



# Block Coding And Programming Basics

## Overview

Computing experiences provide young learners with career-ready and 21st century skills. Thus, in preparation to teach computer science, many educators are learning to code. This session helps educators begin integrating block coding into their instructional repertoire.

Working in the ScratchJr and Scratch coding platforms, you will develop fluency in fundamental computing concepts. You will also work to solve computing challenges and consider how computer science standards can be applied to coding progressions. The session concludes with you developing a personalized coding lesson following the Use-Modify-Create (UMC) framework.

## Learning Outcomes

This 3-hour virtual professional development session is designed to support teachers as they

- Coach students through computing experiences with the engineering design process and UMC framework.
- Connect computer science standards to block-coding environments.
- Develop appropriate learning progressions for students.

## Outline

- Make introductions and set expectations for the session
- Situate computing and programming within CS concepts, practices, and standards
- Identify and practice fundamental computing concepts in a block-coding environment
- Use coding knowledge to create a polished virtual game
- Apply new learning to plan a coding lesson implementing the UMC pedagogical framework
- Consider practical implications of planning grade-level appropriate learning progressions

## What To Expect from Our Virtual PD

Each virtual PD session gives teachers the best of both worlds: the active and collaborative learning of traditional face-to-face sessions, with the convenience afforded by online offerings. A variety of formats and strategies engage participants in making the learning their own. For example, participants may share their thoughts and ideas in interactive polls, chats, or collaborative digital tools. Working in small groups or the 'alone zone', participants construct meaning from their shared experiences. Most importantly, they will always have time to consider - and even plan for - how they will take what they have learned back to their classroom.