Summer 2023
Course Descriptions

BLACKROCKET
Launch Your Creativity
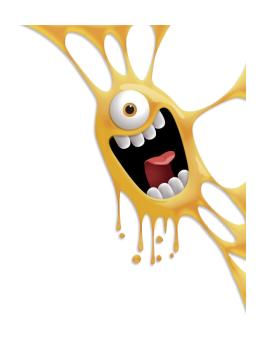
Summer 2023 Courses

"The magic in every student comes to life as never before when they are empowered to be as creative as they were all born to be! Black Rocket 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 Black Rocket programs mirror real-life experiences and the collaborative nature of the design process. Students will work in pairs or teams for in-room programs in a COVID safe way. Online classes provide a more independent experience, but with an emphasis on peer to peer feedback to enhance the creative process."

3D Game Design with Unity

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 Black Rocket website to share with friends and family. Returning students can create more advanced projects that build on previous years.

Ages: 8-11 and 11-14   *Compatible with MAC and Windows OS only and requires a 64-bit operating system.*

NEW! Beats and Jams: Digital Music Creators

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.

Ages: 8-11 and 11-14   *Compatible with MAC, Windows, and Chrome OS.*

NEW! Cloud Gamers: Mobile App Development

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 Black Rocket cloud arcade and play on any mobile device or computer. Games can easily be shared with friends and family!

Ages: 8-11 and 11-14   *Compatible with MAC, Windows, and Chrome OS.*

Code Breakers

Calling all future coders, programmers, & designers! Learn the basics of coding languages like HTML, JavaScript, and CSS through a series of web projects and design challenges each day and be on your way to becoming the next tech star! Whether you want to be a Silicon Valley CEO or the high school student who just made $1 million dollars for programming in her bedroom, this course has the essentials you need to begin your journey. Projects will be available on a Black Rocket website to share with friends and family. Returning students can create more advanced projects that build on previous years.

Ages: 8-11 and 11-14   *Compatible with MAC, Windows, and Chrome OS.*

Code Your Own Adventure! Interactive Storytelling

Watch as the characters in your imagination come to life in this unique course that blends classic storytelling with animation techniques and coding. Start with a concept, design the characters, and choose not just one ending, but many! Learn how to create your own text-based adventure games with variables, conditional logic, images, HTML, CSS, and Twine scripting syntax. Student projects will be available on a password protected Black Rocket website to share with friends and family.

Ages: 8-11 and 11-14   *Compatible with MAC and Windows OS only.*

JavaScript Developer Jam
Learn programming tools so powerful they seem like magic! Start off by exploring an array of core programming concepts with JavaScript by experimenting in a series of digital challenges. Start with programming your first animated memes, then tackle more advanced skills such as interactive 3D experiences and game creation. Projects will be available on a password protected Black Rocket website to share with friends and family.

Ages: 8-11 and 11-14   *Compatible with MAC, Windows, and Chrome OS.*

Make Your First Video Game!
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 Black Rocket 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**.**

Ages: 8-11 and 11-14   *Compatible with Windows OS only.*

UPDATED! Minecraft® Animators
Create the next popular animated Minecraft video on YouTube! Practice the same skills professionals at Pixar and Disney Animation Studios use. Discover the process of keyframing and tweening, how to use it to bring your own animated stories to life, and how to publish your content on YouTube. Student projects will be available on a password protected Black Rocket website to share with friends and family. Returning students can create more advanced projects that build on previous years**.**

Ages: 8-11 and 11-14   *Compatible with MAC and Windows OS only.*

Minecraft® Designers
If you love the game Minecraft and always wanted to design your own world, this class is for you! Learn how to create a custom map, design structures to share between worlds, build with Redstone and Command blocks, and create custom textures for you to import at home or share with friends. **Students must have the Java version of Minecraft to take this class**. Tablet, phone, and game console versions of Minecraft are not compatible. Returning students can create more advanced projects that build on previous years**.**

Ages: 8-11 and 11-14   *In room is compatible with Windows OS only. Online is compatible with MAC and Windows OS only. Purchase Minecraft Java Edition*

Minecraft® Modders
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 Black Rocket website to share with friends and family. **Students must have the Java version of Minecraft to take this class**. Tablet, phone, and game console versions of Minecraft are not compatible. Returning students can create more advanced projects that build on previous years**.**

Ages: 8-11 and 11-14   *Compatible with MAC and Windows OS only. Purchase Minecraft Java Edition*

Minecraft® Redstone Engineers

Take the next step beyond simply "playing" Minecraft and become a true Redstone engineer. Expand your Redstone knowledge by constructing your own carnival with a variety of mini-games, roller coasters, and attractions powered by Redstone. Learn how to use Command and Structure blocks to incorporate them into your builds. Activate your skills and take your Minecraft structures to the next level! **Students must have the Java version of Minecraft to take this class**. Tablet, phone, and game console versions of Minecraft are not compatible.

Ages: 8-11 and 11-14   *In room is compatible with Windows OS only. Online is compatible with MAC and Windows OS only. Purchase Minecraft Java Edition*

Pokémon® Masters: Designers & 3D Makers Unite!

Calling all PokeMasters who want to be the designers of the future! Use your Pokemon imagination and bring your ideas to life. Begin by creating your own digital Pokemon-style custom playing card game. Progress onto designing action figures, jewelry, and toys in professional-level modeling software. Learn how to prepare a model for 3D printing and create a design portfolio to showcase your work! No prior experience is necessary and 3D designs will be available on a password protected Black Rocket website to share with friends and family.

Ages: 8-11 and 11-14   *Compatible with MAC and Windows OS only.*

Python Programmers

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! Returning students can create more advanced projects that build on previous years**.**

Ages: 8-11 and 11-14   *Compatible with MAC, Windows, and Chrome OS.*

ROBLOX® Coders & Entrepreneurs!

Discover the Lua language through a visual block coding system while designing worlds in ROBLOX®, an online universe where you can create anything you dream of. This new class combines game design concepts, coding, and fun! Young entrepreneurs will also learn how to navigate ROBLOX's fast-growing marketplace to publish their games. Student-created games will be available on a password protected Black Rocket website to share with friends and family.

Ages: 8-11 and 11-14   *Compatible with MAC and Windows OS only.*

ROBLOX® Makers

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 Black Rocket website to share with friends and family.

Ages: 8-11 and 11-14   *Compatible with MAC and Windows OS only.*

YouTube® Content Creators

Find your voice and leave your mark on the world! Whether you are six or sixteen, 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 Black Rocket website to share with friends and family.

Ages: 8-11 and 11-14   *Compatible with MAC and Windows OS only.
*A webcam is required for this course.

YouTube® FX Masters

Do you love movies with exciting special effects, like *The Avengers, Star Wars,* or *Harry Potter*? Amaze your friends by swinging a lightsaber or blasting fire from your hands and becoming a master of the illusions used by Hollywood artists to create visual effects magic. Whether you want to enhance your YouTube videos or create a cool scene to amaze your friends; this class teaches the tools you need. Experiment with visual effects as you learn the dynamics of camera angles, editing, graphic layering, and sound effects. Then watch as your new creations take your channel content to the next level! Student projects are available on a password protected Black Rocket website to share with friends and family.

Ages: 8-11 and 11-14   *Compatible with MAC and Windows OS only.
*A webcam is required for this course.