TRACKPAD

iPro Ver. 4.1

3

Teacher's Manual

Extended Support for Teachers

ORANGE
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Teacher's Time Table

Periods / Days	0	I	II	III	IV		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

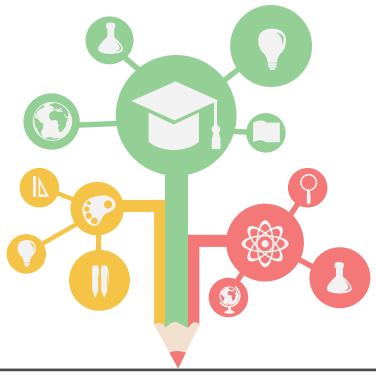
Age 11 - 20 Years

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.

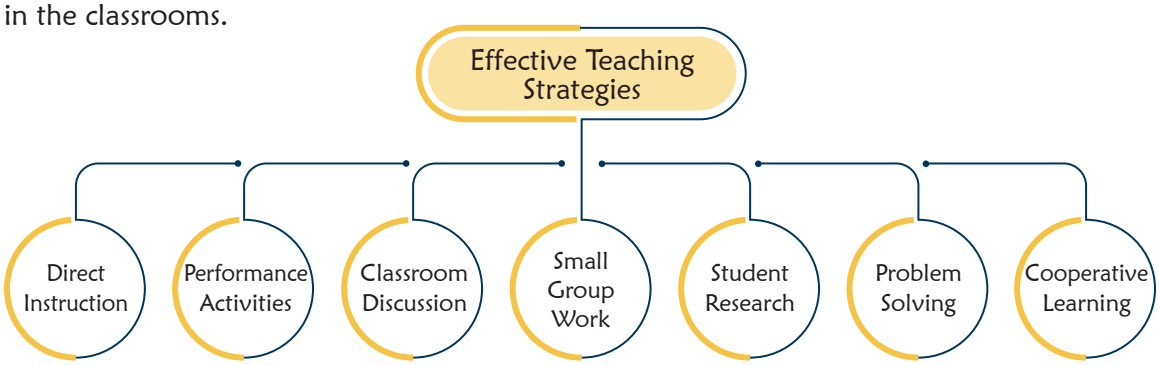
After the class

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

"Knowing yourself is the beginning of all wisdom."

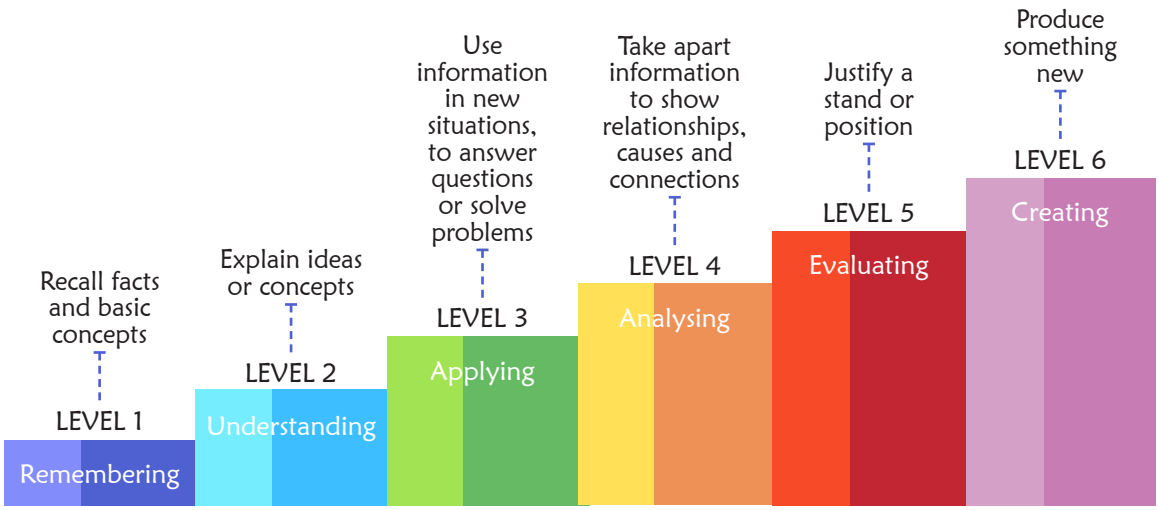
Teaching Strategies

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 3

Lesson Plan

1 A Computer System

Teaching Objectives

Students will learn about

- Hardware
- Software
- Working of a Computer
- Types of Computers

Number of Periods	
Theory	Practical
2	1

Teaching Plan

While teaching this chapter, tell the students computer is an electronic machine made up of various devices that helps to do a task.

Discuss with students a computer system.

Explain computer hardware.

Discuss different types of input devices:

- Keyboard
- Mouse
- Scanner
- Touch screen
- Microphone
- Web Camera

Discuss different types of output devices:

- Monitor
- Speakers
- Projector
- Headphones / Earphones
- Printer
- Types of printer

Explain processing device with students and explain CPU.

Discuss different units inside a CPU.

- ALU
- Control Unit
- Memory unit

Explain Storage device and its purpose.

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

Explain mainframe computer and supercomputer to students with examples of areas where these types of computers are used.

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?

Q. What is the name of a supercomputer designed by India?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 15 to 18 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 18 of the main course book to imbibe Digital Literacy skills in them. Help the students solve these questions.

In Creative Assignment, activities like **Hands-On** and **Fun in Lab** given on pages 18 and 19 of the main course book will enhance the ability of the students and serve as a Creativity & Innovativeness, and Digital Literacy activity.

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

Teaching Plan

Number of Periods	
Theory	Practical
2	2

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

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 hiding desktop icons.

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 are icons?

Q. What is a taskbar?

Q. What do you mean by start menu?

Q. Explain desktop background

Q. What is screensaver?

Q. Discuss different mouse pointers briefly.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 27 to 29 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 30 of the main course book to imbibe Coding & Computational Thinking skills. Help the students to solve these questions.

In Creative Assignment, activities like **Hands-On** and **Fun in Lab** given on pages 30 and 31 of the main course book will enhance the ability of the students and serve as a Creativity & Innovativeness, Collaboration & Teamwork, Digital Literacy and Experiential Learning activity.

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 2019
- Starting Word 2019
- Components of Word 2019 window
- Working with Word 2019

Number of Periods	
Theory	Practical
1	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 2019.

Demonstrate to the students the steps involved in starting Word 2019.

Show the students the various components of Word 2019 window covering Title Bar, Quick Access Toolbar, Ribbon, Rulers, Scroll Bars, Text/Document Area, Cursor, Window Control buttons, Zoom slider, Tabs and Status Bar.

Demonstrate to the students the steps involved in:

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

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 2019?

Q. What are the various uses of Word 2019?

Q. Name some important components of Word 2019 window.

Q. Which company developed Word 2019?

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 2019?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 39 to 41 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 41 of the main course book to imbibe Digital Literacy skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on page 42 of the main course book will enhance the ability of the students and serve as a Digital Literacy and Interdisciplinary activity.

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

Teaching Plan

Number of Periods	
Theory	Practical
2	0

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 in an abbreviation of International Network.

Explain to the students the various uses of internet.

Share with the students the various advantages and disadvantages of 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), Search engine (web-based application to look for application) and Web Browser (software to open websites).

Explain to the students about URL.

Famiiliarise the students with the best practices related to online safety.

Tell the students the responsibilites of a good digital 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 requirements for an internet connection?

Q. Define Website / Web Page / Home Page / World Wide Web / Web Browser.

Q. What does WWW stand for?

Q. Which is the most common Web Browser?

Q. What are the best practices related to online safety?

Q. What are the responsibilities of a good digital citizen?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 52 to 54 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 55 of the main course book to imbibe Digital Literacy skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on page 55 of the main course book will enhance the ability of the students and serve as a Communication and Ethical & Moral Reasoning activity.

Suggested Activity

Ask the students to open the school's website and label the different pages of the website.

5 Fun With Paint

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

Teaching Plan

Number of Periods	
Theory	Practical
1	3

Tell the students about MS Paint.

Encourage the students to explore the paint window.

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

Demonstrate to the students the steps to start paint.

Explain color picker tool and callout shape.

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, rotating an image and zooming an image.

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

Explain how to save a drawing and open an old 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. What are the main components of the paint window?

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.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 72 and 73 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 74 of the main course book to imbibe Coding & Computational Thinking and Digital Literacy skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on page 75 of the main course book will enhance the ability of the students and serve as a Creativity & Innovativeness activity.

Suggested Activity

Show some drawings made on MS Paint to the students and ask them to come up with 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 a File/Folder

Teaching Plan

Number of Periods	
Theory	Practical
1	2

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 sub folder as a folder within a folder.

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

Demonstrate to the students the steps to:

- Open a file and a folder
- Select a file and a folder (including selecting a single file, selecting multiple files, selecting all files and deselecting a file).
- Creating a new file and a folder.
- Deleting a file and a folder.
- Saving a file and a folder.

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. Define a computer icon.

Q. What is Windows Explorer?

Q. Name the default folders of Windows 10 for organizing data.

Q. Which key is used to select multiple files?

Q. Which key is pressed to invert the selection?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 82 and 83 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 84 of the main course book to imbibe Digital Literacy and Problem Solving & Logical Reasoning skills in them. Help the students to solve these questions.

In Creative Assignment, activity like **Fun in Lab** given on page 84 of the main course book will enhance the ability of the students and serve as a Creativity & Innovation and Digital Literacy activity.

Suggested Activity

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