HEIGHT and ALT.

Demonstrate to the students the use of <IMG> tag and its attributes.

Make the students understand that a hyperlink is an underlined text or an image which when clicked takes the user to some other location.

Tell the students that HTML allows to create two types of links as Interlinking and Intralinking.

Share with the students that <A> is used to create links and the attributes that this tag can take are – HREF, NAME, TARGET and TITLE.

Demonstrate the use of <A> tag and its attributes to hyperlink web pages.

Tell the students that HTML5 <AUDIO> and <VIDEO> tags allows to add media (audio and video) to a website.

Introduce to the students the attributes of <AUDIO> and <VIDEO> tags

- **src** - to add media.
- **autoplay** - a boolean attribute that plays the video automatically as soon as the page loads.
- **controls** - allows users to gain control over how the video is played.

Tell the students about framing using <IFRAME> tag and its attributes - SRC, HEIGHT, WIDTH and NAME.

Introduce Forms as a collection of different types of fields to take the input from the user on a web page.

Explain the use of <FORM> tag and its attributes as ACTION, METHOD and ENCTYPE.

Introduce <INPUT> tag as one of the most important form of elements used to create controls or fields to take input from the user in the form of text, selection and click.

Tell the students about the <INPUT> tag attributes as TYPE (TEXT, RADIO, CHECKBOX, BUTTON, SUBMIT, RESET and PASSWORD), NAME and VALUE.

Demonstrate the use of <INPUT> tag and its attributes to create a form.

Introduce <TEXTAREA> tag and its attributes ROWS and COLS that are used to create a multi-line text box that can accept long text values.

Explain to the students that <SELECT> tag with the <OPTION> tag allows the user to create a drop-down list.

Demonstrate the use of <FORM> tag and its attributes to create a form.

Ensure that the scope of **Teacher's Corner** given at the end of the chapter has been covered.

Extension

Ask the students some oral questions based on this chapter.

Q. Which tag is used to insert images on a web page?

Q. State the use of SRC / WIDTH / ALT attribute of IMG tag.

Q. Which tag is used to link web pages?

Q. What is <IFRAME> tag?

Q. Define Form.

Q. Name the main attributes of FORM tag.

Q. What is the use of <TEXTAREA> tag?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 146 to 148 of the main course book as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 148 of the main course book to imbibe Communication skill in them. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore** and **Practical Time** given on pages 149 and 150 of the main course book will enhance the ability of the students and serve as an Interdisciplinary and Experiential Learning activity.

Suggested Activity

Ask the students to create an e-shopping website listing categories of items on home page and details of items on separate category pages.