

Computer Programming for Beginners

Using the powerful and entertaining SCRATCH programming environment:

- Design interactive animation, games, and other challenging programs.
- Learn principles of “computational thinking” and pursue a STEAM career.
- Think creatively, reason systematically, and work collaboratively.

“Learning CS with Scratch” courses: Level 1 and 2

Duration: 15 hours each, **Age-group:** 6th grade or above

Students need to have their own computers (Windows/Linux/Mac)

Fees: Nominal; Scholarship available to needy students; Entire proceeds donated to charity.

Course delivery

In-person instruction:

Batch size: 6 to 15

Logistics: venue arranged by the group

Available in Pune (India) and Seattle Eastside (USA)

On-line (Skype and email):

Batch size: 4 to 6

Logistics: Venue arranged by the group; Adult volunteer supervisor required

Sample concepts learnt

Level 1:

Iteration (looping)

XY geometry

Concurrency

Application of motion commands

Events and user interaction

Costume-based animation

Sounds and graphical effects

Synchronization and broadcasting

Conditions and decisions

IF, If-Else, Wait Until Commands

Stopping scripts

Variables

Level 2:

Conditional looping

Objects and instances

Procedures

Math and relational operators

Application of variables

Built-in variables and properties

Random numbers

STAMP command

Polling keyboard/mouse events

Basic program design process

Debugging

Instructor: Abhay Joshi (Email: abjoshi@yahoo.com, WhatsApp: +14256237996)

- Taught 800+ students since 2007
- Author of books on Scratch and Logo Programming
- Expertise in Scratch, Python, C, and Java.
- 20 years’ industry experience, including a successful business venture.