

TRACKPAD

Ver. 5.0 

Teacher's Manual

Extended Support for Teachers



ORANGE

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Periods Days	0	I	II	III	IV	BREAK	V	VI	VII	VIII
Monday										
Tuesday						B				
Wednesday						R				
Thursday						E				
Friday						A				
Saturday						K				



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	<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 in 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."

1. Computer – My Best Friend

Teaching Objectives

Students will learn about

- ☞ Natural and Man-made Things
- ☞ Computer – A Wonderful Machine

Teaching Plan

Number of Periods	
Theory	Practical
1	1

Before starting the chapter, ask the students to read the comic given on page number 7 to understand the recap of the topic.

Introduce the students with their best friend – Computer.

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

Make them understand that 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, aeroplane, etc. and their use.

Make them aware 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).

Ask the students to solve the exercise **I Know** given on page number 9.

Ask the students to solve the exercise **Quiz Bee** given on page number 10.

Extension

Ask the students some oral questions based on this chapter.

- 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. Is computer a machine?
- 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 exercises given on pages 10 and 11 in the main course book in the form of Assess Yourself. Tell them to solve the computational skill developing exercise as Coding Zone given on page 11.

Take the students to the computer lab and let them practise the activity given in the Lab Activity section on page 11 in the main course book. This will enhance the ability of the students and serve as a technology literacy 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?

2. Uses of a Computer

Teaching Objectives

Students will learn about

- ☞ Features of a Computer
- ☞ Uses of a Computer
- ☞ Places where Computers Are Used

Teaching Plan

Before starting the chapter, ask the students to read the comic given on page number 13 to understand the recap of the topic.



Trackpad (Version 5.0)-I (Lesson Plan)

Number of Periods	
Theory	Practical
2	2

While teaching this chapter, tell the students that computer is a magical machine and makes our work faster and easier.

Tell the students about various functions of a computer, covering:

- type letters, words and sentences
- calculate sums
- draw and colour images
- play games
- watch cartoons and movies
- play songs

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

Tell the students why computer is used:

- at home to watch movies, play games, make school projects, online shopping, etc.
- in schools to store student records, library books record
- in offices to maintain records
- in banks to keep record of money
- in hospitals to make medical reports, controlling machines while doing surgeries.
- in shops to make bills, storing details of items.

Ask the students to solve the exercise **I Know** given on page number 14.

Ask the students to solve the exercise **Quiz Bee** given on page number 15.

Extension

Ask the students some oral questions based on this chapter.

Q. Why do we use computers?

Q. Write the use of computer in the following places:

- | | | |
|-----------------|---------------|-------------|
| a. At Home | b. In School | c. In Bank |
| d. In Hospitals | e. In Offices | f. In Shops |

Evaluation

After explaining the chapter, let the students do the exercises given on pages 15 and 16 in the main course book in the form of Assess Yourself. Tell them to solve the computational skill developing exercise as Coding Zone given on Page 17.

Take the students to the computer lab and let them practise the activity given in the Fun Activity and Lab Activity section on pages 16 and 17 in the main course book. This will enhance the ability of the students and serve as a creativity, critical thinking and technology literacy activity.

Suggested Activity

Ask the students to discuss with their parents and elders and learn more about what they use the computer for. Encourage the students to share some more uses of computers with the class.

3. Parts of a Computer

Teaching Objectives

Students will learn about

- ☞ Parts of a Computer
- ☞ Additional Parts of a Computer

Number of Periods

Theory

2

Practical

2

Teaching Plan

Before starting the chapter, ask the students to read the comic given on page number 19 to understand the recap of the topic.

Tell the students that a computer has four main parts:

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

Share with the students that a computer also has some other parts like:

- **Printer** – It is used to print text and images on paper.
- **Speakers** – They are attached to computer, used to hear sounds and music stored in computer.

Ask the students to solve the exercise **I Know** given on page number 20.

Ask the students to solve the exercise **Quiz Bee** given on page number 21.

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. Where is CPU fixed?
- Q. Name some other parts of a computer.

Evaluation

After explaining the chapter, let the students do the exercises given on pages 22 and 23 in the main course book in the form of Assess Yourself.

Take the students to the computer lab and let them practise the activity given in the Lab Activity section on page 23 in the main course book. This will enhance the ability of the students and serve as a technology literacy activity.

Suggested Activity

Ask the students to paste pictures of different parts of a computer in their computer notebook and write their names.