

Spring Virtual Youth Programming - 2021



Ages 5 - 10

Junior Programmers: Level 1

Ages 5 - 7

Learn to create your first programs using Scratch Jr.! Start with making a character dance to producing a full simulated environment. In this introductory sequence of projects for Scratch Jr., we gradually introduce a variety of practices and concepts while simultaneously exposing young coders to a variety of blocks and tools in Scratch Jr. Each project is aligned with the algorithms and programming standards developed by the Computer Science Teachers Association (CSTA). Materials: Any 2 devices from - Computer (PC/MAC), iPad, Android Tablet **OR** 2 Computers (PC/MAC) or computer connected to 2 monitors. Code for Fun instructors are experts in computer science and make all our online sessions fun and engaging for all students.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/13-3/20	Sat	11am-12pm	6x	\$140	\$174	999500-01
4/03-5/08	Sat	5-6pm	6x	\$140	\$174	999500-02
4/21-5/26	Wed	3-4pm	6x	\$140	\$174	999500-03

Scratch Superhero: Level 1 - Put your costume on!

Ages 7 – 10

Welcome to the world of Scratch, the most popular block programming language for young learners. In this course, discover the Scratch environment and start making games you can share with your friends and family. Try to catch a cat randomly moving on your screen, create a game where a shark needs to eat as many fish as possible, become a superhero by fixing code challenges. You will gain coding superpowers concepts like variables, loops, events, debugging and cartesian coordinates. You will also get to interact with a small group of exciting young coders to exchange ideas and solutions. Material needed: Mac, PC or Chromebook (no iPad), WebCam, Stable internet connection with access to Zoom Video Conferencing. Students will also need an account on scratch.mit.edu created with parents prior to starting this class.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/16-3/23	Tues	3-4pm	6x	\$140	\$174	999500-04
3/8-4/12	Mon	3-4pm	6x	\$140	\$174	999500-05
3/26-5/07	Fri	11am-12pm	6x	\$140	\$174	999500-06
4/23-5/28	Fri	3-4pm	6x	\$140	\$174	999500-07

Scratch Superhero: Level 2 - Get your mask!

Ages 7 – 10

Ramp up your superhero powers and learn how to continue to code from the comfort of your home. If you have some basic knowledge of Scratch and want to level up, this class is for you! In this class, you will become a digital artist: using your coding superpower, you will create programs that create new artistic artifacts every time you click Run! For example: create a postcard with basic shapes, create a canvas full of flowers of different shapes, sizes, and colors, create complicated drawings using patterns and repetitions. You will master some more advanced concepts like procedures, conditionals, parameters, randomness, learn how to reuse code. Material needed: Mac, PC or Chromebook (no iPad), WebCam, Stable internet connection with access to Zoom Video Conferencing Students will also need an account on scratch.mit.edu created with parents prior to starting this class.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/16-3/23	Tues	3-4pm	6x	\$140	\$174	999500-08
3/8-4/12	Mon	3-4pm	6x	\$140	\$174	999500-09
4/1-5/6	Thurs	11am-12pm	6x	\$140	\$174	999500-10
4/19-5/24	Mon	3-4pm	6x	\$140	\$174	999500-11

Scratch Superhero: Level 3 - Get your cape!

Ages 8 – 10

Become an expert game designer with this advanced Scratch programming course. Now that you master principles concepts of programming, it is time to harness your powers and create more elaborate games you can share with your friends and family. With a small and interactive group of students, you will design a hilarious monkey game, flying doughnuts activity and build your very own aMAZING maze. Take it further by adding bonus points and traps to be avoided. Encourage players to compete by adding a timer and a score. Code for fun instructors are experts in computer science and make all our online sessions fun and engaging for all ages. Material needed: Mac, PC or Chromebook (no iPad), WebCam, Stable internet connection with access to Zoom Video Conferencing Students will also need an account on scratch.mit.edu created with parents prior to starting this class.

Prerequisites: Students need to master Variables, loops, conditional statements, and procedures (new block) before joining this class. Some of the concepts introduced are broadcasting, cloning, parallelism and more!

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/16-3/23	Tues	3-4pm	6x	\$140	\$174	999500-12
3/30-5/4	Tues	3-4pm	6x	\$140	\$174	999500-13

Ages 9 - 15

Mobile App Development: Level 1

Ages 9 - 13

Want to learn how to create your own mobile apps from the comfort of your home? Learn the basics programming through mobile app development with Code for fun using the MIT App Inventor! Have fun creating and sharing apps with your friends. During this course, you will learn how to create user interfaces as well as utilize device sensors develop simple games and tools for android devices. Run the apps you create on your android device or simulator (Strongly preferred to use a physical device as many of the sensors we will be using are not present in the emulator). Code for fun instructors are experts in Computer Science and make all our online sessions fun and engaging for all ages. Running class time is 1.5 hours.

Requirements: Mac or PC or Chromebook, WebCam Stable internet connection (for video conference), Stable Wifi connection or USB cord (for connecting companion app)

Recommended: Android phone or tablet. (It is way more fun to test this way since many of the phone sensors are not present in the emulator)

Before signing up, please make sure you can use the companion app on your device by following the instructions at these links:

<https://appinventor.mit.edu/explore/ai2/setup-device-wifi.html>

<https://appinventor.mit.edu/explore/ai2/setup-emulator.html>

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
3/6-3/27	Sat	3-4:30pm	4x	\$140	\$174	999500-14
5/1-5/22	Sat	6-7:30pm	4x	\$140	\$174	999500-15



Mobile App Development: Level 2

Ages 9 - 13

Learn new programming concepts and apply them to build more sophisticated apps. Expand on the projects in level one by having them save data on your device's local storage. Learn, through new projects, to make use of your device's advanced components such as the Clock and SMS, and GPS. Code for fun instructors are experts in Computer Science and make all our online sessions fun and engaging for all ages. Running class time is 1.5 hours.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/6-2/27	Sat	3-4:30pm	4x	\$140	\$174	999500-16
2/26-3/19	Fri	6-7:30pm	4x	\$140	\$174	999500-17

Minecraft Modding: Level 1+2

Ages 10 - 14

Use the power of coding to create a world in Minecraft never seen before! In this block-based coding course, students will learn how to concentrate on logic and computational thinking to build advanced programming algorithms that tie in with the world of Minecraft. Learn how to mod Minecraft, create stories, build mini games, reconstruct buildings, and turn blocks into gold! Students will have their own private servers to mod as well as the ability to play and collaborate on a single server. A great addition for students who have taken our Scratch programming course. Code for Fun instructors are experts in computer science and make all our online sessions fun and engaging for all ages. Running class time is 1.5 hours.

Material: Mac or Windows PC

Prerequisite: Minecraft license not required

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/19-4/9	Fri	3-4:30pm	8x	\$270	\$336	999500-18
3/3-4/21	Wed	6-7:30pm	8x	\$270	\$336	999500-19
3/30-5/18	Tues	3-4:30pm	8x	\$270	\$336	999500-20
4/5-5/24	Mon	6-7:30pm	8x	\$270	\$336	999500-21

Data Science Level 1: Data Visualization with Python

Ages 10 - 15

Visualize and interpret data using Panda, Matplotlib and Seaborn libraries in Python! Learn to visualize data as Line and Bar Charts, Heatmaps, Scatter Plots, Histograms and Density Plots and more. Learn how to make management decisions based on these visualizations using data in numerous fun and knowledgeable datasets, like Candy Survey to deduct what should be company's next product design, Flower's Dimensions to classify different species, FIFA rankings and Spotify Daily Streams to find the global leaders, Computer Game Ratings to decide what should be the next game design, Insurance Premium Rates to see why some customers pay more than others, Cancer Tumors to see how classification and AI helps us to find tumors and more. Code for Fun instructors are experts in Computer Science and make all our online classes fun and engaging for all students.

Prerequisite: Python Level 1&2 offered by us or prior experience programming in Python: variables, loops, conditionals, functions.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
4/20-5/25	Tues	6-7pm	6x	\$140	\$174	999500-22

Python Mastery: Level 1 - Learn the Basics

Ages 10 - 15

Start coding in Python - one of the most popular, intuitive, open-source programming languages. Learn how to draw colorful spirals and shapes with Turtle graphics module, while creating fun interactive projects using the Repl.it coding environment. Code for fun instructors are experts in computer science and make all our online sessions fun and engaging for all students. Running class time is 1.5 hours.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/10-3/3	Wed	3-4:30pm	4x	\$140	\$174	999500-23
3/12-4/2	Fri	6-7:30pm	4x	\$140	\$174	999500-24
3/23-4/13	Tues	6-7:30pm	4x	\$140	\$174	999500-25

Python Mastery: Level 2 - Leverage your Knowledge

Ages 10 - 15

Get deeper expertise in Python programming. This course builds on Level 1 and gets deeper into the Python programming concepts by introducing and mastering functions. Work with functions and build deeper expertise in python while creating an intelligent chatbot. Students will need an account in Repl.it and will use Zoom platform to connect to the class. They need to have some basic knowledge of Python syntax especially loops, conditional statements, and variables. Code for fun instructors are experts in computer science and make all our online sessions fun and engaging for all students. Running class time is 1.5 hours.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/4-2/25	Thurs	6-7:30pm	4x	\$140	\$174	999500-28
3/10-3/31	Wed	3-4:30pm	4x	\$140	\$174	999500-29

Python Mastery: Level 3 - Master your Knowledge

Ages 10 - 15

Master your knowledge in Python - one of the most popular, intuitive, open-source programming languages! Use Object Oriented Programming concepts to build your first game in Python! This course builds on top of the Level 2 class by teaching advanced Python skills. Led by an experienced Code for fun instructor, students will learn object-oriented programming with Python by building fun games! Material Needed: Computer (PC/Mac) with Python IDLE installed. Code for fun instructors are experts in computer science and make all our online sessions fun and engaging for all ages. Running class time is 1.5 hours.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
3/4-3/25	Thurs	6-7:30pm	4x	\$140	\$174	999500-32
5/7-5/28	Fri	6-7:30pm	4x	\$140	\$174	999500-33



Roblox Game Design: Level 1

Ages 10 - 15

Roblox is an online game platform and game creation system that allows users to program and play games. Using Roblox Studio, students will learn how to create an obstacle course. They will then learn how to manipulate the virtual world to their liking, using the Lua programming language. Prior to starting the class, students will need to download Roblox Studio software on their computer and create an account. Code for Fun instructors are experts in computer science and make all our online sessions fun and engaging for all ages. Running class time is 1.5 hours.

Materials Needed: Mac or Windows PC only, Roblox and Roblox Studio installed, WebCam, Stable internet connection with access to Zoom Video Conferencing, 3 button mouse with scroll-wheel.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/6-2/27	Sat	5-6:30pm	4x	\$140	\$174	999500-34
2/23-3/16	Tues	6-7:30pm	4x	\$140	\$174	999500-35
3/8-3/29	Mon	6-7:30pm	4x	\$140	\$174	999500-36

Roblox Game Design: Level 2

Ages 10 - 15

About half the kids in US play Roblox. You could be the one making the games they play! During this program, you will learn how to create a fun game where their avatar needs to collect cupcakes around their own custom world. This class not only teaches programming and design skills but also provide a safe environment to play with friends when testing your game. LEVEL UP, with this advanced course of Roblox! Code for Fun instructors are experts in computer science and make all our online sessions fun and engaging for all ages. Running class time is 1.5 hours.

Materials Needed: Mac or Windows PC only, Roblox and Roblox Studio installed, WebCam, Stable internet connection with access to Zoom Video Conferencing, 3 button mouse with scroll-wheel.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/4-2/25	Thurs	6-7:30pm	4x	\$140	\$174	999500-40
3/6-3/27	Sat	5-6:30pm	4x	\$140	\$174	999500-41

Roblox Game Design: Level 3

Ages 10 - 15

In this class you will use Roblox Studio to create an expansive obstacle course where your goal is to get all the gems. Each gem is hidden behind challenging obstacles and gathering it will give you powers to continue to the next level. Your code will "spring" into action when we begin to work with the physical properties of springs and ropes. Find out how to make moving platforms and teleporters using CFrames. Discover different ways to approach game design in this advanced course! Code for Fun instructors are experts in computer science and make all our online sessions fun and engaging for all ages. Running class time is 1.5 hours.

Prerequisites: General understanding of how to write and execute scripts in Roblox Studio. Understanding of what a List is and how to use it. Experience in placing and modifying models using the tools provided in the editor.

Materials Needed: Mac or Windows PC only, Roblox and Roblox Studio installed, WebCam, Stable internet connection with access to Zoom Video Conferencing, 3 button mouse with scroll-wheel

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
3/4-3/25	Thurs	6-7:30pm	4x	\$140	\$174	999500-44
4/20-5/11	Tues	6-7:30pm	4x	\$140	\$174	999500-45



Web Design - Level 1: The Magical World of <html>

Ages 11 - 15

Welcome to the magical world of HTML! This course prepares students to create their own interactive webpages and focuses on the fundamentals of HTML5. Students will learn to use tags to add headings, paragraphs, lists, tables, and images to their web pages. At the conclusion of this course, students will harness their new skills to create a single page website. Code for fun instructors are experts in computer science and make all our online sessions fun and engaging for all students. Running class time is 1.5 hours.

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
3/3-3/24	Wed	6-7:30pm	4x	\$140	\$174	999500-46
4/3-4/24	Sat	3-4:30pm	4x	\$140	\$174	999500-47

Web Design - Level 2: Intermediate HTML + Style it with CSS

Ages 11 - 15

Let's get styling! In the Web Design: Level 2 course, students will continue to explore more HTML tags and are introduced to CSS (Cascading Style Sheets), one of the cornerstone technologies of the World Wide Web. At the conclusion of the course, the students will be able to create a multipage website to show their friends and family. Code for Fun instructors are experts in Computer Science and make all our online classes fun and engaging for all students. Running class time is 1.5 hours.

Prerequisite: Web Design - Level 1

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
2/23-3/16	Tues	6-7:30pm	4x	\$140	\$174	999500-49

Web Design - Level 3: Intermediate CSS + JavaScript Basics

Ages 11 - 15

Welcome to the final level of the Code for fun Web Design course! In this class, students will learn more advanced CSS (Cascading Style Sheet) topics, such as positioning elements, inheritance, and adding interactivity to their website using JavaScript. As a final project, students will create their own website to show their friends and family. Code for Fun instructors are experts in Computer Science and make all our online classes fun and engaging for all students. Running class time is 1.5 hours.

Prerequisite: Web Design - Level 1 & 2

Instructor: Code for Fun

Platform: Zoom.us

Where to Register: www.el-cerrito.org/onlinereg

DATE	DAY	TIME	MEETS	RES	NRES	ACTIVITY
3/31-4/21	Wed	6-7:30pm	4x	\$140	\$174	999500-50