TOUCHPAD

iPLUS (Ver. 2.1)

6

Teacher's Manual

Extended Support for Teachers

ORANGE
www.orangeeducation.in

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

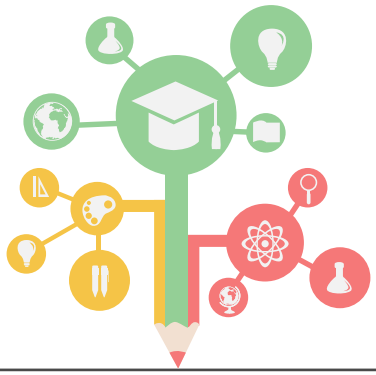
Age 11 - 20 Years

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.

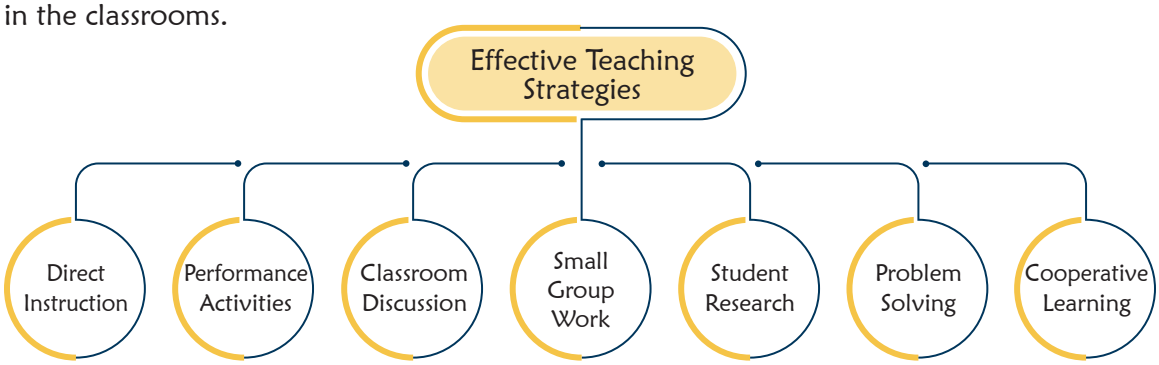
After the class

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

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

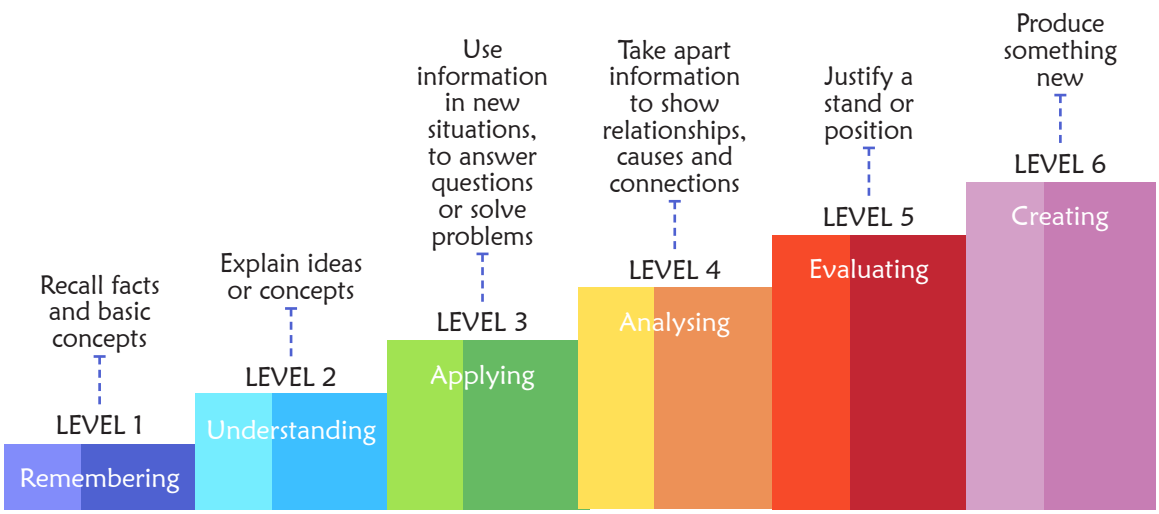
Teaching Strategies

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 6

LESSON PLAN

1 Categories of Computers and Computer Language

Teaching Objectives

Students will learn about

- Categories of Computers
- Computer Languages
- Some Other Special Computers
- Language Translator

Number of Periods
Theory
3

Teaching Plan

While teaching this chapter, tell the students that how computers are classified on basis of their:

- Type
- Purpose
- Size, speed, processing power and price

Tell the students about classification of computers on basis of their type or functioning:

- Analog Computers
- Digital computers
- Hybrid computers

Explain to the students about classification of computers on basis of their purpose:

- General purpose computers
- Special purpose computers

Tell the students about classification of computers on basis of their size, speed, processing power and cost:

- Microcomputers such as Desktop, Laptop, Tablet, etc.
- Minicomputer like PDP-11, PDP-8, HP-3000 etc.
- Mainframe computer such as IBM zSeries, IBM 4381, ICL 39, UNIVAC 9400, etc.
- Supercomputers like Pace, Titan, Sunway TaihuLight, Pratyush, Mihir, etc.

Share with the students the importance and usefulness of some other special computers:

- Embedded computers like Digital camera, ATM, Microwave, etc.

- Handheld computers like Smartphone, PDA, Smartwatch, Gaming consoles, etc.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 12 of the main course book to imbibe Digital Literacy skill.

Give a brief account of different computer languages:

- Low level languages such as Machine language and Assembly language.
- High level language such as 3GL, 4GL and 5GL.

Tell the students about advantages and disadvantages of HLL.

Explain to the students about the concept of language translator and its working.

Explain to the students that assembler, compiler and interpreter are three main types of language translator.

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. Name some ways in which computers are classified.

Q. What is a minicomputer?

Q. What is a microcomputer?

Q. Differentiate between analog and digital computers?

Q. What are mainframe computers? What are they used for?

Q. How many generations of computer languages are there?

Q. Give three characteristic features of Third / Fourth / Fifth generation of computer languages.

Q. What is a computer language?

Q. What are three main types of language translator?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 16 and 17 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 18 of the main course book to imbibe Problem Solving & Logical Reasoning skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore** and **Practical Time** given on page 18 of the main course book will enhance the ability of the students and serve as Digital Literacy and Experiential Learning activity.

Suggested Activity

Ask the students to prepare a collage of different models of computers classified on the basis of size, speed and processing power.

2 File Management—Organisation of Data

Teaching Objectives

Students will learn about

- Copying or Moving Files/Folders
- Searching for Files or Folders
- Different File Formats
- Sorting Files/Folders
- Using Multiple Applications

Number of Periods	
Theory	Practical
3	2

Teaching Plan

While teaching this chapter, tell the students that how computers work on data and how data in a computer can be arranged in the form of files or folders.

- Copying files/folders from one drive to another drive
- Moving files/folders from one drive to another drive
- Copying files/folders from one device to another device
- Copying file/folder from a pen drive to computer

Tell the students about sorting of files and different ways in which files and folders can be arranged in a computer.

- Sorting of files – Sorting by name, Sorting by size, Sorting by type, Sorting by date of creation or modification.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 24 of the main course book to imbibe Digital Literacy and Problem Solving & Logical Reasoning skills.

Explain to the students about searching for files or folders:

- Searching of files using File Explorer
- Searching for a file using wildcard characters – Searching for files using asterisk (*), Searching for files using question mark (?)

Tell the students about using multiple applications in windows.

Explain to the students about different file formats used in windows.

- JPEG
- MP4
- MP3
- DOCX
- XLSX
- PPTX

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. Explain how data can be arranged in a computer.

Q. What is the procedure to copy files from one drive to another drive?

Q. What is the difference between copying and moving a file/folder?

Q. What is the procedure to copy file/folder using a pen drive to computer?

Q. What do you mean by sorting of files? What are some ways in which data can be sorted?

Q. How many ways are there to search a file or folder using wildcard characters?

Q. Explain following file formats:

■ JPEG ■ MP4 ■ DOCX ■ XLSX ■ PPTX

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 28 to 30 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 30 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 30 of the main course book will enhance the ability of the students and serve as an Experiential Learning, Collaboration and Teamwork activity.

Suggested Activity

Ask the students to explore different drives in their computers (under teachers or parents supervision) and sort files according to:

- File type
- Date
- Name

3 Word Processor—Tabular Representation

Teaching Objectives

Students will learn about

- Inserting a Table
- Selecting Cells, Rows, Columns and Table
- Deleting Rows or Columns
- Merging Cells
- Moving and Resizing Tables
- Table Styles
- Entering Data in a Table
- Inserting Rows or Columns
- Changing Column Width and Row Height
- Splitting Cells
- Applying Borders and Shading
- Aligning Text in a Table

Number of Periods	
Theory	Practical
3	3

Teaching Plan

While teaching this chapter, tell the students that a table is a grid of boxes framed by horizontally aligned rows and vertically aligned columns that help to organise data.

Also tell them that the rectangular area formed by the intersection of a column and a row is called a cell.

Demonstrate to the students the method of inserting a table and entering data in a table in a Word 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
- Change height of a row

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 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 Word 2016 allows to apply borders to tables and cells as well as to shade the cells and table.

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

Make the students understand how to align the text in a table.

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 table?

Q. Define a cell.

Q. What is the shape of the mouse pointer 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 Word 2016?

Q. What is text alignment?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 39 and 40 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 40 of the main course book to imbibe Digital Literacy skill in them. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore**, **Be Creative** and **Practical Time** given on pages 41 of the main course book will enhance the ability of the students and serve as Collaboration & Teamwork, Creativity & Innovativeness, Interdisciplinary and Experiential Learning activity.

Suggested Activity

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

4 Word Processor—Mail Merge

Teaching Objectives

Students will learn about

- Mail Merge
- Creating a Data Source
- Printing Merged Letters
- Creating the Main Document
- Merging the Main Document and Data Source

Number of Periods	
Theory	Practical
2	2

Teaching Plan

While teaching this chapter, introduce Mail Merge to the students as the feature of Word processor in which names and addresses of different recipients are merged in one document and each pair of name and address is merged with a copy of particular letter, so that the same letter is addressed to different recipients.

Explain the advantages of mail merge and how it helpful in creating personalised letters to be sent to many persons.

Explain the components of mail merge as Main Document, Data Source and Merged Document.

Tell them the various steps involved in creating the main document.

Make the students understand how to create a data source.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 45 of the main course book to imbibe Experiential Learning skill.

Tell them the various steps involved in merging the main document and data source.

Make the students understand how to print merged letters.

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 do you mean by Mail Merge?

Q. How is mail merge helpful?

Q. Name the main components of Mail Merge.

Q. What do you mean by Data Source?

Q. What is the name of the final document created by merging the Main Document and Data Source?

Q. Can we print all the merged documents?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 47 and 48 as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 48 to imbibe Experiential Learning and Problem Solving & Logical Reasoning skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore** and **Practical Time** given on page 49 will enhance the ability of the students and serve as Experiential Learning, Digital Literacy and Interdisciplinary activities.

Suggested Activity

Ask the students to create an electronic invitation (personaised) for inviting middle school teachers to a Thank You performance organised by Grade 6-8 students.

5 Presentation—Visual Effects

Teaching Objectives

Students will learn about

- Slide Views
- Animation
- Importing Data from Other Applications
- Slide Transition
- Uses of Media Clips and Action Buttons

Number of Periods	
Theory	Practical
3	2

Teaching Plan

While teaching this chapter, tell the students that PowerPoint 2016 is used to create electronic presentations.

Share with the students that PowerPoint's views are used to set how the slides and their contents appear on the screen.

Tell the students that PowerPoint 2016 provide many options like Normal, Outline view, Slide Sorter, Notes Page, Reading view and Slide Show view to view the 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 PowerPoint.

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.

Show to the students how video, sound files and action button can be inserted into a presentation.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 60 of the main course book to imbibe Digital Literacy skill.

Demonstrate the steps to importing data from other applications into the presentation.

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 PowerPoint's views?

Q. How many presentation views are present in PowerPoint?

Q. Can we add video files on a slide?

Q. Define transition.

Q. How many transitions can be applied to a slide?

Q. What happens if more than one slide transitions are added to a slide?

Q. What is meant by animation in PowerPoint?

Q. Can we reorder the animations applied to different objects on a slide?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 62 and 63 as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 64 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 64 will enhance the ability of the students and serve as Interdisciplinary and Experiential Learning activities.

Suggested Activity

Divide the class into two teams. Ask one team to prepare charts on various types of pollution. Ask the other team to prepare a PowerPoint presentation on the same topic. Make the students share the benefits enjoyed and limitations faced by each team while working on their project.

6 Scratch Programming—Game Creation

Teaching Objectives

Students will learn about

- Starting Scratch
- Resizing a Sprite
- Choosing a Backdrop
- Sprite's Direction
- Use of Looping Control Blocks
- The Pen Block
- Drawing a Square
- Drawing Patterns
- Choosing a Sprite
- Deleting a Sprite
- Understanding Blocks
- Use of Conditional Control Blocks
- Working with Two Sprites
- Drawing a Polygon
- Drawing a Circle
- Creating Some More Programs

Number of Periods	
Theory	Practical
3	3

Teaching Plan

While teaching this chapter, tell the students that Scratch is an easy programming language that is used to create games, animated stories and interactive arts, and share the creations with one another over the Internet.

Demonstrate to the students the steps to start Scratch 3.

Make the students understand the features of Scratch.

Familiarise the students with the various components of Scratch window covering Title Bar, Menu Bar, Go Button, Stop Button, Tabs, Blocks Menu, Stage Area, Sprite, Script, Coding Area and Sprites Info Pane.

Show to the students the steps to:

- Choose a sprite from the Library
- Paint a new sprite
- Resize a sprite
- Delete a sprite

Make the students recall backdrop as background of the stage.

Tell the students about the steps to change the backdrop in Scratch.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 73 of the main course book to imbibe Digital Literacy skill.

Explain to the students that the direction of the sprite can be changed using the Turn block under the Motions block menu.

Demonstrate to the students the use of conditional control blocks.

Share the use of looping blocks which are used to run a set of statements more than once, without writing the script again.

Tell the students about working with two sprites.

Demonstrate to the students that Scratch allows working with two sprites in a single project.

Tell the students about the use of Pen blocks as used to draw a trail as the sprite moves on the stage.

Demonstrate to the students the steps to add Pen blocks to the block category.

Share with the students the various blocks present under Pen category.

Explain to the students that polygons are 2D shapes with three or more straight lines and angles with examples.

Demonstrate to the students the steps to draw shapes on the stage with the help of a sprite.

Tell the students that the Stamp block from the Pen blocks menu can be used to draw a pattern.

Demonstrate to the students the steps to draw a pattern on the stage with the help of a sprite.

Share with the students about the use of If...then block and If...then...else block as conditional blocks.

Demonstrate to the students with some more programs.

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 Scratch?

Q. What are the features of Scratch?

Q. Name the various components of Scratch window.

Q. Define Sprite / Stage Area / Scripts / Go button / Stop button.

Q. What is a backdrop in Scratch?

Q. What are Scratch blocks?

Q. What is the use of Motion / Events / Control / Sound blocks?

Q. What is the colour code for Motion / Events / Control / Sound blocks?

Q. Define polygons.

Q. What are Looks blocks?

Q. What is the use of Pen blocks?

Q. What is the use of Repeat Untill block?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 82 to 84 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 84 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**, **Be Creative** and **Practical Time** given on pages 84 and 85 of the main course book will enhance the ability of the students and serve as Experiential Learning, Creativity & Innovativeness, Art Integration and Coding & Computational Thinking activity.

Suggested Activity

Ask the students to develop the story of Rabbit and Tortoise in Scratch.

7 HTML—An Introduction

Teaching Objectives

Students will learn about

- HTML
- Rules for Writing HTML5 Codes
- Creating and Saving an HTML Document
- Editing an Existing HTML Document
- Text Properties
- Font Properties
- Tags and Attributes
- HTML5 Document Structure
- Basic HTML Tags
- Introducing CSS3
- Background Properties
- Margin Properties

Number of Periods	
Theory	Practical
3	2

Teaching Plan

While teaching this chapter, tell the students that websites consist of millions of pages called web pages which contain text, graphics, audios, videos and links to other pages.

Introduce Hypertext Markup Language (HTML) as language that describes the structure of a web page.

Make the students understand the meaning of the terms like hypertext and markup language.

Familiarise the students with the key features of HTML.

Tell the students about the tools needed for working with HTML.

Make the students aware about the different types of HTML editors – WYSIWYG editor and Text editor.

Familiarise the students with basic HTML terms like tags, container tags, empty tags, block level tags, text level tags and attributes.

Tell the students about the concept of nesting of tags.

Share with the students the general rules followed for writing HTML codes.

Show to the students an HTML document and make them understand and identify the various sections and structure of the HTML document.

Tell the students about the meaning and use of basic HTML tags covering <HTML>, <HEAD>, <TITLE> and <BODY> tags alone with their attributes.

Tell the students about some more HTML tags like Heading, Paragraph, Line Break, Horizontal Ruler (and its attributes), Bold, Italic, Underline, Superscript and Subscript tags.

Demonstrate to the students the steps involved in:

- Creating and saving an HTML document
- Previewing a web page

Show the students the method of editing in an existing HTML document.

Introduce CSS3 as it handles and describes how an HTML web page will be presented on a web browser.

Tell the students about CSS styles in HTML document which are:

- Inline style sheet
- Internal Style Sheet
- External Style Sheet

Demonstrate text properties, background properties, font properties and margin properties to the students.

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 HTML?

Q. Define Hypertext and Markup language.

Q. Name the different types of HTML editors.

Q. What are tags and attributes?

Q. State the rules followed while writing HTML codes.

Q. Name the text editor most commonly used to write HTML codes.

Q. State the use of <HTML> / <HEAD> / <BODY> / <TITLE> tags?

Q. What is CSS3?

Q. Name any two font properties.

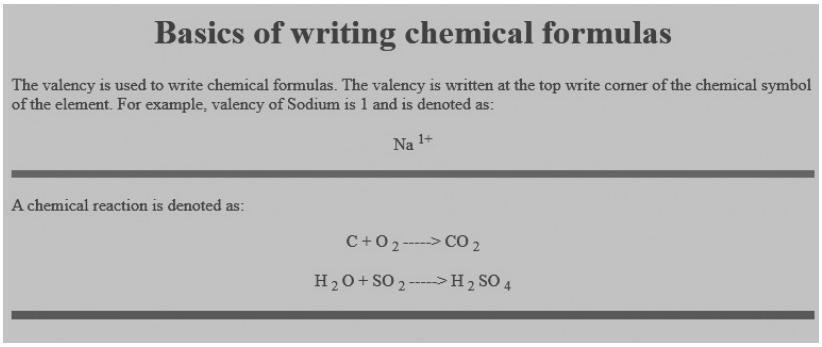
Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 102 and 103 as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 104 to imbibe Critical Thinking skill in them. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore** and **Practical Time** given on pages 104 and 105 will enhance the ability of the students and serve as Experiential Learning, Communication and Coding & Computational Thinking activity.

Suggested Activity

Ask the students to develop a similar web page in HTML.



Basics of writing chemical formulas

The valency is used to write chemical formulas. The valency is written at the top write corner of the chemical symbol of the element. For example, valency of Sodium is 1 and is denoted as:

Na^{1+}

A chemical reaction is denoted as:

$C + O_2 \text{-----} > CO_2$

$H_2O + SO_2 \text{-----} > H_2SO_4$

8 Online Surfing and Cybersecurity

Teaching Objectives

Students will learn about

- Internet Services
- Cyber Threats
- Netiquettes
- Cybersecurity

Number of Periods	
Theory	Practical
3	1

Teaching Plan

While teaching this chapter, tell the students that internet is a global network of millions of computers and computer networks all over the world.

Tell the students that internet services allow us to perform different types of operations over the internet.

Explain how internet plays an important role in communication through e-mails, video conferences, voice-over-internet protocol, chat, social network, and newsgroup.

Demonstrate the steps to use VoIP service of Skype.

Tell the students about the advantages and disadvantages of VoIP services.

Share with the students how internet is used to:

- Send greetings in the form of e-greetings.
- Send and receive money through e-banking.
- Store data and information through cloud storage.

Share with the students about the safety measures to be kept in mind while using the Internet.

Explain the students about the common netiquettes should be followed while communicating with others online.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 113 of the main course book to imbibe Digital Literacy skill.

Introduce cyber threats as a criminal activity in which computers are used to damage data, steal data, or disrupt the digital life of a person.

Explain the different types of cyber threats covering data diddling, phreaking, cloning carding, hacking and cracking.

Make the students understand the difference between hacking (practice of modifying computer hardware and software for legal purposes) and cracking (practice of modifying computer hardware and software for illegal purposes).

Introduce Cybersecurity as the process of protecting computer resources such as networks, devices, programs and data from unauthorised access, damage or attack.

Share with the students the reasons for increase in cybercrimes.

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. Name some internet services.

Q. Define Video Conferencing / VoIP.

Q. What are the advantages and disadvantages of VoIP?

Q. Define chatting / social networking / newsgroup.

Q. What is meant by cloud storage?

Q. What are the different types of cybercrime?

Q. Differentiate between hackers and crackers.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 115 to 117 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 117 of the main course book to imbibe Problem Solving & Logical Reasoning and Experiential Learning skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore** and **Practical Time** given on page 118 of the main course book will enhance the ability of the students and serve as a Communication and Experiential Learning activity.

Suggested Activity

Ask the students to collect information about different types of major cybercrimes committed in last one year.

9 E-mail—An Introduction

Teaching Objectives

Students will learn about

- E-mail
- Emoticons and Acronyms

Number of Periods	
Theory	Practical
2	2

Teaching Plan

While teaching this chapter, make the students recall E-mail as the process of exchanging messages electronically through communications network by using a computer.

Familiarise the students with the features of e-mail.

Share with the students the advantages of e-mail.

Explain the components of an e-mail address to the students.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 121 of the main course book to imbibe Digital Literacy skill.

Demonstrate in detail the steps involved in:

- Creating an e-mail account
- Composing and Sending an e-mail (with reference to fields like To, Cc, Bcc and Subject)
- Reading a received e-mail
- Logging in to an e-mail account
- Logout from the e-mail account (tell them the importance of this step)

Introduce the terms emoticons (representation of facial expressions) and acronyms (word formed from initial letters of a multi-word name).

Write some commonly used emoticons and acronyms on the class board to elaborate the concept.

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 an e-mail.

Q. State the features of e-mail.

Q. Differentiate between logging in and logout.

Q. What do you understand by emoticons?

Q. What is an acronym?

Q. State any three acronyms.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 127 and 128 as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 129. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore** and **Practical Time** given on page 129 will enhance the ability of the students and serve as a Interdisciplinary and Experiential Learning activity.

Suggested Activity

Ask the students to create an e-mail account. Tell them to design a birthday invitation card and send this card as an attachment to ten friends and/or relatives.

10 More on Internet

Teaching Objectives

Students will learn about

- Google drive
- Blogging
- E-commerce
- Podcasting

Number of Periods	
Theory	Practical
2	2

Teaching Plan

While teaching this chapter, tell the students about advanced features of internet such as:

- cloud storage

- E-commerce
- Blogging
- podcasting

Tell the students about the various cloud storage services

Demonstrate the application of Google drive

Show to the students the steps involved in organising files and folders in Google drive.

- Creating a folder
- Moving a file to a folder
- Duplicating a file
- Removing a file
- Opening a file to work on it
- Sharing a file or folder

Tell the students about E-commerce, it's advantages and disadvantages.

Explain to the students about the different modes of payment available at different E-commerce platforms:

- Debit or credit cards
- Net banking
- E-wallet
- Cash on delivery

Demonstrate the steps to shop online on any e- commerce website.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 139 of the main course book to imbibe Digital Literacy skill.

Show to the students what is a blog and explain blogging.

Demonstrate the steps to create a blog on blogger.com.

Explain to the students what is podcasting.

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 e-commerce?

Q. What do you mean by cash on delivery?

Q. What is a blog?

Q. Define podcasting.

Q. What do you mean by e-wallet?

Q. Which is the most popular cloud storage service?

Q. Is Google Drive allowing us to work on an already uploaded file?

Q. Who is a blogger?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 141 and 142 as **Exercise**. After solving the course book exercises, tell the students to solve **Crack the Code** activity given on page 143 to imbibe Problem Solving & Logical Reasoning skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Let's Explore** and **Practical Time** given on page 143 will enhance the ability of the students and serve as a Experiential Learning, Digital Literacy and Collaboration & Teamwork activity.

Suggested Activity

Ask the students to collect a data about which mode of payment is used by their family members. Then discuss in the class that which mode of payment is the most popular mode.