

**“THE COMBINATION
OF ENGINEERING
AND BUILDING
PRINCIPLES PLUS
A TOUCH OF
MINECRAFT
WAS PERFECT!”**

- SUSAN D.



TECHNOLOGY CAMPS

BOYS & GIRLS, GRADES 1-9

JOIN US FOR A TECH-SAVVY SUMMER

Choose from a variety of technology camps for a hands-on experience that allows for imagination, exploration and fun! There's even time for recreational games and socializing with friends each day. Our line-up of camps includes **Minecraft, Robotics, Game Design, Junior LEGO® Master Builders, Virtual Reality, Digital Video Production: YouTube & Twitch and more!**



AT A GLANCE

BOYS & GIRLS, GRADES 1-9

Campers form collaborative teams by grade level.

SESSIONS & HOURS

1-7 Week Options, June 26 – August 11
 Monday – Friday: 9am – 3pm
 Extend Your Day: 7:30am – 6pm

TUITION

\$640/week

Please see pg 34 for “Ways to Save” on Camp Tuition.

TECHNOLOGY CAMPS 2017 SCHEDULE

All listed grades refer to the grade the camper will be entering in the upcoming school year (2017-2018).

JUNE 26-30

Virtual Reality: Designing 3D WorldsGrades 5-9
 Junior LEGO® Master Builders: Star Wars Adventures –
An Intro to Engineering Grades 1-3
 Junior LEGO® Master Builders: Enchanted Castles and Princesses –
An Intro to Engineering Grades 1-3

JULY 3-7

Video Game Design: Platform and RPG Games (Intro and Intermediate)
 Wk 1 of 2, Grades 4-9
 Robotics 101.....Grades 4-9

JULY 10-14

Video Game Design: Platform and RPG Games (Intro and Intermediate)
 Wk 2 of 2, Grades 4-9
 Junior Robotics: Level 1.....Grades 2-4
 Digital Photography and Graphic Design.....Grades 4-9
 Junior LEGO® Master Builders: Super Hero City – *An Intro to Engineering*
 Grades 1-3
 Junior LEGO® Master Builders: Enchanted Castles and Princesses –
An Intro to Engineering Grades 1-3

JULY 17-21

Minecraft.....Grades 4-9
 Robotics Level 2: Intermediate and Advanced.....Grades 4-9
 Junior Robotics: Level 2Grades 2-4
 Minecraft 4 Kids: Level 1Grades 2-4

JULY 24-28

Test Pilot: Flying Drones.....Grades 5-9
 Minecraft 4 Kids: Level 2Grades 2-4
 Game Design with ROBLOX®.....Grades 4-9
 Tech Adventures: Session A – Roller Coasters and Game Design Grades 1-3
 Programming with Minecraft..... Wk 1 of 2, Grades 5-9

JULY 31-AUG 4

Digital Video Production: YouTube & TwitchGrades 5-9
 Game Adventures with LEGO® Worlds.....Grades 4-9
 Tech Adventures: Session B – Super Hero Tech and Robot Challenge
 Grades 1-3
 LEGO® Master Builders: Real World Engineering and Design with LEGO®
 Machines and Mechanisms..... Grades 4-9
 Programming with Minecraft..... Wk 2 of 2, Grades 5-9

AUG 7-11

Minecraft Missions 2017.....Grades 4-9
 Intro to Programming with Scratch Grades 3-7
 Sim City: 3D ArchitectureGrades 4-9
 Tech Adventures: Session C – Motors & Machines and
 Digital Art & Design Grades 1-3

COURSES

MINECRAFT CAMPS

MINECRAFT

1 Week, Grades 4-9

Use Minecraft to learn how to design, build and explore 3D game adventures. At camp, you'll receive instruction in adventure game design and focus on making your own game levels. You'll use your creativity and fine-tune your problem-solving skills, as you navigate the various construction challenges working with Minecraft EDU®. Work individually and in teams to maximize collaboration and decision making, as you face design challenges and build your very own Minecraft world. Basic experience with PCs and basic computer skills, such as typing, are expected. All skill levels are welcome.

MINECRAFT 4 KIDS: LEVEL 1

1 Week, Grades 2-4

Experience the wonderful world of Pocket Edition Minecraft. Build your own virtual reality in a sandbox-like environment by using iPads to challenge your mind and create your own adventures. This fun and engaging camp will spark interests, foster creativity and help you maximize your learning potential. No prior experience with Minecraft or iPads necessary. All skill levels are welcome.

MINECRAFT 4 KIDS: LEVEL 2

1 Week, Grades 2-4

This camp is designed as a follow-up program for campers who have already taken "Minecraft 4 Kids, Level 1" and are ready for new and more complex challenges. Created for those who want to discover more about the amazing game of Minecraft, campers will learn how to use the PC version of Minecraft and be provided with detailed, step-by-step instructions and best practices on how to build and develop game spaces on the PC. Basic PC skills (using a mouse and keyboard) may be covered in class, as needed.

MINECRAFT MISSIONS 2017

1 Week, Grades 4-9

Are you up for an adventure? In this multi-player environment, Minecraft will be the vehicle to help develop your leadership and social skills, as you accomplish unique missions with a team of campers.

Use your imagination and collaborate with your team to design and build a largescale Minecraft Missions project. Each summer Minecraft Missions changes it's missions and in 2017 expect the most exciting missions yet. Creativity, critical thinking and communication will be your keys to success! Previous experience with Minecraft is recommended.

PROGRAMMING WITH

MINECRAFT

2 Weeks, Grades 5-9

If you have a passion for Minecraft and computer coding, then this is the camp for you! At camp, you'll receive training in the Python program on the Raspberry Pi microcomputer. You'll utilize your programming skills to create new gameplay features and Mods in Minecraft. This camp is recommended for intermediate and advanced campers who have an interest in computer coding and are proficient in the use of both Minecraft and PCs.



YOUTH CAMPS

JUNIOR LEGO® MASTER

BUILDERS: ENCHANTED

CASTLES AND PRINCESSES -

AN INTRO TO ENGINEERING

1 Week, Grades 1-3

This camp takes you on a storybook adventure with LEGO® princesses, fairies and majestic creatures. As master

builders, you will work in a team to build amazing castles, tree houses and other medieval themed environments! In addition to building a storybook inspired LEGO® world, you and the other Master Builder campers will also explore an introduction to engineering concepts with LEGO's® Simple and Powered Machines engineering kits.

JUNIOR LEGO® MASTER

BUILDERS: STAR WARS

ADVENTURES - AN INTRO TO ENGINEERING

1 Week, Grades 1-3

Take your passion for LEGOs® and your imagination to the next level, as you work with a team to build the ultimate sci-fi masterpiece! Imagine the possibilities when you and fellow "padawans" embark on a secret mission to become intergalactic master builders. In addition to building amazing sci-fi inspired LEGO® starships, machines and vehicles, you'll also explore introductory engineering concepts with LEGO's® Simple and Powered Machines engineering kits.

JUNIOR LEGO® MASTER

BUILDERS: SUPER HERO CITY - AN INTRO TO ENGINEERING

1 Week, Grades 1-3

Mix up your favorite DC and Marvel Super Heroes in this fantastic Master Builder camp. You'll work in teams to build an exciting Super Hero city with bases, ships and machines. In addition to building a Super Hero inspired city, you'll also explore introductory engineering concepts with LEGO's® Simple and Powered Machines engineering kits.

JUNIOR ROBOTICS: LEVEL 1

1 Week, Grades 2-4

Turn camp into a robot laboratory and explore the exciting world of Robotics! Learn how to design and build a robot using LEGO® WeDo. Make your robot come to life, as you learn how to program it to perform project-oriented tasks and challenges. This camp is designed for campers who have a keen interest in robots. No prior experience with LEGO® WeDo necessary. All skill levels are welcome.

JUNIOR ROBOTICS: LEVEL 2

1 Week, Grades 2-4

This camp is designed as a secondary program for campers who have already taken "Junior Robotics, Level 1". With a focus on basic programming and more intricate engineering skills, campers will dive deeper into the world of Robotics as they work with a team to design bigger and even more imaginative, complex robots.

TECH ADVENTURES CAMPS

THESE CAMPS ARE DESIGNED TO BROADEN AND ENCOURAGE YOUNG CAMPERS' INTERESTS IN TECHNOLOGY, COMPUTING AND ENGINEERING. TECH ADVENTURE CAMPS CAN BE TAKEN INDIVIDUALLY OR AS AN ENTIRE SERIES. ATTEND ONE OR ALL!

TECH ADVENTURES: SESSION A - ROLLER COASTERS AND GAME DESIGN **1 Week, Grades 1-3**

Campers work with instructors to learn the basic engineering principles behind roller coasters. They will use K'Nex® to build models that demonstrate how roller coasters work. In the Game Design portion of camp, campers learn the basics of video game design and will design games by hand with Bloxels and tablets.

TECH ADVENTURES: SESSION B - SUPER HERO TECH AND ROBOT CHALLENGE **1 Week, Grades 1-3**

In Super Hero Tech Camp, campers will explore the use of technology and science as it relates to the production of super hero-like powers. During the Robot Challenge, campers will be provided with an introduction to robotics and will learn how to pre-program, code and operate a robot through a variety of tasks.

TECH ADVENTURES: SESSION C - MOTORS & MACHINES AND DIGITAL ART & DESIGN

1 Week, Grades 1-3

Campers work with a variety of tools to investigate simple motors and machines (gears, wheels, axles, levers and pulleys), while solving tasks related to mechanical principles and learning about energy, balance and buoyancy. In Digital Art & Design, campers will use technology devices to take photos, make simple photo edits, draw 2D art, and create fun and engaging images.



TECH ARTS CAMPS

DIGITAL PHOTOGRAPHY AND GRAPHIC DESIGN

1 Week, Grades 4-9

See the world through a new lens, as you learn how to take photographs and edit them like a pro! Explore photography techniques, learn about digital camera functionality, gain hands-on experience taking photographs and discover how to digitally enhance your images using graphic design software on a computer. No prior experience with digital cameras or graphic design is necessary. All skill levels are welcome.

DIGITAL VIDEO PRODUCTION: YOUTUBE & TWITCH

1 Week, Grades 5-9

Have you ever wondered what it takes to be a YouTuber or Twitch video producer? Learn the ins and outs of producing video content that is appropriate for display on YouTube and Twitch, such as Let's Play, package openings, pop culture reviews and interviews. Learn how to shoot and capture video, as well as write editorial copy and edit your work. Receive guidance on how to properly use copyrighted materials.

SIM CITY® AND 3D ARCHITECTURE

1 Week, Grades 4-9

Dream it. Design it. Create it! This camp will introduce you to the basics of 3D design and architecture, with a focus on designing 3D buildings and objects. Discover cutting-edge technology, as you learn and navigate Sketch Up 3D® design software. Then, work together as a team of innovators to engineer cool three-dimensional cityscapes and other objects, devices, or gadgets. No prior experience is necessary! All skill levels are welcome.

VIRTUAL REALITY: DESIGNING 3D WORLDS

1 Week, Grades 5-9

Have you ever imagined actually having the ability to walk in the shoes of your favorite character from a movie or video game? Have you ever wanted to walk on an alien planet, or fly above the clouds like a bird? With virtual reality, you can do all of this and more. In this camp, the adventurous and courageous will discover VR and dive into this amazing, immersive experience. Explore strange new worlds, learn how to navigate through virtual space and even design your own virtual objects.



ROBOTICS CAMPS

ROBOTICS 101: LEVEL 1 1 Week, Grades 4-9

Explore the exciting world of Robotics! Working in small teams, learn how to design and build a robot using LEGO® MINDSTORMS®. Program your robot to perform project-oriented tasks and challenges. For novices, start with the basics of construction and programming. For the more experienced, develop sophisticated programming and engineering skills. No prior experience with LEGO® Mindstorms necessary. All skill levels are welcome.

ROBOTICS LEVEL 2: INTERMEDIATE AND ADVANCED 1 Week, Grades 4-9

In Robotics Level 2, campers will work on more complex robot tasks and refine their engineering and programming skills. Daily challenges will focus campers to build projects that will compete against other camper projects. Campers are expected to work in small teams to complete projects. Previous experience working with LEGO MINDSTORMS® is expected.

GAME DESIGN CAMPS

GAME ADVENTURES WITH LEGO® WORLDS 1 Week, Grades 4-9

Are you interested in building amazing game worlds? Are you a LEGO® fan? If so, then this is the perfect camp for you. Get ready to explore game and level design while using the amazing LEGO® Worlds software to build your adventure. LEGO® Worlds enables you to design your game with many unique and wonderful characters, models, and drivable vehicles that can then be played out in your own personalized adventure.

GAME DESIGN WITH ROBLOX® 1 Week, Grades 4-9

Take your video game and level designs to the next level. ROBLOX® is a gaming platform where campers can produce an infinite variety of highly immersive experiences. In this camp, your game design is only limited by

your imagination. With ROBLOX® as your game engine, you can create 3D multiplayer competitions, interactive adventures, car racing scenarios and many other types of game experiences.

VIDEO GAME DESIGN: PLATFORM AND RPG GAMES (INTRO AND INTERMEDIATE) 2 Weeks, Grades 4-9

Calling all future game developers! Bring your video game ideas to life, as you learn the ins and outs of how video games are designed and produced during this two week program. During week one, learn how to use a number of software design tools to create Mario-like, platform-style video games. In the second week, work with RPG Maker® software to design and build complex role playing game worlds. Highlights include informational lectures, as well as the use of a hands-on game design lab where campers design, customize, construct and test their creations. Campers are encouraged to take this camp multiple times.

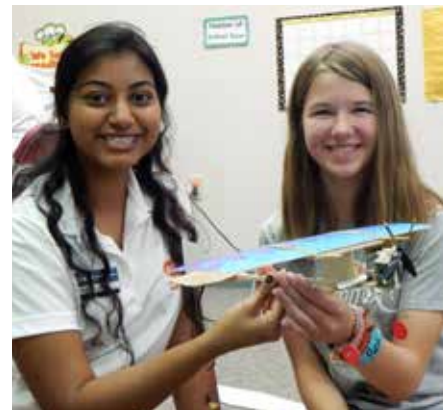
ENGINEERING CAMPS

LEGO® MASTER BUILDERS: REAL WORLD ENGINEERING AND DESIGN WITH LEGO® MACHINES & MECHANISMS 1 Week, Grades 4-9

Have you ever wondered what it would be like to be an engineer and use technology to solve real world problems? In this hands-on camp, you will work on experiments and build machines, pneumatics devices, and renewable energy applications. You and your team will be given real life issues to solve while tapping into your engineering skills in order to find a solution to these problems. You will explore renewable energy through real-life models; investigate energy supply, transfer, accumulation, conversion and consumption; build and explore pneumatics; investigate power systems and components; explore kinetic and potential energy, and more. As the week progresses, you will gain more engineering knowledge and develop the skills to build more complex mechanisms and solutions. No prior experience is necessary! All skill levels are welcome.

TEST PILOT: FLYING DRONES 1 Week, Grades 5-9

Do you like drones? Do you dream of learning how to fly them? If you answered yes, then this camp is for you. This camp will teach you how drones rise off the earth and fly through the sky, while gaining an understanding of the principles of lift, thrust and control. The focus is on the science and technology behind flight using drones. Projects will provide you with a firsthand experience in building and flying your own aerodynamic objects.



CODING CAMP

INTRO TO PROGRAMMING WITH SCRATCH 1 Week, Grades 3-7

Our Scratch coding camp provides campers with the ultimate introduction to programming. Using Scratch, an educational application created by the MIT Media Lab, campers will learn the basics of software development in a sophisticated, yet easy to learn environment. Campers will learn basic software development techniques and use drag and drop tools to design and program projects. No prior experience necessary. All skill levels are welcome.

