

# SCRATCH PROGRAMMING CURRICULUM

- **Introduction to Scratch 3.0**
  - What is a computer program & application in real world
  - Creating a Scratch Account
  - Getting familiar with the Scratch Editor and tools
- **Basics of block based computer programming**
  - What are code blocks
  - Different kinds of code blocks in Scratch
  - Graphic Design Beginner : Sprites, Costumes, Sounds, Stages, & Backdrops
  - Adding movement to a sprite.
  - Adding sound to a sprite.
  - Changing the colours of a sprite.
  - Changing background
  - Making a sprite appear to think & speak.
- **Beginner projects**
  - Creating an underwater scene
  - Creating a football ground scene
  - Creating a photo album
  - Creating a dance studio
- **Adding interactivity, math concepts & logic**
  - Learn to trigger events in a game through mouse & keyboard keys
  - Adding clickable "Buttons" to give the player several choices during the game.
  - Adding score functionality in game
  - Sensing & variables
  - How to signify that the game is over when a specified score is reached.
  - Inter-sprite interaction through broadcast block
  - Math Operations and logical arguments
  - Loop Sequences
- **Intermediate Projects**
  - Making an interactive story
  - Maze game
  - Multiplayer car race game
  - Ping Pong game
  - Making a calculator
- **Advanced concepts**
  - Cloning of sprites
  - Creating custom blocks
  - Creating lists
  - Importing and exporting sprites
- **Advanced projects**
  - Multi-level shooting game
  - Fishing game
  - Quiz game
  - Hidden Object quest game