

# Introduction to Programming: Scratch

## Course Syllabus and Lesson Planner

### Description:

In this course there are 12 modules that cover everything from the introduction of Scratch to using all the block coding tools available, including creating your own custom blocks.

- Module 1 - A basic overview of Scratch, the difference between Vector and Bitmap mode. How to share your scratch projects
- Module 2 - Gives the student lots of practice using scripts creating a fun animation
- Module 3 - Understanding costumes and using sounds in your animations
- Module 4 - Creating your first game, including obstacles, collisions, and keeping score
- Module 5 - Drawing your own shapes and patterns, using the broadcast block to trigger events
- Module 6 - Creating a fun project using custom blocks
- Module 7 - Upgrading a previous animation adding in blocks you've learned in the previous six modules
- Module 8 - Composing a well known song using sound blocks
- Module 9 - Using custom sprites and backgrounds to create a fun maze
- Module 10 - Using lists and user responses to play a guess my number game
- Module 11 - Recreating the classic game frogger with a scratch twist
- Module 12 - Using costumes, backgrounds, and music to great a dance party

This course, upon completion, will give you the skills necessary to have a well-developed understanding of Scratch programming allowing you to move onto a different programming language like JavaScript or Python.

### Course Prerequisites (if applicable):

This course does not require any pre-requisite courses.

### Course Requirements:

**Computer/tablet/smartphone** – Students must have access to a computer with internet access and an internet browser. Simply Coding has been successfully tested using Internet Explorer, Firefox, Chrome, and Safari. In addition, we have tested many versions of smart phone/tablet browsers as well.

**Internet Access** – Although results may vary, based on connection type and speeds, we have tested our online videos on DSL, Satellite, Cable, and cellular connections. Our courses cannot be download and require internet access to view them.

### Course Grading:

Grading will be based on quizzes, project uploads, and teacher requirements.

### Lesson Plan:

Module 1 – Introduction	Week 1
Module 1 – Introduction Quiz	Week 1
Module 1 – Introduction Project	Week 1
Module 1 – Painting in Vector and Bitmap	Week 1
Module 1 – Painting in Vector and Bitmap Quiz	Week 1
Module 1 – Painting in Vector and Bitmap Project	Week 1
Module 2 – Scripts: Part 1	Week 2
Module 2 – Scripts: Part 1 Quiz	Week 2
Module 2 – Scripts: Part 2	Week 2
Module 2 – Scripts: Part 2 Quiz	Week 2
Module 2 – Scripts Project Part 1	Week 2
Module 2 – Scripts: Part 3	Week 2
Module 2 – Scripts: Part 3 Quiz	Week 2
Module 2 – Scripts: Part 4	Week 2
Module 2 – Scripts Part 4 Quiz	Week 2
Module 2 – Scripts Project Part 1	Week 2
Module 3 – Costumes Part 1	Week 3
Module 3 – Costumes Part 1 Quiz	Week 3
Module 3 – Costumes Part 2	Week 3
Module 3 – Costumes Part 2 Quiz	Week 3
Module 3 – Costumes Project	Week 3
Module 3 – Sounds Part 1	Week 3

Module 3 – Sounds Part 1 Quiz	Week 3
Module 3 – Sounds Part 2	Week 3
Module 3 – Sounds Part 2 Quiz	Week 3
Module 3 – Sounds Project	Week 3
Module 3 – Sharing Your Projects	Week 3
Module 3 –Sharing Your Projects Quiz	Week 3
Module 3 – Sharing your program Project	Week 3
Module 4 – Building a Game (Make the Play Area)	Week 4
Module 4 – Building a Game (Make the Play Area) Quiz	Week 4
Module 4 – Building a Game (Programming Collision)	Week 4
Module 4 – Building a Game (Programming Collision) Quiz	Week 4
Module 4 – Building a Game (Programming Score)	Week 4
Module 4 – Building a Game (Programming Score) Quiz	Week 4
Module 4 – Pong Game Project	Week 4
Module 5 – Creating Shapes Part 1	Week 5
Module 5 – Creating Shapes Part 1 Quiz	Week 5
Module 5 – Creating Shapes Part 2	Week 5
Module 5 – Creating Shapes Part 2 Quiz	Week 5
Module 5 – Creating Shapes Project	Week 5
Module 5 – Message Broadcasting Part 1	Week 5
Module 5 – Message Broadcasting Part 1 Quiz	Week 5
Module 5 – Message Broadcasting Part 2	Week 5
Module 5 – Message Broadcasting Part 2 Quiz	Week 5
Module 5 – Message Broadcast Project	Week 5
Module 6 – Creating Custom Blocks Part 1	Week 6
Module 6 – Creating Custom Blocks Part 1 Quiz	Week 6
Module 6 – Creating Custom Blocks Part 2	Week 6

Module 6 – Creating Custom Blocks Part 2 Quiz	Week 6
Module 6 – Creating Custom Blocks Part 3	Week 6
Module 6 – Creating Custom Blocks Part 3 Quiz	Week 6
Module 6 – Creating Custom Blocks Part 4	Week 6
Module 6 – Creating Custom Blocks Part 4 Quiz	Week 6
Module 6 – Custom Blocks Project	Week 6
Module 7 - Game Time	Week 7
Module 7 - Game Time Quiz	Week 7
Module 7 - Game Time Project	Week 7
Module 8 - Music Make	Week 8
Module 8 - Music Maker Quiz	Week 8
Module 8 - Music Maker Project	Week 8
Module 9 - Maze	Week 9
Module 9 - Maze Quiz	Week 9
Module 9 - Maze Project	Week 9
Module 10 - Guess My Number	Week 10
Module 10 - Guess My Number Quiz	Week 10
Module 10 - Guess My Number Project	Week 10
Module 11- Frogger	Week 11
Module 11 - Frogger Quiz	Week 11
Module 11 - Frogger Project	Week 11
Module 12 - Dance Party	Week 12
Module 12 - Dance Party Quiz	Week 12
Module 12 - Dance Party Project	Week 12
Study for Final Exam	Week 13 (1-2 hours)
Final Exam	Week 13
Final Project Part 1	Week 13
Final Project Part 2	Week 13