



TOUCHPAD[®]

MODULAR Ver 1.0

Teacher's Manual

Extended Support for Teachers



www.orangeeducation.in
www.thetouchpad.com

Teacher's Time Table

[illegible]



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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Vocabulary reaches about 10,000 words• Vocabulary increases rapidly throughout middle childhood
Emotional/Social	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none"> • Motor skills develop resulting enhanced reflexes
Cognitive	<ul style="list-style-type: none"> • Applies several memory strategies at once • Cognitive self-regulation is now improved
Language	<ul style="list-style-type: none"> • Ability to use complex grammatical constructions enhances • Conversational strategies are now more refined
Emotional/Social	<ul style="list-style-type: none"> • Self-esteem tends to rise • Peer groups emerge

Age 11 - 20 Years	
Physical	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Is now more self-conscious and self-focused • Becomes a better everyday planner and decision maker
Emotional/Social	<ul style="list-style-type: none"> • 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."

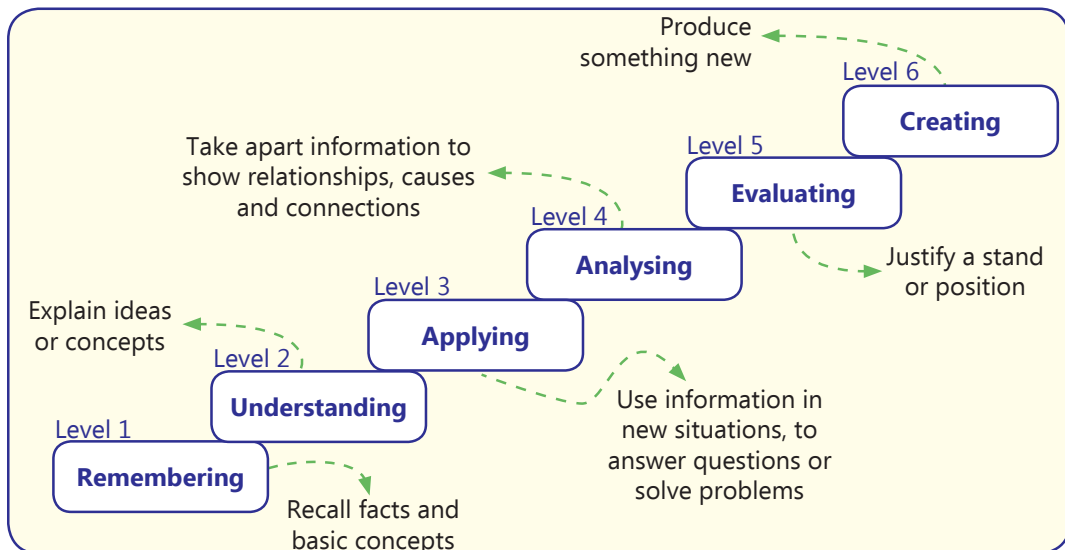
Teaching Strategies

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."

LESSON PLAN

Touchpad MODULAR Ver 1.0

Class-I

1. My Best Friend—Computer

Teaching Objectives

Students will learn about

☞ What is computer?

Teaching Plan

Number of periods: 3

While teaching this chapter, ask the students to look at the picture given on Page 7 of the main course book and guess what it is.

Tell the students that this is a Computer.

Take the students to computer lab and show them a computer.

Evaluation

After explaining the chapter, let the students do the course book exercises given on Page 8 of the main course book as Exercise.

In Creative Assignment, activity like Hands-On given on Page 8 of the main course book will enhance the ability of the students.



2. Computer—A Wonderful Machine

Teaching Objectives

Students will learn about

- ☞ Natural and Man-Made Things
- ☞ What are Machines?
- ☞ Computer—A Wonderful Machine

Teaching Plan

Number of periods: 3

While teaching this chapter, ask the students to look around themselves to identify things.

Encourage the students to name some things which they see around themselves.

Make them understand some of these things are natural like sun, moon, star, mountains, cat, dog, tree, boy, girl, etc. The other things are man-made like chair, table, TV, fan, pencil, eraser, board, building, washing machine, mobile, etc.

Explain to the students that machines are made by man.

Give examples of some machines around us like refrigerator, air conditioner, television, mobile, car, etc. and their use.

Share with them that computer is also a machine.

Tell them the various things we can do with the computer like doing sums, drawing, listening to music, watching movies, learning, etc.

Encourage them to tell why computer is different from other machines (other machines can only do the work for which they are made but computer can do many kinds of work).

Extension

Ask the students some oral questions based on this chapter.

- Q. Is computer a machine?
- Q. Name some natural things.
- Q. Name some man-made things.
- Q. Who makes machines?
- Q. Are machines natural?
- Q. What is the use of air conditioner / refrigerator / washing machine / television / mobile / car?
- Q. What does a computer need to run?
- Q. How is computer different from other machines?

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.

In Creative Assignment, activities like In The Lab given on Page 12 of the main course book will enhance the ability of the students and serve as a Subject Enrichment activity.



Suggested Activity

Show pictures of some machines (calculator, fan, sewing machine, set top box, cycle, clock, microwave, stapler, electronic toy, etc.) and ask the students what they are used for?

3. Uses of a Computer

Teaching Objectives

Students will learn about

- ☞ Home
- ☞ Offices
- ☞ Railway Stations and Airports
- ☞ Schools
- ☞ Hospitals

Teaching Plan

Number of periods: 1

While teaching this chapter, tell the students that computers are used in different places for different kinds of works.

Tell the students why computer is used:

- At home (watch movies, play games, make school projects, online shopping, etc.)
- In schools (store student records, library books record)
- In offices (maintain records)
- In hospitals (make medical reports, controlling machines while doing surgeries)
- In shops (make bills, storing details of items)
- At railway stations and airports (book tickets, record of passenger information, information about arrival and departure of trains and airplanes).

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. Why do we use computers at home / in schools / at railway stations / in shops / in offices / in hospitals?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 15 and 16 of the main course book as Exercise.

In Creative Assignment, activities like Hands-On and In The 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

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
- Video game parlours

4. Parts of a Computer

Teaching Objectives

Students will learn about

- | | |
|-----------|------------|
| ☞ Monitor | ☞ CPU |
| ☞ Mouse | ☞ Keyboard |

Teaching Plan

Number of periods: 3

While teaching this chapter, tell the students that just as our body has different parts like hands, eyes, brain, etc. similarly, a computer also has various parts.

Tell the students that a computer has four main parts:

- Monitor – also called Visual Display Unit (VDU), looks like a television, used to see pictures, games, cartoons, alphabet, numbers and words.
- CPU – stands for Central Processing Unit, fixed inside CPU box, called brain of the computer, most important part of the computer.
- Mouse – device with long wire, two buttons and scroll wheel, used to draw pictures.
- Keyboard – has small buttons called keys, used for typing numbers and letters.

Extension

Ask the students some oral questions based on this chapter.

- Q. Name the four main parts of a computer.
- Q. What is the use of Monitor / Mouse / keyboard /CPU?
- Q. What does CPU stand for?
- Q. What is the other name of a monitor?
- Q. Expand VDU.
- Q. Where is CPU fixed?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 19 and 20 of the main course book as Exercise.

In Creative Assignment, activities like Hands-On and In The Lab given on Page 20 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 pictures of different parts of a computer in their computer notebook and write their names.

5. The Monitor

Teaching Objectives

Students will learn about

☞ About Monitor

☞ Uses of a Monitor

Teaching Plan

Number of periods: ?

While teaching this chapter, tell the students that a computer is made up of various parts like keyboard, mouse and monitor.

Tell the students about Monitor as a main part of computer.

Explain the uses of a monitor to the students:

- for displaying typing and drawing done.
- for watching movies and cartoons.
- for playing games.

Extension

Ask the students some oral questions based on this chapter.

Q. What is a monitor?

Q. What does a monitor do?

Q. What are the uses of a monitor?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Page 24 of the main course book as Exercise.

6. Using the Keyboard

Teaching Objectives

Students will learn about

☞ Keys on the keyboard

☞ Number keys

☞ What is a Cursor?

☞ Alphabet keys

☞ Special 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 Return key, two in number, used to move to the next line.
- Backspace key – used to erase what we have typed.

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.

Extension

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 a cursor?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 27 and 28 of the main course book as Exercise.

In Creative Assignment, activity like In The Lab given on Page 28 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 on it.

7. Using the Mouse

Teaching Objectives

Students will learn about

- ☞ Buttons of a Mouse
- ☞ How to Hold a Mouse
- ☞ Using a 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 a mouse has two buttons (left and right) and a scroll wheel at the center.

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.

Extension

Ask the students some oral questions based on this chapter.

- Q. What is a mouse used for?
- Q. Name the pointing device.
- 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 32 and 33 of the main course book as Exercise.

In Creative Assignment, activity like In The 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 draw a picture of a mouse representing single-click, double click, right-click, drag.

8. Storage Devices

Teaching Objectives

Students will learn about

☞ Storing Things

☞ Storage Devices of a Computer

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 different storage objects used in daily life for storing different things.

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:

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

Memory Card - a storage device which is much smaller than a pen drive or a CD.

Extension

Ask the students some oral questions based on this chapter.

Q. What are the parts of a computer?

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

Q. Arrange in increasing order of storage capacity:

CD DVD Pen Drive

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 36 and 37 of the main course book as Exercise.

In Creative Assignment, activity like In The Lab given on Page 37 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.16.

9. Fun With Paint

Teaching Objectives

Students will learn about

- | | |
|------------------------|----------------------|
| ☞ Steps to Start Paint | ☞ Tools Group |
| ☞ Colors Group | ☞ Shapes Group |
| ☞ Drawing Lines | ☞ Drawing Rectangles |
| ☞ Filling Colours | |

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.
- Fill colours in closed shapes using Fill with Color tool.
- Make freehand drawing using Brushes tool.

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 41 of the main course book as Exercise.

In Creative Assignment, activity like In The Lab given on Page 41 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.

