



The Champion package serves as an excellent entry point for students aspiring to learn coding and develop basic applications. While a basic understanding of BlockCode background would be beneficial, it is not essential.

GAMING WITH BLOCKCODE

13-15 Yrs | 24 Classes | 3 Months | 50 Minutes | Certificate of Achievement

Acquire the principles of game development, enhance your storytelling abilities, and attain mastery in game development through our comprehensive online course.

- Logical and Analytical Thinking
- Problem Solving & Thinking Sequentially
- Coding Skills & Building Games

LESSON PLAN

| S.No | Topic | Class | Project |
|------|------------------------------|---|----------------|
| 1 | Introduction to Game Lab | Getting started with code.org Game Lab. Animation | Ball Animation |
| | | Library, Sound library, Frames and Draw function | |
| 2 | Game Design | . If control statements and giving conditions & logic. | Ball Animation |
| 3 | Introduction to variables | Introduction to variables and its applications | Fidget spinner |
| 4 | Animation | Learn to move, add rotate sprites | Fidget spinner |
| 5 | Introduction to velocity | Creating animated ball, understanding the concept of | Ball Bounce |
| | | velocity function, creating colliders and adding variables. | Animation |
| 6 | Multiplayer Game | Creating animated ball, understanding the concept of | Real Pong |
| | | velocity function, creating colliders and adding variables. | Game |
| 7 | Introduction to operators | Understanding && and operator. | Real Pong |
| | | | Game |
| 8 | Introduction to functions | Understanding and creating functions | Real Pong |
| | | | Game |
| 90 | Control statements | Using advanced control statements and logics | Garbage sorter |
| 10 | Control and logic statements | Using advanced control statements and logics | Garbage sorter |
| 11 | Multi-screen | Create multiple screens on game lab, Creating timer | Car Racing |
| | | | Game |
| 12 | Introduction to Random | Learn how to use and apply random numbers in game | Car Racing |
| | Numbers | development | Game |
| 13 | Introduction to MakeCode | How to create, choose and use a sprite. How to draw a | MakeCode |
| | Arcade | sprite, backgrounds | Arcade |
| 14 | Game designing in | Introduction to enemies, using projectiles and variables, | MakeCode |
| | MakeCode Arcade | overlapping | Arcade |
| 15 | Code a timer | Making sprites on arcade, moving sprites with the | Chasing Pizza |
| | | buttons, using timer, variables | |
| 16 | Creating Map and tile map | Getting started with tile map. Creating map, creating | Maze Game |
| | | countdown | |
| 17 | Movement with arrow keys | Adding sprites, obstacles, arrow key movements | Pacman game |
| 18 | Creating functions | Learn to write functions to create obstacles | Pacman game |
| 19 | Sprite Interactions | Learn interaction of sprite using control statements | Pacman game |
| 20 | Win/Lose scenarios | Learn to code win/lose scenarios using variables | Pacman game |
| 21 | Capstone project | Intro, adding sprites and moving sprites, using tilemaps, | Platformer |
| | | animations, Al | game |
| 22 | Capstone project | spawning, collision, wall jumping, more levels | Platformer |
| | | | game |
| 23 | Capstone project | Game completion for win/lose scenarios | Platformer |
| | | | game |

^{*}Lesson plan indicates the topics and projects and should not be read as topics covered per class.