4

Computer Genius!

Teacher's Manual

Extended Support for Teachers

ORANGE
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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

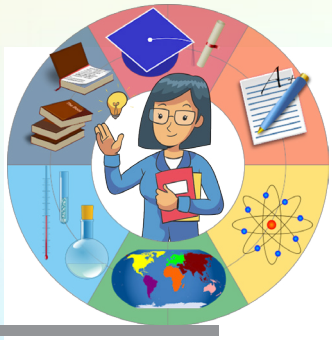
"If you cannot do great things, do small things in a great way."

Age 9 - 11 Years	
Physical	• Motor skills develop resulting in 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.

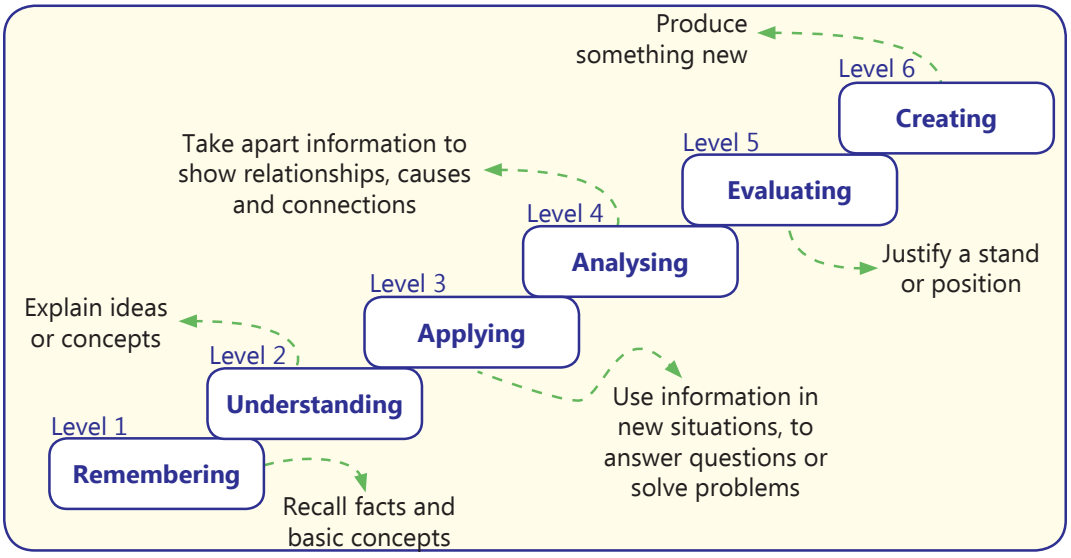
"Knowing yourself is the beginning of all wisdom."

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 4

Lesson Plan

Computer Genius

1. More on Windows 10

Teaching Objectives

Students will learn about

- Components of Windows 10
- Desktop Background
- Taskbar
- Desktop
- Icons

Number of Periods	
Theory	Practical
2	1

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 10.

Demonstrate to the students the steps to start Windows 10.

Make the students aware of the concept of desktop.

Familiarise the students with some important icons on the desktop like This PC, Recycle Bin and Folder.

Demonstrate to the students the steps to sort icons on the desktop. Show to the students 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, Quick launch bar and clock.

Explain the use of the following to the students:

- Start Button
- Clock
- Quick Launch Bar
- Show Desktop Button

- Changing Volume of the Speaker
- Changing Position of the Taskbar

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 10?
Q. What is desktop?
Q. Define icons.
Q. What is taskbar?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 16 and 17 of the main course book as Exercise. After solving the course book exercises, tell the students to solve Fun Zone given on page 17 of the main course book to imbibe coding and computational thinking skills in them. Help the students to solve these questions.

In Creative Assignment, activity like Lab Activity given on page 18 of the main course book will enhance the ability of the students and serve as information literacy and experiential learning.

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.

2. Graphics in Word

Teaching Objectives

- ☞ Shapes
- ☞ Inserting Symbols
- ☞ Inserting WordArt
- ☞ Inserting Pictures

Number of Periods	
Theory	Practical
1	2

☞ Teaching Plan

Before starting the chapter, ask the students to Draw and colour any six emojis in the given space in 'Let's Recap' given on page 19 of the main course book.

While teaching this chapter, tell the students that although Word is a word processor, yet it allows three types of graphics to work upon – Shapes, WordArt and Pictures.

Familiarize the students with various categories of Shapes under Illustrations group of Home tab explaining use of Lines, Basic Shapes, Flowchart, Stars and Banners and Callouts.

Demonstrate to the students the steps involved in the process of:

- Drawing a shape
- Adding text to the shape

Tell the students the various types of modifications that can be done on the inserted shape – changing outline color, changing fill colour, adding shape effects like 3-D rotation and bevel.

Introduce WordArt as application to create text effects which are not possible through text formatting.

Demonstrate to the students the steps to:

- Insert WordArt in a document
- Insert Pictures (from a file)
- Insert Symbols (punctuations or special characters not found on keyboard)

Ask the students to solve the exercise given on page 26 as Quest.
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 any three categories of Shapes in Word 2016.

Q. What do you mean by formatting a shape?

Q. What does Add Text option do?

Q. What does Bevel do?

Q. Define Symbols.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 28 and 29 of the main course book as Exercise. After solving the course book exercises, tell the students to solve Fun Zone given on page 29 of the main course book. Help the students to solve these questions.

In Creative Assignment, activity like Lab Activity given on pages 30 of the main course book will enhance the ability of the students and serve as small case.

Suggested Activity

Ask the students to write a paragraph in Word 2016 on 'Festivals of India'. The paragraph must be supported with relevant pictures.

3. Tables in Word

Teaching Objectives

Students will learn about

- Inserting a Table
- Selecting Cells, Rows, Columns and Table
- Deleting Rows or Columns
- Row Height
- Splitting Cells
- Applying Border and Shading
- Aligning Text in a Table
- Entering Data in a Table
- Inserting Rows or Columns
- Changing Column Width and
- Merging Cells
- Moving and Resizing Tables
- Table Styles

Number of Periods	
Theory	Practical
2	2

Teaching Plan

Before starting the chapter, ask the students to solve the exercise given on in 'Let's Recap' given on page 31 of the main course book.

While teaching this chapter, tell the students that a table is an arrangement of text in the form of columns and rows.

Also tell them that an intersection of a row and a column is called a cell.

Demonstrate to the students the method of inserting a table and entering data in a table in a Word document.

Show to the students how to select a cell, a group of cells, a row, a column or the whole table.

Demonstrate to the students the steps to:

- Add more rows to a table
- Delete rows from a table
- Add more columns to a table
- Delete columns from a table
- Change width of a column
- Change height of a row

Introduce merging of cells as combining two or more cells in the same row or the same column into a single cell.

Show to the students the steps to merge two or more cells. Introduce splitting of cells as dividing one cell into two or more cells, Show to the students the steps to split a cell.

Demonstrate to the students the steps to move a table and resize a table. Tell the students that Word

2016 allows to apply borders to tables and cells as well as to shade the cells and table.

Make the students understand that Word offers some built-in formats as Table Styles to apply to a table.

Make the students understand how to align the text in a table.

Ask the students to solve the exercise given on page 35 and 38 as Quest.

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 table?

Q. Define a cell.

Q. What is the shape of the mouse pointer selecting a cell / row / column / table?

Q. Can more rows or columns be added to a table?

Q. Define merging/splitting of cells.

Q. What is the difference between moving a table and resizing a table?

Q. What is the use of Table Styles feature of Word 2016?

Q. What is text alignment?

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 Fun Zone given on page 43 of the main course book. Help the students to solve these questions.

In Creative Assignment, activity like Lab Activity given on page 43 of the main course book will enhance the ability of the students and serve as interdisciplinary and experiential learning.

Suggested Activity

Ask the students to create a comparative mark sheet for your marks in different subjects for last three classes.

4. Introduction to PowerPoint 2016

Teaching Objectives

Students will learn about

- Starting PowerPoint 2016
- Creating a New Presentation
- Slide Layout
- Deleting a Placeholder
- Viewing Slide Show
- Open a Saved Presentation
- Delivering a Presentation
- Components of PowerPoint Window
- Entering Data on the Slide
- Adding a New Slide
- Deleting a Slide
- Saving a Presentation
- Exiting PowerPoint

Number of Periods	
Theory	Practical
2	2

Teaching Plan

Before starting the chapter, ask the students to solve the exercise given on in 'Let's Recap' given on page 45 of the main course book.

While teaching this chapter, tell the students that PowerPoint 2016 is a part of Microsoft Office 2016 package or suite. Share with the students that it is used to create presentations. Demonstrate to the students the steps to start PowerPoint 2016. Familiarise the students with various components of PowerPoint screen covering Title Bar, Ribbon, Quick Access Toolbar, File Tab, Slide, Placeholder, Slides / Outline Pane and Status Bar. Introduce slide as a single page of a presentation.

Demonstrate the steps to:

- Create a new presentation
- Enter data on a slide in title and subtitle placeholders
- Add new slide to a presentation
- Deleting a placeholder
- Deleting a slide Introduce slide show as full screen view of the presentation.
- Show to the students the method of viewing a slide show.
- Tell the students how to:
  - Save a presentation
  - Exit PowerPoint 2016

Extension

Ask the students some oral questions based on this chapter.

Q. What is PowerPoint 2016?

Q. Define Title Bar / Status Bar.

Q. What do you mean by Ribbon / Placeholder?

Q. What is a slide in a presentation?

Q. Which key is pressed to delete a selected placeholder?

Q. What are the various ways in which a slide show can be started?

Q. What are the steps to exit PowerPoint 2016?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 55 and 56 of the main course book as Exercise. After solving the course book exercises, tell the students to solve Fun Zone activity given on page 56 of the main course book. Ask the students to answer the questions given as Competency-based/Application-based questions on page 56 of the main course book. Help the students to solve these questions.

In Creative Assignment, activity like Lab Activity given on page 57 of the main course book will enhance the ability of the students and serve as Interdisciplinary Learning and Ethical & Moral Reasoning activity.

Suggested Activity

Ask the students to create a presentation on 'The Cartoon Character I Like The Most'.

5. More on Internet

Teaching Objectives

Students will learn about

- ☞ Uses of Internet
- ☞ Requirements to Connect to Internet
- ☞ Common Terms

Number of Periods	
Theory	Practical
2	1

Teaching Plan

Before starting the chapter, ask the students to solve the exercise given on in 'Let's Recap' given on page 58 of the main course book.

While teaching this chapter, tell the students that computers connected to a network can share data and files efficiently without any delay.

Make the students recall that internet is a global network of millions of computers and computer networks.

Explain the various uses of internet covering:

- E-mail – an online communication system
- Information – through search engines like Google, Yahoo, etc.
- Online shopping
- Online chatting
- Downloading data
- Uploading data
- Social Networking – Facebook, Instagram, X, YouTube, WhatsApp, etc.

Introduce Uniform Resource Locator (URL) as a unique address or website address used for locating websites.

Share with the students the various requirements for an internet connection covering computer system, telephone/cable line, modem, web browser and Internet Service Provider (ISP).

Explain the meaning of some common internet terms like URL, Hyperlink, Offline, Online, Surfing, Website and Web page.

Extension

Ask the students some oral questions based on this chapter.

Q. What is a computer network?

Q. What is internet?

Q. What are the uses of internet?

Q. What are the requirements for an internet connection?

Q. What do you understand by Downloading / Uploading data?

Q. Define URL / Hyperlink / Offline / Online / Surfing / Website / Web Page.

Evaluation

After explaining the chapter, let the students do the course book exercises given on Pages 63 and 64 of the main course book as Exercise. After solving the course book exercises, tell the students to solve Fun Zone activity given on page 64 of the main course book. Ask the students to answer the questions given as Competency-based/Application-based questions on page 64 of the main course book.

In Creative Assignment, activity like Lab Activity given on Page 28 of the main course book will enhance the ability of the students and serve as Interdisciplinary Learning and Experiential Learning activity.

Suggested Activity

Ask the students to prepare a report on some more uses of internet and present the observations to the class.

6. Visual Processing

Teaching Objectives

Students will learn about

- ☞ Picture Puzzle
- ☞ Directions and Maps

Number of Periods	
Theory	Practical
2	1

Teaching Plan

Before starting the chapter, ask the students to solve the question in Let's Recap given on page 65 of the main course book.

Introduce Picture Puzzle to the students in details with the help of proper examples for better understanding.

Tell the students about a puzzle. Also, tell them how to solve the puzzle by giving some examples which will improve their understanding of the topic.

Tell the types of picture puzzle to the students which are:

- Odd One Out
- Mirror Images

Show the students what is direction and how to identify it with the help of analysis.

Explain the meaning of maps to the students and tell them how to use them with the help of directions.

Ask the students to solve the exercise Quest' given on page 68.

Extension

Ask the students some oral questions based on this chapter.

Q. What is a puzzle?

Q. What is a picture puzzle?

Q. How many types of picture puzzle are there?

Q. What is a direction?

Q. What is a map?

Evaluation

After explaining the chapter, let the students do the exercises given on page 69 in the main course book as Exercise. After solving the course book exercises, tell the students to solve Fun Zone activity given on page 70 of the main course book. Ask the students to answer the questions given as Competency-based/Application-based questions on page 70 of the main course book.

Take the students to the computer lab and let them practise the activity given in the Code Task section on page 70 in the main course book. This will enhance the ability of the students and serve as Information Literacy and Creativity activity.

Suggested Activity

Ask the students to practise to find out more types of picture puzzles.

7. Blocks in Scratch

Teaching Objectives

Students will learn about

- ☞ Coding Blocks
- ☞ Motion Blocks
- ☞ Looks Blocks
- ☞ Sound Blocks
- ☞ Events Blocks
- ☞ Control Blocks

Number of Periods	
Theory	Practical
2	1

Teaching Plan

Before starting the chapter, ask the students to solve the question in Let's Recap given on Page 74 of the main course book.

Tell the students to recall about Scratch and revise the components of Scratch window components.

Explain the Block categories and its types using appropriate examples:

- Motion blocks
- Looks blocks
- Sound blocks
- Events blocks
- Control blocks

Ask the students to solve the exercise Quest given on page number 77.

Extension

Ask the students some oral questions based on this chapter.

Q. What is Scratch?

Q. What are blocks?

Q. What is motion block?

Q. What is looks block?

Q. What is sound block?

Q. What is control block?

Evaluation

After explaining the chapter, let the students do the exercises given on Pages 80 and 81 in the main course book as Exercise. After solving the course book exercises, tell the students to solve Fun Zone activity given on page 82 of the main course book. Ask the students to answer the questions given as Competency-based/Application-based questions on page 82 of the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Activity section on Page 82 in the main course book. This will enhance the ability of the students and serve as Experiential Learning and Information Literacy activity.

Suggested Activity

Ask the students to create a program in Scratch to move sprite 360 degree and reverse to its original position.

8. AI Timeline

Teaching Objectives

Students will learn about

- ☞ Developments in AI
- ☞ Pioneers in the Field of AI

Number of Periods	
Theory	Practical
2	2

Teaching Plan

Before starting the chapter, ask the students to solve the students the question in Let's Recap given on page number 83 of the main course book.

While teaching this chapter, Let the students know that since ancient times, humans have been trying to make their lives easier by innovating different machines. While creating these machines, he reached a certain stage when these machines were not capable enough to handle certain tasks without a brain.

Make the students aware of the developments in AI during different decades.

Let the students know that during 1950 to 1960, two major contributions were observed. One of them was that Alan Turing submitted a paper about the possibility of creating a machine that could think in 1950. This became a test for machines to check the thinking capability of a machine.

Make the students aware of the fact that during 1961 to 1970, two new systems were developed which became a great contribution to the field of AI. The first chatbot ELIZA was created in MIT Artificial Intelligence Laboratory by Joseph Weizenbaum in 1966.

Explain to the students that during 1971 to 2000 in 1973, WABOT was created by Ichiro Kato and constructed by Unimation. This was the first step towards building a humanoid robot.

Let the students know that in the 2000s, AI technology was successfully established with many successful attempts like:

Kismet, a robot developed by Professor Cynthia Breazeal could recognise and simulate emotions with its face.

Make the students aware of the fact that it was an era of revolution in the field of artificial intelligence with the following developments:

Microsoft launched Kinect for Xbox 360, the first gaming device that tracked human movement using a 3D camera and infrared detection.

Tell the students about Alan Turing and his contribution in the field of AI along with other subjects.

Share the information to the students about the "Father of Artificial Intelligence" – John McCarthy. Also, tell the students about his work like developing LISP and becoming a pioneer in Mathematical Logic for Artificial Intelligence.

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Tell the students about Ross Quillian and his contribution in the field of AI and electronics & communication. Also, tell the students about his work SYNTHEX which is widely accredited in the field of AI.

Share the information to the students about the "Father of Expert System" – Edward Feigenbaum.

Tell the students about Marvin Minsky and his contribution in the field of AI. Also, tell the students about his work on Artificial Neural Networks.

Share the information to the students about the company IBM. Also, tell the students about the pioneer work in the field of Artificial Intelligence with its development and creation of Deep Blue.

Ask the students to solve the task given on page number 88 and 90 as Quest.

Extension

Ask the students some oral questions based on this chapter.

Q. What is Alan Turing known for?

Q. Who coined the term Artificial Intelligence?

Q. What is ELIZA?

Q. Who created WABOT in 1973?

Q. What is Deep Blue?

Q. What is Kismet?

Q. When and by which company was ASIMO released?

Q. What is Xbox 360?

Q. What is Amazon Alexa?

Q. What is Google Home?

Q. Define the role of the following in the field of AI:

a. Alan Turing

b. John McCarthy

c. Ross Quillian

d. Edward Feigenbaum

e. Marvin Minsky

f. IBM

Evaluation

Encourage the students to walk-through the chapter and ask them to play the game given on page 90 on their own under the name AI Game.

After explaining the chapter, let the students do the exercises given on pages 91 to 93 in the main course book as Exercise. Tell them to solve the Critical Thinking and Information Literacy skills developing exercises as Fun Zone given on page 93. Ask the students to answer the questions given as Competency-based/Application-based questions on page 93 of the main course book. Help the students to solve these questions.

Take the students to the computer lab and let them practise the activities given in Lab Activity section on page 93 in the main course book. This will enhance the ability of the students and serve as Technology Literacy and Experiential Learning activity.

Suggested Activity

Ask the students to search about more advanced versions of AI gadgets.

Ask the students search information about SYNTHEX, Deep Blue and LISP.

9. AI & Non-AI Robots

Teaching Objectives

Students will learn about

- ☞ AI and Non-AI Robots
- ☞ Differences between AI and Non-AI Robots

Number of Periods	
Theory	Practical
2	1

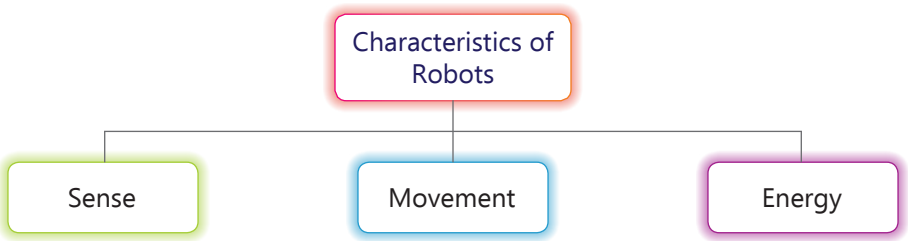
Teaching Plan

Before starting the chapter, ask the students to Solve the question in 'Let's Recap' given on page 94 of the main course book.

While teaching this chapter, tell the students that robots are machines programmed by computers capable of automatically doing difficult or complex tasks.

Make them understand that there are some essential characteristics that a robot must possess that define whether any machine is a robot or not.

Explain these characteristics of robots in detail:



Teach the difference between AI and Non-AI Robots to the students.

Introduce to the students some of the popular AI robots. Those are:

- Kuri
- Sophia
- Aibo
- E2-DR
- Handle
- NASA Puffer
- Snake Robot
- Humanoid Shalu

Introduce to the students some of the popular Non-AI robots. Those are:

- Cobots
- Industrial Robots
- Agriculture Robots

Ask the students to solve the task given on page 97 and 100 as Quest.

Extension

Ask the students some oral questions based on this chapter.

Q. What are the three characteristics of robots? Name them

Q. Define the term robots.

Q. Which are also called collaborative robots?

Q. What is the main area of application of robots in agriculture today?

Q. Who is one of the most famous social humanoid?

Evaluation

Encourage the students to walk-through the chapter and ask them to play the game given on page 99 on their own under the name AI Game.

After explaining the chapter, let the students do the exercises given on Pages 100 and 101 of the main course book as Exercise. After solving the course book exercises, tell the students to solve Fun Zone activity given on page 101 of the main course book. Ask the students to answer the questions given as Competency-based/Application-based questions on page 102 of the main course book.

Take the students to the computer lab and let them practice the activity given in the Lab Activity section on Page 102 in the main course book. This will enhance the abilities of the students and serve as a Experiential Learning and Technology Literacy Activity.

Suggested Activity

Ask the students to gather pictures of at least 10 different robots and paste them into an A3-size sheet. Also, write the names of the robots on the sheet.

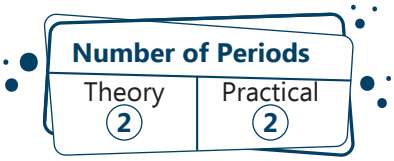
10. Starting with AI Connect

Teaching Objectives

Students will learn about

- ☞ What is AI Connect?
- ☞ Starting AI Connect
- ☞ Components of Code Editor Window
- ☞ Features of AI Connect
- ☞ Creating a New Project
- ☞ Using Blocks in AI Connect

- ☞ What is Turtle?
- ☞ Draw a Line
- ☞ Blocks in AI Connect
- ☞ Draw a Dotted Line



Teaching Plan

Before starting the chapter, ask the students to Solve the question in 'Let's Recap' given on page 105 of the main course book.

While teaching this chapter, let the students know about AI Connect.

Explain to the students about the features of AI Connect.

Tell the students that AI Connect platform allows block as well as text coding and lets the user design graphical elements with just code.

Demonstrate the students the steps involved in starting AI Connect.

Demonstrate to the students the steps involved in creating a new project.

Familiarise the students with various components of Code Editor Window covering Block-Palette, Reset, AI Connect, Run, Script Area, Code, Console, View, Login/Logout, Delete, Switch view, Menu.

Demonstrate to the students the steps to adding and removing blocks in AI Connect.

Explain to the students about turtle. also demonstrate the steps to create a turtle.

Familiarise the students with the blocks of AI Connect.

Demonstrate to the students the coding of drawing a line and a dotted line in AI Connect.

Ask the students to solve the exercise given on page 112 as Quest.

Extension

Ask the students some oral questions based on this chapter.

Q. Tell the two types of activities of AI Connect.

Q. What is the location of the dustbin icon?

Q. Name any two components of the code editor window.

Q. What is AI Connect?

Q. What kind of platform is AI Connect?

Q. What is the use of the run button in the code editor window?

Q. What is Turtle?

Q. Name any two blocks of AI Connect.

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 113 to 115 of the main course book as Exercise. After solving the course book exercises, tell the students to solve Fun Zone activity given on page 115 of the main course book. Ask the students to answer the questions given as Competency-based/Application-based questions on page 115 of the main course book. Help the students to solve these questions.

In Creative Assignment, activity like Lab Activity on page 115 of the main course book will enhance the ability of the students and serve as Creativity and Art Integration Learning activity.

Suggested Activity

Ask the students to draw a pink colour line in AI Connect.

11. AI in Real World

Teaching Objectives

Students will learn about

- ☞ Uses of Artificial Intelligence
- ☞ Object Detection in AI Connect
- ☞ Basic Features of AI
- ☞ Emotion Detection in AI Connect

Number of Periods	
Theory	Practical
1	2

Teaching Plan

Before starting the chapter, ask the students to Solve the question in 'Let's Recap' given on page 116 of the main course book.

While teaching this chapter, let the students know about Artificial Intelligence.

Explain to the students about the uses of Artificial Intelligence. Also, tell the industries where AI is being used, like healthcare, automobiles, finance, education, travel, and entertainment.

Explain to the students the basic features of AI, like facial recognition, chatbot, natural language processing, and machine learning.

Tell the students about object detection in AI Connect. Also demonstrate to the students the steps of object detection.

Tell the students about the blocks present in Object Detection sub-category.

Explain to the students about emotion detection in AI Connect.

Tell the students about the blocks present in Facial Feature sub-category.

Ask the students to solve the exercise given on page 120 as Quest.

Extension

Ask the students some oral questions based on this chapter.

Q. Name any two industries where AI is getting used.

Q. What is object detection in AI Connect?

Q. Name any two basic features of AI.

Q. Which block is used to load images from the desktop?

Q. What is AI?

Evaluation

After explaining the chapter, let the students do the course book exercises given on pages 120 and 121 of the main course book as Exercise. After solving the course book exercises, tell the students to solve Fun Zone activity given on page 121 of the main course book. Ask the students to answer the questions given as Competency-based/Application-based questions on page 121 of the main course book. Help the students to solve these questions.

In Creative Assignment, activity like Lab Activity on page 121 of the main course book will enhance the ability of the students and serve as Experiential Learning and Technology Literacy activity.

Suggested Activity

Ask the students to create a program in AI Connect to detect a car in a photo.