5

TRACKPAD

iPro Ver. 4.0

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	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 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.

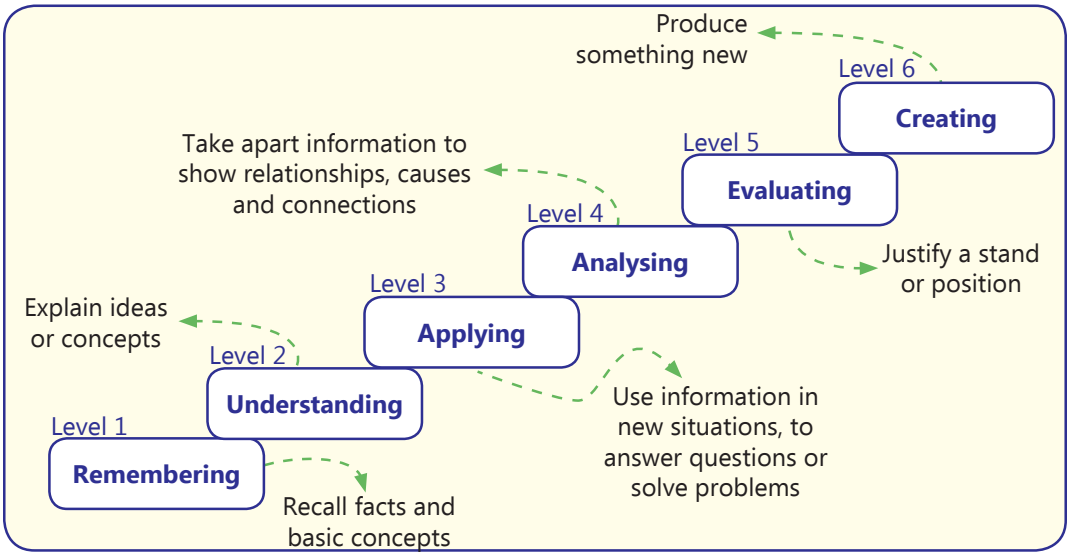
"Knowing yourself is the beginning of all wisdom."

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 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 5

Lesson Plan

iPlus Ver 2.0

1. Evolution of Computers

Teaching Objectives

Students will learn about

- ☞ History of computers
- ☞ Characteristics of a computer
- ☞ Computer generations
- ☞ Limitations of a computer

Teaching Plan

Number of Periods

2

While teaching this chapter, tell the students that the computer is an outcome of labour of a number of minds.

Tell the students about the early counting tools like knots tied on a rope, marks carved in clay, fingers, pebbles, etc.

Explain to the students about invention of Abacus – the first calculating device.

Share with the students the importance and usefulness of Abacus even today and is being taught in schools also.

Give a brief account of these calculating machines:

- Pascaline Adding Machine
- Leibniz Step Reckoner

Tell the students about Charles Babbage, the father of computers, and his invention of Difference Engine which was later improved by him into Analytical Engine, the first working model of a mechanical computer.

Inform the students about Lady Ada Lovelace, accredited as the first computer programmer as the programmer to the Analytical Engine of Charles Babbage.

Share with the students about Herman Hollerith who built Tabulating Machine and later his company became a part of IBM.

Explain to the students about the concept of generations of computers and need for classification on this basis.

Share with the students the characteristic features of the different generations of computers covering:

- First Generation (1940s) – MARK-I, ENIAC, UNIVAC
- Second Generation (1950s)
- Third Generation (1960s)

IMPRINT 1

- Fourth Generation (1970s)
- Fifth Generation (Present)

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 early counting tools.
Q. What is Abacus?
Q. Who invented adding machine?
Q. Which is the first mechanical calculator?
Q. Which is the first mechanical computer?
Q. Who is called the father of computers?
Q. Why is Lady Ada Lovelace famous?
Q. How many generations of computers are there?
Q. What was the technology used in First / Second / Third / Fourth / Fifth generation of computers?
Q. Give three characteristic features of First / Second / Third / Fourth / Fifth generation of computers.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 15,16 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 17 of the main course book. Help the students to solve these questions.

In Creative Assignment, activities like Practical Time given on page 18 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 prepare a collage of different models of computers depicting its evolution over the generations.

2. Types of Software

Teaching Objectives

Students will learn about

- ☞ Software
- ☞ System software
- ☞ Application software
- ☞ Difference between system software and application software
- ☞ Operational support system

IMPRINT 1

Teaching Plan

Number of Periods	
Theory	Practical
1	1

While teaching this chapter, tell the students that a computer system consists of two components – **hardware and software**.

Tell the students that the parts of the computer that can be touched are called hardware.

Share some examples of hardware with the students.

Make the students understand that the software refers to step-by-step instructions for the computer.

Share some examples of software with the students.

Introduce the students to the two broad categories of software as System software and Application software.

Tell the students the importance of system software for the functioning of the computer system.

Tell the students about some commonly used system software / operating system and their versions. Explain the importance of application software to the students.

Share with students some examples of application software (covering Paint, Windows Media Player, Word, PowerPoint and Adobe Photoshop) and the purposes for which these software are mainly 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. Define hardware.

Q. Name some hardware devices.

Q. What do you understand by software?

Q. Name the different types of software.

Q. What is system software?

Q. Give examples of some commonly used operating systems.

Q. What is application software?

Q. Name some application software and their use.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 26, 27 and 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 28 of the main course book. Help the students to solve these questions.

In Creative Assignment, activity like Practical Time given on page 28 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 collect information about some more application software and the purpose for which they are used.

IMPRINT 1

3. Advanced Features of Word Processor

Teaching Objectives

Students will learn about

- ☞ Text formatting tools
- ☞ Text editing tools
- ☞ Page formatting tools

Number of Periods	
Theory	Practical
2	3

Teaching Plan

While teaching this chapter, tell the students that formatting the text means changing the appearance and arrangement of the text.

Share with the students the default font and font size in a Word 2016 document.

Demonstrate to the students the method of changing font and font size.

Tell the students the steps involved in changing color of the selected text in the document.

Introduce highlighting feature of Word as marking important text and placing a colored rectangle over it.

Show to the students the steps involved in highlighting text.

Share with the students about the Bold, Italic and Underline features and the method of applying these features to the text.

Tell the students that Word has some in-built text styles which can be applied to the selected text.

Introduce Change Case feature as changing text to upper, lower and other common capitalizations.

Show the students how to change case of the selected text.

Demonstrate to the students the method of:

- Using format painter
- Applying superscript and subscript
- Applying text effects
- Changing text alignment
- Applying shadow effect
- Applying borders
- Applying artistic borders
- Applying shading

Introduce various text editing tools to the students.

Demonstrate to the students the method of:

- Use find and replace to find a particular word or phrase or to substitute all or only selected occurrences

Introduce various page formatting tools to the students.

Demonstrate to the students the method of:

- Using header and footer in a document
- Writing in a single column and to insert column break in Word

- Inserting page break
- Inserting line break
- Use of indentation
- To set page margin
- To change the orientation of the document
- To set page size

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 formatting a text.
Q. What is the default font / font size of text in a Word 2016 document?
Q. What do you mean by highlighting text?
Q. What is the difference between bold and italic format of the text?
Q. What are text effects?
Q. Define text alignment.
Q. What are the different types of text alignment options?
Q. Why is shading added to text?
Q. What does Change Case option do?
Q. What is the use of format painter?
Q. When we need to use superscript and subscript?
Q. How to apply shadow effect?
Q. What is Find and Replace?
Q. Define Header and Footer.
Q. What is the use of Column Break?
Q. What is the difference between Page break and Line break.
Q. Explain Page margin, Page orientation and Page size.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 42 and 43 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 43 of the main course book. Help the students to solve these questions.

In Creative Assignment, activities like Be Creative and Practical Time given on page 44 of the main course book will enhance the ability of the students and serve as a interdisciplinary and digital literacy activity.

Suggested Activity

Ask the students to collect write a paragraph on My Favourite Sport in Word 2016 applying various formatting features to make the paragraph attractive.