HAPPY DAYS SCHOOL, SHIVPURI (M.P.)

DEPARTMENT OF …….

CLASS : 3

Session – 2026-27

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Exploring Windows 10	Understand the basic features of windows 10. Identify parts of desktop. Use window accessories.	Demonstration method. Practical activities on computer.	Oral questioning. Worksheet.	Accuracy in identifying desktop parts. Ability to operate Windows correctly.	Draw and label parts of computer.	Use computer lab for practice.
JULY	Understanding computers.	Identify parts of computers. Differentiate Hardware and Software.	Demonstration method. Hand-on Practical activities.	Oral questioning. Worksheet.	Identification of computers parts. Understanding of concepts.	Prepare charts on hardware and software.	Practice identifying devices on computer system.
AUGUST	Fun with paint 3D.	Learn to open paint 3D app. Use Brushes for drawing and colors creativity.	Demonstration method. Hand-on Practical activities.	Oral questioning. Worksheet.	Proper use of paint 3D tools.	Design colourful 2D and 3D artwork.	Use computer lab for Paint 3D practice.
	FIRST PERIODIC ASSESSMENT						
SEPTEMBER	MS Word 2021	Understand the features of MS Word 2021. Learn to start and close MS Word 2021.	Demonstration method. Hand-on Practical activities.	Oral questioning. Worksheet	Accuracy in typing and formatting. Proper Use of tools.	Create invitation cards and posters.	Practice formatting and editing digitally.
	MID TERM ASSESSMENT						
OCTOBER	Problem solving skills.	Understand about the problems and problem solving steps	Demonstration method	Oral questioning worksheet	Proper identification on different task and problem	Create your own story about a real problem you have faced	Use computer lab for practice

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NOVEMBER	Exploring the internet	Understand about the internet and use of internet	Demonstration method. Hands –on practical activities	Oral questioning worksheet	Proper identification of different search engines and safety rules of internet	Design a websites by using your imagination	Use computer lab for practice
DECEMBER	**SECOND PERIODIC ASSESSMENT**						
	Fun with scratch 3.0	Understand about the features and component if scratch	Demonstration method. Practical activities on computer.	Oral questioning worksheet	Work on different components of scratch 3.0 window	Create an animated name by using scratch	Use computer lab for practice
JANURARY 26	AI Chatbots and virtual assistants	Understand about the chatbots and virtual assistants	Demonstration method. Practical activities on computer.	Oral questioning worksheet	Proper identification between chatbots and virtual assistants	Create a chatbot on a paper	Use of computer lab for practice
	Practical of scratch						
FEB.27	**Revision**						
	FINAL PRACTICAL ASSESSMENT						
MARCH27	**ANNUAL ASSESSMENT**						

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HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER

CLASS: IV

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Ch 1: How Computers Understand Emotions.	• Explain the basic concept of human emotions and how AI attempts to recognize them.	Experiential Learning, Video Case Studies, Collaborative Learning.	1. Interactive AI emotion test.	1 Knowledge: Defining AI and Application: tasks.2 Accuracy: Explaining emotion detection.	Draw or paste different types of expression	Create a presentation on Emotion AI and present in the class.
JULY	2: Organizing Files and Folders	Demonstrate how to create, rename, and manage files and folders using Windows 10 File Explorer.	Storytelling Method, Demons traction, Hands-on Practice.	Oral history quiz2. Practical file organization task	1 Application: Creating/renaming folders.	Draw colorful picture.	Use Windows 10 File Explorer to create a new file & new folder.
	Shapes Around Us	Students will understand the chapter concepts and apply them practically. Students will develop ICT and problem-solving skills.	Experiential Learning, Demonstration, Hands-on Practice	Worksheet, Oral Questions, Practical Activity	Knowledge, Application, Creativity, Accuracy	Poster Making / Drawing Activity	Practical Computer Activity
	REVISION FOR FIRST PERIODIC ASSESSMENT						
AUGUST	**FIRST PERIODIC ASSESSMENT**						
	Ch 3: The Online World	• Identify safe web browsing practices and demonstrate how to communicate responsibly online. • Analyze digital communication to spot fake emails and understand the basics of a digital identity (Aadhaar).	Case Study Analysis, Role-play, Group Discussion	1. Cyber safety oral quiz2. Fake email identification worksheet	1 Knowledge: Defining internet terms.2 Application: Safe browsing habits.	Create a bright, colorful classroom poster outlining the top 5 rules of being a kind Digital Citizen	Open a secure web browser to search for educational facts about 3 Indian historical monuments.

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DEPARTMENT OF COMPUTER

	Hide and Seek	Students will understand and apply concepts related to "Hide and Seek".	Hands-on Practice, Collaborative Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Hide and Seek".	Use computer tools and digital resources for "Hide and Seek".
	Patterns Around Us	Students will understand and apply concepts related to "Patterns Around Us".	Activity-based Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Patterns Around Us".	Use computer tools and digital resources for "Patterns Around Us".
SEPTEMBER	Ch 4: Advanced MS Word 2021	• Apply advanced formatting tools including drop caps, bullets, and line spacing to enhance documents. • Utilize the spelling/grammar checker and thesaurus to independently correct and refine text.	Think-Pair-Share , Practical Lab Session	1. Typed document submission2. Word tools worksheet	1 Knowledge: Identifying Word ribbon tools.2 Application: Applying text formatting.3	Design a visually appealing one-page short story utilizing drop caps and varied text alignments.	Type a short paragraph on 'My Hobby' in MS Word 2021, inserting custom headers, footers, and page borders.
	Students will understand and apply concepts related to "Thousands Around Us".	Think-Pair-Share	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Thousands Around Us".	Use computer tools and digital resources for "Thousands Around Us".	Thousands Around Us
	Sharing and Measuring	Students will understand and apply concepts related to "Sharing and Measuring".	Inquiry-based Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Sharing and Measuring".	Use computer tools and digital resources for "Sharing and Measuring".

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	Revision FOR MID TERM EXAMS						
OCTOBER	**MID TERM EXAM**						
	Ch 5: MS PowerPoint 2021	• Create a new presentation utilizing various slide layouts and background formatting options. • Navigate between different presentation views and successfully save the final project.	Inquiry-based Learning, Demonstration	1. Practical PPT creation task 2. In-class presentation	1 Knowledge: Naming PowerPoint components.2 Application: Adding/deleting slides.3	Sketch a 4-frame visual storyboard on paper to plan the content of a presentation before touching the computer.	Design a basic 4-slide presentation on 'My Favorite Animal' using MS PowerPoint 2021.
	Measuring Length	Students will understand and apply concepts related to "Measuring Length".	Storytelling Method	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Measuring Length".	Use computer tools and digital resources for "Measuring Length".
	The Cleanest Village	Students will understand and apply concepts related to "The Cleanest Village".	Live Coding	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "The Cleanest Village".	Use computer tools and digital resources for "The Cleanest Village".
NOVEMBER	Ch 6: From Abacus to AI	Explain the evolution of computers from early calculating devices to modern technologies. • .	Storytelling Method, , Hands -on Practice	1. Oral history quiz.	1 Knowledge: Recalling computer history.	Draw a colorful timeline chart illustrating the journey from the Abacus to modern computers.	Pattern games, puzzles

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	Weigh It, Pour It	Students will understand and apply concepts related to "Weigh It, Pour It".	Project-based Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Weigh It, Pour It".	Use computer tools and digital resources for "Weigh It, Pour It".
	Equal Groups	Students will understand and apply concepts related to "Equal Groups".	Revision & Practical Work	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Equal Groups".	Use computer tools and digital resources for "Equal Groups".
	Revision FOR SECOND PERIODIC ASSESSEMNT						
DECEMBER	**SECOND PERIODIC ASSESSEMNT**						
	Ch 7: Learning Scratch 3.0	• Construct basic block-based scripts using control blocks to repeat actions. • Apply pen blocks and XY positioning to make a sprite draw geometric shapes on the stage.	Activity-based Learning, , Live Coding	1. Scratch project submission2. Code debugging exercise	1 Knowledge: Understanding Scratch blocks.2 Application: Using the pen tool.	Draw an X and Y coordinate grid on paper and map out the movement path for a character.	Use the block a color full circle in the given image.
	Elephants, Tigers, and Leopards	Students will understand and apply concepts related to "Elephants, Tigers, and Leopards".	Experiential Learning, Demonstration	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Elephants, Tigers, and Leopards".	Use computer tools and digital resources for "Elephants, Tigers, and Leopards".

	Fun with Symmetry	Students will understand and apply concepts related to "Fun with Symmetry".	Hands-on Practice, Collaborative Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Fun with Symmetry".	Use computer tools and digital resources for "Fun with Symmetry".
JANUARY 27	Ch 8: Drones Around Us	Describe the functionality, common uses, and safety rules for operating drones.	Video Case Studies, Collaborative Learning	1. Group presentation on drones	1 Knowledge: Defining AI and drones.2 Application: Identifying drone use cases	Build a simple, non-flying paper model of a quadcopter drone using recycled craft materials.	Create a simple model of a drone using craft materials. .
	Ticking Clocks and Turning Calendar	Students will understand and apply concepts related to "Ticking Clocks and Turning Calendar".	Activity-based Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Ticking Clocks and Turning Calendar".	Use computer tools and digital resources for "Ticking Clocks and Turning Calendar".
	The Transport Museum	Students will understand and apply concepts related to "The Transport Museum".	Think-Pair-Share	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "The Transport Museum".	Use computer tools and digital resources for "The Transport Museum".
	Data Handling	Students will understand and apply concepts related to "Data Handling".	Inquiry-based Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Draw or create a chart related to "Data Handling".	Use computer tools and digital resources for "Data Handling".

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER

FEBRUARY 27	Revision and Final Exam Practical
MARCH 27	Annual Examination

ACTIVITIES

Month	Activity
Apr	Create a presentation on Emotion AI and present in the class.
July	Use Windows 10 File Explorer to create a new file & new folder. Rename the folder and delete the folder.
Aug	Open a secure web browser to search for any picture or some information
Sep	Type a short paragraph on 'My Hobby' in MS Word 2021, inserting custom headers, footers, and page borders.
Oct	Design a basic 4-slide presentation on 'My Favorite Animal' using MS PowerPoint 2021.
Nov	Pattern games, puzzles
Dec	Use the block a color full circle in the given image.
Jan	Create a simple model of a drone using craft materials. .

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HAPPY DAYS SCHOOL, SHIVPURI (M.P.)

DEPARTMENT OF COMPUTER

CLASS: V

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	Ch 1: Exploring Generative AI.	• Identify popular Generative AI tools and evaluate their foundational use.	Experiential Learning, Video Case Studies, Demonstration	1. AI tool identification quiz.	1 Knowledge: Recalling Gen AI tools.	Create a visual storyboard for a short digital photo album, sketching exactly where images and text annotations will be placed.	Write a short story about your pet or favourite animal use the chat GPT
JULY	Ch 2: Journey of Computing.	• Differentiate between primary and secondary memory types and calculate memory measurements.	Constructive Approach,	1. Memory conversion worksheet.	1 Knowledge: Defining memory units/symbols	Create an informative poster about a specific computer generation. Include pictures, facts, and details about the technology of that era.	Create and save the files on our computer. Right click each file click Properties check file size
	We the Travellers – I	Students will understand and apply concepts related to "We the Travellers – I".	Activity-based Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "We the Travellers – I".	Use digital tools and computer applications for "We the Travellers – I".

	Fractions	Students will understand and apply concepts related to "Fractions".	Think-Pair-Share	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Fractions".	Use digital tools and computer applications for "Fractions".
	REVISION FOR FIRST PERIODIC ASSESSMENT						
AUGUST	**FIRST PERIODIC ASSESSMENT**						
	Ch 3: Mastering Scratch 3.0	• Construct advanced scripts utilizing sensing blocks, variables, and mathematical operators. • Develop custom 'My Blocks' to optimize and organize code for interactive AI adventures.	Live Coding Demonstration, Problem-solving Tasks, Collaborative Learning	1. Scratch game/animation project2. Code debugging exercise classroom tasks	1 Knowledge: Understanding variables/operators.2 Application: Using sensing blocks logically.3 Creativity:	Sketch the user interface (UI) and character sprite designs on paper for a simple interactive digital maze game.	Code a functional Scratch 3.0 game that utilizes variables to keep a dynamic score based on sensing block interactions.
	Angles as Turns	Students will understand and apply concepts related to "Angles as Turns".	Inquiry-based Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Angles as Turns".	Use digital tools and computer applications for "Angles as Turns".
	We the Travellers – II	Students will understand and apply concepts related to "We the Travellers – II".	Storytelling Method	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "We the Travellers – II".	Use digital tools and computer applications for "We the Travellers – II".

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SEPTEMBER	Ch 4: Mastering MS Word 2021	• Insert and format advanced visual elements like SmartArt, WordArt, and Tables. •	Demonstration, Hands-on Practice, Project-based Learning	1. Practical Mail Merge task2. Document design submission	1 Knowledge: Identifying advanced Word tools.	Design a formal event invitation card on paper,	Use MS Word to create a main document and an accompanying
	Far and Near	Students will understand and apply concepts related to "Far and Near".	Project-based Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Far and Near".	Use digital tools and computer applications for "Far and Near".
	The Dairy Farm	Students will understand and apply concepts related to "The Dairy Farm".	Practical Lab Session	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "The Dairy Farm".	Use digital tools and computer applications for "The Dairy Farm".
	REVISION FOR MID TERM EXAMS						
OCTOBER	**MID-TERM EXAM**						
	Ch 5: Algorithms and Flowcharts.	Construct logical algorithms and visual flowcharts to solve basic step-by-step problems.	Constructive Approach, Algorithmic Thinking,	Flowchart drawing test.	1 Creativity: Structuring logical paths.2Accuracy: Logical flow of algorithm steps.	1 Creativity: Structuring logical paths.2Accuracy: Logical flow of algorithm steps.	Use an online mind-mapping tool or basic drawing application to create a structured digital flowchart.
	Shapes and Patterns	Students will understand and apply concepts related to "Shapes and Patterns".	Experiential Learning, Demonstration	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Shapes and Patterns".	Use digital tools and computer applications for "Shapes and Patterns".

	Weight and Capacity	Students will understand and apply concepts related to "Weight and Capacity".	Hands-on Practice, Collaborative Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Weight and Capacity".	Use digital tools and computer applications for "Weight and Capacity".
NOVEMBER	Ch 6: Working with PowerPoint 2021	Create an interactive presentation integrating audio, video, charts, and screen recordings.	Experiential Learning, Video Case Studies, Demonstration	Multimedia PPT project.	Creativity: Slide transitions and media choice. Accuracy: Media playback functionality.	Create a visual storyboard for a short digital photo album, sketching exactly where images and text annotations will be placed.	Design a multimedia PowerPoint presentation utilizing the Photo Album feature and embedding a short voice narration.
	Coconut Farm	Students will understand and apply concepts related to "Coconut Farm".	Activity-based Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Coconut Farm".	Use digital tools and computer applications for "Coconut Farm".
	Symmetrical Designs	Students will understand and apply concepts related to "Symmetrical Designs".	Think-Pair-Share	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Symmetrical Designs".	Use digital tools and computer applications for "Symmetrical Designs".
	REVISION FOR SECOND PERIODIC ASSESSMENT						

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DEPARTMENT OF COMPUTER

	SECOND PERIODIC ASSESSMENT						
DECEMBER	Ch 7: MS Excel 2021	• Navigate the MS Excel interface to create, edit, and format worksheets effectively. • Formulate basic calculations to process and analyze entered tabular data structures.	Inquiry-based Learning, Practical Lab Session,	1. Data entry and formatting worksheet	1 Knowledge: Identifying cell types and references.	Create a colorful grid on graph paper simulating a spreadsheet, coloring	Use MS Excel to enter a mock weekly expense tracker,
	Racing Seconds	Students will understand and apply concepts related to "Racing Seconds".	Storytelling Method	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Racing Seconds".	Use digital tools and computer applications for "Racing Seconds".
	Animal Jumps	Students will understand and apply concepts related to "Animal Jumps".	Project-based Learning	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Animal Jumps".	Use digital tools and computer applications for "Animal Jumps".
JANUARY	Ch 8: Exploring the World of AI Ch 9: Browsing the Internet	• Analyze how AI systems learn through data training and predefined rules to make decisions. Demonstrate responsible internet browsing, identifying online traps and evaluating web technologies.	Group Debate, Experiential Learning	1. Cyber safety poster2. AI logic and reasoning quiz	1 Knowledge: Defining AI reasoning and web terms.2 Application: Identifying safe browsing links.3 Creativity: Poster design for online safety.	Design a visually engaging 'Wanted' style poster warning peers about common online traps like phishing or fake links.	Use a safe search engine to research the history of the internet, comparing early basic web pages to modern responsive websites.

	Maps and Locations	Students will understand and apply concepts related to "Maps and Locations".	Practical Lab Session	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Maps and Locations".	Use digital tools and computer applications for "Maps and Locations".
	Data Through Pictures	Students will understand and apply concepts related to "Data Through Pictures".	Experiential Learning, Demonstration	Worksheet, Oral Questions, Practical Activity	Knowledge, Creativity, Accuracy, Participation	Create chart/poster related to "Data Through Pictures".	Use digital tools and computer applications for "Data Through Pictures".
FEBRUARY 27	**REVISION & FINAL PRACTICAL ASSESSMENT**						
MARCH 27	**ANNUAL EXAMINATION**						

Month	Activity
Apr	Write a short story about your pet or favorite animal use the chat GPT
July	Create and save the files on our computer. Right click each file click Properties check file size
Aug	Variable Creation Practice on computer.
Sep	Create the table and format the table as per the instructions.
Oct	Create your Morning Roution Algorithm.
Nov	Create a 5 slide PowerPoint presentation on Healthy Food.

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DEPARTMENT OF COMPUTER

Dec	Enter the data in the table into the spreadsheet apply formatting.
Jan	Google Search Practice.

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HAPPY DAYS SCHOOL, SHIVPURI (M.P.)

DEPARTMENT OF COMPUTER SCIENCE/AI

SUBJECT:- CT & AI

CLASS: 6th

Session – 2026-27

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL ' 26	**AI Ch 1:** Mastering Computational Thinking	Analyze problems using the core components of computational thinking.	Problem-solving Tasks, Collaborative Learning	**1.** Classroom discussion **2.** Concept mapping	Accuracy: Timing and logical flow.	Handling the real-life planning and management tasks.	Create a document of planning a family vacation.
	AI Ch 3: Mastering PowerPoint	Create engaging presentations applying slide master, animations and transitions.	Demonstration Method, Collaborative Learning	**1.** Classroom discussion **2.** Practical PPT task	**1.** Knowledge: Understanding of PPT tools. **2.** Application: Applying transitions/animations. **3.** Creativity: Overall slide design.	Design a visually appealing storyboard on paper outlining a 5-slide presentation before moving to the computer.	Use MS PowerPoint to design a presentation on 'My School' with automated slide timings and custom animations.
JULY ' 26	**AI Ch 4:** Visualisation in MS Excel	• Apply sorting and filtering techniques to organize specific datasets. • Create and format various charts to represent numeric data visually.	Inquiry-based Learning, Practical Demonstration, Think-Pair-Share	**1.** Worksheet on data analysis **2.** Lab practical on charting	**1.** Knowledge: Identification of chart types. **2.** Application: Applying data filters. **3.** Creativity: Chart aesthetics and formatting. **4.** Accuracy: Correct mathematical data representation.	Create a hand-drawn, color-coded pie chart showing the distribution of a student's daily routine activities.	Use MS Excel to input imaginary exam marks for 10 students and generate a formatted 3D column chart.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

	CT Ch 3: Patterns in Mathematics	Identify and extend simple mathematical patterns in everyday sequences.	Play-way Method, Demonstration, Think-Pair-Share	Pattern completion worksheet	**1. Application:** Extending a sequence. **2. Creativity:** Creating new patterns.	Draw simple, repeating mathematical patterns to design a colourful paper Rangoli.	Use a basic drawing tool (like MS Paint or Tux Paint) to draw and copy-paste repeating shape sequences.
AUGUST ' 26	**AI Ch 5:** About Digital Citizenship	• Explain the rights, responsibilities and netiquettes of a responsible digital citizen. • Evaluate trusted sources of information and strategize screen time wellness.	Case Study Analysis, Group Discussion, Experiential Learning	**1.** Group presentation **2.** Role-play on digital etiquette **3.** Oral Quiz	**1.** Knowledge: Recall of netiquette rules. **2.** Application: Identifying safe browsing habits. **3.** Creativity: Presentation delivery style. **4.** Accuracy: Factual correctness of digital footprints.	Design a bold, colourful classroom poster promoting healthy screen time habits and cyber safety.	Use a secure web browser to identify the differences between secure (HTTPS) and unsecured websites online.
	CT Ch 4: Lines and Angles	Classify different types of lines and angles found in surrounding classroom objects.	Experiential Learning, Activity-based Learning, Demonstration	Practical angle drawing task	**1. Knowledge:** Naming angles and data types. **2. Application:** Measuring angles. **3. Accuracy:** Exact angle measurement.	Create a cardboard clock model and use the moving hands to demonstrate acute, right, and obtuse angles.	Create a project on different angles and their applications in real world.
	FIRST PERIODIC ASSESSMENT						
SEPTEMBER ' 26	**AI Ch 2:** Python: An Introduction	• Identify variables, data types and keywords in Python programming. • Demonstrate the use of print() and input() functions to write basic scripts.	Live Coding Demonstration, Experiential Learning, Peer Programming	**1.** Code debugging exercise **2.** Lab Viva **3.** Written test	**1.** Knowledge: Understanding Python syntax. **2.** Application: Correct variable assignment. **3.** Creativity: Custom user input prompts. **4.** Accuracy: Error-free execution of code.	Create a structured flowchart using standard geometrical shapes to plan a basic Python program visually.	Write and execute foundational Python scripts (like basic calculator operations) using Jupyter Notebook.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

	CT Ch 5: Number Play	Apply logical reasoning to solve basic, fun number puzzles.	Inquiry-based Learning, Collaborative Groups	Number puzzle quiz	**Application:** Solving number puzzles.	Playing Number games	Solving the number problems and Sudoku on computer.
	CT Ch 6: Data Handling and Presentation	Create simple bar graphs to visually represent collected class data.	Problem-solving Tasks	Graph drawing assignment	**1. Knowledge:** Reading graph data. **2. Creativity:** Coloring and labeling graphs. **3. Accuracy:** Correct graph scaling.	Draw a bright, colourful bar graph on chart paper representing the birthdays of students by month.	Use an online, kid-friendly chart maker to convert a simple data table into a digital pie chart.
OCTOBER ' 26	**MID TERM ASSESSMENT**						
	AI Ch 6: HTML 5: An Introduction	• Understand the basic structure and essential body tag attributes of an HTML document. • Create simple web pages incorporating headings, text formatting, and images.	Activity-based Learning, Peer Code Review, Constructive Approach	**1.** Practical web design task **2.** Output prediction worksheet	**1.** Knowledge: Recall of standard HTML tags. **2.** Application: Utilizing tag attributes. **3.** Creativity: Webpage layout and design. **4.** Accuracy: Correct opening and closing of tags.	Sketch a detailed wireframe layout for a webpage on paper, indicating where images and text blocks will go.	Use CoffeeCup App or standard Notepad to code an HTML page displaying information about a favorite hobby.
	CT Ch 7: Prime Time	Identify prime and composite numbers using very simple division rules.	Demonstration, Hands-on Practice, Peer Learning	1. Factor tree worksheet 2. Decision-making visual quiz	**1. Knowledge:** Recalling prime numbers. **2. Application:** Building factor trees. **3. Accuracy:** Correct factorization logic.	Draw a large "Factor Tree" on paper, using green leaves to represent the final prime numbers.	Play a simple, educational online math game targeting prime and composite number identification.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

NOVEMBER ' 26	**AI Ch 7:** Exploring Artificial Intelligence	• Explain the components, types and everyday applications of AI. • Evaluate the long-term benefits of implementing AI in real-world scenarios.	Inquiry-based Learning, Video Case Studies, Think-Pair-Share	**1.** Project report **2.** Classroom debate on AI ethics	**1.** Knowledge: Grasp of core AI concepts. **2.** Application: Citing real-world AI examples. **3.** Creativity: Proposing visionary AI ideas. **4.** Accuracy: Proper use of technical terminology.	Draw a futuristic concept illustration of an AI-powered smart classroom or smart home.	Interact with safe, educational AI experiments (like Quick, Draw!) to understand basic machine learning recognition.
	CT Ch 8: Perimeter and Area **CT Ch 9:** Fractions	Calculate the perimeter and area of basic shapes like squares and rectangles. Demonstrate fractions visually using real-world divided objects (like pizzas or chocolates).	Activity-based Learning, Real-world Connections, Think-Pair-Share	Practical measurement lab Fraction shading worksheet	**1. Knowledge:** Stating area/perimeter formulas. **2. Application:** Finding mirror halves. **3. Creativity:** Designing floor plans. **4. Accuracy:** Exact mathematical calculation.	Design a simple 2D floor plan for a "Dream Room" on grid paper, counting the squares to find the area.	Use a digital block-based coding tool (like Scratch) to make a character walk in a square path (perimeter).
DECEMBER ' 26	**SECOND PERIODIC ASSESSMENT**						
	AI Ch 8: Creativity with Canva	Design professional graphics and posters utilizing Canva templates and Canva AI.	Project-based Learning, Experiential Learning,	Digital poster submission	**1.** Application: Navigating Canva workspace. **2.** Creativity: High-quality visual design. **3.** Accuracy: Content alignment with the topic.	Utilizing Canva and Canva AI text-to-image features to design a high-quality poster on 'India and Robotics'.	Use Canva to design a high-quality digital poster on 'India and Robotics' utilizing Canva AI text-to-image features.

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DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

	CT Ch 10: Playing with Constructions	Apply a compass and ruler to construct perfect circles and straight-line segments.	Demonstration, Paper Folding Method	Geometry construction file	**1. Application:** Using a compass correctly. **2. Accuracy:** Perfect reflection drawing.	Fold a paper in half, drop a few drops of paint, and press it to create a perfectly symmetrical ink-blot butterfly.	Creating a 3D model of constructional work.
JANURARY ' 26	**AI Ch 9:** Basics of IoT and Robotics	Describe the building blocks of IoT and the primary components of a robot.	Demonstration	Quiz on IoT terminology	**1.** Knowledge: Recall of IoT/Robotics basics.	Construct a physical prototype model of a simple robot using recycled materials (cardboard, bottle caps).	Utilizing Canva and Canva AI text-to-image features to design a high-quality poster on 'India and Robotics'.
	CT Ch 11: Symmetry	Create symmetrical shapes and identify the exact lines of symmetry.	Practical Lab Session	Symmetry drawing test	**1. Knowledge:** Defining symmetry. **2. Creativity:** Crafting symmetrical masks.	Practical Geometry: Using compasses and rulers to construct circles and line segments.	Use a digital drawing tool's "mirror" or "symmetry" brush feature to draw a perfectly balanced face or object.
FEB '27	**CT Ch 12:** The Other Side of Zero	Explain negative numbers using simple, relatable concepts like cold temperatures.	Storytelling Method, Role-play, Group Discussion	Number line worksheet	**Application:** Placing negatives on a line.	Design a bold, easy-to-read "Invention of Zero" using crayons and sketch pens.	A description about Aryabhatta.
	Revision						
	FINAL PRACTICAL ASSESSMENT						
MARCH '27	**ANNUAL ASSESSMENT**						

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)

DEPARTMENT OF COMPUTER SCIENCE/AI

SUBJECT:- CT & AI

ACTIVITIES

MONTH	TOPICS	DESCRIPTION OF ACTIVITIES
April	Mastering Computational Thinking	**Concept Mapping:** Group discussions and mapping out computational problem-solving steps.
	Mastering PowerPoint	**Digital Creation:** Designing a 'My School' presentation using MS PowerPoint, incorporating automated timings, slide masters, and custom animations.
July	Visualisation in MS Excel	**Data Representation:** Drawing a color-coded pie chart of daily routines, then replicating it digitally by inputting data and generating 3D column charts in MS Excel.
	Patterns in Mathematics	**Art Integration:** Designing a mathematical paper Rangoli using repeating patterns.
August	About Digital Citizenship	**Safe Browsing Lab:** Using a secure web browser to identify the differences between HTTPS and unsecured websites.
	Lines and Angles	**Physical Modelling:** Creating a cardboard clock model with moving hands to practically demonstrate acute, right, and obtuse angles.
September	Python: An Introduction	**Live Coding:** Writing and executing foundational Python scripts (like a basic calculator) using Jupyter Notebook, including code debugging.
	Number Play	**Flowcharting:** Creating structured algorithmic flowcharts using standard geometric shapes.
	Data Handling and Presentation	**Digital Data Charting:** Using an online, kid-friendly chart maker to convert data tables into digital pie charts.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

MONTH	TOPICS	DESCRIPTION OF ACTIVITIES
October	HTML 5: An Introduction	**Web Development:** Coding the HTML page using Notepad, utilizing tags, formatting, and images.
	Prime Time	**Gamified Math:** Playing an educational online math game targeting prime and composite number identification.
November	Exploring Artificial Intelligence	**Concept Art:** Drawing a futuristic illustration of an AI-powered smart classroom or smart home.
	Perimeter and Area	**Block Coding:** Programming a character in Scratch to walk in a perfect square path to understand perimeter.
	Fractions	**Floor Plan Design:** Designing a 2D floor plan for a "Dream Room" on grid paper and counting squares to calculate the area.
December	Creativity with Canva	Utilizing Canva and Canva AI text-to-image features to design a high-quality poster on '**India and Robotics**'.
	Basics of IoT and Robotics	**Robotics Prototyping:** Constructing a physical model of a simple robot using recycled materials.
January	Playing with Constructions	**Practical Geometry:** Using compasses and rulers to construct circles and line segments.
	Symmetry	**Digital Mirroring:** Using a digital drawing tool's symmetry/mirror brush to draw a perfectly balanced face or object.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

MONTH	TOPICS	DESCRIPTION OF ACTIVITIES
February	The Other Side of Zero	**Historical Poster:** Writing a descriptive piece about Aryabhatta.

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HAPPY DAYS SCHOOL, SHIVPURI (M.P.)

DEPARTMENT OF COMPUTER SCIENCE/AI

SUBJECT:- CT & AI

CLASS: 7th

Session – 2026-27

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL ' 26	**AI Ch 1:** Cyber Crimes, Threats, and Safety	Evaluate potential cyber threats and formulate safety protocols for educational institutions.	Case Study Analysis, Inquiry-based Learning	1. Cyber safety quiz	**1.** Creativity: Poster layout and design. **2.** Accuracy: Factual correctness of safety measures.	Design a comprehensive, visually striking infographic poster detailing the "Do's and Don'ts" of Cyber Safety.	Designing a comprehensive, visually striking "Do's and Don'ts" poster for Cyber Safety.
	AI Ch 2: Machine Learning Through Big Data	Analyze the 6 V's of Big Data and demonstrate foundational machine learning principles.	Experiential Learning	Live AI model demonstration	**1.** Knowledge: Defining cyber terms and ML types. **2.** Application: Training a basic visual model.	Demonstrate a custom visual image recognition model.	Use 'Teachable Machine with Google' to train and test a custom image recognition model.
JULY ' 26	**AI Ch 3:** Formulas & Functions in MS Excel	Apply advanced cell referencing to compute complex datasets and create customized PivotTables.	Hands-on Practice	1. Data analysis worksheet.	**1.** Application: Using accurate cell references. **2.** Accuracy: Error-free calculation.	Draw a visual hierarchy chart explaining the differences between relative, absolute, and mixed cell references.	Create an automated inventory in MS Excel, then upload and securely share the file with peers using Google Drive.
	CT Ch 5: A Peek Beyond the Point	Explain the concept of binary numbers and their everyday use in computers.	Collaborative Learning	Binary conversion practical task	**1. Knowledge:** Recalling the base of binary numbers. **2. Creativity:** Neatness of punched cards. **3. Accuracy:** Correct binary representation.	Craft physical "punched cards" using thick chart paper and a standard hole puncher to simulate early computer logic.	Play a basic, kid-friendly online binary number matching or conversion game to solidify the concept.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

AUGUST ' 26	**CT Ch 3:** Large Numbers Around Us	Apply logical reasoning to decode puzzles involving large multi-digit numbers.	Play-way Method	Number puzzle worksheet	**1. Knowledge:** Defining basic mathematical operators. **2. Application:** Solving equations correctly.	Create colourful, handmade paper flashcards featuring mathematical operators (+, -, x, ÷) for a classroom swapping game.	Create a document of applications of Numbers in real life.
	CT Ch 4: Arithmetic Expressions	Solve basic arithmetic expressions by confidently interchanging operators.	Problem-solving Tasks	Oral math quiz	**1. Creativity:** Designing flashcards. **2. Accuracy:** Flawless arithmetic calculation.	Solving grid-based arithmetic and large multi-digit number puzzles.	Use the built-in computer Calculator application to quickly verify manual arithmetic calculations
	AI Ch 4: Learning Cloud Computing	Compare cloud deployment models and effectively utilize Google Drive for cloud storage.	Demonstration Method	Group presentation on cloud services	Knowledge: Identifying correct functions/cloud models.	Using Drives like Google, Dropbox, etc.	Uploading and Editing files using Google Docs, Sheets and Presentation.
	FIRST PERIODIC ASSESSMENT						
SEPTEMBER ' 26	**AI Ch 5:** Conditional Statements in Python	• Construct Python scripts utilizing fundamental 'if' and 'if-else' statements. • Apply nested 'if-else' and 'elif' conditional logic to solve multi-layered problems.	Live Coding Demonstration, Algorithmic Thinking, Peer Code Review	1. Code debugging exercise 2. Practical programming test	**1.** Knowledge: Syntax comprehension. **2.** Application: Correct logic implementation. **3.** Creativity: Code optimization. **4.** Accuracy: Error-free script execution.	Draw a detailed, logical flowchart using standard algorithmic shapes to visually represent a nested if-else statement before coding.	Write and execute a Python script in IDLE to solve a real-world logical problem, such as determining if an entered year is a leap year.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

	CT Ch 6: Expressions using Letter-Numbers	• Substitute numerical values for letters to resolve basic algebraic expressions. • Formulate simple logical statements using combinations of letters and numbers.	Inquiry-based Learning, Think-Pair-Share, Peer Learning	1. Code-breaking worksheet 2. Peer review	**1. Knowledge:** Understanding variable substitution. **2. Application:** Placing numbers into expressions. **3. Creativity:** Creating unique secret codes. **4. Accuracy:** Error-free logical deductions.	Draw a highly visual 'secret agent code-breaking' map using alphabet letters mapped to specific numerical values.	Enter simple algebraic formulas (e.g., =A1+B1) in an MS Excel spreadsheet to observe automated calculated results.
OCTOBER ' 26	**MID TERM ASSESSMENT**						
	AI Ch 6: Excelling IoT and Robotics	• Outline the SIPC cycle of IoT and classify different types of robotic systems. • Evaluate the risks and responsibilities associated with modern robotics.	Experiential Learning, Video Case Studies, Think-Pair-Share	1. Project report on IoT applications 2. Viva voce on robotics	**1.** Knowledge: Identifying IoT cycles. **2.** Application: Classifying robot types. **3.** Creativity: Proposing new IoT device concepts. **4.** Accuracy: Proper use of technical terminology.	Sketch a futuristic concept design of a smart home, labelling all interconnected IoT devices and their functions.	Research and compile a digital report on how IoT is transforming the healthcare or agricultural sectors in India.
	CT Ch 9: A Tale of Three Intersecting Lines	• Classify triangles into right-angled, equilateral, and isosceles based on visual properties. • Demonstrate how intersecting lines form distinct geometric angles and shapes.	Paper Folding Method, Activity-based Learning, Visual Reasoning	1. Triangle classification worksheet 2. Practical folding test	**1. Knowledge:** Naming triangle types. **2. Application:** Measuring angles practically. **3. Creativity:** Designing a shape scenery. **4. Accuracy:** Exact angle classification.	Cut out different types of triangles from brightly coloured paper and paste them together to make an overlapping scenery or animal.	Use a basic digital drawing tool to construct and manually drag intersecting lines, observing the distinct triangles formed.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

NOVEMBER ' 26	**AI Ch 7:** Mastering HTML 5	• Design structured web pages utilizing HTML5 semantic elements and DOCTYPE declarations. • Embed media elements and construct formatted tables and hyperlinks.	Project-based Learning, Constructive Approach, Independent Practice	1. Webpage creation task 2. HTML syntax worksheet	1 Knowledge: Recalling semantic tags. 2 Application: Embedding media/links properly. 3 Creativity: Overall webpage aesthetics. 4 Accuracy: Validated HTML code structure.	Sketch a wireframe layout of a multi-page website on paper, detailing navigation menus, headers, and media placements.	Code a multi-page HTML5 website about "Environmental Conservation," ensuring working navigation links and embedded images.
DECEMBER ' 26	**SECOND PERIODIC ASSESSMENT**						
	AI Ch 8: Video Editing: Shotcut	• Navigate the Shotcut interface to import, arrange, and trim multiple video clips. • Create and export a professionally edited video integrating text, filters, and audio transitions.	Demonstration Method, Flipped Classroom, Hands-on Workshop	1. Video project submission 2. Peer review session	1 Knowledge: Identifying Shotcut tools. 2 Application: Applying video transitions smoothly. 3 Creativity: Video storytelling and pacing. 4 Accuracy: Correct rendering/export settings.	Draft a detailed storyboard consisting of at least 10 frames to plan the visual sequence of a short video project before editing.	Import multiple media clips into Shotcut, arrange them on the timeline, add background audio and text overlays, and export as an MP4.
JANURARY ' 26	**CT Ch 7:** Parallel and Intersecting Lines	• Identify and classify parallel and intersecting lines in everyday 3D objects.	Hands-on Practice, Group Discussion	1. Practical geometry task	**1. Knowledge:** Defining parallel/intersecting lines. **2. Accuracy:** Correct geometric identification.	Use everyday items like matchsticks or colourful drinking straws to build physical models of intersecting and parallel lines.	Use MS Paint or Tux Paint to draw standard 2D shapes, using the 'Fill' bucket to colour parallel lines in identical shades.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

	CT Ch 8: Number Play	Arrange numbers logically within a grid by following strict, simple placement rules.	Experiential Learning	Grid placement quiz	**1. Application:** Navigating grid constraints. **2. Creativity:** Building 3D line models.	Drawing sketch using Grid lines.	Drafting art with the help of grids on computer.
FEB. '27	**CT Ch 10:** Working with Fractions	• Visually represent complex fractions using shaded sections of circles and rectangles. • Calculate and compare fractional values in everyday distribution scenarios.	Demonstration, Practical Lab Session, Real-world Connections	1. Fraction shading assignment 2. Oral math reasoning	**1. Knowledge:** Defining numerators/denominators. **2. Application:** Shading the correct fractional area. **3. Creativity:** Crafting physical fraction plates. **4. Accuracy:** Precise fractional calculation.	Colour standard paper plates and cut them into precise slices to visually represent halves, quarters, and thirds.	Input basic student fractional data into an MS Excel sheet to automatically generate a digital pie chart.
	Revision						
	FINAL PRACTICAL ASSESSMENT						
MARCH '27	**ANNUAL ASSESSMENT**						

Activities

MONTH	TOPICS	DESCRIPTION OF ACTIVITIES
April	Cyber Crimes, Threats, and Safety	**Safety Infographics:** Designing a comprehensive, visually striking "Do's and Don'ts" poster for Cyber Safety.
	Machine Learning Through Big Data	**Machine Learning Lab:** Using 'Teachable Machine with Google' to train, test, and demonstrate a custom visual image recognition model.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

MONTH	TOPICS	DESCRIPTION OF ACTIVITIES
July	Formulas & Functions in MS Excel	**Cell Referencing Mapping**: Drawing a visual hierarchy chart to explain relative, absolute, and mixed cell references.
	Learning Cloud Computing	**Cloud Collaboration:** Creating an automated inventory in MS Excel, uploading it to Google Drive, and securely sharing it with peers.
	A Peek Beyond the Point	**Binary Gamification:** Playing an interactive, kid-friendly online binary number conversion game.
August	Large Numbers Around Us	**Digital Verification:** Using the built-in computer Calculator application to quickly verify large manual arithmetic calculations.
	Arithmetic Expressions	**Logic Puzzles:** Solving grid-based arithmetic and large multi-digit number puzzles.
September	Conditional Statements in Python	**Python Coding:** Writing and executing Python scripts in IDLE to solve real-world logical problems (like checking for leap years).
	Expressions using Letter-Numbers	**Code-Breaking Map:** Designing a highly visual 'secret agent code-breaking' map using alphabet letters mapped to numerical values.
October	Excelling IoT and Robotics	**Smart Home Concept Art:** Sketching a futuristic concept design of a smart home, labeling all interconnected IoT devices and their functions.
	A Tale of Three Intersecting Lines	**Digital Geometry:** Using a basic digital drawing tool to construct and manually drag intersecting lines, observing the distinct triangles formed.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

MONTH	TOPICS	DESCRIPTION OF ACTIVITIES
November	Mastering HTML 5	**Web Development Lab:** Coding a multi-page HTML5 website focused on "Environmental Conservation," ensuring functional navigation links and embedded images.
December	Video Editing: Shotcut	**Multimedia Editing:** Importing multiple media clips into Shotcut, arranging them on the timeline, adding background audio and text overlays, and exporting the final project as an MP4.
January	Parallel and Intersecting Lines	**Digital Line Art:** Using MS Paint or Tux Paint to draw standard 2D shapes, utilizing the 'Fill' bucket to color parallel lines in identical shades.
	Number Play	**Grid Logic:** Arranging numbers logically within a physical grid following strict placement rules.
February	Working with Fractions	**Fraction Plates:** Coloring standard paper plates and cutting them into precise slices to visually represent halves, quarters, and thirds.

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HAPPY DAYS SCHOOL, SHIVPURI (M.P.)

DEPARTMENT OF COMPUTER SCIENCE/AI

SUBJECT:- CT & AI

CLASS: 8th

Session – 2026-27

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL ' 26	**AI Ch 3:** Networking Concepts	Analyze various network topologies and architectures to determine appropriate setups.	Inquiry-based Learning, Collaborative Learning,	Topology diagram quiz	**1.** Knowledge: Defining network/AI concepts.	Draw a detailed, color-coded schematic diagram illustrating the layout of Star, Ring, and Mesh topologies.	Prepare a presentation of different topologies.
	AI Ch 4: Prompt Engineering	Formulate effective, targeted prompts to interact ethically and productively with Generative AI tools.	Demonstration	AI Prompting practical task	**1.** Application: Designing effective prompts. **2.** Creativity: Adapting AI outputs creatively. **3.** Accuracy: Identifying correct prompt.	Create an image as per the instructions given in class.	Use a Generative AI tool (like Gemini or ChatGPT) to generate a structured study guide by applying specific prompt engineering techniques.
JULY ' 26	**AI Ch 1:** Data Science: An Introduction	• Evaluate how data science, AI, and ML intersect to solve complex real-world problems. • Differentiate between various data types and analyze their specific applications in data-driven careers.	Case Study Analysis, Group Discussion, Think-Pair-Share	1. Data analysis worksheet 2. Classroom debate on Data Careers	**1.** Knowledge: Recalling data science terms. **2.** Application: Categorizing data structures. **3.** Creativity: Proposing ML solutions. **4.** Accuracy: Factual correctness of AI roles.	Create a structured, visually appealing mind map detailing the various career paths available in the Data Science field.	Navigate an online public dataset (e.g., Kaggle or Google Dataset Search) to visually identify trends and patterns.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

	CT Ch 1: A Square and a Cube	• Calculate squares and cubes of numbers to solve basic visual grid puzzles. • Apply logical deduction to find missing values in grid-based arithmetic.	Play-way Method, Demonstration, Problem-solving Tasks	1. Logic puzzle worksheet 2. Oral math quiz	**1. Knowledge:** Defining squares and cubes. **2. Application:** Solving grid puzzles. **3. Creativity:** Designing a new grid. **4. Accuracy:** Exact mathematical calculation.	Draw a highly visual 'Square and Cube' grid puzzle using brightly coloured chart paper.	Use the built-in computer Calculator application to quickly verify large cube and square values.
AUGUST ' 26	**AI Ch 2:** Database with SQL	• Create and manage SQLite databases by executing appropriate dot commands and table creation scripts. • Formulate complex SQL queries using WHERE, ORDER BY, and Aggregate functions to manipulate data.	Live Demonstration, Hands-on Practice, Problem-solving Tasks	1. SQL Query writing test 2. Practical database creation lab	**1.** Knowledge: Understanding SQL syntax. **2.** Application: Executing CRUD operations. **3.** Creativity: Designing relational queries. **4.** Accuracy: Error-free script execution.	Design a tabular infographic outlining the different SQL data types and their specific digital storage purposes.	Use an online SQLite compiler to construct a school library database, insert book records, and query specific genres.
	CT Ch 2: Power Play	Analyze patterns in exponential forms to arrange values in ascending order.	Hands-on Practice, Experiential Learning	1. Binary conversion task	**1. Knowledge:** Recalling base numbers. **2. Creativity:** Organizing physical blocks.	Craft a set of physical 'base-number' blocks using clay or cardboard to visualize binary steps.	Online Calculation games.
	CT Ch 3: A Story of Numbers	Convert standard decimal numbers into basic binary and ternary representations.	Collaborative Groups	Pattern identification quiz	**1. Application:** Converting decimals. **2. Accuracy:** Error-free conversion logic.	Making notes on rules of conversion.	Play a kid-friendly online binary number conversion game to solidify the concept of base-2.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

	FIRST PERIODIC ASSESSMENT						
SEPTEMBER ' 26	**AI Ch 6:** Advanced IoT and Robotics	• Analyze the integration of AI within the IoT ecosystem to conceptualize smart city infrastructure. • Evaluate the ethical, safety, and real-world implications of deploying advanced robotics.	Experiential Learning, Video Case Studies, Project-based Learning	1. Smart City project presentation 2. Viva voce on Robotics ethics	**1.** Knowledge: Grasping IoT/Robotics concepts. **2.** Application: Connecting AI with IoT devices. **3.** Creativity: Designing a smart city blueprint. **4.** Accuracy: Valid ethical considerations.	Sketch a detailed concept art or build a 3D paper diorama of an AI-powered smart city intersection.	Research and compile a digital presentation detailing how robotics is currently utilized in automated manufacturing or space exploration.
	CT Ch 4: Quadrilaterals	• Classify shapes like parallelograms and trapeziums based on parallel lines and angles. • Evaluate visual diagrams to count overlapping geometric shapes accurately.	Activity-based Learning, Visual Reasoning, Think-Pair-Share	1. Practical geometry task 2. Shape classification test	**1. Knowledge:** Naming quadrilateral types. **2. Application:** Counting overlapping shapes. **3. Creativity:** Shading shape intersections. **4. Accuracy:** Correct angle properties.	Cut out different coloured paper polygons and overlap them to create a complex geometric scenery.	Use MS Paint or Tux Paint to draw basic quadrilaterals, using the fill tool to highlight overlapping areas.
OCTOBER ' 26	**MID TERM ASSESSMENT**						

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

	AI Ch 5: Iterative Statements in Python	• Apply 'for' and 'while' loops to traverse elements and automate repetitive programming tasks. • Utilize range functions and membership operators to construct optimized, complex logic.	Algorithmic Thinking, Live Coding Demonstration, Peer Code Review	1. Code debugging worksheet 2. Practical looping programming test	**1.** Knowledge: Syntax comprehension of loops. **2.** Application: Preventing infinite loops. **3.** Creativity: Code optimization and logic. **4.** Accuracy: Flawless execution of statements.	Create a visual flowchart loop demonstrating the continuous step-by-step execution cycle of a 'while' statement.	Write and execute a Python program in Jupyter Notebook that generates a customizable mathematical multiplication table using loops.
	CT Ch 5: Number Play	• Decode missing digits in complex addition and multiplication cryptarithmetic problems. • Analyze divisibility rules (like 4, 5, and 9) to logically deduce unknown variables.	Inquiry-based Learning, Collaborative Learning, Demonstration	1. Code-breaking worksheet 2. Divisibility oral quiz	**1. Knowledge:** Stating divisibility rules. **2. Application:** Decoding missing numbers. **3. Creativity:** Creating custom number codes. **4. Accuracy:** Flawless arithmetic logic.	Design a visual 'Secret Agent' code-breaking map where letters are mapped to numbers using divisibility rules.	Enter simple arithmetic formulas in an MS Excel spreadsheet to observe how changing one digit affects the sum.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

NOVEMBER ' 26	**AI Ch 7:** Thunkable: App Development	• Identify the key factors affecting mobile app development and navigate the Thunkable workspace. • Design, construct, and test a functional, interactive mobile application from scratch.	Constructive Approach, Flipped Classroom, Hands-on Workshop	1. App prototype submission 2. UI/UX design review	**1.** Knowledge: Identifying Thunkable tools. **2.** Application: Connecting UI blocks logically. **3.** Creativity: App interface design (UI/UX). **4.** Accuracy: Functional, bug-free app behavior.	Sketch a detailed, multi-screen wireframe on paper to plan the user interface (UI) and user journey of a mobile app.	Use the Thunkable web platform to develop and simulate a basic interactive utility application (like a calculator or text-to-speech app).
DECEMBER ' 26	**SECOND PERIODIC ASSESSMENT**						
	AI Ch 8: Mastering Cascading Style Sheet (CSS)	• Apply various CSS formats (inline, internal, external) to cleanly style and structure HTML elements. • Manipulate advanced CSS properties for backgrounds, lists, tables, and borders to enhance web aesthetics.	Project-based Learning, Independent Practice, Constructive Approach	1. Styled webpage project 2. CSS syntax and property quiz	**1.** Knowledge: Recalling CSS properties. **2.** Application: Linking external stylesheets. **3.** Creativity: Web design and color theory. **4**. Accuracy: Validated CSS styling rules.	Create a physical colour palette and typography board using craft materials to plan the aesthetic theme of a website.	Code a multi-page HTML website and link an external CSS file to uniformly style the navigation bar, headers, and table data.

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE/AI
SUBJECT:- CT & AI

	CT Ch 6: We Distribute Yet Things Multiply	• Formulate algebraic expressions to solve real-world distribution and cost scenarios. • Evaluate visual patterns to predict the next numerical value in a multiplying sequence.	Experiential Learning, Role-play Scenarios, Peer Learning	1. Distribution logic task 2. Pattern prediction worksheet	**1. Knowledge:** Defining algebraic terms. **2. Application:** Solving cost distributions. **3. Creativity:** Visualizing data tables. **4. Accuracy:** Precise total calculations.	Draw a visually structured data table on chart paper to organize the costs of different classroom items.	Input simulated cost and distribution data into an MS Excel sheet to computationally find total expenses.
JANURARY ' 26	**CT Ch 7:** Proportional Reasoning	• Apply ratios and proportions to calculate relative quantities across different variables. • Analyze visual fractions and number lines to simplify proportional relationships.	Real-world Connections, Hands-on Practice, Group Discussion	1. Ratio and proportion quiz 2. Practical division task	**1. Knowledge:** Understanding ratios. **2. Application:** Simplifying fractions. **3. Creativity:** Designing fraction strips. **4. Accuracy:** Exact proportional splits.	Colour and cut long paper strips into different fractional ratios (like 1/2, 1/4) to compare them physically.	Use an online, interactive fraction simulator to visualize how changing a ratio affects the size of a digital block.
FEBRUARY ' 27	**Revision**						
	FINAL PRACTICAL ASSESSMENT						
MARCH ' 27	**ANNUAL ASSESSMENT**						

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)

DEPARTMENT OF COMPUTER SCIENCE/AI

SUBJECT:- CT & AI

Activities

MONTH	TOPICS	DESCRIPTION OF ACTIVITIES
April	A Square and a Cube	**Digital Calculation:** Using the computer's built-in Calculator application to quickly verify large square and cube calculations.
July	Power Play	**Binary Gamification:** Playing a kid-friendly online binary number conversion game to solidify the concept of base-2 conversions.
	A Story of Numbers	**Base-Number Blocks:** Crafting physical 'base-number' blocks using clay or cardboard to physically visualize binary and ternary steps.
September	Quadrilaterals	**Digital Shape Overlaps:** Using MS Paint or Tux Paint to draw basic quadrilaterals, utilizing the fill tool to highlight and count overlapping areas.
October	Number Play	**Excel Arithmetic:** Entering simple arithmetic formulas in an MS Excel spreadsheet to observe how changing a single digit dynamically affects the total sum.
November	We Distribute Yet Things Multiply	**Data Tabulation:** Drawing a visually structured data table on chart paper to organize the costs of different classroom items.
December	Proportional Reasoning	**Practical Division Task:** Group discussions and oral quizzes focused on practical proportional splits and ratios.

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HAPPY DAYS SCHOOL, SHIVPURI (M.P.)

DEPARTMENT OF COMPUTER SCIENCE

Subject – Information Technology

CLASS: 9th

Session – 2026-27

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/ STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
APRIL	**Basic ICT Skills-I**	Students will learn ICT basics and entrepreneurship concepts.	Demonstration, hands-on practice, group discussion	Practical work, quizzes	Accuracy, creativity, teamwork	Chart preparation	Computer lab activities
JULY	**Self-Management Skills-I**	Students will understand effective communication skills. And	Lecture, role play, discussion, activity-based learning	Oral questions, worksheets, class activity	Participation, understanding, presentation		Use of PPT and videos
AUGUST	**Communication Skills-I**	Students will understand effective self-management skills	Lecture, role play, discussion, activity-based learning	Oral questions, worksheets, class activity	Participation, understanding, presentation	Poster making on Communication skills	Use of PPT and videos
	FIRST PERIODIC ASSESSMENT						
SEPTEMBER	**Entrepreneuria Skills-I**	Students will learn entrepreneurship concepts.	Demonstration, hands-on practice, group discussion	Practical work, quizzes	Accuracy, creativity, teamwork	Chart preparation	Computer lab activities
OCTOBER	**MID TERM ASSESSMENT**						
	Introduction to IT-ITeS Industry	**Students will understand green skills and IT industry basics.**	**Project method, discussion, multimedia teaching**	**Assignments, MCQs**	**Knowledge application, communication**	**Eco-friendly campaign activity**	**Internet research**

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)

DEPARTMENT OF COMPUTER SCIENCE

NOVEMBER	Data Entry and Keyboarding Skills	Students will develop typing and data entry skills.	Practical sessions, demonstrations	Typing tests, practical assessment	Speed, accuracy, discipline	Keyboard chart activity	Typing software
	Digital Documentation	Students will create and edit digital documents.	Hands-on learning, guided practice	Practical file work	Formatting accuracy, creativity	Document designing	MS Word / LibreOffice
DECEMBER	SECOND PERIODIC ASSESSMENT						
	Digital Presentation	Students will prepare effective digital presentations.	Project work, presentation method	Presentation assessment	Confidence, design, content quality	Creative slide designing	PowerPoint / Impress
JAN.27	Revision and FINAL PRACTICAL ASSESSMENT						
FEB. 27	ANNUAL ASSESSMENT						

CHAPTER	ACTIVITY
Communication Skills-I	Role-play polite conversations to practice verbal and non-verbal communication.
Self-Management Skills-I	Create a daily timetable chart for time management practice.
Basic ICT Skills-I	Identify and label computer hardware and software components.
Entrepreneurial Skills-I	Design and present a mini business idea in groups.
Introduction to IT-ITeS Industry	Prepare a chart showing real-life applications of IT services.
Data Entry and Keyboarding Skills	Conduct a typing speed and accuracy competition.
Digital Documentation	Create and format a simple resume using a word processor.
Digital Presentation	Slide presentation on a favorite personality or topic.

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[NAVEEN SHARMA]

SIGNATURE OF PRINCIPAL_____

[ANJU SHARMA]

HAPPY DAYS SCHOOL, SHIVPURI (M.P.)
DEPARTMENT OF COMPUTER SCIENCE / AI

ARTIFICIAL INTELLIGENCE (SUBJECT CODE 417)
CLASS – X
(SESSION 2026-2027)

MONTH	CHAPTER	EXPECTED LEARNING OUTCOMES	PEDAGOGICAL APPROACH (TEACHING METHODS/STRATEGIES)	ASSESSMENT TOOLS	RUBRICS	ART INTEGRATION	ICT INTEGRATION
April	**Unit 1: Revisiting AI Project Cycle & Ethical Frameworks** (11P+4T+7ES) + Employability Skills (Communication) + Practical: Ethics Framework Mind Map	Explain AI project cycle stages, ethical AI principles, create ethics discussion document	Think-pair-share on ethics dilemmas, project cycle simulation, MS Word ethics report	Ethics mind map (Practical: 3 marks), group discussion, quiz	Content depth (40%), Ethical reasoning (30%), Presentation (30%)	AI ethics dilemma posters	MS Word/Google Docs, YouTube ethics case studies
May	**SUMMER VACATION**						
June	**SUMMER VACATION**						
July	**Unit 2: Advanced Concepts of Modeling in AI** (18P+7T+11ES) + Employability Skills (Self-Management) + Practical: Model Training Flowchart	Understand ML model types/training process, time management for AI projects, design model workflow	Case studies of ML models, goal-setting workshops, flowchart lab session	Model flowchart (Practical: 4 marks), project timeline	Technical accuracy (40%), Planning logic (35%), Professionalism (25%)	ML model evolution timeline art	Draw.io/MS Visio, Trello project boards

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August	**Unit 3: Evaluating Models** (21P+4T+10ES) + Employability Skills (ICT Skills) + Practical: Model Evaluation Metrics Excel	Apply evaluation metrics (accuracy, precision), Excel for performance analysis, interpret results	Dataset evaluation exercises, Excel dashboard creation, peer model review	Excel evaluation dashboard (Practical: 4 marks), metrics quiz	Calculation accuracy (50%), Visualization (30%), Insights (20%)	Performance metric infographics	MS Excel PivotTables, sample ML datasets
September	**Unit 4: Statistical Data** (28P) + Employability Skills (Problem Solving) + Practical: Statistical Analysis Python	Master statistical measures, hypothesis testing, Python statistical computations	Statistical puzzles, Python lab sessions, real-world data analysis projects	Python stats program (Practical: 4 marks), analysis report	Code functionality (40%), Statistical validity (35%), Interpretation (25%)	Statistical concept posters	Python (Numpy/Pandas/Scipy), Jupyter Notebook
October	**Unit 4: Statistical Data** (28P) + Employability Skills (Problem Solving) + Practical: Statistical Analysis Python	Master statistical measures, hypothesis testing, Python statistical computations	Statistical puzzles, Python lab sessions, real-world data analysis projects	Python stats program (Practical: 4 marks), analysis report	Code functionality (40%), Statistical validity (35%), Interpretation (25%)	Statistical concept posters	Python (Numpy/Pandas/Scipy), Jupyter Notebook
November	**Unit 5: Computer Vision** (10P+20T+4ES) + Employability Skills (Critical Thinking) + Practical: Image Processing with Pillow/OpenCV	Image processing techniques, CV applications, basic image manipulation code	CV application demos, image filter coding workshop, ethics debate	Image processing script (Practical: 5 marks), CV quiz	Code execution (45%), Feature understanding (30%), Creativity (25%)	CV application concept art	Python Pillow/OpenCV, Teachable Machine
December	**FIRST PRE BOARD EXAMINATION**						

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January 27	SECOND PREBOARD EXAMINATION FINAL PRACTICAL EXAMINATION
February 27	BOARD EXAMINATION

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[NAVEEN SHARMA] [ANJU SHARMA]