

Chapter Distribution (Class 8: April to February)

We will distribute the 11 chapters over 8 teaching months (April, May, July, August, October, November, December, January, February).

Semester	Month	Weeks	Chapters Covered	Total Chapters	Examination/Break
Semester I	April	4	Ch 1: Computer Networking, Ch 2: Introduction to Adobe Photoshop 2024 (Start)	1.5	New Session begins
	May	4	Ch 2: Introduction to Adobe Photoshop 2024 (Finish), Ch 3: More on Adobe Photoshop 2024	1.5	Unit Test/Revision
	June	4	(Summer Break)	0	
	July	4	Ch 4: Computer Safety and Security, Ch 5: Google Apps	2	
	August	4	Ch 6: Latest Technological Developments (Start)	0.5	Revision for Half-Yearly
	September	4	(Half-Yearly Exams & Revision)	Total: 5.5	Periodic Assessment 1 & 2
	Semester II	October	4	Ch 6: Latest Technological Developments (Finish), Ch 7: Images, Links and Frames in HTML5	1.5
November		4	Ch 8: Algorithmic Intelligence, Ch 9: Loops in Python	2	



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	December	4	Ch 10: Functions and String in Python (Start)	0.5	Christmas Break/Revision
	January	4	Ch 10: Functions and String in Python (Finish), Ch 11: Domains of AI (Start)	1.5	Periodic Assessment 3 & 4
	February	4	Ch 11: Domains of AI (Finish), Project Work/Revision	1	Pre-Board/Revision
	March	4	(Final Exams)	Total: 5.5	

Detailed Chapter-wise ACPP Structure

The following detailed plan incorporates all required pedagogical components: **Teaching Strategies, Activities, Learning Outcomes, Assessment, and 21st Century/Life Skills.**

Ch. No. & Name	Learning Outcomes (SMART)	Teaching Strategies (Pedagogy)	Key Activities & Resources (Experiential/AI/IL)	Assessment Methods (Flexible)	Interdisciplinary & Life Skills / 21st Century Skills
1: Computer Networking (April)	Students will be able to classify networks (LAN, WAN) and explain basic network components (Hub, Switch, Router, Modem).	Inquiry-Based Learning: Ask "How does my phone connect to the Internet?" Concept Mapping: Students collaboratively build a visual map of network architecture.	Activity: Role-Play: Students act as different network devices to simulate data flow and collisions. Resource: Real or dummy networking devices for demonstration.	Formative: Concept Map grading. Summative: Quiz on network protocols and topologies.	Interdisciplinary: Science (concept of signal transmission). 21st Century Skill: Communication (explaining technical concepts).
2: Intro to Adobe Photoshop 2024 (Apr/May)	Students will be able to differentiate between selection tools	Hands-on Workshop: Step-by-step guided practice on	Activity: Art Integration: 'Digital Collage' —Students use	Formative: Observation Checklist (on tool proficiency).	Interdisciplinary: Art & Design (composition, colour theory). Life Skill:



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	and perform basic image editing operations (cropping, resizing).	selection tools and layers. Demonstration: Teacher projects live software use.	various selection tools to cut and paste elements from different images to create a collage. Resource: Photoshop/GIMP/Photopea software, Sample high-resolution images.	Summative: Practical Lab Test (perform 5 specific editing tasks).	Creativity, Attention to Detail.
3: More on Adobe Photoshop 2024 (May)	Students will be able to apply advanced techniques like retouching and working with layers and Smart Objects.	Project-Based Learning: Students work in pairs to restore an old/damaged digital photograph using retouching tools.	Activity: Mini-Project: 'Photo Restoration' — Use cloning and healing brushes to fix flaws in a provided image. Resource: Tutorial videos, sample 'damaged' image files.	Formative: Peer Review of the restoration project. Summative: Rubric-based grading of the final retouched image quality.	Interdisciplinary: History (restoring historical photos). 21st Century Skill: Digital Content Creation.
4: Computer Safety and Security (July)	Students will be able to identify security threats (viruses, malware) and implement measures like strong passwords and backup strategies.	Case Study Discussion: Analyze real-life examples of data loss or cyber-attacks. Guided Note-taking: Creating a personalized digital safety checklist.	Activity: Inquiry: Research and present a short report on the latest type of malware (e.g., Ransomware). Resource: Internet articles, Antivirus software demonstration	Summative: Written Test on security terms and concepts. Assessment: Poster/Presentation on "How to Stay Safe Online."	Interdisciplinary: Moral Science (Digital Ethics). Life Skill: Responsibility, Risk Management.



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5: Google Apps (July)	Students will be able to utilize Google Docs, Sheets, and Slides for collaborative tasks and cloud storage.	Collaborative Learning: Group creation of a presentation on a school topic using Google Slides (simultaneous editing).	Activity: Project: Creating a budget plan for a class event using Google Sheets (collaborative data entry). Resource: Google Suite access, Wi-Fi.	Formative: Observation of collaboration and effective use of features. Summative: Project Submission (Collaborative Presentation/Sheet).	Interdisciplinary: Social Science/Math (data collection/budgeting). 21st Century Skill: Collaboration, Digital Literacy.
6: Latest Technological Developments (Aug/Oct)	Students will be able to define Artificial Intelligence (AI), IoT, and Big Data, and list their real-world applications.	Concept Exploration: Use videos and simple analogies to demystify complex terms like Machine Learning and Robotics.	Activity: Research and Presentation: Research one technology (e.g., Blockchain) and present its use to the class. Resource: Educational technology videos, news reports.	Formative: Class Discussion, Exit Ticket (Define 3 new terms). Summative: Short answer test on definitions and applications.	Interdisciplinary: Science (future technology). 21st Century Skill: Research Skill, Future Readiness.
7: Images, Links and Frames in HTML5 (Oct)	Students will be able to write HTML code to insert images, create hyperlinks, and use frames.	Constructivism: Students build upon Chapter 4 (if covered in Class 7) by adding new media elements to their personal webpage.	Activity: Coding Challenge: Create a website for a school club with images, multiple linked pages, and a simple navigation frame. Resource: Text editor, Web browser.	Summative: Practical Coding Test (creating a multi-page website). Portfolio: Code file submission.	Interdisciplinary: English/Languages (structuring information). Life Skill: Problem-Solving (code validation).
8: Algorithmic Intelligence (Nov)	Students will be able to design	Role-Playing: Act out complex	Activity: Inquiry: Design an algorithm	Summative: Written Test (drawing	Interdisciplinary: Math/Logical



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	algorithms and flowcharts, and translate simple multiple condition problems into logical steps.	algorithms (e.g., conditional loops) to ensure logical understanding. Gamification: 'Algorithm Detective'—debug a flawed algorithm.	and flowchart for a challenging real-life process (e.g., deciding the best route to school based on traffic). Resource: Flowchart symbols chart, whiteboard.	flowcharts and writing pseudocode/algorithms).	Reasoning (Sequencing, Decision Making). 21st Century Skill: Critical Thinking, Computational Thinking.
9: Loops in Python (Nov)	Students will be able to write Python programs using for and while loops and the range() function to solve repetitive tasks.	Differentiated Instruction: Provide challenge problems for advanced learners and structured templates for those needing more support.	Activity: Coding Project: Write a program to print number patterns or tables using loops. Resource: Python IDLE/Online Python Editor, mini-project templates.	Formative: Observation of code writing. Summative: Practical Coding Test (using loops to solve 2-3 specific problems).	Interdisciplinary: Math (series, patterns). Life Skill: Perseverance, Attention to Detail.
10: Functions and String in Python (Dec/Jan)	Students will be able to define and use functions to make code reusable, and manipulate strings using built-in methods.	Analogy: Compare functions to building blocks or recipes in cooking to explain code reusability. Peer Review: Students review each other's function-based code.	Activity: Coding Challenge: Write a function to check if a word is a palindrome or count the number of specific characters in a string. Resource: Python software.	Summative: Coding Project (program with user-defined functions). Assessment: Viva-voce on the concept of code reusability.	Interdisciplinary: English (string manipulation of text). 21st Century Skill: Problem-Solving (modular approach).
11: Domains of AI (Jan/Feb)	Students will be able to describe the	Experiential Learning: Demonstrate	Activity: Presentation: Group	Formative: Class presentation	Interdisciplinary: Social Science



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	main domains of AI: NLP, Computer Vision, and Data, and their applications.	simple online AI tools (e.g., Google Lens, simple chatbots) to illustrate Computer Vision and NLP.	research on an AI domain application (e.g., Chat GPT for NLP, Face Recognition for Computer Vision). Resource: AI demonstration tools, videos.	grading (rubric-based). Summative: Written Test on the three AI domains and their advantages.	(impact of AI on jobs). 21st Century Skill: Critical Thinking (evaluating AI ethical issues).

