TOUCHPAD®

MODULAR Ver 1.1

Teacher's Manual

Extended Support for Teachers

3

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.

During the class:

Present the lesson plan.

After the class:

Reflect on what worked well and why. If needed, revise the lesson plan.
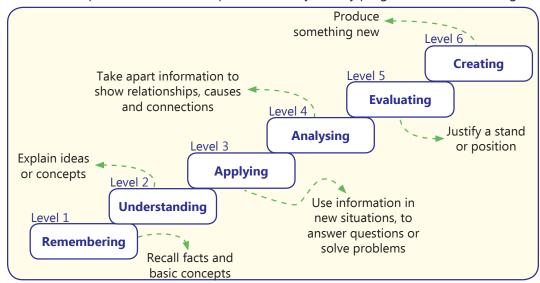
"Knowing yourself is the beginning of all wisdom."

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 1.1
Class-3

1. A Computer System

Teaching Objectives

Students will learn about

☞ Hardware   ☞ Software

☞ How Does a Computer Work?

Teaching Plan   **Number of periods: 2**

While teaching this chapter, tell the students that a computer is an electronic machine made up of various devices that help to enter data, process it and give the results.

Tell them that a computer works through Input-Process-Output (IPO) cycle.

Explain the meaning of the terms input and input devices.

Tell them how keyboard, mouse and scanner are used to input data into a computer.

Explain the meaning of the terms process, processor and processing.

Explain the meaning of the terms output and output devices.

Demonstrate to them the difference between hard copy and soft copy.

Make the students understand the meaning of the term Storage.

Tell them examples of some commonly used storage devices and basic features of each of the storage device.

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.   Expand IPO.

Q.   Define input / output / processing.

Q.   Name some input, processing and output devices.

Q.   What is storage?

Q.   Give examples of some storage devices.

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 Hands-On and 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

Ask the students to prepare a comparative table on chart paper comparing the features of different types of computers on various parameters with the help of examples and pictures/drawings.

2. Keyboard and Mouse

Teaching Objectives

Students will learn about

☞ Special Keys   ☞ Combinational Keys

☞ Symbol Keys   ☞ Functions of Mouse

☞ Mouse Pointer Shapes

Teaching Plan   Number of periods: 2

While teaching this chapter, tell the students that keyboard and mouse are used to perform various functions.

Show to the students a keyboard and demonstrate:

● A keyboard has 104 keys

● **Shift key –** used with other keys for different purposes like with alphabet keys to type in capital letters with caps Lock turned off and with number keys and symbol keys to type the symbols in the upper row of that key.

● **Symbol keys –** used to type special signs like @,$, %, *, etc. and punctuation marks like ?, ! :, " ", etc.

● **Function keys –** 12 in number from F1 to F12 and used to perform a different function like F1 for Help, etc.

● **Caps Lock key –** used to type in capital letters

● **Tab key –** used to move cursor several spaces forward at once

● **Escape or Esc key –** used to cancel a task

Show to the students a mouse and demonstrate:

● A mouse has buttons to click and wheel to scroll

● Displays an arrow called pointer on the screen

● **Click or Single-click –** used to select an item

● **Double-click –** used to open the selected item

● **Right-click –** used to display list of properties of the selected item

- **Drag –** used to move an item from one location to another

Explain the shapes of mouse pointers and their purpose.

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 the two commonly used input devices.

Q.   How many keys are there on a standard keyboard?

Q.   State one use of Shift key.

Q.   What is Escape / Tab / Caps Lock key used for?

Q.   How many Shift / Function keys are there on a keyboard?

Q.   What is the use of Function / Symbol keys?

Q.   What is a mouse?

Q.   What is pointer?

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

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 18 and 19 of the main course book as Exercise.

In Creative Assignment, activities like Hands-On and In The Lab given on Page 19 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 keyboard on an A4 sheet of paper and label these keys:

- Shift keys
- Escape key
- Symbol keys
- Keys to spell the name of the student
- Enter key
- Tab key
- Function keys

3. Let's Know About Windows 7

Teaching Objectives

Students will learn about

☞   Windows 7

☞   Selecting and Deselecting Icons

☞   Hiding Desktop Icons

☞   Setting the Screen Saver

☞   Desktop

☞   Sorting Desktop Icons

☞   Changing Desktop Background

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.

Give a brief introduction of Microsoft Windows.

Tell the students the about the useful features of Windows 7.

Demonstrate to the students the steps to start Windows 7.

Make the students aware about the concept of desktop.

Familiarize the students with some important icons on the desktop like Computer, Recycle Bin and Network.

Demonstrate to the students the steps to sort icons on the desktop.

Show to the students that 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, Opened program icons and Notification Area.

Demonstrate to the students the steps involved in changing the position of the taskbar.

Explain to the students the use of the 'Computer' icon.

Tell the students that the mouse pointer changes its shape on the basis of our actions performed.

Demonstrate to the students the steps to change desktop background.

Show the students the correct method of changing the screen saver.

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 7?

Q. What is desktop?

Q. Define icons.

Q. What is taskbar?

Q. Can the position of the taskbar be changed?

Q. When does the mouse pointer change to Double-headed Arrow / I Beam / Four-headed Arrow?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 25, 26 and 27 of the main course book as Exercise.

In Creative Assignment, activities like Hands-On and In The Lab given on Page 27 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 various shapes of a mouse pointer and the action being performed at that time on an A3 sheet of paper.

4. Fun with Tux Paint

Teaching Objectives

Students will learn about

☞ New Tool

☞ Open Tool

☞ Stamp Tool

☞ Text Tool

Teaching Plan

Number of periods: 3

While teaching this chapter, tell the students that Tux Paint has a lot of tools, animations and effects to enhance your creativity in drawing.

Tell the students that the Tux mascot, that is, a penguin guides you while working in Tux Paint.

Make the students recall the components of the Tux Paint window covering Toolbar, Colors Palette, Help Area, Selector, Up and Down Arrows and Drawing Area or Canvas.

Introduce New tool as the tool used to open a new page for drawing.

Demonstrate to the students the steps involved in use of New tool.

Make the students understand that Open tool is used to open an existing drawing in Tux Paint.

Show to the students the method to use Open tool.

Introduce Stamp tool as the tool used to insert different stamps or images from the Selector.

Explain the steps involved in the use of Stamp tool to the students.

Tell the students that just like in Paint, Text tool is used in tux Paint to type some text in the drawing area or canvas.

Demonstrate to the students the steps involved in using Text tool in Tux Paint.

Tell the students that Magic tool in Tux Paint is used to add special effects to a drawing.

Show to the students some of the Magic tool effects which can be added to 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 the use of Text / Magic / Stamp / New / Open tool?

Q. When is New tool used?

Q. Can Open tool be used to open a drawing which was not saved earlier?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 31 and 32 of the main course book as Exercise.

In Creative Assignment, activities like Hands-On and In The Lab given on Page 32 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 similar drawing in Tux Paint.

5. More on Tux Paint

Teaching Objectives

Students will learn about

☞ Magic Tool
☞ Effects of Magic Tool
☞ Fill Tool
☞ Undo and Redo Tools
☞ Slide Show

Teaching   Number of periods: 4

While teaching this chapter, tell the students that there are many more effects present in Magic Tool in Tux Paint.

Recall with the students the use Paint, Shapes, Eraser, Lines, Stamp, Text and Magic tools of Tux Paint.

Explain to the students the Fill Effect (fill colours in closed shapes) of Magic Tool.

Demonstrate the steps to apply Fill Effect of the Magic Tool.

Tell the students about the Smudge Effect (wipe effect) of Magic Tool.

Demonstrate the steps to apply Smudge Effect of the Magic Tool.

Explain to the students the Real Rainbow Effect (draw a rainbow around a picture) of Magic Tool.

Demonstrate the steps to apply Real Rainbow Effect of the Magic Tool.

Explain to the students the Foam Effect (bubbles effect) of Magic Tool.

Demonstrate the steps to apply Foam Effect of the Magic Tool.

Explain to the students the Mosaic Effect (pattern formation by arranging tiles, glass, etc.) of Magic Tool.

Demonstrate the steps to apply Mosaic Effect of the Magic Tool.

Tell the students about the purpose of Undo and Redo tools as well as the difference between the two.

Introduce slide show as running all scenes of a story or text, one after another.

Show to the students the steps to make a slide show of the drawings.

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 / Shapes / Eraser / Lines / Stamp / Text / Magic tool?

Q.   What is the Fill / Smudge / Real Rainbow / Foam / Mosaic effect of Magic tool?

Q.   What is the difference between the Undo and the Redo tools of Tux Paint?

Q.   What is Slide Show?

Q.   Which key is pressed to exit the slide show?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 39 and 40 of the main course book as Exercise.

In Creative Assignment, activities like Hands-On and In The Lab given on Page 40 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 jungle scene in Tux Paint.

6. Drawing Shapes in Paint

Teaching Objectives

Students will learn about

☞   Components of Paint Window

☞   Foreground and Background Color

☞   Text Tool

☞   Opening an Existing Drawing

☞   Opening an old Drawing

☞   Drawing Shapes

☞   Color Picker Tool

☞   Saving a Drawing

☞   Closing Paint Window

☞   Setting a drawing as Desktop Background

Teaching Plan   Number of periods: 4

While teaching this chapter, tell the students that Paint is a simple program for painting on computer.

Make the students recall the steps to start Paint.

Ensure that the students are able to recall the components of Paint window.

Discuss with the students the basic Paint tools covering Pencil Tool, Eraser Tool, Fill with Color Tool, Text Tool and Brushes Tool

Make them recall the use of Line Shape, Rectangle Shape, Oval Shape, Rounded Rectangle Shape, Polygon Shape and Curve Shape.

Tell the students that the Text tool is used to write some text in the drawing area.

Demonstrate to the students the use of Text tool in Paint.

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.
- Draw Oval using Oval shape.

Demonstrate to the students the steps to save a drawing.

Show to the students the steps to close Paint

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 Pages 47 and 48 of the main course book as Exercise.

In Creative Assignment, activities like Hands-On and In The Lab given on Page 48 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 create a drawing of a village scene in Paint.

7. More on Paint

Teaching Objectives

Students will learn about

☞   Selecting an Image   ☞   Flipping an Image

☞   Rotating an Image   ☞   Zooming an Image

☞   Copying/Cutting and Pasting

Teaching Plan   **Number of periods: 4**

While teaching this chapter, tell the students that Paint is a simple program for painting on computer.

Make the students recall the steps to start Paint.

Ensure that the students are able to recall the components of Paint window.

Discuss with the students the basic Paint tools covering Pencil Tool, Eraser Tool, Fill with Color Tool, Text Tool and Brushes Tool

Make them recall the use of Line Shape, Rectangle Shape, Oval Shape, Rounded Rectangle Shape, Polygon Shape and Curve Shape.

Demonstrate to the students the meaning of and steps involved in:

- Resizing an image
- Rotating an image
- Flipping an image
- Zooming an image

Make the students understand the difference between Copying-Pasting an image and Cutting-Pasting an image.

Demonstrate to the students the steps involved in both these activities (Copy-Paste and Cut-Paste).

Tell the students the method to save a drawing.

Show the students the method of how to open an old drawing.

Share with the students that the drawings of Paint can be setup as Desktop Backgrounds also. Demonstrate to the students the steps involved in setting a drawing as desktop background.

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 can Paint be used for in computers?

Q. State the use of Pencil / Eraser / Fill with color / Text / Brushes Tool.

Q. Define skewing.

Q. What do you understand by the term flipping an image?

Q. What is the meaning of zooming an image?

Q. What is the difference between Cut-Paste and Copy-Paste?

Q. Can drawings made in Paint be set as Desktop Backgrounds?

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 53 and 54 of the main course book as Exercise.

In Creative Assignment, activities like Hands-On and In The Lab given on Page 55 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 create a drawing of a village scene in Paint.