TOUCHPAD

iPLUS (Ver. 2.1)

3

Teacher's Manual

Extended Support for Teachers

ORANGE
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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 • 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

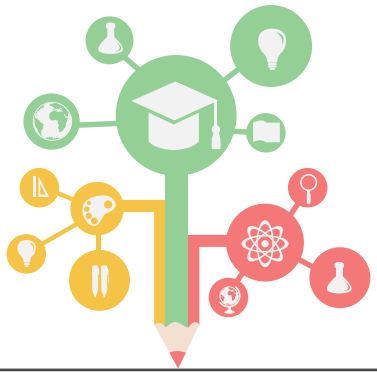
Age 11 - 20 Years

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.

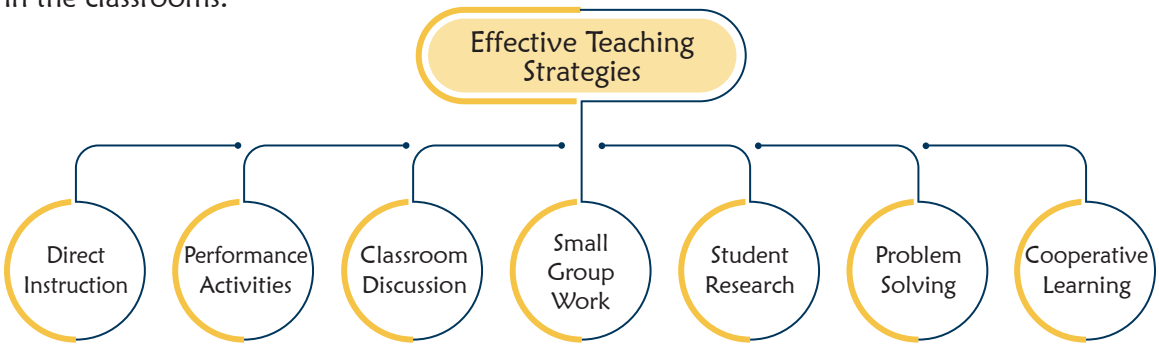
After the class

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

"Knowing yourself is the beginning of all wisdom."

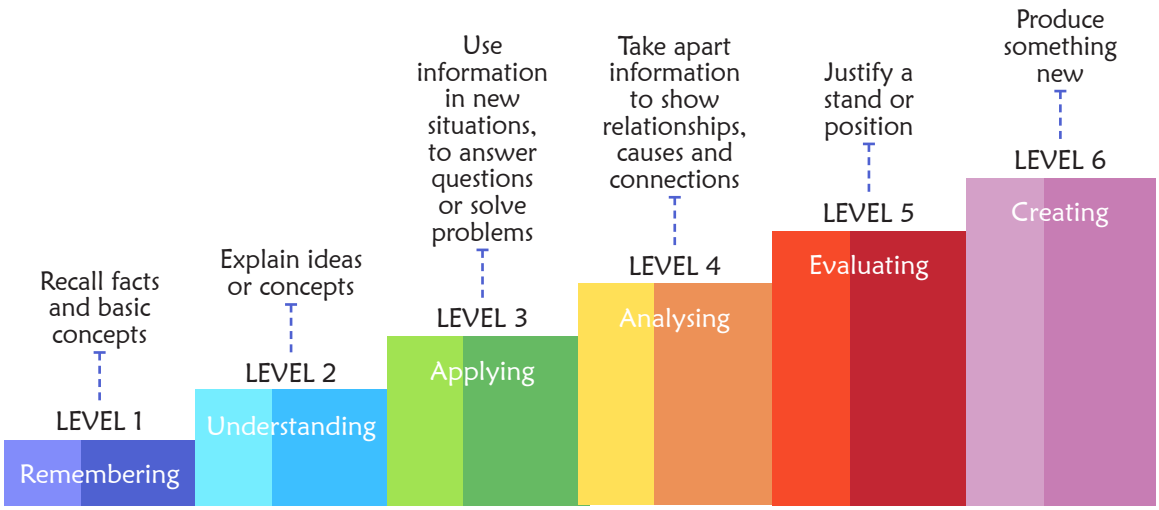
Teaching Strategies

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 3

LESSON PLAN

1 A Computer System

Teaching Objectives

Students will learn about

- Computer System
- IPO Cycle
- Types of Computer
- Computer Hardware
- Computer Software

Number of Periods
Theory
3

Teaching Plan

While teaching this chapter, tell the students computer system is made up of many parts that helps to perform a different task.

Discuss with students a computer system.

Explain computer hardware.

Discuss different types of input devices:

- Keyboard
- Scanner
- Web Camera
- Light Pen
- Mouse
- Microphone
- Joystick

Discuss different types of output devices:

- Monitor
- Projector
- Plotter
- Speakers
- Printer

Explain processing device with students and explain CPU.

Discuss different units inside a CPU.

- Arithmetic Logic Unit
- Control Unit
- Memory unit

Explain Storage devices and its purpose.

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

Explain computer software and its types:

- System software
- Application software

Tell the students about IPO cycle and its process.

Explain different types of computers based on shape and size:

- Microcomputers
- Minicomputers
- Mainframe computers
- Supercomputers

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 hardware?

Q. How many types of hardware are there?

Q. Explain the following:
   a. Input Devices
   b. Processing Device
   c. Output Devices
   d. Storage Devices

Q. What is a software?

Q. How many types of software are there?

Q. What is a system software?

Q. What is an application software?

Q. Explain microcomputers.

Q. Explain minicomputers.

Q. What is a mainframe computer?

Q. Where are supercomputers used?

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. Help the students to solve these questions.

In creative assignment, activities 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 Experiential Learning, Digital Literacy and Communication activities.

Suggested Activity

Ask the students to collect pictures of different types of computers and paste them on a chart paper according to the categories explained in this chapter.

2 GUI Operating System—An Introduction

Teaching Objectives

Students will learn about

- Operating system
- Desktop
- Sorting Desktop Icons
- Changing Desktop Background
- Mouse Pointer Shapes
- How to Shut Down A Computer?
- Windows 10
- Components of Desktop
- Hiding Desktop Icons
- Setting the Screen Saver
- How to Start a Computer?

Number of Periods	
Theory	Practical
2	2

Teaching Plan

While teaching this chapter, let the students know about Operating System.

Highlight that operating systems offer different interfaces, leading to GUI and CUI.

Make the students aware of Windows 10.

Explain to the students about features of Windows 10 and its desktop.

Give explanations of icons, taskbar.

Share with them different parts of taskbar – Start menu, notification area, etc.

Tell them about desktop background and steps to change desktop background. Also show the steps involved in sorting/hiding desktop icons.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 22 of the main course book to imbibe Problem Solving & Logical Reasoning skills.

Let the students know about the steps of setting the screen saver.

Share the shapes of mouse pointers.

Demonstrate the steps involved to start and shut down the computer.

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 some features of Windows 10.

Q. What is an operating system? Can you give an example?

Q. What are icons?

Q. What is a taskbar?

Q. What do you mean by start menu?

Q. Explain desktop background.

Q. What is screen saver?

Q. Discuss different mouse pointers shapes briefly.

Q. What does GUI stand for? What does it mean?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 26 to 28 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 29 of the main course book to imbibe Problem Solving & Logical Reasoning skills. Help the students to solve these questions.

In creative assignment, activities like **Let's Explore**, **Be Creative** and **Practical Time** given on pages 29 and 30 of the main course book will enhance the ability of the students and serve as Experiential Learning, Creativity & Innovativeness and Digital Literacy activities.

Suggested Activity

Show pictures of desktops and icons, etc. of some older versions of Windows and help students note noticeable changes in the interface of these versions of Windows over time.

3 Word Processor—An Introduction

Teaching Objectives

Students will learn about:

- Uses of Word 2016
- Components of Word 2016 Window
- Starting Word 2016
- Working with Word 2016

Number of Periods	
Theory	Practical
2	2

Teaching Plan

While teaching this chapter, tell the students that Microsoft Word is word processing software in the category of application software.

Make the students aware of the various uses of Word 2016.

Demonstrate to the students the steps involved in starting Word 2016.

Show the students the various components of Word 2016 window covering Title Bar, Quick Access Toolbar, Ribbon, Tabs, Zoom Slider, Horizontal and Vertical Scroll Bars, Text/Document Area and Status Bar.

Demonstrate to the students the steps involved in:

- Creating a new Word file
- Selecting the text
- Inserting the text
- Opening a saved document
- Exiting Word
- Typing the text
- Deleting the text
- Saving a document
- Printing a document

Ask the students to solve the activity in **LET'S CATCH UP** given on page 36 of the main course book to imbibe Problem Solving & Logical Reasoning skills.

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 Word 2016?

Q. What are the various uses of Word 2016?

Q. Name some important components of Word 2016 window.

Q. How can you type/select/delete/insert text in a Word document?

Q. What are the shortcut keys to open, save and print a document?

Q. What are the various ways in which the user can exit from Word 2016?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 38 and 39 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 to imbibe Problem Solving & Logical Reasoning skills. Help the students to solve these questions.

In creative assignment, activities like **Let's Explore** and **Practical Time** given on page 40 of the main course book will enhance the ability of the students and serve as Experiential Learning and Digital Literacy activities.

Suggested Activity

Ask the students to create a Word document on Myself. The students should take a printout of the document and paste it in their computer notebook/practical file.

4 The Internet—An Introduction

Teaching Objectives

Students will learn about:

- Uses of Internet
- Internet Terms
- Best Practices Related to Online Safety
- Advantages and Disadvantages of the Internet
- Using URLs
- Responsibilities of a Good Digital Citizen

Number of Periods	
Theory	Practical
2	1

Teaching Plan

While teaching this chapter, tell the students that a computer network is a connection between two or more computers.

Introduce Internet as a network in which millions of computers are connected to each other to share information and is an abbreviation of International Network.

Explain to the students the various uses of Internet.

Share with the students the advantages and disadvantages of the Internet.

Introduce the students to common Internet terms like Website (collection of related web pages), Web Page (electronic page on a website), Home Page (main or first page of website), World Wide Web (largest collection of websites),Web Browser (software to open websites) and Search Engine (a web-based application used to look for information on the Internet).

Familiarise the students with the URLs and how to use them.

Make the students understand the best practices related to online safety.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 48 of the main course book to imbibe Problem Solving & Logical Reasoning skills.

Tell the students the responsibilities of a good citizen.

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 network?

Q. What is Internet?

Q. What are the uses of Internet?

Q. What are the advantages of Internet?

Q. Define Website/Web Page/Home Page/Web Browser/Search Engine.

Q. What does WWW stand for?

Q. What are URLs?

Q. Tell any two things that you should remember while using Internet.

Q. What rules should you follow to be a good digital citizen?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 49 to 51 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 51 of the main course book to imbibe Digital Literacy and Problem solving & logical reasoning skills. Help the students to solve these questions.

In creative assignment, activities like **Let's Explore**, **Be Creative** and **Practical Time** given on pages 51 and 52 of the main course book will enhance the ability of the students and serve as Experiential Learning, Creativity & Innovationess, Communication and Digital Literacy activities.

Suggested Activity

Ask the students to paste a picture of some most commonly used web browsers in their computer notebook/practical file.

5 Fun With Pain

Teaching Objectives

Students will learn about

- Starting Paint
- Callout Shape
- Resizing an Image
- Flipping an Image
- Zooming an Image
- Copying and Pasting
- Saving the Drawing
- Setting a Drawing as a Desktop Background
- Color Picker Tool
- Selecting an Image
- Skewing an Image
- Rotating an Image
- Cropping an Image
- Cutting and Pasting
- Opening an Old Drawing
- Saving a File in Different Formats

Number of Periods	
Theory	Practical
2	2

Teaching Plan

Tell the students about Paint.

Encourage the students to explore the Paint window.

Explain to the students about features and tools of the Paint window.

Explain color picker tool and callout shape.

Ask the students to solve the activity in **LET'S CATCH UP** given on page 56 of the main course book to imbibe Problem Solving & Logical Reasoning skills.

Share with them procedure to select an image using rectangular selection and free form selection.

Tell them about resizing, skewing an image, flipping an image and rotating an image.

Explain about zooming and cropping an image, copying, cutting & pasting an image.

Explain how to save a drawing and open an already saved drawing.

Explain the students about the procedure of setting a drawing as desktop background and saving a file in different formats.

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 paint program?

Q. Name some tools/shapes of Paint.

Q. What is the use of color picker tool, skew command?

Q. Explain differences between copy paste and cut paste.

Q. What are the steps to resize an image?

Q. Explain rectangular and free form selection.

Q. Name any four formats that can use to save a Paint file.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 67 to 69 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 70 of the main course book to imbibe Coding & Computational Thinking skills. Help the students to solve these questions.

In creative assignment, activities like **Let's Explore**, **Be Creative** and **Practical Time** given on page 70 and 71 of the main course book will enhance the ability of the students and serve as Experiential Learning, Creativity & Innovationess and Digital Literacy activities.

Suggested Activity

Show some drawings made on Paint to the students and ask them to create similar drawings.

6 File Management—Organisation of Folders

Teaching Objectives

Students will learn about

- File/Folder
- Creating a New File
- Saving a File
- Creating a New Folder
- Deleting a File/Folder
- Opening an Existing File/Folder

Number of Periods	
Theory	Practical
2	2

Teaching Plan

While teaching this chapter, tell the students that all the data saved on a hard disk consists of files and folders.

Introduce file as a document that contains a collection of related information, a folder as a collection of files and a subfolder as a folder within a folder.

Introduce to the students the Windows Explorer as a file manager that manages files and folders.

Tell the students that Windows 10 has some default folders to organise similar files.

Demonstrate to the students the steps to:

- Creating a new file and a folder.
- Deleting a file and a folder.
- Saving a file and a folder.
- Opening an existing file and folder

Ask the students to solve the activity in **LET'S CATCH UP** given on page 76 of the main course book to imbibe Problem Solving & Logical Reasoning skills.

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 file/folder/subfolder?

Q. How to create a new folder on the Desktop?

Q. What are the steps to delete a file?

Q. What are the purposes of saving a file?

Q. How can you open a folder?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 77 and 78 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 78 of the main course book to imbibe Digital Literacy and Problem Solving & Logical Reasoning skills. Help the students to solve these questions.

In creative assignment, activities like **Let's Explore** and **Practical Time** given on page 79 of the main course book will enhance the ability of the students and serve as Experiential Learning and Digital Literacy activities.

Suggested Activity

Ask the students to collect information about some more features of Windows 10 other than those discussed in the chapter.