# level 1

## Scratch Animation & Design

For beginner coders, Level 1 is the place to start. With no experience required, Generation Code's Scratch Animation & Design course teaches students the foundations of computational thinking and block-based coding, while engaging their creativity at every turn.

At the center of Level 1 is Scratch, an MIT designed program that immerses students in the digital worlds they love. Learning Scratch allows them to build their own video games, animated stories, and musical compositions. By the end of the course, students will possess the unique ability to combine their creative insights and personal interests through visual programming. In addition to being fun and engaging, this course can help build college and career readiness.

### objectives

- Design simple algorithms and sequence animations in Scratch
- Create original sound compositions and characters
- Design their own original video games

### key projects

- Developing a linear animated story
- Creating a growing garden
- Creating custom characters and song
- Building an interactive video game
- Creating personal emoji

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# units

## Unit 1 | Principles of Visual Coding
Sequences and algorithms, as well as the computational problem-solving framework

## Unit 2 | Exploring Scratch
Parallel sequences and debugging

## Unit 3 | Loops and Algorithms
The roles of loops in algorithms and different types of loops in Scratch

## Unit 4 | Advanced Animation
Wait blocks, customizing and creating new sprites, and making animations look more “real”

## Unit 5 | Music and Sound
Conditionals and creating original sound compositions

## Unit 6 | Gaming and Video Sensing
Variables and video sensing algorithms

## Unit 7 | Lists and Inputs
Creating inputs and lists

## Unit 8 | Final Project
Refining a project from Units 1-7; incorporating key computational thinking concepts and personal interests