

Course A

Overview

Course A offers a computer science curriculum for beginning readers in early elementary grades. Students will learn to program using commands like loops and events. The lessons featured in this course also teach students to collaborate with others meaningfully, investigate different problem-solving techniques, persist in the face of difficult tasks, and learn about internet safety. By the end of this course, students create their very own custom game in the Play Lab programming environment on Code.org.

Core concepts:

- Digital Citizenship
- Sequencing
- Loops
- Events

Attitudinal goals:

- Programming is fun.
- It's okay not to get it right the first time.
- I can solve problems if I keep trying.

Key teaching tips:

- Use the stories as a read-aloud and discuss the scenarios as a class.
- Use pair programming and encourage students to help each other.
- Work through sample problems with students as a class.
- Connect unplugged lessons to the online lessons using “bridging activities”.
- Celebrate persistence as well as successes.
- Remind students that they can go back and fix mistakes.
- Honor the humor in the lessons and add more where possible.

Course A: Lesson Outlines

Online lessons are in regular text and unplugged lessons are **bolded**.

Concept Chunk	#	Lesson Name	Description
Digital Citizenship	1	Safety in My Online Neighborhood	Created by Common Sense Education, students practice staying safe while exploring online.
Sequencing	2	Learn to Drag and Drop	The main goal of this lesson is to build students' experience with computers. By covering the most basic computer functions such as clicking, dragging, and dropping, we are creating a more equal playing field in the class for future puzzles.
	3	Happy Maps	This activity will help students gain experience reading and writing in shorthand code.
	4	Sequencing with Scrat	This lesson begins with a brief discussion on computer lab manners, then students progress into using a computer to complete online puzzles.
	5	Programming with Scrat	In this set of online puzzles, students will build on the understanding of algorithms, debugging, and general computer literacy.
	6	Programming with Rey and BB-8	In this lesson, students will use their newfound programming skills in more complicated ways to navigate a tricky course with BB-8.
Loops	7	Happy Loops	Students learn about an easier way to solve problems using loops.
	8	Loops with Scrat	This lesson builds on the idea of using loops in a program.
	9	Loops with Laurel	Continuing practice with loops, students will help Laurel the Adventurer collect treasure.
	10	Ocean Scene with Loops	Here, students use loops to create patterns. At the end of this lesson, students will be given the opportunity to create their own images using loops.
Events	11	The Big Event Jr.	This lesson demonstrates that events are a great way to add variety to a sequential algorithm.
	12	On the Move with Events	Students will have the opportunity to learn how to use events in Play Lab and apply their coding skills to create an animated game.