# TRACKPAD

iPro Ver. 4.1

7

# Teacher's Manual

Extended Support for Teachers

ORANGE
www.orangeeducation.in

# Teacher's Time Table

| Periods / Days | 0 | I | II | III | IV | BREAK | V | VI | VII | VIII |
|---|---|---|---|---|---|---|---|---|---|---|
| Monday | | | | | | | | | | |
| Tuesday | | | | | | | | | | |
| Wednesday | | | | | | | | | | |
| Thursday | | | | | | | | | | |
| Friday | | | | | | | | | | |
| 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<br>• Shows mature throwing and catching patterns<br>• Writing is now smaller and more readable<br>• Drawings are now more detailed, organised and have a sense of depth |
| Cognitive | • Attention continues to improve, becomes more selective and adaptable<br>• Recall, scripted memory, and auto-biographical memory improves<br>• Counts on and counts down, engaging in simple addition and subtraction<br>• Thoughts are now more logical |
| Language | • Vocabulary reaches about 10,000 words<br>• Vocabulary increases rapidly throughout middle childhood |
| Emotional/ Social | • Ability to predict and interpret emotional reactions of others enhances<br>• Relies more on language to express empathy<br>• Self-conscious emotions of pride and guilt are governed by personal responsibility<br>• Attends to facial and situational cues in interpreting another's feelings<br>• Peer interaction is now more prosocial, and physical aggression declines |

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

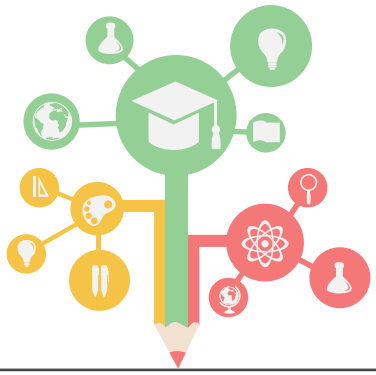
| Age 9 - 11 Years | |
|---|---|
| Physical | • Motor skills develop resulting in enhanced reflexes |
| Cognitive | • Applies several memory strategies at once<br>• Cognitive self-regulation is now improved |
| Language | • Ability to use complex grammatical constructions enhances<br>• Conversational strategies are now more refined |
| Emotional/ Social | • Self-esteem tends to rise<br>• Peer groups emerge |

| Age 11 - 20 Years | |
|---|---|
| Physical | • If a girl, reaches peak of growth spurt<br>• If a girl, motor performance gradually increases and then levels off<br>• If a boy, reaches peak and then completes growth spurt<br>• If a boy, motor performance increases dramatically |
| Cognitive | • Is now more self-conscious and self-focused<br>• Becomes a better everyday planner and decision maker |
| Emotional/ Social | • May show increased gender stereotyping of attitudes and behaviour<br>• 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.

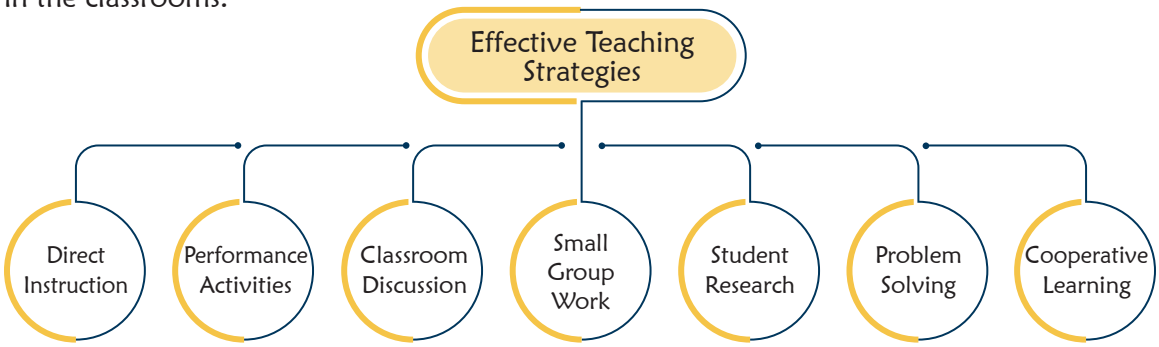
**After the class**

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

"Knowing yourself is the beginning of all wisdom."

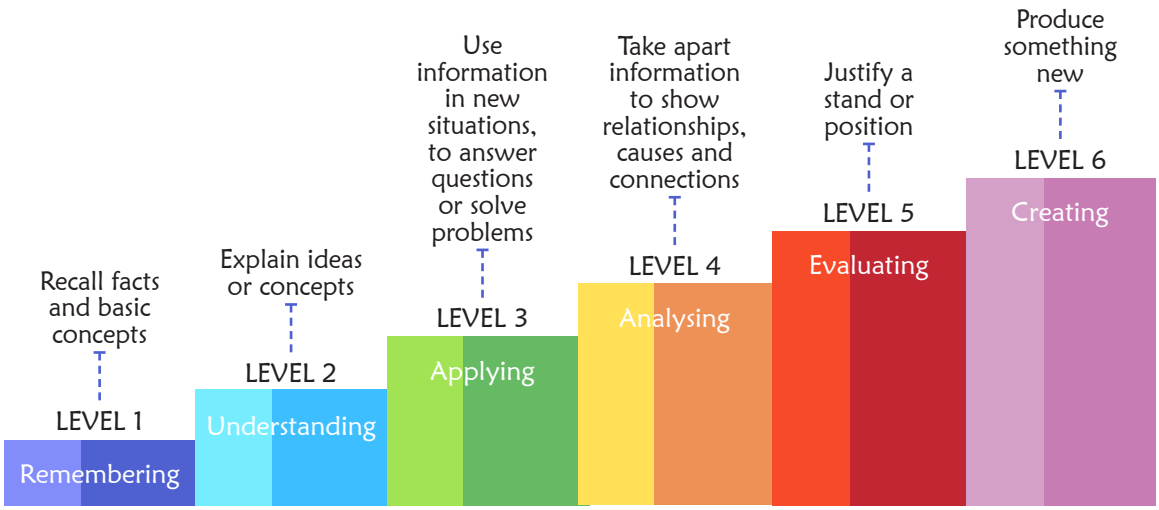
## Teaching Strategies

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 | Practical |
| 3 | 2 |

### Teaching Plan

While teaching this chapter, tell the students that a computer system is made up 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
- Disk Drive
- SMPS
- Ports
- Modem
- 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
  - Compact Disc
  - Flash Drive
  - Blu-ray disc
  - Pen Drive
  - Memory Card

- **Hybrid Devices**
  - Smartphone
  - Headphones
  - Smartwatch
  - Laptop
  - Smart Board

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 17 to 19 of the main course book as **One Touch Learn** and **Let's Do It**. 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 Experiential Learning skill. Help the students to solve these questions.

In Creative Assignment, activities like **Hands-On** and **Fun in Lab** given on page 20 of the main course book will enhance the ability of the students and serve as a Communication, Art Integration and Digital Literacy activity.

### 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

- What is a Number System?
- Binary to Decimal Conversion
- Decimal to Binary Conversion
- Operations on Binary Numbers

| Number of Periods | |
|---|---|
| Theory | Practical |
| 2 | 2 |

## Teaching Plan

While teaching this chapter, tell the students that a number system is simply a method of counting.

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 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 fifteen digits, 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.

Share the rules of binary addition and subtraction.

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?

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 **One Touch Learn** and **Let's Do It**. After solving the course book exercises, tell the students to

solve **Crack the Code** activity given on pages 28 and 29 of the main course book to imbibe Problem Solving & Logical Reasoning skill. Help the students to solve these questions.

In Creative Assignment, activities like **Hands-On** and **Fun in Lab** given on page 29 will enhance the ability of the students and serve as a Communication, Collaboration & Teamwork, Digital Literacy and Creativity & Innovativeness activity.

### 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 do you know if your PC has a Virus?
- Malware
- Firewall
- Types of Computer Viruses
- How to protect your PC from a Virus?
- Antivirus

| Number of Periods | |
|---|---|
| Theory | Practical |
| 2 | 1 |

### 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 piece of code or a program developed to corrupt data or program files stored on 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.

Tell the students about various types of computer virus, such as program file virus, boot sector virus, macro virus and e-mail virus.

Explain to the students the various methods by which a computer system may get infected with virus.

Make the students aware of the symptoms that tells 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.

Tell the students about malware covering different types of malware, like worms, trojan horse, spyware, ransomware, rootkit and backdoor.

Introduce the students to the concept of antivirus as a program developed to detect and remove virus from a computer system.

Share the names of some commonly used antivirus programs.

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 malware?

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 35 to 38 of the main course book as **One Touch Learn** and **Let's Do It**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on pages 38 and 39 of the main course book to imbibe Problem Solving & Logical Reasoning and Coding & Computational Thinking skills. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on page 39 of the main course book will enhance the ability of the students and serve as a Digital Literacy and Creativity & Innovativeness 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

- Internet
- Internet Ethics?
- Safety Measures While using Computer / Internet
- Digital Footprints
- Computer Ethics
- Unethical Practices

| Number of Periods | |
|---|---|
| Theory | Practical |
| 3 | 2 |

## Teaching Plan

While teaching this chapter, tell the students that what is Internet and what are its advantages & disadvantages.

Introduce computer ethics and etiquettes.

Share examples of some unethical practices involving computers:

- Plagiarism
- Hacking
- Software Piracy
- Intellectual property rights
  - Copyright
  - Patent
  - Trademark
- Cyber bullying
- Spamming
- Phishing
- Individual right to privacy

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.

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 and etiquettes?

## Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 48 to 50 of the main course book as **One Touch Learn** and **Let's Do It**. After solving the course book

exercises, tell the students to solve **Crack the Code** activity given on page 51 of the main course book to imbibe Problem Solving & Logical Reasoning and Ethical & Moral Reasoning. Help the students to solve these questions.

In Creative Assignment, activities like **Hands-On** and **Fun in Lab** given on page 52 of the main course book will enhance the ability of the students and serve as a Communication, Ethical & Moral Reasoning and Creativity & Innovativeness activity.

### 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 2019
- Components of Excel 2019 Window
- Creating a New Workbook
- Saving a Workbook
- Starting Excel 2019
- Types of Data
- Entering Data in the Worksheet

| Number of Periods | |
|---|---|
| Theory | Practical |
| 3 | 3 |

### Teaching Plan

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

Explain to the students the features of Excel 2019 in detail.

Demonstrate to the students the steps to start Excel 2019.

Familiarise the students with the various components of Excel 2019 window covering Title Bar, File Tab, Quick Access Toolbar, Ribbon, Formula Bar, Name Box, Worksheet Tab, Navigation Buttons, Status Bar, Row, Column, Row and Column Heading, Cell, Active Cell, Mouse Pointer, Sheet and Cell Range.

Tell the students that Excel 2019 offers various data types to be entered in a cell covering Numbers, Text, 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 2019?

Q. What are the features of Excel 2019?

Q. Name any five components of Excel 2019.

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 59 to 61 of the main course book as **One Touch Learn** and **Let's Do It**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 62 of the main course book to imbibe Problem Solving & Logical Reasoning and Experiential Learning skills. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on page 62 of the main course book will enhance the ability of the students and serve as a Digital Literacy activity.

## 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
- Using Undo and Redo Features
- Inserting Rows / Columns
- Formatting Spreadsheets
- Using Formulas to Perform Calculation
- Copying / Moving Data
- Column Width and Row Height
- Merging Cells
- Autofill
- Order of Operation

| Number of Periods | |
|---|---|
| Theory | Practical |
| 2 | 4 |

## Teaching Plan

Show to the students how to select cells in a worksheet.

Demonstrate to the students the steps to change the content of a cell.

Tell the students the methods of modifying data by cut, copy and paste.

Explain to the students about undo and redo feature.

Demonstrate to the students how to set column width and row height and how to fit column / row content automatically.

Demonstrate to the students the steps to insert rows and columns in a worksheet.

Explain to the students how to merge cells in a worksheet.

Demonstrate to the students the steps to:

- wrap text
- format numbers
- apply/remove cell borders
- apply cell style
- fill colour in a cell
- apply font colour.

Tell the students about Autofill feature and how to use it.

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 are the steps to insert rows and columns in a worksheet?

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 is the order of operation followed in Excel?

## Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 75 to 77 as **One Touch Learn** and **Let's Do It**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 78 of the main course book to imbibe Coding & Computational Thinking and Experiential Learning. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on pages 78 and 79 will enhance the ability of the students and serve as a Digital Literacy and Creativity & Innovativeness activity.

## Suggested Activity

Ask the students to design their class time-table in Excel 2019.

# 7 Database and DBMS—An introduction

## Teaching Objectives

Students will learn about

- Concept of a Database
- Types of Databases
- Access 2019
- Creating a Database
- Types of Views in Access
- Creating a Table
- Exiting Access 2019
- Advantages of a Database System
- Terms Related to a Database
- Components of Access 2019
- Data types in Access 2019
- Naming Conventions for Writing a Field Name
- Opening an Existing Database

| Number of Periods | |
|---|---|
| Theory | Practical |
| 2 | 4 |

## 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.

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

Share with the students the advantages of a database system.

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

Introduce Access 2019 as a powerful and easy to use Relational Database Management System and is a part of MS Office Suite.

Familiarise the students with the various components of Access 2019 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

Explain different data types used in Access 2019.

Discuss with the students the use of the different types of views in Access 2019 as Datasheet view and Design view.

Share with the students the rules for defining field names in Access 2019.

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

Demonstrate to the students the steps to create a Table:

- In Design view
- In Datasheet view
- By using Templates

Demonstrate to the students the steps to open an existing document.

Show to the students the method to exit Access 2019.

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 2019?

Q. Give any two advantages of Database System.

Q. Define Table / Query / Report / Form.

Q. Name any three data types used in Access 2019.

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 93 to 95 of the main course book as **One Touch Learn** and **Let's Do It**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 95 of the main course book to imbibe Experiential Learning skill. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on page 96 of the main course book will enhance the ability of the students and serve as a 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
- Reports in Access
- Queries in Access

| Number of Periods | |
|---|---|
| Theory | Practical |
| 2 | 3 |

## 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, Crosstab Query and SQL.

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 organize and present data in a user friendly format for printing purpose.

Demonstrate the steps to:

- Create a Report
- Create a Report

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 any four parameters of Query window.

### Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 104 to 106 of the main course book as **One Touch Learn** and **Let's Do It**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on pages 106 and 107 of the main course book to imbibe Experiential Learning and Problem Solving & Logical Reasoning skills. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on page 107 of the main course book will enhance the ability of the students and serve as a 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 |
| 0 | 2 |

### Teaching Plan

While teaching this chapter, tell the students that HTML tags are used to create a 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 CSS list properties to the students.

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

Introduce nested list as a list within another list.

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

Explain the use of different CSS properties used with <TABLE> tag covering border, border-style, border-color, border-spacing, width, padding, background-color and color property.

Discuss the use of different 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.

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> tag?

## Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 120 to 122 of the main course book as **One Touch Learn** and **Let's Do It**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 123 of the main course book to imbibe Problem Solving & Logical Reasoning and Experiential Learning skills. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on page 124 of the main course book will enhance the ability of the students and serve as a Digital Literacy 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
- Linking Web Pages
- Frames

| Number of Periods | |
|---|---|
| Theory | Practical |
| 2 | 3 |

## 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 HTML supports JPEG, GIF and PNG image formats.

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.

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

Demonstrate the CSS properties used with <A> tag hyperlink web pages covering a:link, a:visited, a:hover and a:active.

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

Demonstrate to the students how to add audio and video in an HTML document.

Introduce Frames as a feature to display more than one web page on a single screen of the web browser.

Explain the use of <IFRAME> tag to create and define frames on a web page.

Tell the students that the <IFRAME> tag can take HEIGHT, WIDTH, NAME and SRC as attributes.

Introduce HTML5 form as an interface of a web page that enables the user to enter data (such as names, e-mail addresses, passwords, phone numbers, etc.) to be sent to the server for processing.

Explain to the students about <FORM> tag, <INPUT> tag, <SELECT> tag and <TEXTAREA> tag.

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 / HEIGHT /ALT attribute of IMG tag.

Q. Which image formats are supported by HTML?

Q. Which tag is used to link web pages?

Q. Name the attributes that can be taken by IFRAME 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 **One Touch Learn** and **Let's Do It**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on pages 149 and 150 of the main course book to imbibe Experiential Learning and Digital Literacy skills. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on pages 150 and 151 of the main course book will enhance the ability of the students and serve as a Interdisciplinary and Environmental Awareness activity.

## Suggested Activity

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