



# SUMMER IS HERE!

(Empowering the Next Generation of Innovators)

zaniac™

Summer Camps

June 3<sup>rd</sup> – August 30<sup>th</sup>



# THE SUMMER CAMP YOU WISH YOU HAD WHEN YOU WERE A KID.

Enter Zaniac's STEAM lab for kids.

Zaniac's 2019 Summer Labs are full of surprises and are ideal for children of all mastery levels. This summer we have designed our camps as Labs; for children to research, explore, experiment, problem solve and create. They have also been designed to fit varied students' skill and experience levels, in order for everyone to learn, advance and be challenged. Our 2019 Summer Labs for Apprentice students are for those who have none or little experience in STEAM, and our Master Labs are for students who have intermediate or advance experience in STEAM.

**Go on a Science, Technology, Engineering, Art & Math Adventure with us and explore our NEW Summer Labs!**

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IS HERE!**

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K-8 STEAM After-School Programs & Camps

# Camp Dates

June 3<sup>rd</sup> – August 30<sup>th</sup>

## About our Labs

**Coders** go from beginner to expert programmers with our progression of coding Labs.

**Explorers** make new discoveries in the Game-Based Learning Minecraft; Biosphere Explorers, Space Adventurers, Urban Adventurer, City Rescue Squad, Redstone, Newton's World Labs.

**Engineers** engage in Ignite, Battle, Olympic, Marine, Green and Bio Bots Labs, and continue exploring space with Drones and Aeronautical Labs and electricity with Circuits and Tinker & Code.

**Designers** get challenged with Music, Costume Design, 3D Game Design, 3D Maker, and 3D Engineering Design Labs.

**Scholars** will benefit from our math/reading curriculum and entrepreneurial programs. Students will engage in creative, conceptual problem solving in a fun environment.



Minecraft

Battle Bots

Bio Bots

Drones

Music

3D Maker

3D  
Engineering

Coding

### ● Grades Pre-K - K

Popular Camps for this age group include Robotics Apprentice Lab, Minecraft Apprentice Lab, Circuits Lab, Mechanics in Motion Lab, STEAM Quest Lab, Math and Coding Apprentice Lab.

### ▲ Grades 1 - 4

Popular Camps include Robotics Apprentice and Master Lab, Minecraft Apprentice and Master Lab, Circuits Lab, Mechanics in Motion Lab, Costume Design, Coding Apprentice Lab, App Creation, Web Maker Apprentice, 3D Maker Lab, Music Lab, Drones, Math, Reading and STEAM Quest Lab

### ■ Grades 5 - 8

Popular Camps include all levels of the Minecraft, Robotics and Coding Labs, Music Lab, Drones, Aeronautical Lab, Tinker and Code, Math and 3D Game Design, Math & Young Entrepreneurs Lab.

### Program Selection:

- Half-Day Campers choose 1 program in your selected session (am or pm)
- Full-Day Campers choose 1 morning and 1 afternoon program

### Camp Details Full-Day Weekly Camps

Hours: 9 am - 4 pm  
Tuition per Student **\$888**  
(July 4<sup>th</sup> week **\$708**)

### Half-Day Weekly Camps

Hours: 9 am - 12 pm or 1 pm - 4pm  
Tuition per Student **\$498**  
(July 4<sup>th</sup> week **\$398**)

Notes: Nut Free Campus. No food provided. Full Day Campers are welcome to bring a sack lunch and Half Day Campers snacks.

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## Campus Information

### Zaniac Greenwich

644 West Putnam Ave. (Suite 201)  
Greenwich, CT 06830  
203.918.9264  
greenwich@zaniaclearning.com  
www.zaniaclearning.com/greenwich

### Summer Hours

June 3 – August 30  
Mon – Fri: 9 am – 4 pm  
Saturday and Sunday open  
for Birthday parties

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# Campus Schedule

June 3<sup>rd</sup> – August 30<sup>th</sup>

Register for one camp per am/pm session.


● Pre-K - K

▲ 1 - 4

■ 5 - 8

Shape & color signifies grade availability

	Jun 3 - Jun 7		Jun 10 - 14		Jun 17 - 21		
	9:00 AM - 12:00 PM		9:00 AM - 12:00 PM		9:00 AM - 12:00 PM		
	● Galaxy Engineering Lab ▲ Coding Apprentice Lab ■ Minecraft Newton's World Lab		● STEAM Quest Apprentice Lab ▲ Web Maker Apprentice Lab ■ Drones Lab: Engineering Takes Flight		● Ancient Egypt Engineering Lab ▲ Minecraft Biosphere Explores Lab ■ Python Coder Lab		
	1:00 PM - 4:00 PM		1:00 PM - 4:00 PM		1:00 PM - 4:00 PM		
	● STEAM Quest Apprentice Lab ▲ Green Bots Lab ■ Music Lab		● Environmental Engineering Lab ▲ Minecraft Space Adventures Lab ■ Mega Bots Battle		● STEAM Quest Apprentice Lab ▲ App Maker Lab ■ Tinker & Code Lab		
Jun 24 - 28		Jul 1 - 5 (4 days)		Jul 8 - 12		Jul 15 - 19	
9:00 AM - 12:00 PM		9:00 AM - 12:00 PM		9:00 AM - 12:00 PM		9:00 AM - 12:00 PM	
● Mechanics in Motion Lab ▲ Minecraft Space Adventure Lab ■ Photoshop Lab		● Wonder Lab ▲ Olympic Bots Lab ■ Minecraft Newton's World Lab		● LEGO Adventure Lab ▲ Minecraft Urban Adventures Lab ■ Drones Lab: Engineering Takes Flight		● STEAM Quest Apprentice Lab ▲ Biology Bots Lab ■ 3D Game Design Lab	
1:00 PM - 4:00 PM		1:00 PM - 4:00 PM		1:00 PM - 4:00 PM		1:00 PM - 4:00 PM	
● Wonder Lab ▲ Battle Bots Lab ■ Young Entrepreneurs		● STEAM Quest Apprentice Lab ▲ Minecraft Industry & Production Lab ■ 3D Engineering Design Challenge		● STEAM Quest Apprentice Lab ▲ Coding Apprentice Lab ■ Aeronautical Lab		● Galaxy Engineering Lab ▲ Circuits Lab ■ Python Coder Lab	
Jul 22 - 26		Jul 29 - Aug 2		Aug 5 - 9		Aug 12 - 16	
9:00 AM - 12:00 PM		9:00 AM - 12:00 PM		9:00 AM - 12:00 PM		9:00 AM - 12:00 PM	
● STEAM Quest Apprentice Lab ▲ Minecraft City Rescue Squad Lab ■ Web Maker Apprentice		● Environmental Engineering Lab ▲ 3D Maker Lab ■ Java Coder Lab		● Galaxy Engineering Lab ▲ Minecraft Urban Adventures Lab ■ Web Maker Master with JavaScript		● STEAM Quest Apprentice Lab ▲ Minecraft Biosphere Explores Lab ■ Photoshop Lab	
1:00 PM - 4:00 PM		1:00 PM - 4:00 PM		1:00 PM - 4:00 PM		1:00 PM - 4:00 PM	
● Wonder Lab ▲ Biology Bots Lab ■ Photoshop Lab		● Ancient Egypt Engineering Lab ▲ Minecraft Space Adventure Lab ■ Young Entrepreneurs		● STEAM Quest Apprentice Lab ▲ Coding Apprentice Lab ■ Python Coder Lab		● Environmental Engineering Lab ▲ STEAM Quest Masters Lab ■ 3D Engineering Design Challenge	
Aug 19 - 23		Aug 26 - 30					
9:00 AM - 12:00 PM		9:00 AM - 12:00 PM					
● Ancient Egypt Engineering Lab ▲ Minecraft Industry & Production Lab ■ Young Entrepreneurs		● Wonder Lab ▲ Bots Ignite Lab ■ Java Coder Lab					
1:00 PM - 4:00 PM		1:00 PM - 4:00 PM					
● Wonder Lab ▲ Battle Bots Lab ■ Tinker & Code Lab		● STEAM Quest Apprentice Lab ▲ Minecraft Urban Adventures Lab ■ Minecraft Redstone Lab					



Zane Math and Zane Reading will be offered as an AM + PM camp every week.  
Notes: Min. of 2 campers on group lessons. Private camps also available upon request.

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K-8 STEAM After-School Programs & Camps

### Game-Based Learning: Minecraft Apprentice Lab

#### Minecraft™ Biosphere Explorers Lab Grades 1 - 4

Calling all apprentice Minecraft players! Campers will learn and sharpen their Minecraft computer skills all while learning the science behind the Biosphere. They will learn about biodiversity by exploring different biomes, understand the importance of sustainability, resource management and much more.

#### Minecraft™ Space Adventurers Lab Grades 1 - 4

Commercial Space Travel may be just around the corner for this Zaniac generation. Campers are introduced to the International Space Station and space exploration through Galacticraft. Campers learn to build, prepare and launch a rocket. Stops at the Moon and Mars are part of our trip. And given our environmental consciousness, we throw in an extra challenge: Zaniac's Space Junk Clean Up!

#### Minecraft™ Industry and Production Grades 1 - 4

Students explore the inner workings of manufacturing and heavy industry, ranging from baseline resource gathering to advanced metal production. With the simplified tools provided by Minecraft, students set up working and powered facilities dedicated to creating products from raw materials, and a logistics network that can quickly and efficiently move items to where they are needed.

#### Minecraft™ Urban Adventurers Lab Grades 1 - 4

Zaniac's Minecraft™ Urban Adventurers Lab is designed to groom an environmentally conscious generation of planners through the basics of urban planning, architecture and building design. Campers learn about rapid urban growth, electric sustainability, scarcity of water, and the need to bridge supplies to cities. Campers learn to design and build while bringing their miniature ecofriendly community together.

#### Minecraft™ City Rescue Squad Grades 1 - 4

In Zaniac's Minecraft City Rescue Squad campers identify problems the planet is frequently facing: fires, earthquakes, hurricanes, water shortages, flooding and rising water levels. Campers are challenged to build cities that can withstand these challenges and keep populations safe while learning urban planning and building design using Minecraft™ to create planet friendly solutions.

### Game-Based Learning: Minecraft Masters Lab

#### Minecraft™ Newton's World Lab Grades 5 - 8

Zaniac's Newton's World Lab includes challenges with Liquid Physics, Electricity and Pistons, Electromagnetism, Newton's laws and more. Each problem that campers encounter has a solution, but it takes a bit of problem solving to find it! Students learn to devise a solid method to problem solve: Plan, Construct, Test, and Refine with a whole lot of fun added to it.





## Minecraft Redstone Lab

Grades 5 - 8

Game-Based Learning using Minecraft™ Redstone is the circuit equivalent in Minecraft™ that allows campers to use electrical engineering concepts to create machines such as a clock or a calculator. Using their creativity and critical-thinking skills, campers will help scientists solve electrical challenges throughout the virtual laboratory.

## Design Lab

### Music Lab

Grades 5 - 8

Music Lab with Garage Band™ celebrates music by teaching kids how to create exciting beats using Garage Band™. Music Lab is the perfect primer for beginners who want to learn the basics of one of the most popular and accessible DAW (Digital Audio Workstation) programs out there.

### 3D Maker Lab

Grades 1 - 4

What does it take to become an inventor? 3D Maker Lab will engage campers with online digital creations of 3D models and teach them how to design pieces for 3D Printing using Autodesk TinkerCad™. Students will be immersed in the engineering and design process, printing their own unique and exciting ideas and turning them into a reality.

### 3D Engineering Design Challenge

Grades 5 - 8

Campers will learn the Iterative Design Process as a critical component of Engineering, they will be given a real-world problem to solve through 3D Design and Printing. They will have to research, construct, design and print solutions that will creatively solve those challenges.

## 3D Game Design

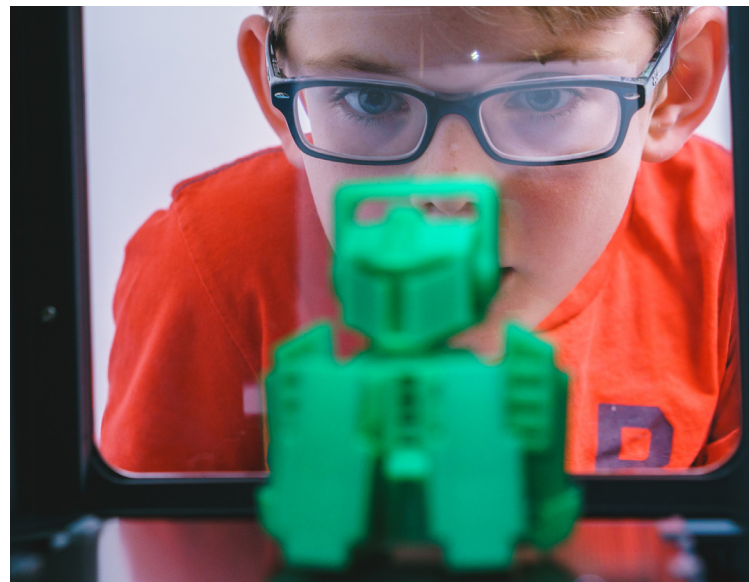
Grades 5 - 8

Looking for a camp that combines Design with Coding? Zaniac 3D Game Design camp teaches game design concepts such as formalism, abstractionism, rule implementation, challenge/reward balancing, game flow and paper prototyping. Campers create 3D character models using the modeling software Blender, and explore the history of video game design and how it relates to computer science as a field. Campers will use the Unity game engine to map 3D environments, apply attributes, then design textures in Gimp to overlay on your game world and will bring their environments and characters to life using C#, a real-world, object-oriented programming language and learn programming concepts like classes, methods, and strings to create C# Scripts.

## Photoshop

Grades 5 - 8

This course introduces students to the world of photography and design. Campers will understand the basics of photoshop to turn a regular photo into a work of art! They will work with layers, enhance images through color correction, edit out scratches from old photos or change the mood on a picture. They will begin to understand how to use filters to manipulate forms and shapes and to export and use their images on videos or movies. With this program campers will learn how to get professional photography results through exploration and creativity!



## Engineering Apprentice Lab

### Galaxy Engineering Lab

Grades Pre-K - K

Calling all astronauts! Space camp takes off in 5, 4, 3... Join us as we explore the moons and planets and discover the sun and stars. We travel through our solar system and participate in astronaut training activities. We explore the machines that get to space and build our own lunar rover.

### Environmental Engineering Lab

Grades Pre-K - K

Calling all young Builders! Campers will learn concepts like renewables, recycling, energy conservation, and carbon footprints through building wind turbines, hand generators, and conveyors. Environmental Science students finish the course with an understanding of the environmental impacts of their everyday actions.

## LEGO Adventure Lab

Grades Pre-K - K

Students design their own park with robots using LEGO® and DUPLO® (big LEGO®) building blocks and motors. In the process of making their constructions move, they will learn basic engineering and simple machine principles. They will learn about electricity and how gear meshing works to transmit energy. Students use their imagination and apply newly learned mechanical skills to either build their own creations or follow a blueprint.

## Ancient Egypt Engineering Lab

Grades Pre-K - K

Zaniac's Ancient Egyptian Engineering camp explores the concepts of building and construction through hands-on exploration and design. Structural design is all around us! And what about these structures that have survived the years. Students learn how the Egyptians built these wonders of the worlds with simple machines such as the wedge, pulleys, and levers.

## Mechanics in Motion Lab

Grades Pre-K - K

There is just enough hands-on building to keep the younger learners moving, but at the same time, we will be spending time figuring out how to get machines to make work easier for humans. Brings in the problem solving and critical thinking into equation. Students will learn the principles of Robotics with levers, inclined planes, pulleys, and screws and build motorized mechanisms in teams.

## Bots Ignite Lab

Grades 1 - 4

Zaniac's Robotics Ignite LEGO® MINDSTORMS® Camp is designed for campers who are no strangers to LEGO®, but who are ready to immerse in the world of Robotics and learn how the basics of how to build and program robots. Mechanics in Motion is a pre-requisite for this lab.



## Battles Bots Lab

Grades 1 - 4

Keeping it safe and keeping it fun, campers in Battle Bots Lab with LEGO® MINDSTORMS® will research, design and build futuristic cyborgs, ferocious dinosaurs, and fighting robots incorporating features like motion sensitivity, functional claws and wheels and legs that keep them on the move to participate in the ultimate battle.

## Olympic Bots Lab

Grades 1 - 4

Every summer at Zaniac we incorporate sports into our Robotics camps, this year we are doing one Lab full of robotic sport excitement! Each day campers will design and program robots to play a popular Olympic sport including soccer, basketball, volleyball, racing and off course we can't leave out the magical game of Quidditch! Campers will use creativity, design & problem-solving skills to build and program robots that can play and win in these sports.

## Engineering Masters Lab

### Green Bots Lab

Grades 1 - 4

Green Bots LEGO® MINDSTORMS® is all about designing, building and programming environmentally friendly and earth-loving robots. Campers learn about renewable and non-renewable resources, carbon footprints, recycling, energy efficiency and water conservation, while gaining a deeper understanding of robotics.

## Biology Bots Lab

Grades 1 - 4

Find out how robotics is changing biology. In Zaniac's Bio Bots LEGO® MINDSTORMS® Lab, campers will learn about different kinds of robots used in the field of medicine and how robots help doctors reduce human errors in surgery. Students will attempt to replicate their own Bio bots and perform a small surgery; they will also design miniature bones, organs and prosthetics and 3D print them.

## Drones Lab: Engineering takes Flight

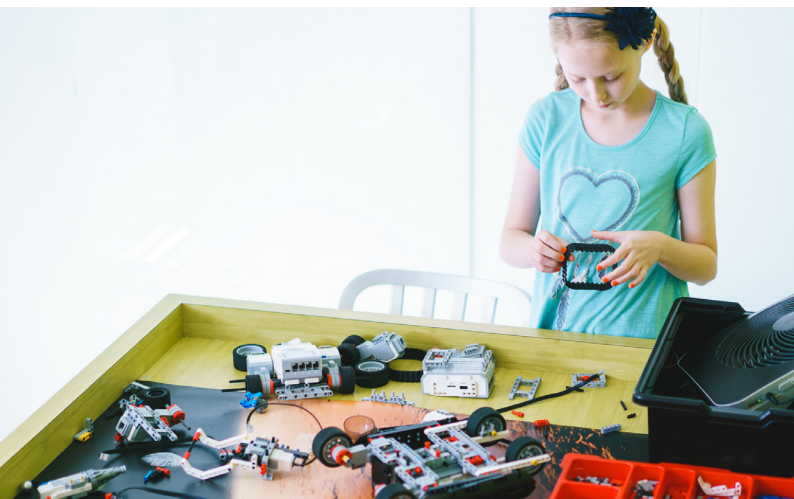
Grades 5 - 8

The intersection of engineering and computer science takes flight with Drones! In Engineering Takes Flight, campers learn about drones and will use creativity and critical-thinking skills to successfully engineer the design and code behind two drone models. Students will discuss nature's influence on the technology and the design of drones. Students explore physics and geometry to understand how the anatomy of a drone supports its course of flight and how to program their drone with block programming commands to pilot their drone's flight path. By combining these concepts, students will complete a variety of hands-on challenges and understand the real-world applications of drone technology.

## Mega Bots Battle

Grades 5 - 8

Keeping it safe and keeping it fun, students in Zaniac's MegaBot Battle LEGO® MINDSTORMS® Camp will research, design and build futuristic cyborgs, ferocious dinosaurs, and fighting robots incorporating features like motion sensitivity, functional claws, and hands that grab and lift objects, and wheels and legs that keep them on the move. Students learn the principal of Robotics and Programming.







## Aeronautical Lab

Grades 5 - 8

Campers will explore a whole new universe by creating and managing their own space program. They learn aerospace engineering, the physics of space travel, orbital mechanics and much more by designing, testing, and launching airplanes and rockets to complete a series of missions.

## Circuits Lab

Grades 1 - 4

Zaniac's Circuits Lab is a fantastic introduction to the world of electronics. With LittleBits™, campers learn about basic inputs, outputs, analogs, electricity, and more. Students build prototypes of their own inventions exploring the world through the lens of easy-to-build magnetic circuits.

## Tinker & Code Lab

Grades 5 - 8

The microcontroller is a fascinating piece of technology created by humans and it is all around us, they were inspired by the brain! Programming Electronics Camp introduces students to this wonderful creation. With open source hardware, students learn programming logic through hands-on hardware projects, work with sensors to explore the science of light and sound, and build creatively with motors, wires, and real circuit boards.

## Coding Lab

### Wonder Lab

Grades Pre-K - K

Dash Bot and our Zaniac instructors teach you to code with Blockly! Learn the basics of using the Blockly coding language with some help from our robot Dash! Blockly is an intuitive and visual way to learn how to code. Blockly editor uses interlocking, graphical blocks to represent code concepts like variables, logical expressions, loops, and more. Generate Blockly code and use your new skills for game-based coding challenges, as well as building and programming robots.

## Coding Apprentice Lab

Grades 1 - 4

Zaniac's Coding Apprentice Lab offers two introductory levels to coding. It starts with Apprentice Coder with Scratch for the true beginners when finished they can sign up for Apprentice Coder II. In these two camps, they learn basic computer programming skills such as sequences, loops, iterative development, and debugging using a modern, block-based approach. Students create fun animations, videos and games.

## App Maker Lab

Grades 1 - 4

Learn basic computer programming techniques while building a simple Android-based mobile phone or tablet game using MIT App Inventor. Learn and use real development techniques like event handlers, timers, lists, database management, and script generation to go from concept to a functional application that is yours to keep.

## Python Coder Lab

Grades 5 - 8

Given how many of the common functionalities that programmers need are already built into this programming language, Python is a fantastic language for intermediate coders ready to transfer programming ideas into instructions that the machine can interpret. Python Coder Lab takes your young coders to this next level.

## Java Coder Lab

Grades 5 - 8

This is the perfect camp with students at an intermediate level of coding and a drive to create! Campers learn the basics of Java, a "write once, run everywhere" language. Explore principles like variables, classes, methods, code efficiency, and automation, all while building a text adventure game, a calculator, and more.





## Web Maker Apprentice

Grades 5 - 8

In Web Design camp, students create their own website, going from concept to functional hosted site. Campers will learn the basics of the HTML5 and CSS3 web languages, layout strategies, color theory, and responsive web design. Start by brainstorming your initial concept, wireframing a template in Moqups, building in Weebly, and tweaking the HTML and CSS to dial in the design. Web Design students also learn about site maintenance, including UX feedback, testing, updates, domain management, and hosting.

## Web Maker Master with JavaScript

Grades 5 - 8

Make things happen on a web page! Understand the programming language of JavaScript and become a website developer in training. Watch what you can make happen on a web page with JavaScript and how to use it to alter HTML coding. Change text and images on a website. Run calculations. Write expressions and learn how to use pop-ups. Understand what parts of a website use JavaScript, enhance your skills reading and writing JavaScript, and know how JavaScript affects a website.

## Scholars Lab

## Young Entrepreneurs

Grades 5 - 8

Zaniac Young Entrepreneurs aims to the process of design thinking as a problem-solving process and provides an authentic entrepreneurial experience for students with each session building toward a product-pitch competition. The program is designed to make it fun for the kids and tap into their budding entrepreneurial and CREATIVE mindset. We are doing this in association with Junior Achievement (JA).



## Zane Math

Grades Pre-K - 8

Our fun-filled approach to math (you can draw on our glass walls!) keeps you eager to come to camp every day! We customize a math program for your child from our 14,000 math problem database based on your child's individual Math Assessment.

## Zane Reading

Grades 2 - 6

This Summer your child can enjoy a motivating rewards-based approach to reading science-based nonfiction & earn tokens to watch cool science videos & read science-magazines! Our reading camp uses an award-winning program from Readorium that will increase vocabulary knowledge and reading comprehension skills, improve strategic-thinking & study skills while developing a love for books!

## STEAM Quest Lab

## STEAM Quest Apprentice Lab

Grades Pre-K - K

In STEAM Quest students will dive into science, engineering, academics and exploration. This camp is designed to focus on creative thinking skills with hands-on engineering and science principles with a fun weekly theme for our youngest innovators.



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## **STEAM Quest Masters Lab**

Grades 1 - 4

In STEAM Quest students will dive into science, engineering, academics and exploration. They will spend one day doing different activities learning about science through Minecraft, robotics, Tinkering and engaging in various science exploration experiments.

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