

## Syllabus : Teaching Coding in Grades 5-8 with Scratch Encore

### Overview

This course prepares learners to teach coding in grades 5-8 with the Scratch Encore curriculum and was designed to be completed over the course of 6 weeks. Each week learners are introduced to a new computer science concept and the Scratch Encore module that teaches that concept. Many coding and debugging scaffolds that have been used and refined in classrooms are introduced.

#### Week 1: Scratch Basics

Introduction to the Scratch Encore curriculum, the Scratch programming environment, and the Scratch Basics module

#### Week 2: Events

Introduction to the Events module, helpful Scratch skills, and insights into the reasoning behind our learning strategies

#### Week 3: Animation

Introduction to the Animation module (create simple animations with basic loops); the WHAT?!? A MESS debugging strategy is introduced

#### Week 4: Conditional Loops

Introduction to the Conditional Loops module (use loops that end when a specific condition is met)

#### Week 5: Decomposition by Sequence

Introduction to Decomposition by Sequence module (decompose a project into a series of events and the actions)

#### Week 6: One-way Synchronization

Introduction to one-way synchronization (synchronize the actions of sprites through message passing); explore types of one-way synchronization: one-to-one synchronization, one-to-many synchronization

### Prerequisites

There are no prerequisites for this course. No programming experience is required.

### Workload

You should expect to spend about 2-3 hours each week on this course. The breakdown of your time will be roughly: 45-60 minutes watching videos and completing knowledge checks; 60-120 minutes completing coding assignments.

### Textbook and Resources

There is no textbook for this course. All materials for the course are embedded within or linked to from the course.

### Grading and Certification

This course is offered as pass/fail for Verified learners. To pass the course, verified learners must earn a final grade of 70% or higher (across all assignment types).

Types of assignments and the total weight of each:

35% - Coding Assignments (TIPP&SEE, Modify, Create, Debugging tasks)

25% - Knowledge Checks

40% - Assessments

To check your progress in the course, click on the "Progress" tab at the top of the page. Verified learners may drop ONE coding assignment.

### Discussion Forum and Collaboration Guidelines

Each week, you will be invited to participate in conversations with other teachers to ask for help debugging your Scratch projects; ask questions about the week's focal CS concept; share your Scratch projects with other teachers; and discuss strategies for how to help students to find and fix bugs in their projects. Please remember to be clear in your posts and responses to others, be kind, and be collaborative.