GAME **DEVELOPMENT**
GRADE 6-8

COURSE HIGHLIGHTS !

- **BUILD 10 REAL WORLD GAMES**
- Live 48 Hours of Sessions
- 48 hours Self Learning Session
- Fundamental of Block Based Programming
- Create smart & fun games
- Create animations & Cool visual effects
- Understand complex computer science concepts by intuitively applying them in games
- Build Real World Application like Super Mario, Ping-pong, Bike racing, Soccer game and Minecraft
- Certificate of course completion
- LMS Access - Pre-recorded videos, Documents, Assignments, Codes

Book your
FREE Demo now!

www.tinkercoder.com

COURSE **REQUIREMENTS**

- Basic understanding of block based coding

- Laptop, Computer or a tablet

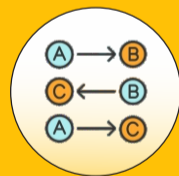- Access to the internet

WHAT YOU'LL LEARN
IN THE COURSE

Inherent characteristics of computer programming

Build interactive games that respond to user input

Managing Images, Sound, Collisions, Broadcast Message, Sprites, etc.

Concept of Mathematical & Logic Operator

Importing & handling of Extension

Text & Speech Recognition

TINKERCODERS
BEYOND CODING

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
- Color changing
- Rotational working

Draw line and polygons
- Extension and Its working
- Concept of polygon shapes

Birthday Card
- Painting new sprite
- Costume changing

Lion and mouse
- Use of broadcast & receive message
- Conversation building

How to grow plant
- Resizing & reshaping sprite
- Use of keyboard keys

Hide and Seek game
- Concept of visibility
- Use of touching sprite block

How to make piano
- Adding music extension
- Use variable as slider

Treasure Hunt
- Keyboard key control over sprite
- Color sensing

Shooting game
- Gliding of sprite
- Sprite sensing

Basket ball game
- Making ball jump
- XY coordinates system

My Paint box
- Sprite color changing
- Changing thickness of pen

Save the gobo sprite-Video sensing
- Use of video sensing
- Concept of If-else block

Newton Gravity Effect
- Decreasing y-coordinate
- Idea behind gravity

Keep Oceans Clean
- Segregating waste
- Moving object from one place to another

Spread Mechanism of CoronaVirus
- How cloning work
- Use of touching block

Auto Spiral
- Taking user input Use of pen block
- Idea of spiral making

Cricket Game
- Use of gliding
- Touch sensing

Bike Racing Game
- Speed controlling
- Creating sprites

Food Chain Animation
- Concept of looping
- Voice pitching work

PingPong Game
- Direction setting
- Mouse controlling

Advance

Grade 6-8

Jump the chick
- Creating background
- Changing score with timer

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

Catch the colorfull ball
- Concept of random position
- Color sensing concept

Mine craft game
- Creating list
- How to Create Own Block
- Joining of two list
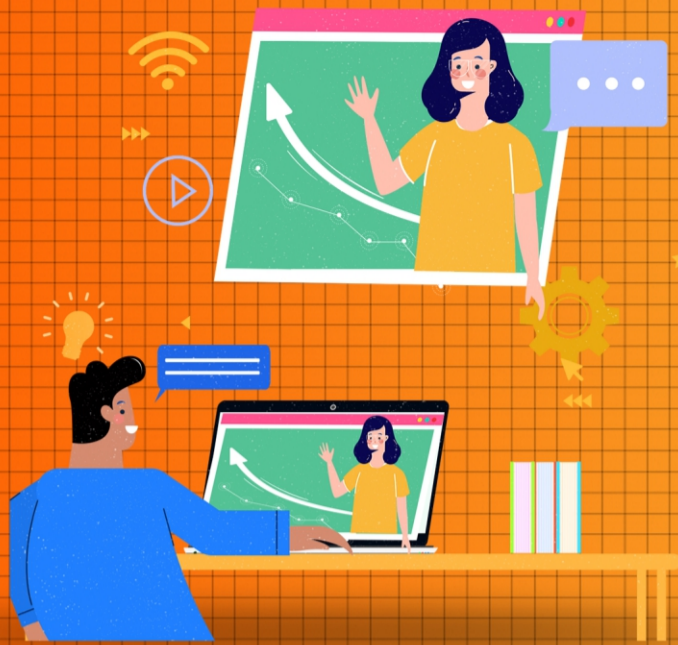
Defend your castle
- Comparison operator
- Use of broadcasting
- Logical operator & Its Use

Super Mario Lite
- AND OR Operator Concept
- Create & delete clones of sprite

SECRET

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
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.	Draw line and polygons	Extension & Its working Change of pen size & color Concept of polygon shapes
5.	Birthday Card	Creating new sprite Use of visibility block Costume changing
6.	Lion and mouse	Use of broadcast & receive message Conversation building
7.	How to grow plant	Resizing & Reshaping Sprite Use of keyboard keys
8	Hide and Seek game	Concept of visibility Use of touching sprite block How to add score
9-10	How to make piano	Adding music extension Use variable as slider
11-12	Treasure Hunt	Keyboard key control over sprite Color sensing
13-14	Shooting game	Gliding of sprite Use of touching block
15-16	Basket Ball game	Making ball jump XY coordinates system

COURSE OUTLINE
Intemmediate

Session Number	Activity name	Learning Outcome
1-2	My Paint box	Sprite color changing Changing thickness of pen Use of Erase all
3	Save the gobo sprite- Video sensing	Use of video sensing Concept of If-else block
4	Newton Gravity Effect	Decreasing y-coordinate Idea behind gravity
5	Keep oceans clean	Segregating waste Moving object from one place to another
6	Spread Mechanism of CoronaVirus	How cloning work Use of touching block
7-8	Auto Spiral	Taking user Input Use of pen Block Idea of Spiral making
9-10	Cricket game	Use of Gliding Touch Sensing
11-12	Bike racing game	Speed controlling Controlling through keyboard keys
13-14	Food Chain Animation	Concept of Looping Voice Pitching work
15-16	PingPong Game	Direction setting Mouse controlling Pick random values

COURSE OUTLINE
Advance

Session Number	Activity name	Learning Outcome
1-2	Jump the chick	Creating background Changing score with timer
3-4	Gun and ghost	Stop all sprite How to make clone of sprite Go to front and back layer
5-7	Catch the colorfull ball	Set lives of sprite Concept of random position Color sensing concept
8-10	Mine craft game	Creating list How to create own block Joining of two list
11-13	Defend your castle	Comparison Operator Use of broadcasting Logical operator and its use
14-16	Super Mario Lite	AND OR operator concept Go to random position Create and delete clones of sprite

OTHER COURSES

Web development

Game Development

Artificial Intelligence & Machine learning

Android & iOS Application Development

App Development

Python

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