Hour of Code K-8 Tutorials notes

Below are K-8 listings from Hour Of Code tutorials at https://code.org/educate/allhourofcode. Bulleted parts are from the linked website and/or observations.

Tutorials for Grades K-8

Tynker

Ages 5-13. Modern web browsers, iPad, Android. Learn to code by solving fun puzzles and build your own games.

* The Tynker Visual Programming Language is based on Open Web standards (HTML5, JavaScript, CSS) and works seamlessly across Web browsers and natively on mobile platforms (Android, iOS).

Scratch

Ages 8+. Desktop-only web browsers. Create your own interactive games, stories, and animations with Scratch!

* Offline editor runs on desktops and requires Adobe AIR. Older (ScratchJr runs on iPads.)

Lightbot

Ages 5-13. ALL browsers and iOS, Android, or Game Console. Program Lightbot to solve puzzles using procedures and loops!

* Solve Puzzles using Programming Logic

The Foos

Elementary (Pre-readers welcome). Modern web-browsers, iOS, Android. A fun game to learn about programming.

* Concepts: Problem Recognition, Conditionals, Critical Thinking, Perseverance, Sequencing, Algorithms, Loops, Commands/Parameters

Kodable

Elementary (Pre-readers welcome). Modern web-browsers, iPad. A fun iPad game to teach computer programming concepts.

* Grab and Go K-5 Solution. No programming experience needed

Monster Coding

Ages 5-13. Modern web browsers, iOS, Android. A colorful self-guided programming adventure for children.

* We think coding is a great way to learn many things, not just programming. So we've incorporated a lot of cool math learning blocks, as well as shapes and patterns.

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AllCanCode

Ages 5-10. Modern web browsers, iOS. An immersive game to guide Marco with a visual programming language.

* Run Marco! A coding adventure around the world.

CS First

Ages 9-14. Modern web-browsers. Animate a story about two characters on the ocean. Add your own style!

* Theme-Based Clubs
* Each CS First club is based on a real-world theme and offers about 10 hours worth of lessons and activities. The different club themes aim to attract and engage students of varying backgrounds and interests. All materials are targeted at students in 4th - 8th grades (or between the ages of 9 - 14) and are free and easy to use.
* CS First is a free program that increases student access and exposure to computer science (CS) education through after-school, in-school, and summer programs. All clubs are run by teachers and/or community volunteers.
* Our materials: are completely free and available online, are targeted at students in grades 4th-8th (ages 9-14), can be tailored to fit your schedule and needs, involve block-based coding using Scratch and are themed to attract students with varied interests

Inside Out - Made With Code

Ages 9-14. Modern web-browsers. Help Riley from the Pixar animated movie Inside Out, write code to help her make it past some of the life challenges she experiences during the movie.

* Less than 1% of girls study Computer Science. Let's change that.

NCLab: Karel the Robot

Elementary. Web-based. Learn basic concepts of Computer Science by typing programs for a robot.

* NCLab's mission to bring access and equity in STEM education to all learners, especially the under served, by providing them with technological opportunities that engage them, ignite their curiosity, and personalize & tailor their learning. NCLab makes sure that its users achieve their STEM education goals through the use of innovative self-paced online courses in computer programming, 3D modeling, and other essential STEM subjects. NCLab is passionate about training and supporting teachers who are and will remain an indivisible part of the educational process.

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Alice Project

Elementary. Desktop or Game Console. Create an Alice animation with Garfield the Cat using two tutorials: Tutorial 1 sets up the scene. Tutorial 2 writes the program code.

* Alice is an innovative 3D programming environment that makes it easy to create an animation for telling a story, playing an interactive game, or a video to share on the web. Alice is a freely available teaching tool designed to be a student's first exposure to object-oriented programming. It allows students to learn fundamental programming concepts in the context of creating animated movies and simple video games. In Alice, 3-D objects (e.g., people, animals, and vehicles) populate a virtual world and students create a program to animate the objects.

Coding Pirates

Elementary. Web-based, Android, iOS. Learn to code with Captain Hack by visually programming with blocks.

* Requires app or unity webplayer-mini plugin.

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* Thimble is an online code editor that makes it easy to create and publish your own web pages while learning HTML, CSS & JavaScript.