

SCRATCH

python



SMART

PHP

C#

HTML

# CODERS

STEP INTO THE WORLD OF PROGRAMING

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# GRADE 1 CURRICULUM

## UNIT 01



**Topics** - Drag and drop function, Sprite objects, Commands, Sequencing, Events, Time and Direction, Behaviour & Events, Sounds

**How it helps** - Foundation in coding, Concept clarity, Block coding

## UNIT 02



**Topics** - Algorithm development, Location orientation, Debugging, Design animations

**How it helps** - Logic building, Code flow, Critical thinking

## UNIT 03



**Topics** - Comments, Loops, Operators, Declaration & Initiation of Variables, Conditionals

**How it helps** - Game development, Code methodology, Structured codes

## UNIT 04



**Topics** - Advanced animations, Complex loops, Story making, Game analysis, Debugging others' codes

**How it helps** - Inquiry skills, Investigative mindset

### Platform



### Inclusions

- All Practical Classes
- 64 Classes (or) 32 Classes (Options)
- 32 Concept Classes
- 24 Project Classes
- 8 Revision Classes
- Assessment
- Quizzes
- Class Summary
- Practice Projects

# GRADE 2 CURRICULUM



## UNIT 01



**Topics** - APP design basics, APP design algorithm, Advanced programming patterns, Properties of UI components

**How it helps** - Advanced concepts in coding, Importance of Design

## UNIT 02



**Topics** - APP development concepts, Design concepts, Layouts, Complex Loops & Variables

**How it helps** - APP building, Code flow, Critical thinking

## UNIT 03



**Topics** - UI concepts, Basics of Javascript, Canvas, Colour selection logic, Conditional statements

**How it helps** - Improved aptitude, APP Development

## UNIT 04



**Topics** - Self APP conceptualisation, Self projects, Debugging marathon, Capstone project

**How it helps** - Analytical skills, Problem solving, Confidence boost

### Platform



### Inclusions

- All Practical Classes
- 64 Classes (or) 32 Classes (Options)
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# GRADE 3 CURRICULUM

## UNIT 01



**Topics** - Sequencing & Parallelism, Unit conversion of time, Control & Events, Story creation, Animation design & implementation

**How it helps** - Creativity, Innovative thinking, Develop Imagination

## UNIT 02



**Topics** - Advanced algorithm development concepts, Flowchart creation, Project planning, Game interface design

**How it helps** - Life skills development, Initiative & Leadership

## UNIT 03



**Topics** - Sensing blocks, Cloning, Logical operators, Score & Timer in games, Random number generation, Angles

**How it helps** - Advanced game development, Course project

## UNIT 04



**Topics** - Complex loops, Multilevel games concept, Advanced debugging concepts, Inter code communication, Capstone project

**How it helps** - Empirical & Quantitative skills, Cognitive ability

Platform

SCRATCH

Inclusions

- All Practical Classes
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# GRADE 4 CURRICULUM

## UNIT 01



**Topics** - APP Inventor interface, Designer block & Backend coding platform, Components of APPinventor

**How it helps** - Creativity, Innovative thinking, Develop Imagination

## UNIT 02



**Topics** - Event based programming, Design basic UI/UX, Colour choices, Animation, Media & Sensors, AI Basics, Language translation

**How it helps** - Design thinking, Application of knowledge

## UNIT 03



**Topics** - Basics of databases, Data handling, CloudDB, Basics of Firebase, Multi page apps, Complex loops

**How it helps** - Advanced app development, Technological skills

## UNIT 04



**Topics** - Usage of forms, Conditionals based on outcomes, APP design advanced concepts, Self design app - Capstone project

**How it helps** - Project management, Time management

### Platform



### Inclusions

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# GRADE 5 CURRICULUM

## UNIT 01



**Topics** - Intro to AI, Login forms, User authentication using DB query, Operands, Firebase DB

**How it helps** - Creativity, Innovative thinking, Develop Imagination

## UNIT 02



**Topics** - Camera and canvas Component integration, AI based apps on APP Inventor, ML based apps, Polishing user interface in an APP

**How it helps** - Advanced app development, Technological skills

## UNIT 03



**Topics** - Advanced scratch concepts, Extensions in Scratch, Interactive chatbot

**How it helps** - Application of knowledge, Analytical skills

## UNIT 04



**Topics** - Designing a full fledged project using Scratch & APPinventor with project management techniques - Capstone project

**How it helps** - Project management, Time management

### Platform



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# GRADE 6 CURRICULUM

## UNIT 01



**Topics** - Design basics, Logo/Poster design, Brand kit, Fonts & Colour choices, Presentation flow

**How it helps** - Cognitive ability, Presentation skills, Creativity

## UNIT 02



**Topics** - Intro to HTML5, Editor, Web development, Heading, Body, Links, Media elements in HTML and how to use, Tables & Formatting

**How it helps** - Adaptability, Decision making

## UNIT 03



**Topics** - Intro to CSS3, Multi page website design, Style attributes, UI/UX concepts

**How it helps** - Design thinking, Initiative, Imagination

## UNIT 04



**Topics** - AI based website design, Capstone project, Drag and Drop Website building

**How it helps** - Collaboration, Communication, Self management

### Platform



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# GRADE 7 CURRICULUM

## UNIT 01



**Topics** - Creation of your business idea, Documentation, Skills of an entrepreneur, 21st century skills, Reports format, Windows tools

**How it helps** - Adaptability, Leadership, Personal assessment

## UNIT 02



**Topics** - Use of technology to build brand, Communication of your brand, Brand kit and collaterals, Brand identity, Marketing collaterals

**How it helps** - Aptitude, Flexibility, Initiative

## UNIT 03



**Topics** - Video editing, Skills of a youtuber, Brand visibility, Template based designing, Use of brand kit in design, Capstone project

**How it helps** - Initiative, Decision making, Collaboration

## UNIT 04



**Topics** - Wordpress, Hosting a website, Plugins and Automation, Future of website design

**How it helps** - Research attitude, Decision-making

### Platform



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# GRADE 8 CURRICULUM

## UNIT 01



**Topics** - Intro to Python, Datatypes and Variables, Block based coding vs text based coding, Operator's & Operands, Control structures

**How it helps** - Technological skills, Problem solving, Analytical skills

## UNIT 02



**Topics** - Loops, Logical operators, Turtle module, GUI concepts of Tkinter, Tuples & Lists, Google collab editor

**How it helps** - Problem solving, Creativity, Research attitude

## UNIT 03



**Topics** - Functions, Modules, Random, Application of Tkinter, Algorithm design for Game and APP development

**How it helps** - Cognitive flexibility, Conceptual clarity

## UNIT 04



**Topics** - Introduction to Pygame, Exception handling, Parameterized functions, Capstone project

**How it helps** - Exploration mindset, Problem solving, Cognitive ability

### Platform



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# GRADE 9 CURRICULUM

## UNIT 01



**Topics** - HTML + CSS, UI/UX concepts, Web pages design, Website look as per brand kit

**How it helps** - Design thinking, Initiative, Imagination

## UNIT 02



**Topics** - Advanced CSS, Website design fundamentals, HTML forms, Data handling, Capstone project

**How it helps** - Problem solving, Creativity, Research attitude

## UNIT 03



**Topics** - Intro to bootstrap, CSS libraries, Forms in HTML page and its applications, Animation in a website

**How it helps** - Technological skills, Scientific thinking

## UNIT 04



**Topics** - Intro to PHP, PHP operators and conditional statements, Connect PHP with HTML, Capstone project

**How it helps** - Cognitive ability, Exploration mindset, Problem solving

### Platform



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- **Get career ready with futuristic technologies**
- **STREAM approach enables children think smart**
- **Get enabled with design thinking and problem solving**
- **Enhances research attitude and critical reasoning**
- **Encourage abstract thinkers, encouraging creativity and innovation**
- **Concept clarity leading to better academic performance**

# Certificate of Completion





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