



2D ANIMATION AND GAME DESIGN USING JAVASCRIPT

During these classes, the students will explore the drawing commands of JavaScript and create beautiful landscapes and drawings. They will then learn how to create sprites, manipulate their properties and use events to create animations and interactive games.

SESSION	CONCEPT	SKILLS
01	Revisiting The Cartesian Coordinate System	Exploration Explore the JavaScript platform, basic drawing commands.
02	Shapes And Angles	Creativity, Decomposition Create art by superimposing shapes.
03	Adding Colors	Creativity, Decomposition Create colorful art using JavaScript commands.
04	Variables, Random Numbers	Numeracy, Computation Use random numbers to get different outputs.
05	Formative Assessment	Assessment Of Learning
06	Functions In JavaScript	Abstraction Define and use functions specific tasks in their code.
07	Draw Loop And Animations	Generalization, Pattern Recognition Write code to create animated shapes.
08	Counter Pattern And Sprite Animations	Numeracy, Decomposition Use the counter pattern to animate sprites .
09	Conditionals	Logic, Decision Making Use conditionals to control the sprite's behaviour and movements.
10	Formative Assessment	Assessment Of Learning

Learning Path For EARLY ACHIEVERS



11	Events With Mouse Click	Logic, Generalization Use mouse events to create a simple clicker game.
12	Events with Keys	Logic, Generalization Use key events to control the sprite using keyboard keys.
13	Upload New Sprites	Creativity Learn how to upload and edit sprites.
14	Create Multiple Sprites Using Arrays	Logic, Generalization Differentiate between variables and arrays. Learn the concept of Arrays to create multiple sprites.
15	Game Design Process	Algorithms, Decomposition Plan the interface, layout and create UI of the game , Add variables to store the game score.
16	Single Player Game Development	Generalization, Persistence Write the UX code for the game.
17	Multi Player Game Development	Generalization, Persistence Plan and create a multi-player game.
18	Platform Jumper Game	Generalization, Persistence Plan and create a platform jumper game.
19	Project Work - I	Logic, Persistence, Creativity While applying the learned concepts of JavaScript, write code for different levels of the game.
20	Project Work - II	Logic, Persistence, Creativity While applying the learned concepts of JavaScript, write code for different levels of the game.