COMPUTER ADVENTURES

Computer Adventures is dedicated to providing technology education to children from Pre-K to Grade 12 in a safe, fun and confidence-building environment. In addition to teaching technical skills, we also teach analytical thinking and problem solving, and encourage collaboration and creativity.

Since 2009, Computer Adventures has been partnering with parents, schools, school districts, recreation centers, libraries, home-schoolers, various organizations and businesses to provide enrichment classes, camps, events and parties, coaching, consulting and teacher training.

We offer on-line and in-person, public as well as private group classes. For our private group classes, we will accommodate your course choice, schedule, virtual or physical venue, and provide instructors and equipment (if needed).

PROGRAMMING/CODING	ENRICHMENT CLASSES
CREATIVE COMPUTING	CAMPS
GAME DEVELOPMENT	EVENTS & PARTIES
ROBOTICS	
ANIMATION	COACHING
GRAPHICS	CONSULTING
ELECTRONICS	TEACHER TRAINING
FIRST LEGO LEAGUE	
MINECRAFT:EDUCATION	COURSE CUSTOMIZATION

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Augmented Reality ** (CDAR)   Grade 3 to 8
Recommended Course Duration: 8 to 15 hours

Augmented Reality (AR) overlays virtual information on top of a real environment. Students will learn about AR technology and how to use the webcam to build interactive experiences that blend the real and virtual world. They will build interactive AR games using motion recognition, physics, and special effects.

Drone Programming (RBDP)   Grade 3 and 8
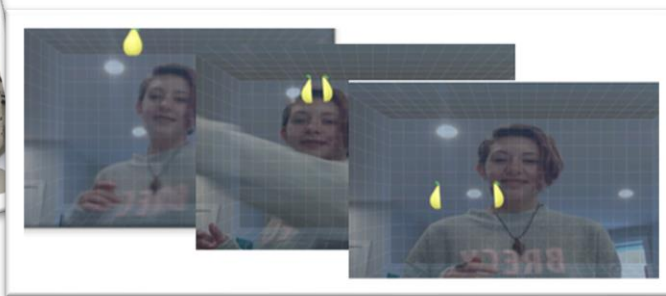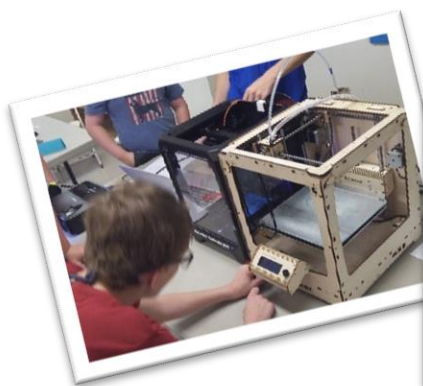*Recommended Course Duration: 8 to 15 hours*

Be inspired by drones! See your code take flight as you program the drones to perform stunts in the air. Conduct simulations on the software, and then try the program on the real thing. Students will be performing "skywriting", taking "selfies/dronies", going through obstacle courses, and designing a screen to control the drone. This course will also discuss what defines a drone, their everyday uses, and the science of how the mini-drones work.

3D Modeling & 3D Printing ** (GP3M)   Grade 3 to 8
Recommended Course Duration: 8 to 15 hours   *Internet Access required*

Want to learn about 3D modeling and 3D printing? Using a 3D modeling software, students learn to design 3D models by selecting, dragging, placing, combining and manipulating the basic shapes such as name plates, keychains, vases, model cars, castles etc. Students will also learn to create more intricate designs by downloading and modifying ready-made 3D models. 3D printing topics will be discussed.

All About Computers (CSAC)   Grade 3 to 8
Recommended Course Duration: 8 to 15 hours

Build a computer. Students learn how a computer works by assembling a computer and learn to code art, games and music. In addition to learning about computer hardware and software, students will practice the popular design thinking framework and create their own fictional software business.

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CYBER ROBOTICS

Virtual Robotics Adventures ** (CRVA)   Grade 3 to 5
*Recommended Course Duration: 8 to 15 hours   *Internet access required*
Introduces basics concepts of robotics and programming through gamified missions to develop students' creativity, problem solving and computational thinking. Students program a virtual robot to navigate simulated locations such as such as Frozen Island, Lost City, Candy Town, and more. Topics that are covered include navigation, turning and angles; math, loops and various skills related to programming robots.
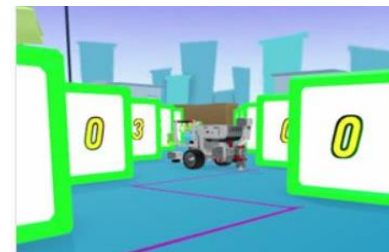
Cyber Robotics 101 ** (CR01)   Grade 5 to 8
*Recommended Course Duration: 10 to 15 hours   *Internet access required*
Learn core concepts of code development and robotics through online simulation, visual code editor and embedded contents. Students will learn the mechanics of robot navigation; touch, gyro, ultrasonic and color sensors; and more, while being introduced to programming components like commands, variables, conditional logic, loops, and Blockly.

Cyber Robotics 102 ** (CR02)   Grade 5 to 8
*Recommended Course Duration: 10 to 15 hours   *Internet access required*
Prereq: Cyber Robotics 101
Students will work in a virtual environment that accurately mimics real-life physics, on challenges that simulates situations, cases and reactions. Introduces autonomous systems, teaches scanning and mapping the environment, error correction methods and diffrerent system control algorithm. By the end of the course, students will understand the physics forces acting on robots, and be capable of programming a robot that can interact with different changing environments.
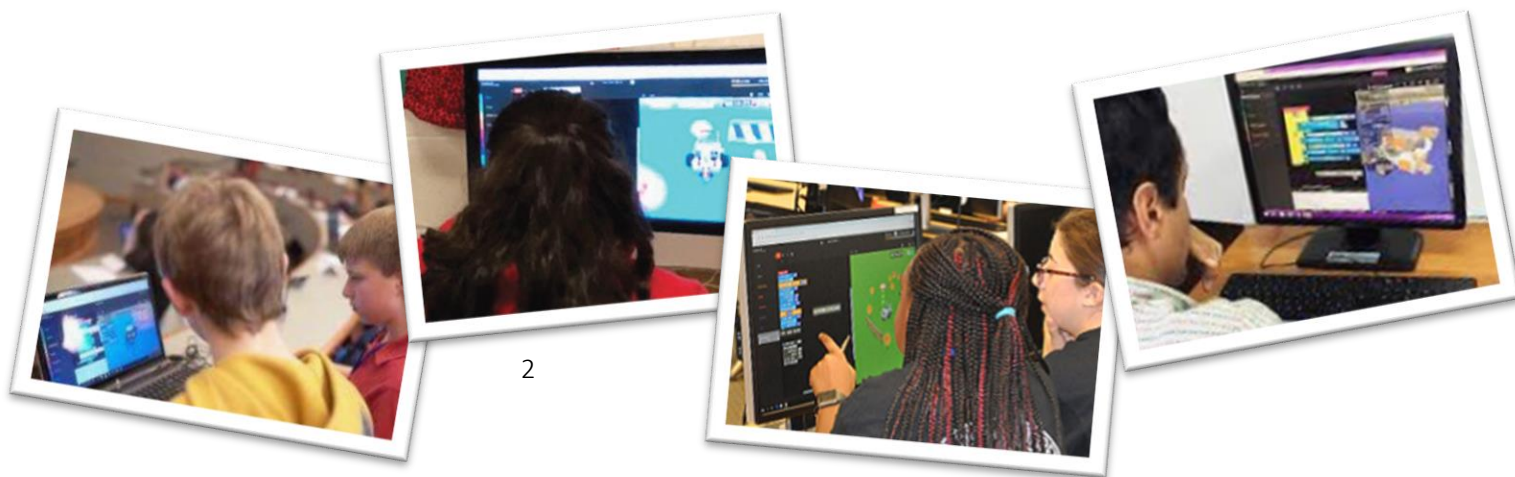
Python Gym ** (CRPG)   Grade 9 to 12
*Recommended Course Duration: 10 to 15 hours   *Internet access requiredTeaches*
Python programming language within a simulated robot and a physically accurate virtual environment. Students solve different missions from basic programming robotic tasks to more challenging concepts such as sensors, power and acceleration, encoders, stabilization, and more.

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ROBOTICS

Robotics Exploration (RBEX)   Grade K to 1
Recommended Course Duration: 8 to 16 hours

Introduce young children to the building and programming of robots. Students build models and then use an easy programming environment to bring them to life. This course emphasizes active, hands-on, and collaborative learning, while enhancing the students' skills in science, technology, engineering and math (STEM).

WeDo Robotics (RBWD)   Grade 1 to 3
Recommended Course Duration: 8 to 16 hours

Exciting introduction to robotics through building models and using a computer to program the models' behavior. Students will build LEGO® models incorporating hubs, motors and sensors. Our models include dancing birds, smart spinner, drumming monkey, roaring lion, hungry alligator, goal keeper, airplane, sailboat and more. Students will learn about simple engineering concepts such as pulleys, belts, gears and levers, while having a blast.

Junior Robotics (RBJR)   Grade 1 to 3
Recommended Course Duration: 8 to 16 hours

Students work with programmable smart hubs, motors, sensors and various LEGO® bricks to build and program models such as helicopters, trucks, gorillas, frogs, dolphins, caterpillars and more. This course offers hands-on activities that ignite students' curiosity while enhancing their skills in science, technology, engineering and coding.

FIRST LEGO League Jr® (FLLJ)   Grade 2 to 5
Recommended Course Duration: 10 to 18 hours

Explore real-world scientific challenges and introduce coding and robot building principles. Participants develop teamwork and collaboration skills and learn how STEM interacts with our world. Each team will culminate in a team presentation at a FLL Jr Expo to showcase their invention and what they have learned. This course will conclude after one Expo event. This course does not include administrative and financial responsibilities such as team registration, robot set purchase, facility to meet, transportation, etc.

Robotics Engineering NXT (RBNX)   Grade 3 to 9
Recommended Course Duration: 8 to 16 hours

Learning about robotics engages students' natural curiosity and helps develop confidence. Their code come to life in ways they can see, hear, touch and even chase across the room! As students build and program their robots to navigate obstacle courses or wrestle in a Sumo battle, they are learning about programming concepts such as flow charts, repeat loops, conditional loops, sensors and more.

Robotics Engineering EV3 (RBEV)   Grade 3 to 9
Recommended Course Duration: 8 to 16 hours

This course offer hands-on, cross-curricular STEM solution that engages students by providing the resources to design, build and program their creations while helping them develop essential skills such as critical thinking, collaboration, and communication. Start with an all-terain robot with interchangeable tools, and then move on to a robot that slithers and strikes.

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GAME DEVELOPMENT

Microsoft® Kodu Game Lab (GPKD) — Grade 3 to 8
Recommended Course Duration: 8 to 16 hours

Microsoft's Kodu gives users control of a powerful programming tool 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 construct their solutions.

Game Creation - Arcade (GDAR) — Grade 3 to 8
Recommended Course Duration: 8 to 16 hours

Create your own customized arcade-style with game elements such as the player, enemies, bonuses, levels, lives, and program object movements. You can be as creative as you want as you decide on the theme, characteristics of the player and enemy, design of game levels, health point, number of lives etc. In addition to having fun and gaining a sense of accomplishment, you will learn about programming logical functions such as conditionals, control structures, variable, syntax and more.
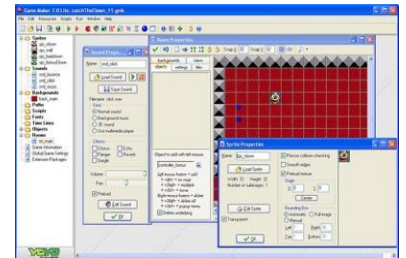
Intermediate Game Maker – Platform (GDPF) — Grade 3 to 8
Recommended Course Duration: 8 to 16 hours   Experience with Gamemaker software

Learn the foundation of platform games like the Super Mario or Maple Story. The player will jump between suspended platforms, over obstacles or both to advance the game; and to collect bonuses. This course will teach how to implement a side scrolling game with gravity, drawbridges, platforms, levels, effects and more. You will learn how to further your game design skills, as well as reinforcing your knowledge of programming logic.
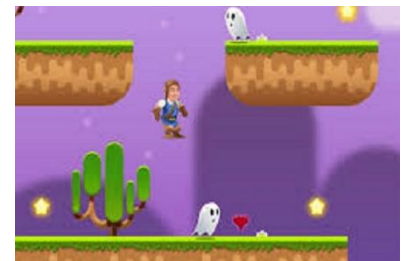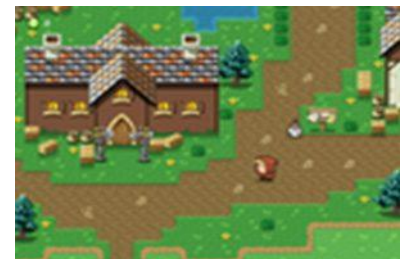
Advanced Game Maker - RPG (GDRP) — Grade 4 to 8
Recommended Course Duration: 10 to 20 hours   Experience with Gamemaker software

Students will design a role playing game (RPG), where player assumes the role of a character. The setting is a fantasy world consisting of a town, forests, dungeons and castles. The player will act out quests through a process of decision making. Students will learn some advanced game design skills such as narratives, enemy behavior and special effects, while expanding their creativity, and technical knowledge to create games of larger scale.

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ANIMATION

Lego Brickfilms (ANBF)   Grade 2 to 5
Recommended Course Duration: 8 to 16 hours

Lights…Camera…Action! Students' dreams of having their favorite LEGO® characters come to life become a reality in this movie making class. Using stop-action 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 effects and teamwork. This is a fun course to take with a friend.

Stopmotion Studio (ANSS)   Grade 3 to 9
Recommended Course Duration: 10 to 16 hours

Stopmotion animation can bring many exciting topics to life: art, story-telling, music videos, science, and more. In addition to learning software skills such as overlay, grid, frame positioning, green screen and other movie effects, students will work with DIY animation material such as clay, toys, felt, paper and everyday objects. This course provides a fun way of providing insight into the animation process. This is a fun course to take with a friend.

Cartoon Animation ** (ANCA)   Grade 4 to 12
Recommended Course Duration: 10 to 16 hours

Bring your imagination to life through cartoons in the style of Nickelodeon or Cartoon Network. Using an intuitive 2D animation software, you will work with drawing tools, bone-rigging system, animation timeline, sound and special effects. This course is a fun and exciting way to introduce students to professional animated cartoon-making.

ELECTRONICS

Electronic Gadgets & Gizmos (ELGG)   Grade 3 to 8
Recommended Course Duration: 8 to 16 hours

Students learn the art of innovation through hands-on activities which foster creativity and problem solving. Build and play with electronic components such as motors, lights, switches, servos and buzzers. Connect them together to invent a remote control racecar, build an automatic bubble blowing device, make a bumper ball game and more. Unleash your inner inventor!


Snap Circuits - Arcade (ELSC)   Grade 4 to 9
Recommended Course Duration: 8 to 16 hours

Students use building pieces with snaps, a programmable word fan, a tri-color light orb, a dual LED display, and a microcontroller, to assemble different electronic circuits on a "base grid" that functions like printed circuit board found in electronic products. Learn the basics of electricity, engineering and circuitry while creating fun interactive games that emulate memory game, card game, racing games and more.

** Online classes are available in addition to in-person classes   (9/15/2020)   6
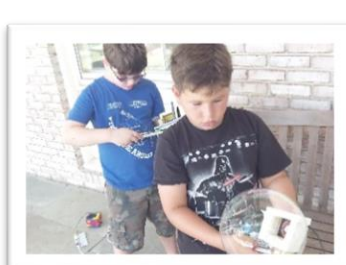
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MINECRAFT

Minecraft® Survival Quest ** (MCSQ) Grade 3 to 8
Recommended Course Duration: 8 to 16 hours

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 learn about navigation and 3D coordinates. They learn about processing their resources, such as smelting ore to create metal. This game gives them a basic understanding of how things work, and help them analyze the different components of survival and settlement. They will practice creative thinking, problem solving, teamwork and collaboration. Concepts such as networks, servers and clients will be discussed.

Minecraft® Building Wonders ** (MCBW) Grade 3 to 8
Recommended Course Duration: 8 to 16 hours

This course will provide building tips and tricks to build fancy, realistic-looking stuctures in Minecraft. Students will be replicating real-world structures by applying math to calculate the size of the structure; science to understand the materials; creativity for aesthetic considerations. and more. The students' cumulating project will be designing, constructing and presenting their own awesome structures in Minecraft.

Minecraft® Machine Marvels ** (MCMM) Grade 3 to 8
Recommended Course Duration: 8 to 16 hours

Create Minecraft contraptions with items such as red stones, pistons, pressure-plates, levers, buttons, tripwire, lava, dispenser, TNT and more. Learn how to build logic gates and simple machines. All students' contraptions will be will be connected to build an entertaining system such as the "Rube Goldberg" machine.

Minecraft® Mini Games Invention ** (MCMG) Grade 3 to 8
Recommended Course Duration: 8 to 16 hours

Students create interactive mini-games in Minecraft. Instructor will guide students in creating simple games, and move on to more complex games. The rules of the games will be analyzed, broken down to functions, and then translated into the Minecraft world. Students will design, plan, build, test, evaluate/redesign and deploy the mini-games.

Minecraft® Code Builder ** (MCCB) Grade 4 to 9
Recommended Course Duration: 10 to 20 hours   *Internet access required*

This course uses Minecraft to learn about computer science concepts. Whether the students are new to Minecraft or have been playing for years, they will learn to apply important programming skills and watch their coding creations come to life in Minecraft.

Minecraft® Modding with Java (MCMD) Grade 4 to 9
Recommended Course Duration: 10 to 20 hours
Prereq: Experience with Minecraft

Learn Java programming with Minecraft! You will design and program your own Minecraft mods such as swords, tools, blocks, food, biomes, achievements, and mobs. For every item, block or creature, you design the graphics, then modify the Java code to program their new features. Learn the fundamentals of object-oriented programming such as object instantiation, call methods, parameter definitions, and run loops.

MINECRAFT : EDUCATION

Minecraft: Education is a game-based learning platform that promotes creativity, collaboration, and problem-solving in an immersive digital environment. Our courses consist of project-based lessons with interesting themes that bring to life academic subjects such as Math, Language Arts, Science, Social Science, Art & Design and Computer Science.

Minecraft & Math ** (MCMA)   Grade 3 and 8
*Recommended Course Duration: 8 to 30 hours   *Internet access required*

This course provides engaging and fun Minecraft activities that are aligned with Mathematics Common Core State Standards. The standards are operations & algebraic thinking; numbers & operations in base ten & fractions; measurement & data; and geometry. Our course will cover themes such as City Planning, Decimal Dungeon, Fraction Farm, Number Pattern Architecture, Math Gladiators, Survival Olympics and more. Instructors will select one or more topics during each session. *Students may take this course multiple times because different themes and projects will be introduced.

Minecraft & Science ** (MCSC)   Grade 3 and 8
*Recommended Course Duration: 8 to 30 hours   *Internet access required*

Whether your are a Science buff or not, you will love our Science activities in Minecraft. Instructors will select one or more themes during each session. Some sample Science topics are the scientific method; chemistry; biodiversity; international space station; rockets; renewable energy; volcano; all about bees and more. *Students may take this course multiple times because different themes and projects will be introduced.

Minecraft & Language Arts ** MCLA)   Grade 3 and 8
*Recommended Course Duration: 8 to 30 hours   *Internet access required*

Minecraft is used to create immersive and engaging educational experiences in Language Arts. Explore the connection between creative writing and creative gaming. Instructors will select one or more themes during each session. Some sample topics are: narrative writing inspired by Minecraft creation; dialogue practice to enhance stories; instructional writing of Minecraft processes; playful stories, weird poetry & strange art presentations; observation from different perspectives and more. *Students may take this course multiple times because different themes will be introduced.

Minecraft & Social Science ** (MCSS)   Grade 3 and 8
*Recommended Course Duration: 8 to 30 hours   *Internet access required*

Minecraft engages students' creativity, collaboration, and communication skills through interesting Social Studies topics. Instructors will select one or more themes during each session.
Some sample Social Studies topics are making a timeline of famous people; researching and replicating ancient civilization such as Mesopotamian; Indus; Egyptian; Mayan; Chinese; Greek, Persian; Roman; Aztec and Incan; discovering and recreating landmarks, monuments, cities; natural wonders etc. *Students may take this course multiple times because different themes and projects will be introduced.

Minecraft & Art/Design ** (MCAD)   Grade 3 and 8
*Recommended Course Duration: 8 to 30 hours   *Internet access required*

Minecraft can bring the Arts curriculum alive! Minecraft features such as using the camera to capture screenshots and selfies; , programming NPCs (non-player characters) for fun interactions and communication; portfolio to document creations; , structure blocks to capture and export to 3D files and more. Apply an understanding of elements of art and principles of design; learn about patterns and motifs; pixel selfies;building archiecture and more. *Students may take this course multiple times because different themes and projects will be introduced.

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MINECRAFT : EDUCATION

Minecraft & Computer Science ** MCCS)   **Grade 3 and 8**
Recommended Course Duration: 8 to 30 hours   *Internet access required*

This course uses Minecraft to learn about computer science concepts. Whether the students are new to Minecraft or have been playing for years, they will learn to apply important programming skills, and watch their coding creations come to life in Minecraft with Microsoft Make Code software. The lessons aim at showcasing the coding journey from learning about algorithms, sequencing and loops to conditionals, operators, events, variables and functions. *Students may repeat this course because different themes and projects will be introduced.
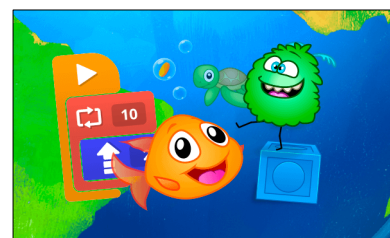
COMPUTER CODING CLUB

These courses introduce programming fundamentals through grade-specific curriculum which allow students to move at their own pace. Students learn programming concepts through visual programming or block coding in a game-like interface. They will be having so much fun, that they will not realize that they are learning coding.

Computer Coding A **(C00A)   **Grade PreK to 1**
Recommended Course Duration: 8 to 12 hours

Topics include: Sequencing; Flexible Sequencing; Repetition; Conditional Loops; Debugging; Pattern Recognition; Conditional Logic.

Computer Coding 1A **(C01A)   **Grade 1 to 3**
Recommended Course Duration: 8 to 20 hours

Topics include: Sequencing; Repetition; Conditional Logic; Automation; Pattern recognition, Keyboard & Mouse Events; Playing Sounds; Simple motion animation.

Computer Coding 101 **(C101)   **Grade 3 to 5**
Recommended Course Duration: 8 to 20 hours

Topics include: Sequencing; Repetition; Events; Conditional Logic; Animation; Drawing Shapes & Patterns; Playing Musical Notes; Sending & Receiving messages; Handling User Input; Color Detection; Actor Layering; Advanced Events; Math Operators.

Computer Coding 201 **(C201)   **Grade 5 to 7**
Recommended Course Duration: 8 to 20 hours

Topics include: Sequencing; Pattern recognition; Loops; Conditional logic; Keyboard controls; Motion; Broadcasting; Geometric patterns; Angles; Projectile physics; Physics Engine; Gravity; Collisions; Impulse; Velocity; Force; Timers; Special Effects.

Computer Coding 301 **(C301)   **Grade 7 to 9**
Recommended Course Duration: 8 to 20 hours   *Internet access required*

Topics include: Events; Keyboard and mouse interaction; Conditional loops; Nested loops; Fluid Motion; Parallax scrolling; Local & Global variables; Functions; Object Cloning; Parameters; Functions; Advanced conditional logic; Math Boolean operators.

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COMPUTER PROGRAMMING

Learn to Code with ScratchJr ** (CPSJ)   Grade 1 to 3
Recommended Course Duration: 8 to 16 hours

ScratchJr was designed for younger children as a precursor to other programming languages. Students use programming blocks to bring their characters to life by controlling how their characters look and move and adding sounds and images. They learn to think sequentially, practise problem-solving skills, explore cause and effect, while having fun!

Making Games from Scratch ** (CPS3)   Grade 3 to 8
Recommended Course Duration: 8 to 16 hours

Calling all creative gamers! You will learn how to code your own games with Scratch3. Create mazes, road-crossing games, and two-player games that keep score; add cool animations and sound effects. You'll have hours of fun catching snowflakes, gobbling up tacos, and dodging donuts in space - while learning how to code along the way!

App Inventor 101 ** (CPAI)   Grade 4 to 9
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

Want to make mobile apps? Learn how to build apps for Android devices. The software transforms the complex language of text-based coding into visual, drag-and-drop building blocks. This course will progress through building increasingly complex apps. Students will learn how to build apps, as well as programming concepts and terminology.

Python 101 ** (CPPT)   Grade 5 to 12
*Recommended Course Duration: 12 to 20 hours   *Internet access required*

Python has a gentle learning curve, but is a serious language that is used by professional programmers. Complete engaging lessons, solve challenging puzzles, and create interesting programs. This class will cover Python syntax, sequencing, repetition, conditional logic, nested loops, automation, pattern recognition, operators, expressions, variables, Turtle graphics and using arrays and objects to store structured data.

HTML & CSS 101 ** (CPHC)   Grade 5 to 12
*Recommended Course Duration: 12 to 20 hours   *Internet access required*

Students will be introduced to web page development using HTML and CSS. As students work on hands-on practical projects, programming challenges, and assessment quizzes, they learn about paragraphs, lists, tables, inserting images, audio and video, hyperlinking and more. Students who completed this course will be to create their own web sites.

JavaScript 101 ** (CPJS)   Grade 6 to 12
*Recommended Course Duration: 12 to 20 hours   *Internet access required*

Students will be introduced to JavaScript as they complete engaging lessons, solve challenging puzzles, and build their own games. Students who successfully complete this course will demonstrate a strong mastery of JavaScript syntax, as well as the ability to program games and other projects, and debug their own code. Students will also be able take the game design implementation process and creating custom versions of many of their favorite games in JavaScript.

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<div style="background:orange"><center>CREATIVE COMPUTING</center></div>

Creative computing is a type of computer programming in which the goal is to create something expressive. Our courses are collections of fun programming projects that demonstrate the application of coding to school subject topics such as Earth Science, English, Life, Math, Physical Science and Social Studies for Grades 3 through 8. Each lesson walks students through how to make a project about some contents of an academic class with step-by-step instructions. At each step, the course encourages them to make their project unique and interesting, emphasizing that coding is a creative medium much like writing or drawing. Students will practice their computational skills, and understand and remember the academic course material.

*Students may repeat this course because different projects will be introduced.

Coding for Earth Science 101 **(CES1)   Grade 3 to 5
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson about planets, the instructor assigns the Solar System project. Students use coding to animate the movement of the Solar System, and research to provide additional information about each planet. There are many more different lessons in each session.

Coding for English 101 **(CEG1)   Grade 3 to 5
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson on figurative language, the instructor will assign the Metaphors and Similes project. Students will use coding to create a fun game where the player needs to decide if a statement is a metaphor or simile. There are many more different lessons in each session.
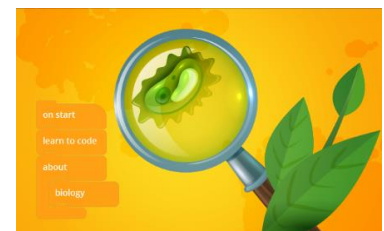
Coding for Life Science 101 **(CLS1)   Grade 3 to 5
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, for a lesson on food chains, the instructor assigns the Ecological Pyramid project. Students choose an ecosystem ,and use coding and research to create a unique interactive ecological pyramid. There are many more different lessons in each session.

Coding for Math 101 **(CMA1)   Grade 3 to 5
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson on multiplication, the instructor assigns the Multiplication Escape project. Students will use coding to create a fun game where the player has to quickly answer multiplication questions to move forward and escape falling rocks. There are many more different lessons in each session.
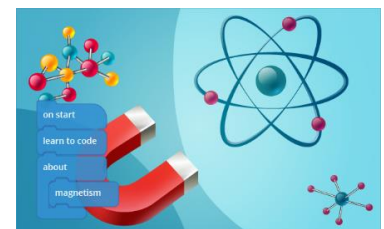
Coding for Physical Science 101 **(CPS1)   Grade 3 to 5
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson on magnetism, the instructor assigns the "What Do Magnets Attract?" project. Your students will draw their own items and use coding and outside research to show which ones are magnetic.There are many more different lessons in each session.

Coding for Social Studies 101 **(CSS1)   Grade 3 to 5
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson on how the continents have moved throughout history, the instructor will assign the Pangea project. Students will use coding to animate Pangea breaking up into present-day continents and do research to provide additional information about how continental drift has influenced modern geography and ecosystems.

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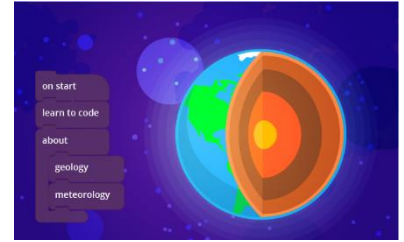Course Catalog 2020 - 21

CREATIVE COMPUTING

Coding for Earth Science 201 **(CES2)   Grade 6 to 8
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson on the structure of the Earth, you can assign the Earth's Composition project. Your students will use coding and research to create an interactive diagram about the layers of the Earth. There are many more different lessons in each session.

Coding for English 201 **(CEG2)   Grade 6 to 8
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson on parts of speech, the instructor assigns the Parts of Speech Sorting project. Students use coding to create a fun game where the player needs to sort words into bins based on their part of speech. There are many more different lessons in each session.
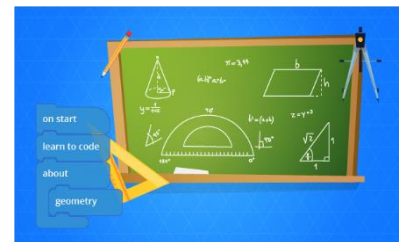
Coding for Math 201 **(CMA2)   Grade 6 to 8
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson on probability, you can assign the Dice Rolls project. Students will use coding to create a simulation of dice being rolled, then explore the probability of different outcomes by programmatically rolling a die hundreds or thousands of times. There are many more different lessons in each session.
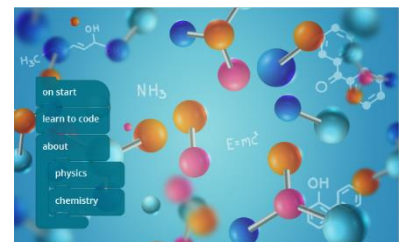
Coding for Physical Science 201 **(CPS2)   Grade 6 to 8
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson on Newton's laws of motion, the instructor will assign Newton's Third Law project. Students will use coding and esearch to animate a scene that involves Newton's third law, such as a collision, and show how Newton's laws apply. There are many more different lessons in each session.

Coding for Life Science 201 **(CLS2)   Grade 6 to 8
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson on cell division, the instructor will use the Mitosis and Meiosis project. Students will draw their own animations and use coding and research to demonstrate mitosis and meiosis, while comparing and contrasting the two processes. There are many more different lessons in each session.

Coding for Social Studies 201 **(CSS2)   Grade 6 to 8
*Recommended Course Duration: 8 to 20 hours   *Internet access required*

For example, to teach a lesson on ancient history, the instructor assigns the Ancient Civilizations project. Students use coding to create an interactive timeline of ancient civilizations and do research to provide additional information about each time period. There are many more different lessons in each session.

COMPUTER ADVENTURES

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EVENTS & PARTIES

Our parties and events provide a great time for the kids and easy for organizers. The parties include ninety minutes to two hours of instruction and play for children 7 through 14. We will supply all the equipment needed for the activities, such as laptops, Minecraft sever, 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.

Our uniquely talented instructors know exactly what to do to ensure your guests receive the skills they need while having a fantastic time. Not only will your guests leave with a smile on their faces, but also with a load of new knowledge in their brains.

Robot Battle Party (EVRB)   Ages 6 to 14

Recommended Duration: 1.5 to 3 hours

Invite Computer Adventures and we will show up with all of our LEGO® Mindstorms NXT robot pals! During the party, you and your friends will program and customize your robots to battle head to head on our Sumo Battle board.

CAUTION: Robot battles can be exciting and inspiring. Be prepared for an extraordinary amount of screaming and laughter!

For children 6 & 7 years old, 90-minute party is recommended.

For children younger than 5 years old, an adult/teenage assistant is needed for each child.

LEGO Brickfilms Party (EVBF)   Ages 7 to 14

Recommended Duration: 2 to 3 hours

Lights…Camera…Action! This party/event will have the kids' LEGO® characters come to life. Using stop-motion animation and digital editing, students produce LEGO® brickfilms much like the ones viewed on YouTube. At the end of the party, we will have a "Movie Premiere" showing off all the movies that the children made. The host will get an Internet link to download kids' movies.

CAUTION: The next young "Steven Spielberg" or "George Lucas" may be in our midst!

For children younger than 7 years old, an adult/teenage assistance is recommended for each child.

Minecraft Adventures Party ** (EVMC)   Ages 8 to 14

Recommended Duration: 1.5 to 3 hours

You and your friends will work together to create a Minecraft Adventure Map! Our instructor will guide you with a story theme and the map creation process. When the map is done, you will play with your Minecraft creation. We will provide a server, router, projector, and every child with a laptop, which is connected through our local network without access to the Internet. It's safe, fun, and exciting!