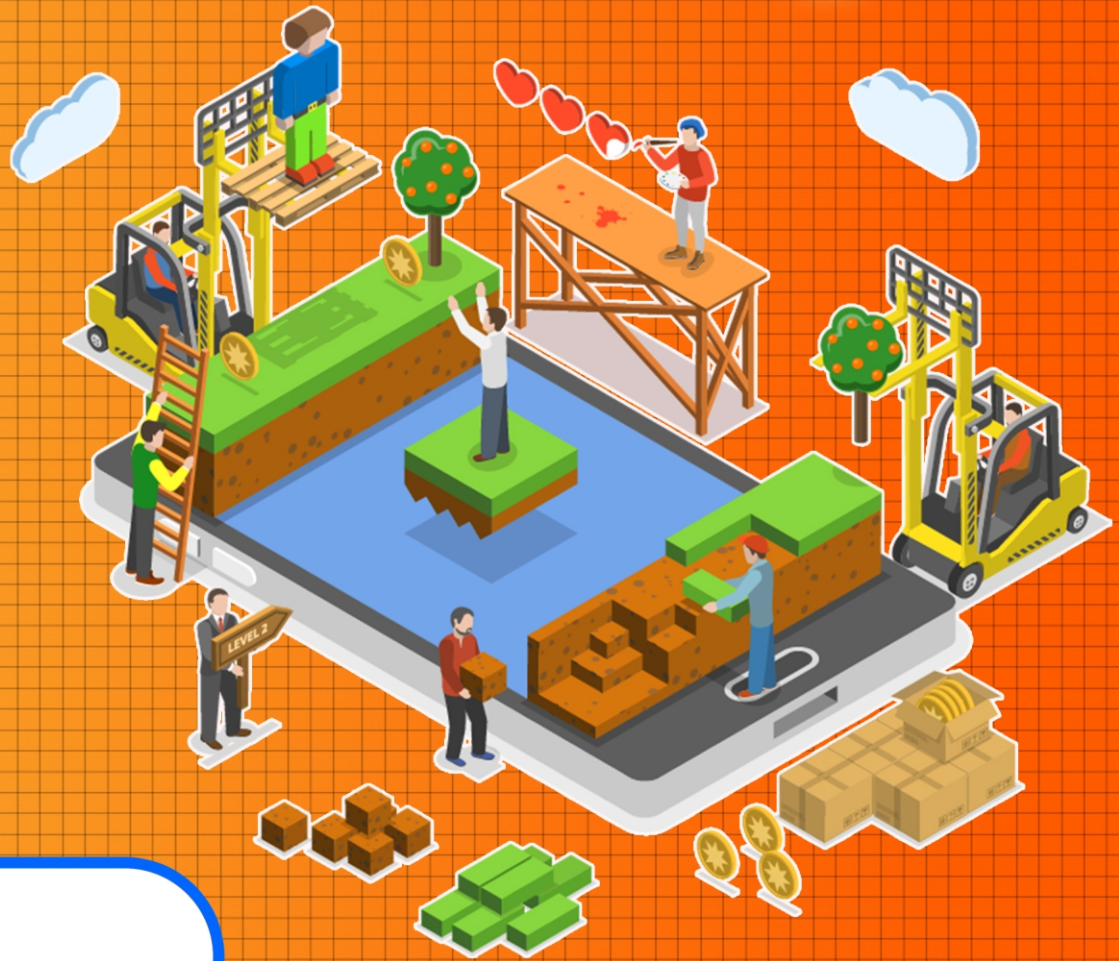




**TINKERCODERS**  
BEYOND CODING

# GAME DEVELOPMENT GRADE 3-5



## COURSE HIGHLIGHTS !

- **BUILD 10 REAL WORLD GAMES**
- Live 48 Hours of Sessions
- 48 hours Self Learning Session
- Build student confidence working with computers & professional software
- Create animations & Cool visual effects
- Understand complex computer science concepts by intuitively applying them in games
- Build Real World Application like Super Mario lite, Ping-pong, Maze game, hide & seek game
- Projects based on academics curriculum like food cycle, how plant grow, solar system etc
- Certificate of course completion
- LMS Access - Pre-recorded videos, Documents, Assignments, Codes



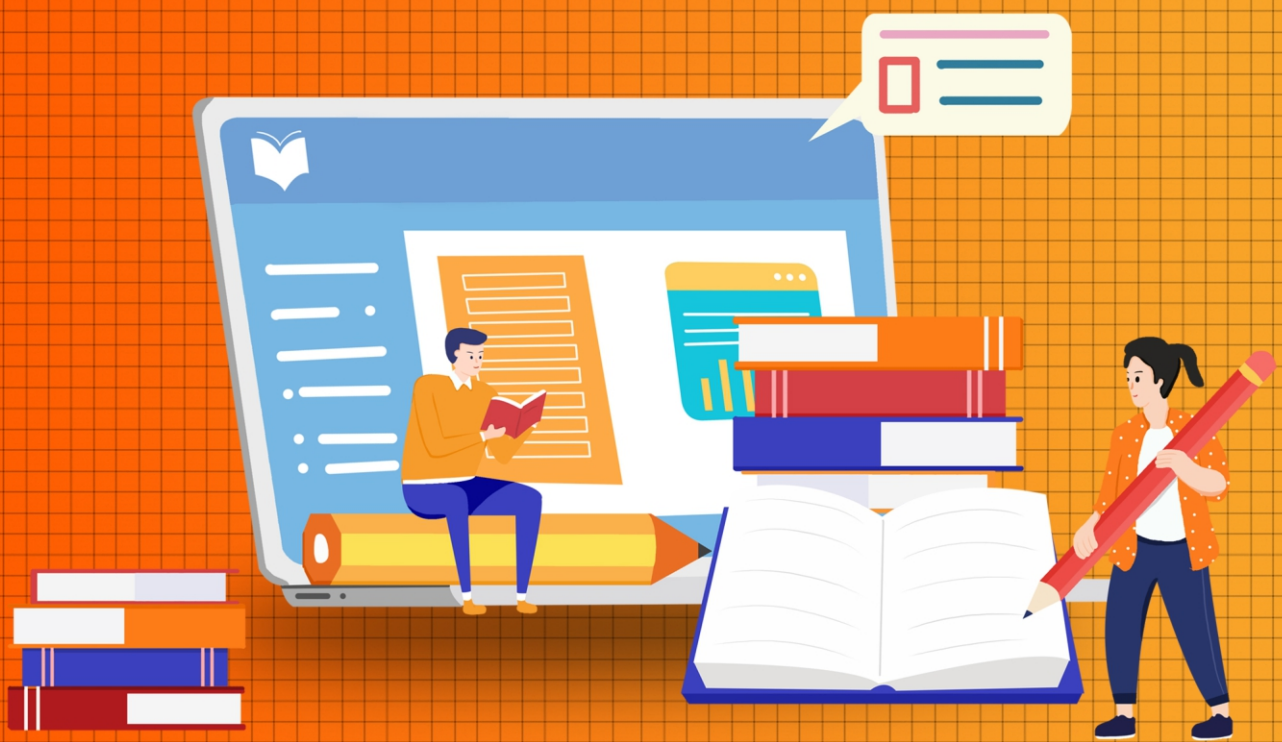
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**FREE Demo now!**

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## COURSE REQUIREMENTS



- No coding experience required
- Laptop, computer or a tablet
- Access to the internet





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## WHAT YOU'LL LEARN IN THE COURSE



Use simple logic to solve complex problems in game development



Controlling the game using Input controls



Story making and publishing



Lives and countdown timers



Text and speech recognition



Concepts like collision detection, object movements, object animations etc.





## What is coding

- Coding and its importance

START ▶

**Beginner**

**Grade 3-5**



### How to login to scratch

- How to add music
- Use variable as slider

How to Download scratch  
Reset Account password  
Publish scratch Activities



### Introduction to Scratch



### Animate the sprite

- Motion in sprite
- Changing the Costume of Sprite

### Dress up the sprite

- Coordinate System
- Use of Goto and Glide



### Blink the Name

- Use of Click Event
- Adding color effects



### Hide and Seek Game

- Changing the Visibility
- Working with the timing



### Healthy and Unhealthy Food

- Displaying Message
- Working with different sprite

### Draw line and polygons

- Extension and Its working
- Concept of polygon shapes



### Pattern design

- Working with pen extension
- Concept of looping



### Immunity detector

- Concept of costume switching
- Hide/Show Block

### Go Green

- Designing of Sprite
- Changing the visibility



### Spread mechanism of corona virus

- Sprite cloning
- Use of touching block



### Lion and mouse

- Use of broadcast and receive message
- Conversation building

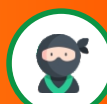
### Happy Birthday

- Use of visibility block
- Editing sprite



### Hit the balloon

- Gliding of sprite
- Conditions for game ending



### Fruit Ninja

- Costume Changing
- Touch sensing



### How to grow plant

- Resizing & reshaping sprite
- Use of keyboard keys



### Bike Racing game

- Speed controlling
- Moving bike with keyboard keys



### Catch the Apple

- Decreasing coordinates
- Idea behind gravity



### Save Gobo sprite (Video sensing)

- Use of video sensing
- Concept of If-else block



### Maze Game

- Making paint backdrop
- Color sensing



### Solar System

- Setting Different Orbits
- Rotation of sprite



### Flying cat

- AND OR operator concept
- Go to random position



### Astronaut on moon

- Idea behind animation
- Use of Positional block



### Dinosaur running game

- Creating background
- Changing score with timer







### Jump the chick

- Creating background
- Changing score with timer



### Big fish V/s small fish

- Comparing sprite size
- Use of forever block



### Soccer game with video sensing

- Use of video sensing
- Concept of If-else block



### Table tennis game

- Stop all sprite
- How to make clone of sprite
- Go to front and back layer



### Gun and Ghost

- Touching block
- Concept of speed and direction



### Super Mario Lite

- AND OR operator concept
- Go to random position
- Create and delete clones of sprite

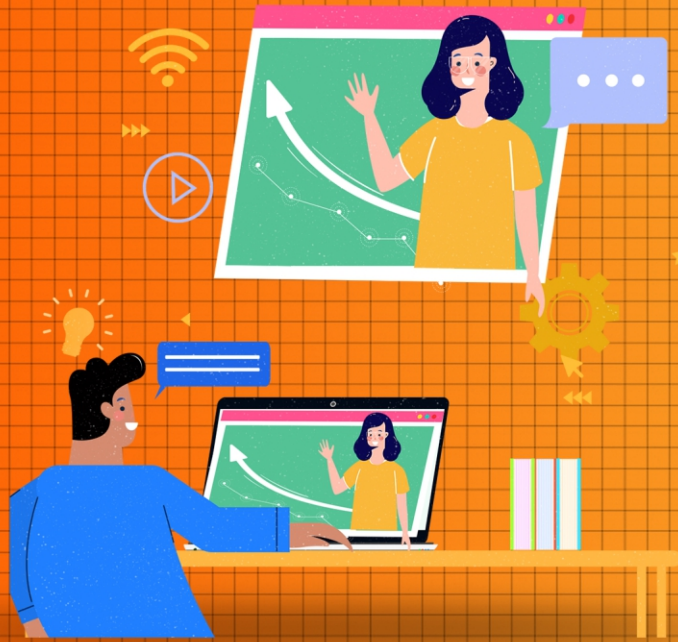
### Scratch Quiz

- Taking user Inputs
- Comparison with predefined word



END





# HOW THIS COURSE WILL HELP YOUR CHILD



- **CIC approach**

Consumer to innovator to the creator

This course aims to turn the student from a consumer of technology to the creator of technology.

- **Activity-Based learning**

Learn the required programming concepts by performing activities

- **Project - Based Learning**

Learn the required programming concepts by performing activities

Instead of a theoretical and traditional way of learning, students will build projects during the course.

- **Our PBL approach will help student in**

Allows students to acquire key knowledge & skills through the development of projects that respond to real-life problems

Develop critical thinking

Retain the concept

Integration of different concepts



# COURSE OUTLINE

## Beginner

Session Number	Activity name	Type
	What is coding	Coding and its importance
	How to login to scratch	Creating account in scratch Overview of Scratch platform
	How to Download scratch Reset Account password Publish scratch Activities	
	Introduction to Scratch	
1	Animate the sprite	Motion in sprite Changing the Costume of Sprite
2	Dress up the sprite	Coordinate System Use of Goto and Glide
3.	Blink the Name	Use of Click event Adding color effects
4.	Healthy and Unhealthy Food	Displaying Message Working with different sprite
5.	Hide and Seek Game	Changing the Visibility Working with the timing Adding Variable of score
6.	Draw line and polygons	Extension and Its working Change of pen size and color Concept of polygon shapes
7.	Pattern design	Pen blocks Concept of looping
8	Immunity detector	Use of Switch Adding message for alarm Setting multiple alarms
9	Go Green	Designing of Sprite Changing the visibility
10	Spread mechanism of corona virus	Cloning and its use Moving sprite in random place
11	Lion and mouse	Use of broadcast & receive message Conversation building
12	Happy Birthday	Painting of sprite Use of visibility block Costume changing
13-14	Hit the balloon	Gliding of sprite Adding score feature
15-16	Fruit Ninja	Costume changing Adding new sound and sprite Touch sensing



COURSE **OUTLINE**  
Intermediate

Session Number	Activity name	Learning Outcome
1	How to grow plant	Resizing & reshaping sprite Use of keyboard keys
2	Bike racing game	Speed controlling Controlling bike with arrow keys
3-4	Catch the Apple	Variable use Idea behind gravity
5-6	Save Gobo sprite (Video sensing)	Use of video sensing Concept of If-else block
7-8	Maze Game	Painting new backdrop Color sensing
9-10	Solar System	Setting different orbits Code for planet rotation
11-12	Flying cat	AND OR operator concept Go to random position
13-14	Astronout on moon	Idea behind animation Change of backdrop Use of Positional block
15-16	Dinosaur running game	Creating background Changing score with timer



COURSE OUTLINE

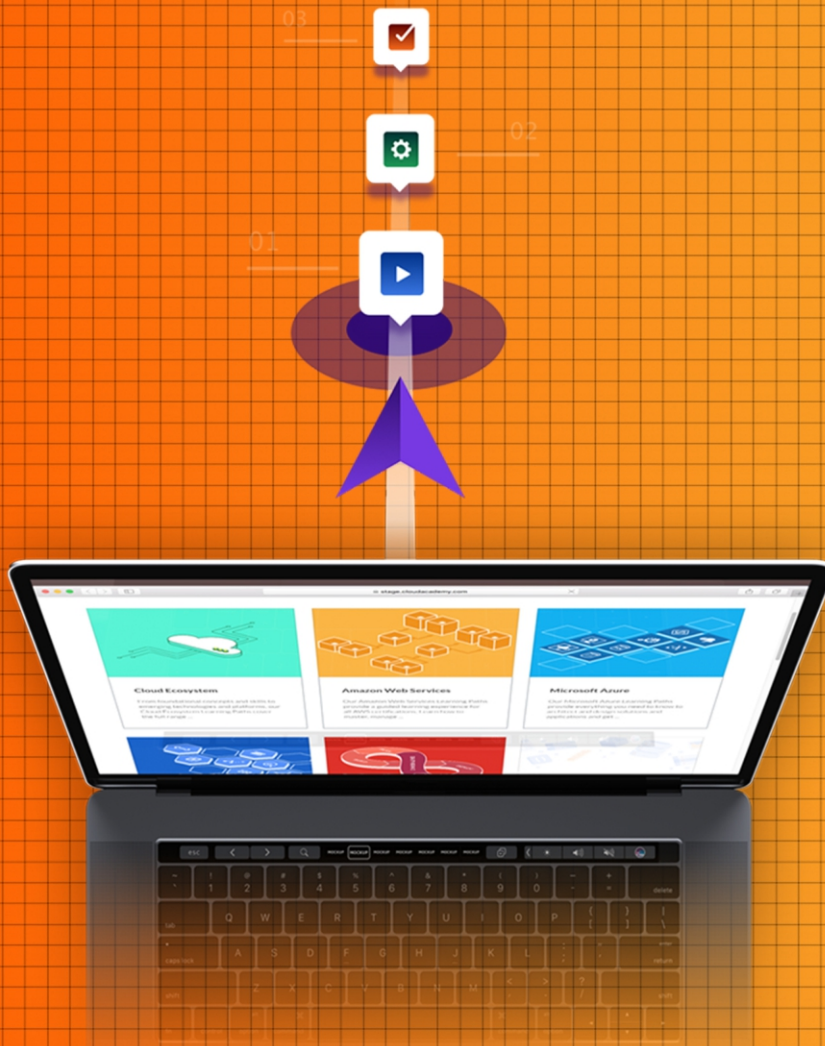
Advance

Session Number	Activity name	Learning Outcome
1-2	Jump the chick	Creating background Changing score with timer
3-4	Big fish V/s small fish	Painting Big & small fish Eating fish according to size
5-6	Soccer game with video sensing	Sensing motion in sprite Concept of movement
7-8	Table tennis game	Painting backdrop Color sensing
9-11	Gun and ghost	Concept of touching Use Of timer Setting gun direction
11-14	Super Mario Lite	AND OR operator concept Go to random position Changing level
15-16	Scratch Quiz	Idea behind animation Change of backdrop Use of Positional block





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## OTHER COURSES





## FOR MORE COURSES VISIT:

 [www.tinkercoders.com](http://www.tinkercoders.com)

 |  +91 99711 92244 , +91 99711 97744

 [info@tinkercoders.com](mailto:info@tinkercoders.com)