



Jaypee Public School, Noida

Computer Science and Emerging Technologies Curriculum Class VIII



COURSE OUTCOMES		COGNITIVE LEVELS
CO 8.1	Analyze and build simple AI models by exploring core concepts of Artificial Intelligence and Machine Learning using Teachable Machine and ArtBot, while examining AI decisions, bias, and applications.	Analysis Level (Level 4)
CO 8.2	Explain categories of mobile applications and basic concepts of animation and video editing using tools like Vids and Canva.	Understanding Level (Level 2)
CO 8.3	Create a simple functional application using Fuzen by applying app design, data handling, and testing concepts.	Application Level (Level 3)
CO 8.4	Write and test basic Python scripts in Minecraft using IDLE to demonstrate fundamental programming concepts.	Application Level (Level 3)
CO 8.5	Use PictoBlox to create simple AI-based applications within a coding environment.	Application Level (Level 3)
CO 8.6	Describe basic concepts of quantum mechanics in a simplified and relatable manner.	Knowledge Level (Level 1)

Module No.	Title of the Module	Topics in the Module	No. of Lectures for the module
1.	Mobile App Development using App Inventor	Introduction to App Development, Categories of Mobile Apps, Varieties of Apps, Downloading and Installing the App, Developing an App, setting up App inventor, Testing the App	10
2.	Explore App Creation using Fuzen	Introduction to App Development; Types of Apps (Web and Mobile); Overview of Fuzen Platform; Getting Started with Fuzen (Sign-up and Interface); Understanding No-Code Development; Creating a New App Project; Designing App Structure (Screens and Navigation); Adding Basic Features (Forms, Buttons, Data Input); Managing Data in Fuzen; Customizing App Design (Themes and Layouts); Testing and Debugging the App; Publishing and Sharing the App; Mini	12

		Project – Build a Simple App (e.g., To-Do List or Feedback App).	
3.	Introduction to animation and video editing	Basic Concepts in Animation, Introduction to vids, Creating Small Video with Vids and Canva	6
4.	Introduction to Python through Minecraft and IDLE	Setting up Python and Minecraft, Writing Your First Minecraft Python Script, Sample Python Script, Understanding the Script, Experiment and Explore	10
5.	Decision-Making and Looping through Minecraft and IDLE	if Statement, if-else Statement, elif Statement, for Loop, while Loop, break and continue, looping through a Range, Looping with Enumerate	14
6.	Introduction to Artificial Intelligence and Pictoblox	Introduction to Artificial Intelligence, Applications of Artificial Intelligence, Installing Picto Blox, Creating Basic AI applications with Picto Blox	10
7.	Learning AI through Artbot and Teachable Machine	Introduction to Artificial Intelligence and its applications; Basics of Machine Learning; Learning AI through games using ArtBot (training AI, supervised learning, and bias); Introduction to Teachable Machine; Types of models (image, sound, pose); Training, testing, and improving simple models; Ethical use of AI; Mini Project – Explore ArtBot and build a basic AI model using Teachable Machine.	12
8.	Introduction to eXtended Reality	Demystifying eXtended Reality, Understanding eXtended Reality	10
9.	Quantum Computing	Introduction to Quantum Computing	04
Technology Tools Learnt		MIT App Inventor, Vids, Minecraft, Pictoblox, Fuzen, MySQL, Teachable Machine	

Project based learning: Each student in a group of 3-4 will study a practical problem in social network analysis with its real-world applications.

Total Classes: 88