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TRACKPAD
iPLUS Ver. 2.0

Teacher's Manual

Extended Support for Teachers

ORANGE
www.orangeeducation.in
www.thetouchpad.com

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 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.

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During the class:

Present the lesson plan.

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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.

Effective Teaching Strategies
- Direct Instruction
- Classroom Discussion
- Small Group Work
- Cooperative Learning
- Problem Solving
- Student Research
- Performance Activities

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.

Level 1 — Remembering — Recall facts and basic concepts
Level 2 — Understanding — Explain ideas or concepts
Level 3 — Applying — Use information in new situations, to answer questions or solve problems
Level 4 — Analysing — Take apart information to show relationships, causes and connections
Level 5 — Evaluating — Justify a stand or position
Level 6 — Creating — Produce something new

Teachers should focus on helping students 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."

Lesson Plan

iPlus Ver. 2.0

1. Computers—Storage and Memory Device

Teaching Objectives

Students will learn about

☞ Data and Information

☞ Memory

☞ Measuring the Computer's Memory

Number of Periods

②

Teaching Plan

While teaching this chapter, tell the students that like human beings, computers also have memory to store all data and instructions for performing various tasks.

Tell the students about the two types of computer memory – primary memory and secondary memory.

Share with the students that the primary memory of the computer is fixed on the motherboard of the computer.

Explain in detail about the types of Primary Memory covering:

- **Random Access Memory (RAM)** – the volatile memory
- **Read Only Memory (ROM)** – the non-volatile memory

Share with the students the meaning and difference between the two types of RAM – Dynamic RAM and Static RAM.

Give a brief introduction about secondary memory or secondary storage devices covering in detail: Magnetic Disk (Hard Disk – Internal and External)

- **Optical Disk** (CD, DVD, Blue-ray Disk – ROM, R and RW)
- **Flash Drive** (Pen Drive, Memory Card)

Introduce byte as the basic unit of measuring computer memory and nibble as half a byte.

Share with the students the meaning and relationship between higher units of measurement of computer memory – KB, MB, GB, TB, PB, EB, ZB and YB.

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 computer memory?

Q. What is primary memory?

Q. Name the different types of primary memory.

Q. Expand RAM / ROM.

Q. What are the different types of RAM?

Q. What is the difference between primary and secondary memory?

Q. Name the categories in which secondary storage devices are divided into.

Q. What are the different types of CDs and DVDs?

Q. Expand CD and DVD.

Q. Define a pen drive and memory card.

Q. Define a byte.

Q. Name any three higher units of measurement of computer memory.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 11 and 12 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 13 of the main course book to imbibe problem solving and logical reasoning skills in them. Help the students to solve these questions.

In Creative Assignment, activities like Practical Time given on page 13 of the main course book will enhance the ability of the students and serve as a creativity & innovativeness, art integration and digital literacy activity.

Suggested Activity

Ask the students to research and collect information about some secondary storage devices like floppy disks, which have now become obsolete.

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2. GUI Operating System—Desktop Management

Teaching Objectives

Students will learn about

☞ Components of Windows 10 desktop   ☞ Desktop Background

☞ Icons   ☞ Taskbar

Teaching Plan

While teaching this chapter, tell the students that operating system is one of the most important software as without this software we cannot use our computer at all.

Number of Periods	
Theory	Practical
1	2

Give a brief introduction of Microsoft Windows.

Tell the students the about the useful features of Windows 10.

Demonstrate to the students the steps to start Windows 10.

Make the students aware of the concept of desktop.

Familiarise the students with some important icons on the desktop like This PC, Recycle Bin and Folder.

Demonstrate to the students the steps to sort icons on the desktop. Show to the students how some or all of the icons on the desktop can be hidden.

Introduce the students to the taskbar and its components covering Start button, Quick launch bar and clock.

Explain the use of the following to the students:

- Start Button
- Clock
- Quick Launch Bar
- Show Desktop Button
- Changing Volume of the Speaker
- Changing Position of the Taskbar

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 importance of an operating system?

Q. Give examples of some popular operating systems.

Q. Which company developed Windows operating system?

Q. What are the important features of Windows 10?

Q. What is desktop?

Q. Define icons.

Q. What is taskbar?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 22, 23 and 24 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 24 of the main course book to imbibe problem solving and logical reasoning skills in them. Help the students to solve these questions.

In Creative Assignment, activities like Practical Time given on page 24 of the main course book will enhance the ability of the students and serve as a creativity & innovativeness, art integration and digital literacy activity.

Suggested Activity

Ask the students to draw the various shapes of a mouse pointer and the action being performed at that time on an A3 sheet of paper.
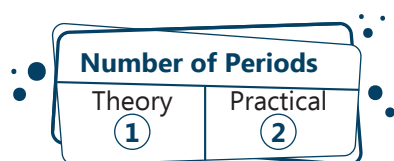
3. Editing in Word 2016

Teaching Objectives

Students will learn about

- ☞ Features of Word 2016
- ☞ Saving a Document
- ☞ Deleting Text
- ☞ Cutting/Copying Text
- ☞ Spell Check

- ☞ Creating a New Document
- ☞ Selecting Text
- ☞ Inserting Text
- ☞ Undo/Redo
- ☞ Thesaurus

Number of Periods

Theory	Practical
1	2

Teaching Plan

While teaching this chapter, tell the students that editing is the process of making changes in the existing text.

Share with the students that to edit text, first it needs to be selected.

Tell the students about selecting text with the help of mouse and with the help of keyboard.

Demonstrate to the students the different ways in which text can be deleted according to the requirement of the user.

Show to the students that text can simply be inserted by moving the cursor to the point where text is to be entered.

Demonstrate to the students the steps involved in:

- Saving a document
- Opening a saved document
- Printing a document
- Closing Word 2016

Introduce Undo as a feature used to cancel the command and Redo as a feature to reverse the action of Undo.

Familiarise the students with the icons and the shortcut keys to Undo and Redo actions.

Introduce Cutting as moving the text from one place to another and Copying as duplicating text at another place also.

Demonstrate the steps to Cut-Paste and Copy-Paste text in a Word document.

Introduce the students to Spelling and Grammar Check feature of Word 2016.

Show to the students the representation of spelling and grammar mistakes with different coloured wavy lines.

Demonstrate to the students the method of using Spelling and Grammar Check feature of Word 2016.

Demonstrate to the students the method of using Thesaurus feature of Word 2016.

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 editing?

Q. How are letter, word, text and paragraph selected using a keyboard?

Q. Which key is used to delete a letter?

Q. What is the use of Undo command?

Q. When is Redo command used?

Q. What is the difference between Cutting and Copying text?

Q. What is the use of Spelling and Grammar check feature?

Q. Which button is pressed to skip errors and continue working during Spelling and Grammar check?

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

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 32 and 33 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 34 of the main course book to imbibe problem solving and logical reasoning skills in them. Help the students to solve these questions.

In Creative Assignment, activities like Practical Time given on page 34 of the main course book will enhance the ability of the students and serve as a creativity & innovativeness, art integration and digital literacy activity.

Suggested Activity

Ask the students to write a paragraph on My Favourite Festival in Word 2016, check for spelling and grammar mistakes and paste a printout in the computer notebook/practical file.