



**BLACKROCKET**  
Launch Your Creativity

Summer at SEM is thrilled to welcome back BlackRocket camps!

BlackRocket has over twenty years of experience designing courses in the S.T.E.A.M. fields. Every program is powered by the child's innate imagination and designed to bring their ideas to life in a fun, hands-on learning environment. All BlackRocket programs mirror real-life experiences and the collaborative nature of the design process. Students will work in pairs or teams during in-room programs.

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## Lower School Campus Programs

### Entering Grades 2-8

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|------------------|---|---|
| June 05-09, 2023 | Virtual Reality:<br>The Future is Now   | Grades 5-8: 9:00am-12:00pm<br>Grades 2-4: 1:00pm-4:00pm |
| June 12-16, 2023 | Cloud Gamers:<br>Mobile App Development | Grades 5-8: 9:00am-12:00pm<br>Grades 2-4: 1:00pm-4:00pm |
| June 19-23, 2023 | Minecraft Modders                       | Grades 2-4: 9:00am-12:00pm<br>Grades 5-8: 1:00pm-4:00pm |

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## Upper School Campus Programs

### Entering Grades 5-8

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|------------------|--|---------------------------------|
| June 26-30, 2023 | ROBLOX Makers<br>Make Your First Video Game!                 | 9:00am-12:00pm<br>1:00pm-4:00pm |
| July 10-14, 2023 | 3D Game Design with Unity<br>YouTube Content Creators        | 9:00am-12:00pm<br>1:00pm-4:00pm |
| July 17-21, 2023 | Python Programmers<br>Beats and Jams: Digital Music Creators | 9:00am-12:00pm<br>1:00pm-4:00pm |

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Summer at SEM BlackRocket programs are open to students from any school with an interest in S.T.E.A.M. Registration and camp fees can be found at [summeratsem.org](http://summeratsem.org)

# Lower School Campus Programs

## Virtual Reality: The Future is Now

June 05-09, 2023

Embark on an EPIC adventure in virtual reality! In this cutting-edge class, learn the foundations of VR design by creating your own virtual worlds, exploring simulated environments, crafting 3D experiences, and learning basic programming concepts. At the end of the week, take home your first cardboard VR headset to show friends and family the new worlds you created. VR projects can be viewed on a website or mobile device. Students do not need a mobile device to take the class, but will need access to a mobile device at home. VR projects will be available on a password protected BlackRocket website to share with friends and family.

Grades 2 - 4      1:00pm - 4:00pm

Grades 5 - 8      9:00am - 12:00pm

## Cloud Gamers: Mobile App Development

June 12-16, 2023

Cloud gaming is the way of the future! Build games you can play everywhere and anywhere using a web-based development tool. Learn in-demand skills like programming events and coding controls for a touch screen or keyboard and mouse. Finish by personalizing levels and characters with your own design. Now you are ready to upload your games to the BlackRocket cloud arcade and play on any mobile device or computer. Games can easily be shared with friends and family!

Grades 2 - 4      1:00pm - 4:00pm

Grades 5 - 8      9:00am - 12:00pm

## Minecraft Modders

June 19-23, 2023

Customize your own Minecraft world and mod the classic game in this one-of-a-kind class. Learn scripting and logic statements as you create your first mods. Students will create a wide variety of new elements, gameplay mechanics, and world generating mods to change the way you play Minecraft. Projects will be available on a password protected BlackRocket website to share with friends and family. Returning students can create more advanced projects that build on previous years.

Grades 2 - 4      9:00am - 12:00pm

Grades 5 - 8      1:00pm - 4:00pm

# Upper School Campus Programs

## ROBLOX Makers

June 26-30, 2023  
9:00am - 12:00pm

Unlock the power of ROBLOX Studio, the world creation tool used by real-world ROBLOX developers! Learn how to build 3D models and create an adventure in your ROBLOX world. Bring characters to life with unique animations you design. Student-created projects will be available on a password protected BlackRocket website to share with friends and family.

## Make Your First Video Game!

June 26-30, 2023  
1:00pm - 4:00pm

If you love playing video games, this is the camp for you! Make your first video game in this one-of-a-kind class that shows you the keys to designing your first 2D platformer game. Conceptualization, play experience, level design, graphics, sounds, and simple coding are just some of the concepts that we'll explore. No prior experience is necessary, just a desire to have fun. Student projects will be available on a password protected BlackRocket website to share with friends and family. Games are only compatible on PC computers. Returning students can create more advanced projects that build on previous years.

## 3D Game Design with Unity

July 10-14, 2023  
9:00am - 12:00pm

Are you ready to take your game design skills to another level? With Unity, an industry-grade design software, aspiring game designers will learn level editing, 3D modeling, impactful gameplay creation, as well as how to utilize scripts and variables. Student-created games will be available on a password protected BlackRocket website to share with friends and family. Returning students can create more advanced projects and build on previous years.

## YouTube Content Creators

July 10-14, 2023  
1:00pm - 4:00pm

Find your voice and leave your mark on the world, it's time to start a career as the next YouTube star! Explore the variety of content and personalities that exist on YouTube and how to find your own niche. Learn the Dos and Don'ts of the platform and how to practice good digital citizenship. Develop your on-camera presence, your own channel branding, and professional editing skills. Take home a plan for launching your own channel with the content created in class! Student projects will be available on a password protected BlackRocket website to share with friends and family.

## Python Programmers

July 17-21, 2023  
9:00am - 12:00pm

Want to learn the world's fastest-growing programming language favored by Google, NASA, YouTube, and the CIA? Learn how to code with Python to create engaging apps and games. Each lesson takes you step-by-step on a programming path that will let you challenge friends with fun content you create from start to finish!

## Beats and Jams: Digital Music Creators

July 17-21, 2023  
1:00pm - 4:00pm

Begin your rise to the top of the charts with digital music production! Just like today's top artists, you can design your own beats or remix a mashup of your favorite songs to become a digital composer and sound engineer. In this course, students will learn to produce digital music, record sound, make sound effects, and mix their own tracks. No prior music experience is necessary. Student-created soundtracks will be available on a password protected website to share with friends and family.