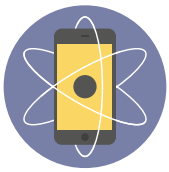
cuemath
THE MATH EXPERT

Young {Coders} Program

For children aged 6 to 16

BUILD

Interactive games



Mobile apps

Personal websites

Learn Math and Programming skills

Logic and Reasoning | Critical thinking | Problem Solving

Creative Expression | Abstraction

"Everybody should learn to program a computer because it teaches you how to think."

- Steve Jobs

Math and Coding - new life skills!

What type of programmer do you want to be?

Type 1: **Infosys programmer**	Type 2: **Netflix programmer**
A well-defined problem is given. Primary job is to translate it into code.	The problem statement is known. Need to be creative in applying known computing principles to come up with a new tech solution.
Type 3: Google programmer	**Type 4: OS creator**
Problem statement vaguely defined. Need to first define the problem and then invent a new algorithm to create a unique solution.	Need to be creative and define the architecture, its usability, its applications. Then build it out from scratch.

All these types of programmers know syntaxes and languages like Javascript.

But the difference is in their thinking abilities. In their problem-solving abilities.

Building a strong foundation in computer science principles and using code to solve problems allows one to rub shoulders with the best minds in the world.

At Cuemath, coding is not just about syntaxes and the language of programming like Javascript, or HTML, etc. Instead, coding is also about creative problem-solving. Coding helps children break a problem down into smaller steps. It helps them translate their thoughts into precise instructions.

This is a skill complementary to math.

Hence math and coding go hand-in-hand. Math will help students become better at Coding. At the same time, Coding will help students become better at Math.

Your child's path to coding expertise

Level 6

Unity Game Dev
Adv Web Dev
using React-Redux
You'll build:
Advanced games

Level 5

Algos and Data Struc
AI & ML using Python
You'll build:
Apps, games, portals

Level 4

Javascript (Advanced)
Python (Advanced)
Java
You'll build:
Games, websites

Level 3

HTML & CSS
Javascript (Basic)
Python (Basic)
You'll build:
websites,
interactive games

Level 2

Internet of Things*
You'll build:
programmable
devices

Level 1

Block-based coding
You'll build:
simple games
and apps

Your child's starting point depends on their grade/age, their current level of exposure to coding as well as their interest. We highly recommend starting from a level which your child is comfortable with.

While they learn math and programming,

they'll also build

Interactive Games

features include:

Grades 1 - 3

User controls
Animations
Points scheme

Grades 4 - 5

Multiplayer game
Complex Logic
Rich Interactions

Grades 6 - 8

3D Motion
Real-world physics
AI components

Mobile Apps

features include:

Grades 1 - 3

Button controls
Multi screens
Images+sounds

Grades 4 - 5

Math functions
Survey forms
Data storage

Grades 6 - 8

API integrations
Encryptions
AI chatbot

Websites

features include:

Grades 1 - 3

Applying styles
Content hierarchy
Static pages

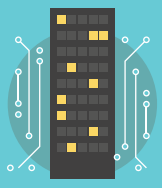
Grades 4 - 5

Dynamic pages
Forms and input
Animations

Grades 6 - 8

Complex portal
Chat support
Sign up wall

Tech Solutions



features include:

Grades 1 - 3

Security alarm
Collision detection
Anti-theft system

Grades 4 - 5

Step counter
Facial Recognition
Smart Parking system

Grades 6 - 8

Weather report system
Robot patrol
Home automation

"Mathematics is foundational... For instance, a lot of what machine learning is improving algorithms. It's all mathematics. It is easier to train a good mathematician on computer science than the other way around."

- Sundar Pichai

Young Coders Program - Freshman

Grades 1 to 3 | Age 6 to 8

Level 1 - Module 1	Level 1 - Module 2	Level 2 - Module 1	Level 2 - Module 2
Game Development - Basic through Block-based coding	Game Development - Advanced through Block-based coding	App Development - Basic through Block-based coding	App Development - Advanced through Block-based coding
24 classes	**24 classes**	**24 classes**	**24 classes**
You'll learn Command Sequence For-loops Events Nested loops	**You'll learn** Code Reviews Code Optimisation If-else conditions While-loops	**You'll learn** Event-based program Basic design & layout Defining buttons Adding screens	**You'll learn** Controlling variables User input If-else statements Conditional logic
You'll build Pastry Collector Game	**You'll build** Multi-level Maze Game	**You'll build** Paint pot app	**You'll build** Word Jumble App

Level 2 - Module 3	Level 2 - Module 4
Introduction to Internet of Things through Arduino*	Introduction to Internet of Things through Arduino*
24 classes	**24 classes**
You'll learn Device connections Circuits Event programs Motion sensor	**You'll learn** Multi-device controls Timer functions Proximity sensors
You'll build Security Alarm	**You'll build** Collision Detection System

*requires the purchase of an additional kit of sensors and processor

Young Coders Program - Sophomore

Grades 4 to 8 | Age 9 to 13

Level 1 - Module 2E	Level 2 - Module 2E	Level 2 - Module 4E	Level 3 - Module 1
Game Development - Express through Block-based coding	App Development - Express through Block-based coding	Internet of Things (IoT) - Express through Arduino*	Introduction to Web Development through HTML & CSS
24 classes	**24 classes**	**24 classes**	**24 classes**
You'll learn For-loops If-else statements Functions Sprites	**You'll learn** Event-based program Design & layout Buttons & screens User input	**You'll learn** Event programs Multi-device controls Motion sensors Proximity sensors	**You'll learn** Lists, tables & forms Divs & backgrounds Styling through CSS Blocks & Inlines
You'll build Snakes & Ladders Game	**You'll build** Word Jumble App	**You'll build** Smart Parking System	**You'll build** My Family's Website

Level 3 - Module 2	Level 3 - Module 3	Level 4 - Module 1	Level 4 - Module 2
Game Development - Basic through Python	Web Development - Basic through Javascript	Web Development - Advanced through Javascript	Game Development - Advanced through Python
24 classes	**24 classes**	**24 classes**	**24 classes**
You'll learn Functions Control flow Strings & Lists Loops	**You'll learn** Data types Operators Boolean logic Switch statements	**You'll learn** Functions Arrays Objects & properties Loops & iterations	**You'll learn** Modules Dictionaries Files & classes Function arguments
You'll build Ping-pong Game	**You'll build** Portfolio website	**You'll build** Survey Portal	**You'll build** Cannon Shot Game

*requires the purchase of an additional kit of sensors and processor