



Curriculum outlines- Coding For Kids

By the end of this course, students will be able to understand and practise the following topics:

❖ **Beginners**

<u>Topic</u>	<u>Sub-Topic</u>	<u>Approx no. of classes</u>	<u>Platforms/ Websites used</u>
Introduction to coding	<ul style="list-style-type: none">• What is coding?• Why Coding?• Types of Coding?• Coding Languages & Platforms	1	
Introduction to Scratch	<ul style="list-style-type: none">• Overview of Scratch interface and features• Basic block-based programming concepts (e.g., sprites, scripts)• Simple animations and interactive stories	6	scratch.mit.edu
Sprite Control and Motion	<ul style="list-style-type: none">• Using motion blocks to move sprites• Creating simple games to practise control• Creating variables for scorekeeping	6	scratch.mit.edu
Events and Loops	<ul style="list-style-type: none">• Understanding event-driven programming• Using loops for repetitive actions• Creating interactive stories with branching narratives	6	scratch.mit.edu



❖ Intermediate

<u>Topic</u>	<u>Sub-Topic</u>	<u>Approx no. of classes</u>	<u>Platforms/ Websites used</u>
Sensing and Conditionals	<ul style="list-style-type: none">Using sensing blocks (e.g., touching, distance) to create responsive spritesIntroducing conditional statements (e.g., if-else) for decision-making in programsBuilding more complex games with multiple levels and challenges	6	scratch.mit.edu
Custom Blocks	<ul style="list-style-type: none">Creating custom blocks for reusable codeUnderstanding the concept of abstraction in programmingCollaborative project: Students work in pairs to create a game or interactive story	8	scratch.mit.edu
Sound and Music	<ul style="list-style-type: none">Incorporating sound effects and music into projectsUsing broadcasting to synchronise actions between spritesFinal project: Students create a multimedia project	8	scratch.mit.edu



❖ Advance

<u>Topic</u>	<u>Sub-Topic</u>	<u>Approx no. of classes</u>	<u>Platforms/ Websites used</u>
Adding audio & text to speech	<ul style="list-style-type: none">● Introduction to audio in Scratch● Incorporating sound effects and background music into games and stories● Exploring the Text-to-Speech extension as a tool for enhancing storytelling● Guided practice: Adding text-to-speech functionality to a sample project● Brainstorming ideas for incorporating audio and text-to-speech into students own projects	6	scratch.mit.edu
Video Sensing & Pen Extension	<ul style="list-style-type: none">● Overview of the Pen extension in Scratch● Understanding how the Pen tool can be used to draw shapes, lines, and patterns● Exploring the different Pen blocks and their functionalities● Guided practice: Creating simple drawings and patterns using the Pen extension● Introduction for Video sensing and movements in scratch● Video sensing and its functionality.	12	scratch.mit.edu

Note:

- 1) This module is structured in such a way that it starts with basic to advance in every topic
- 2) To solve a problem, multiple methods are encouraged for a better understanding of the concept.