TOUCHPAD®

iPRIME Ver. 1.0

Teacher's Manual

Extended Support for Teachers

ORANGE™

www.orangeeducation.in
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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 to 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 needs 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.

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.
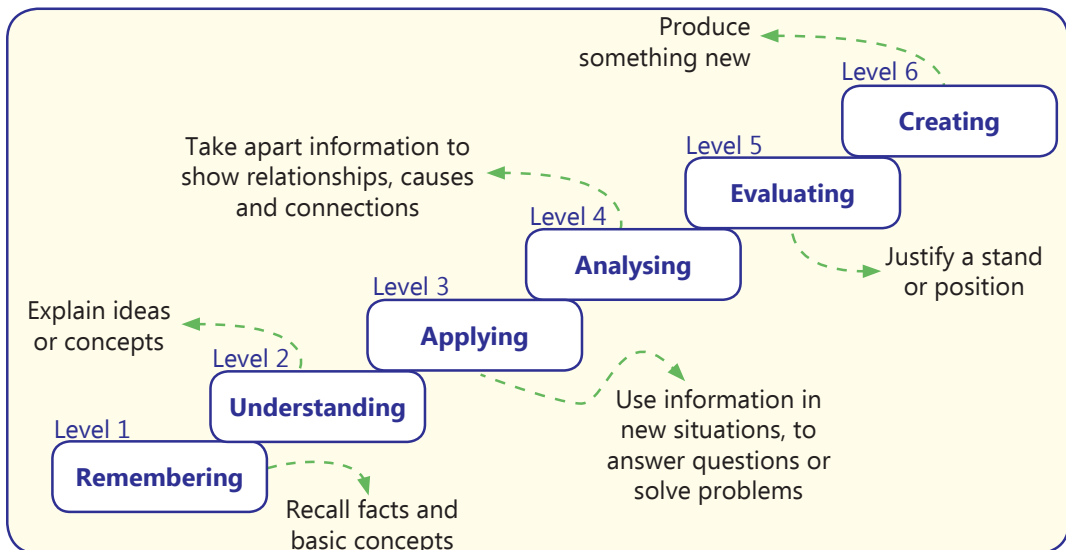
Teachers should focus on helping students to remember information before expecting them to understand it, helping them understand it before expecting them to apply it to a new situation, and so on.

"If you have no confidence in self, you are twice defeated in the race of life."

LESSON PLAN
Touchpad iPRIME Ver 1.0
Class-2

1. Computer—An Electronic Device

Teaching Objectives

Students will learn about

☞ Working of machines
☞ Working of a computer
☞ Advantages of a computer
☞ Teaching & learning using computers
☞ Disadvantages of a computer
☞ Human vs computers

Teaching Plan   **Number of periods: 3**

While teaching this chapter, tell the students that a computer works according to the commands or instructions given by us.

Tell the students about the working of some machines like:

• Juicer – we put fruit pieces inside it, the juicer squashes the fruits and gives out fresh juice.
• Washing machines – we put dirty clothes inside it, the machines wash them and give out clean clothes.

Share with the students that in both these cases, the first step is input, the second step is process and the third step is output.

Tell the students that similarly the computer takes instructions (2, 3, +), adds them (2+3) and gives the result (5).

Share with the students that this cycle of working of machines is called Input-Process-Output cycle or IPO cycle.

Introduce the term Input as giving instructions to the computer.

Tell the students that keyboard and mouse are used as input devices in a computer. Introduce the term Process as action performed by computer on the instructions given by us.

Tell the students that the Central Processing Unit (CPU) is the processing device of a computer and is called the Brain of the computer.

Introduce the term Output as a result given by the computer after processing.

Tell the students that monitor and printer are used as output devices in a computer.

Explain the students about advantages and disadvantages of a computer and also how they differ from humans.

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 does IPO stand for?

Q.   What is Input-Process-Output cycle?

Q.   Define Input / Process/ Output.

Q.   Name two input / output devices.

Q.   Which part of the computer is called Brain of the computer?

Q.   Why is the CPU called the brain of the computer?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 14 and 15 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 Pages 15 and 16 of the main coursebook. Help the students to solve these questions.

In Creative Assignment, activities like Hands On and Fun in Lab given on Page 16 of the main course book will enhance the ability of the students and serve as a Subject Enrichment activity.

Suggested Activity

Show some more machines with input and output to the students and ask the students to arrange these in correct order of the IPO cycle.

2. Role of Computers

Teaching Objectives

Students will learn about

☞   Uses of a Computer

☞   Computers Everywhere

☞   Role of Computers in Education

☞   Impact of Computer in our Daily Lives

Teaching Plan   Number of periods: 3

While teaching this chapter, share with the students the various uses of a computer covering drawing, painting, doing homework, doing sums, watching movies, listening to music, playing games, writing letters and stories, etc.

Share with the students the names of the places where computers are used and the reason the computers are used there covering:

At home – to play games, watch movies, listen to music, send e-mails, search information, etc.

In shops and restaurants – to make bills, keep a record of items bought and sold, etc.

In offices – to type and print documents.

In schools – to make time tables and report cards, teach students, keep fee records, keep record of library books, etc.

Tell the students about have enhanced the teaching and learning process by making education very friendly and interesting:

- Computers help students find information on almost any topic.
- Computers are useful in almost every subject to students.
- Computers help students read content any time they want.
- Computers also help students understand better through interactive lessons.
- Teachers can input grades, prepare lesson plans and assessments on a computer

Share with the students how computer has impacted our daily life.

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.	Are computers used only in schools and at homes?

Q.	Name two places other than home and school where computers are used.

Q.	Name some smart machines.

Q.	State any two uses of computers at home / railway station / airport.

Q.	State any two uses of computers in a school / bank / shop / office / hospital.

Q.	explain how computers impact our daily lives

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 23 and 24 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 Pages 24 and 25 of the main course book. Help the students to solve these questions.

In Creative Assignment, activities like Hands On and Fun in Lab given on Page 25 of the main course book will enhance the ability of the students and serve as a Subject Enrichment activity.

Suggested Activity

Ask the students to discuss with their parents the use of computers for:

- Controlling movement of metro trains
- Launching satellites
- Weather forecasting
- Making robots
- Making animations
- Booking tickets for movies

3. Input and Output Devices

Teaching Objectives

Students will learn about

☞ Input devices

☞ Output devices

☞ Storage devices

Teaching Plan

Number of periods: 3

While teaching this chapter, tell the students that a computer is made up of many devices which are categorized as input devices, output devices and storage devices.

Introduce input devices as the parts that are used to give commands or instructions to the computer or tell the computer what to do.

Share with them pictures / models of some input devices like:

Keyboard – used for typing text and numbers through keys

Mouse – used for drawing pictures and selecting objects through click

Scanner – used to send document or images from paper to computer

Microphone – used to record voice, music and sounds.

Introduce output devices as the parts that are used to show result or output after processing. Share with them pictures / models of some output devices like:

Monitor or Visual Display Unit (VDU) – used to show the data that is input and its result after computer process through its front portion, screen.

Printer – used to print the work done by computer on paper Tell the students about the types of printers as Inkjet printers and Laser printers

Speakers – used to listening to music, sound and voice on a computer

Headphones – work as small speaker and used to hear sound without disturbing others Headset – used as a combination of microphone and headphones

Introduce storage devices as the parts that are used to store our work in the computer.

Share with them pictures / models of some storage devices like:

Hard Disk – rectangular in shape and fixed inside the CPU box

Compact Disc (CD) – circular in shape and portable storage device

Digital Versatile Disc (DVD) – circular in shape but with more storage capacity than CD

Pen Drive or USB Flash Drive –having more storage capacity than DVD but less than Hard Disk Show to the students CD/DVD Drive and USB ports used to read the files stored in CD/DVD and Pen Drive respectively.

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 are the parts of a computer?

Q.   What are input / output / storage devices?

Q.   Give two examples of input / output / storage devices.

Q.   What is a USB port used for?

Q.   What is the name given to the combination of microphone and headphones?

Q.   Expand CD / DVD.

Q.   Which has more storage capacity: CD or DVD?

Q.   Arrange in increasing order of storage capacity: CD DVD Pen Drive Hard Disk

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 30, 31 and 32 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 Pages 32 and 33 of the main coursebook. Help the students to solve these questions.

In Creative Assignment, activities like Fun in Lab given on Page 33 of the main course book will enhance the ability of the students and serve as a Subject Enrichment activity.

Suggested Activity

Ask the students to collect information about a modern storage device – Blue Ray Disc which looks like a CD/DVD but has much more storage capacity than the two.

4. Computer Keyboard

Teaching Objectives

Students will learn about

☞   Alphabet Keys

☞   Numeric Keys

☞   Special Keys

☞   Function Keys

☞   Punctuation Keys

☞   Combinational Keys

☞   Symbol Keys

Teaching Plan   **Number of periods: 3**

While teaching this chapter, tell the students that keyboard is used to write on computer screen. Show to the students that a keyboard has small buttons on it called keys.

Make the students count that a computer keyboard has 101 to 104 keys.

Tell the students that the keys on a keyboard are divided into three categories:

Alphabet keys – 26 in number (A to Z)

Number keys – 10 in number (0 to 9)

Special keys – Enter, Spacebar, Backspace, etc. Show to the students the position of various categories of keys on the keyboard.

Make the students understand that the alphabet keys (A to Z) on the keyboard are also used to write in small letters (a to z).

Share with the students that the number keys are used to type numbers and there are two sets of number keys on a keyboard.

Show to the students that there are some special keys also on the computer like:

Spacebar key – longest key at the bottom, used to give blank space between letters and words.

Enter key – also called Retrun key, two in number, used to move to the next line.

Backspace key – used to erase what we have typed.

Cursor Control keys – Show to the students the four arrow keys (up, down, left and right) on the keyboard, used to move the cursor. Open a MS Word file and show to the students the small blinking line called cursor.

Make the students understand that the cursor shows the place where the typed letters will appear.

Ensure that the scope of Teacher's Corner given at the end of the chapter has been covered.

Ask the students some oral questions based on this chapter.

Q. What are the small buttons on a keyboard called?

Q. How many keys are there on a keyboard?

Q. Name the categories in which the keys on a keyboard are divided into.

Q. What are alphabet / number keys used for?

Q. How many sets of number keys are there on the keyboard?

Q. How many alphabet keys are there on the keyboard?

Q. What is the use of Enter / Spacebar / Backspace key?

Q. Name some special keys.

Q. What is the use of cursor control keys?

Q. How many cursor control keys are there?

Q. What is a cursor?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 40 and 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 Pages 41 and 42 of the main course book. Help the students to solve these questions.

In Creative Assignment, activities like Hands-On and Fun in Lab given on Pages 42 of the main course book will enhance the ability of the students and serve as a Subject Enrichment activity.

Suggested Activity

Ask the students to paste a picture of computer keyboard in the computer notebook and label Number keys, Alphabet keys, Enter keys, Spacebar key, Backspace key and Cursor Control keys on it.

5. Computer Mouse

Teaching Objectives

Students will learn about

☞ Types of a mouse

☞ How to hold a mouse

☞ Functions of mouse button

Teaching Plan   Number of periods: 2

While teaching this chapter, tell the students that a mouse helps us to tell the computer what to do. Share with the students some uses of a computer mouse.

Show to the students that the small arrow moving on the screen is called pointer.

Make the students understand that there are two types of computer mouse:

Two-buttoned mouse – has two buttons – left button and right button.

Scroll mouse – has two buttons (left and right) and a scroll wheel. Show to the students the correct way of holding the mouse with reference to the position of fingers and palm (shown in the main course book).

Show to the students that a computer mouse can be used for:

Pointing – by moving the pointer.

Clicking – by pressing mouse buttons

Single-clicking or Clicking – pressing and releasing left button quickly, used to select an icon.

Double-clicking – pressing and releasing the left button twice quickly, used to open a program.

Right-clicking – pressing and releasing the right button quickly, used to display a shortcut menu.

Dragging – moving the mouse while keeping the left button pressed, use to move objects on screen.

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 mouse used for?
Q. Name the pointing device.
Q. Name the two types of mouse.
Q. Which finger must be placed on left button / right button?
Q. Which finger must be used to scroll the wheel?
Q. Which fingers must be used to hold the sides of the mouse?

Q.   Define pointing / clicking / dragging.

Q.   What is the meaning of single-click / double-click / right-click?

Q.   What is single-click / double-click / right-click used for?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 48, 49, 50 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 50 of the main course book. Help the students to solve these questions.

In Creative Assignment, activities like Hands-On and Fun in Lab given on Page 51 of the main course book will enhance the ability of the students and serve as a Subject Enrichment activity.

Suggested Activity

Ask the students to draw a picture of a mouse representing single-click, double click, right-click, drag.

6. Introduction to Paint

Teaching Objectives

Students will learn about

☞   Steps to start Paint

☞   Components of paint window

☞   Drawing in paint

☞   Maximizing a drawing

☞   Minimising a drawing

☞   Saving a drawing

☞   Closing a drawing

Teaching Plan   Number of periods: 3

While teaching this chapter, tell the students that Paint is a program used to draw and colour.

Familiarize the students with Paint window showing Tools group, Shapes group, Colors group and Drawing Area. Demonstrate to the students the steps to start Paint.

Tell the students about the uses of Tools group (contains tools), Colors group (contains colour options) and Shapes group (contains shapes).

Demonstrate the steps to:

Draw straight lines using Line shape.

Draw rectangles using Rectangle shape.

Drawing rounded rectangle.

Drawing a curve using Curve shape.

Drawing a polygon.

Fill with Color tool.

Fill colours in closed shapes using

Make freehand drawing using Brushes tool.

Tell the students to maximize and minimize a drawing using control buttons.

Show the steps to the students for the following:

Saving a drawing.

Opening a drawing.

Closing a drawing.

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 Paint?
Q. What is the use of Line / Rectangle shape?
Q. What is the use of Brushes / Fill with Color tool?
Q. How can the width of the Brush be changed?
Q. Under which category is the Paint program listed?
Q. Name the groups present on Paint window.
Q. What does the Colors / Shapes / Tools group contain?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Page 62 and 63 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 63 of the main course book. Help the students to solve these questions.

In Creative Assignment, activities like Fun in Lab given on Page 64 of the main course book will enhance the ability of the students and serve as a Subject Enrichment activity.

Suggested Activity

Ask the students to draw the following shapes in Paint.
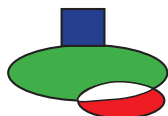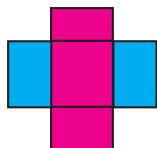
7. File Management- An Introduction

Teaching Objectives

Students will learn about

☞ Storing on a computer

☞   What is a file?

☞   Creating a file

☞   Opening a file

☞   Saving a file at different location

Teaching Plan   **Number of periods: 2**

While teaching this chapter, tell the students how we store different household things in different storage devices at our home

Explain how do we store information on a computer and different storage devices.

Explain to the students, the need to store information on a computer.

Tell the students what is a file and demonstrate how to create a file.

Demonstrate how to we open a previously created file

Demonstrate and explain the steps to save a file at a different location.

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

Q.   Name some storage devices we use to store household objects

Q.   Name the two types of storage devices used by a computer

Q.   why do we need to save information on a computer?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 70 & 71 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 71 of the main course book. Help the students to solve these questions.

In Creative Assignment, activities like Hands-On and Fun in Lab given on Page 71 of the main course book will enhance the ability of the students and serve as a Subject Enrichment activity.

Suggested Activity

Ask the students to draw a picture of a mouse representing single-click, double click, right-click, drag.