HOUR OF CODE

Music Self-Tutorials for Students

Make Music with Scratch

Scratch

Grades 2-8 | Blocks, Scratch

With Scratch, you can create your own interactive games, stories, animations -- and share them with your friends. To get started, make an interactive music project. Activity cards and a workshop guide are also available for free on scratch.mit.edu

Start

https://hourofcode.com/scratchmus

Teacher notes at:

http://resources.scratch.mit.edu/www/guides/en/MusicGuide.pdf

Play That Tune App

Mobile Computer Science Principles Project

Grades 6+ | Blocks

A blocks language is used to solve musical puzzles by writing code to match tunes played on a piano keyboard. Sequence, selection, and repetition algorithms are needed to solve the puzzles. After the 9th level, users can create their own tune and download it as an app for an Android device. Students can also modify the app by following a link to the App Inventor source code.

Start

https://hourofcode.com/playtune

Teacher notes at https://goo.gl/LgJqpf

Code the Music of Franz Liszt

beetik

Grades 6-8 | Blocks

In this activity, students reconstruct a small part of a famous piece by composer Franz Liszt. Students will learn how to embed loops and how they're used in both computer science and music. This is a step-by-step guide that will introduce algorithmic thinking in music with elements of computer science. In the last level of this activity, students will 'hack' the music by changing elements such as tempo, key, repetitions, notes, etc with the objective of making original variations based on what they learned. This activity intersects classical music with computer science.

Start

https://hourofcode.com/beetik

Teacher notes: https://goo.gl/QfTtVk
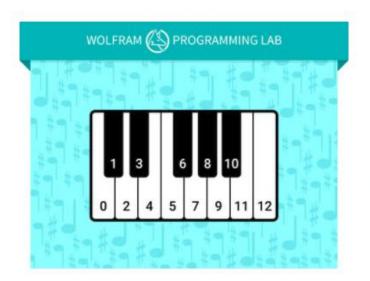
Compose Music with Code DJ

TRALALERE

Grades 6+ | JavaScript

In Code DJ, you will first discover the basics of Javascript by answering questions that will progressively become more like code. You will then reach a second world where you will actually start to make music directly with code, just by changing numbers at first, and as your mastery increases, by manipulating rhythm loops and more! You will then unlock the ability to create music freely in the Code DJ app and get it as an mp3!

Start

https://hourofcode.com/codedj

Random Melodies
Wolfram Labs

Grades 6+ | Wolfram Language

In this activity, students create random melodies using various musical scales and instruments. Create music through code!

Start

https://hourofcode.com/wolframm

LiveCode Sound Boards
LiveCode

Grades 9+ | Language independent

When you use our LiveCode tutorial for the Hour of Code, your students get to create their own soundboards. After creating soundboards with animal and piano sounds, students will be free to make their own customized soundboards with their own image and music selections!

Start

https://hourofcode.com/livecode