

Enrichment Classes Course Description

For registration information go to
www.computeradventures.com/program-reg/

Adventures in Programming

Learn to Code with ScratchJr®-A

Course Code: LCSJ-EC-A

Grade 1 to 3

Prereq: none

Scratch Jr was designed for younger children as a precursor to other programming languages. Students control how their characters look and move; add sounds and images; and then use the programming blocks to bring their characters to life. Students create and express themselves with the computer, rather than just interact with software created by others. They also learn to think sequentially, explore cause and effect, and problem-solving skills.

*Students' projects will be available for download a week after course completion.



Intro to Programming with Scratch®-A

Course Code: IPSC-EC-A

Grade 4 to 8

Prereq: none

Scratch® is a programming language that was invented by MIT. Through the creation of interactive stories, animations and games, students will develop a foundation of programming concepts (such as variables, loops, conditional statements, event handling and more) that will prepare them for higher level programming language. This is a fun way to be introduced to programming.

*Students' projects will be available for download a week after course completion.



Adventures in Minecraft

Minecraft® Survival Quest -A

Course Code: MCSQ-EC-A

Grade 3 to 8

Prereq: none

Students will navigate the Minecraft world to explore, complete quests, strategize and build creations in a logical way to survive in the virtual 3D world. They will practice creative thinking, problem solving, teamwork and collaboration with proper online etiquette. To ensure a fun and safe "cyber" environment, every student's laptop is connected to a local network without access to the internet. Concepts such as network, server, client and applications will also be discussed.

*Students' projects will be available for download a week after course completion.



Minecraft® Building Wonders -A

Course Code: MCBW-EC-A

Grade 3 to 8

Prereq: Experience with Minecraft

Want to build some of those fancy, realistic-looking monuments in Minecraft? Utilizing various blocks, ores, crafted items, tools, students are challenged to replicate a famous structure and then design their own structure with some real and/or made-up fun facts. Teachers will provide tips and tricks on building better structures in Minecraft. This class maybe taken more than once, because different structure types from different geographical location and/or time period will be discussed.

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Adventures in Game Design

Microsoft® Kodu Game Lab -A

Grade: 3 to 8

Course Code: MKGL-EC-A

Prereq: none

Microsoft's Kodu gives users control of powerful programming tools using simple graphical commands. Students will create 3-D worlds, add characters, and then make them interact or complete tasks. Students will program scoring, spawning characters, enemy objects, timers, health and various game levels. Based on "when something happens", "do something" logic, students analyze problems and structure their solutions. Student can repeat this class, as the instructor can work on different games.

*Students' projects will be available for download a week after course completion.



Computer Game Programming -A

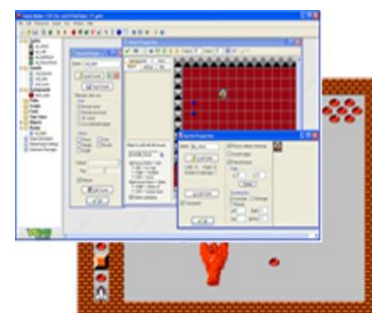
Grade 3 to 8

Course Code: CPGP-EC-A

Prereq: Experience with computers

Students program their own customized functional arcade-style computer video game. This class will create game elements such as the player, enemies, bonuses, levels, lives, and program object movements. In addition to having fun and gaining a sense of accomplishment, students learn about programming logic, drag-and-drop programming; logical functions such as repeat loops, conditional statements and variables.

*Students' projects will be available for download a week after course completion.



Adventures in Animation

Lego Brickfilms -A

Grade 2 to 8

Course Code: LBRK-EC-A

Prereq: none

Lights...Camera...Action! Students' dreams of having their favorite LEGO® characters come to life become a reality in our movie making class. Using stop-motion animation and digital post-production editing, students produce Brickfilms much like the ones viewed on YouTube. Students learn about developing creative storytelling techniques, incorporating visual and audio special effects. This is a great class to take with friends. Students can repeat the class; they will make better and different movies.

*Students' projects will be available for download a week after course completion.



Adventures in Digital Graphics

Digital Comics Creation -A

Grade 3 to 8

Course Code: CMCT-EC-A

Prereq: none

Make stunning comics! Convert photos into comic artwork. Use green screen backgrounds. Add speech balloons, caption and title. Use the Script Editor to write your story. With the drag and drop feature, the software makes it easy to go from a blank page to a complete comic! Key elements of a story such as character, setting, and plot are conveyed through a combination of pictures, captions, and dialogue. Comic creation facilitates students to make visual and verbal connections.

*Students' projects will be available for download a week after course completion.



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Adventures in Robotics

LEGO® WeDo Robotics -A

Grade 1 to 2

Course Code: LWRP-EC-A

Prereq: none

This class provides the opportunity for the younger children to get an introduction to simple robotics. Build and program dancing birds, drumming monkeys, hungry alligators, roaring lions and more. Students learn to build models, attach sensors and motors, and use a computer to program the model's actions and behaviors. Students will also learn about simple engineering concepts such as pulleys, belts, gear and levels, while having a blast with their creations. Students can repeat this course; instructor can challenge students with different robot projects.

*Students will not take robots home. Robots & software can be purchased from Lego®



LEGO® Junior Robotics -A

Grade 1 to 3

Course Code: LJP-EC-A

Prereq: none

Students will work with programmable smart hub, motor, sensors and various Lego bricks to build and program models such as robot, helicopter, truck, gorilla, frog, dolphin and more. This course offers hands-on activities that enhance their skills in science, engineering, technology, and coding. If you like WeDo Robots, you will love this course as we work on different projects from a different robot set.

*Students will not take robots home. Robots & software can be purchased from Lego®



LEGO® Mindstorms Robotics -A

Grade 3 to 8

Course Code: LMRB-EC-A

Prereq: none

This exciting class teaches students how to build and program LEGO® Mindstorms® robots. Students will use the new skills to meet such challenges as building the Roomba, bottle/cup pusher, table-sweeper, Sumo wrestler etc. This class will introduce programming concepts such as repeat loops, if/then statements and sensor use. This class is for students who have little or no experience with robotics or programming.

*Students will not take robots home. Robots & software can be purchased from Lego®



During the summer, we offer summer camps at our location in Mount Kisco, and at other camps in Westchester. If you are interested in offering our program your location, please contact us.

We also offer year-round one-time events, which provide a fun and educational time for the kids. The event includes 90 minutes to 2 hours of instruction and play at our location or your location.

We will supply all the equipment needed for the activities, such as laptops, Minecraft server, router, Lego robots, Lego bricks/minifigs, projector and props - you just provide the kids! We can either come to your location, or you can come to our location in Mount Kisco.