



Hands-on STEAM After School Programs

Once a Week, 5–10 wk, 1–1 ½ Hour Sessions for PK – 8th Grade

Session	Description	Season	Grade										
			PK	K	1	2	3	4	5	6	7	8	
Space Explorers (60 mins.)	Blast off with EDMO and explore our amazing universe! Students will complete introductory maker activities that investigate the beauty of our solar system and experiment with the principles of flight. Imagination and design skills will be in full force as we repurpose household materials to create rockets, unique planets and our very own UFOs.	Fall	•	•	•	•							
Anatomy Academy (60 mins.)	What’s going on in there?! Students learn all about the systems of the human body and what makes us work. With demonstrations, specimens and experiments, students will see how different systems work together to keep us healthy. Students will record observations and discoveries in their personal “Body Books” to share with family and friends!	Fall		•	•	•	•	•	•				
Cooking with Chemistry (60 mins.)	Turn down the heat and get ready to create edible molecular masterpieces using the power of chemistry. In Cooking with Chemistry, students will investigate the physical and chemical transformations of ingredients that occur during cooking. Through the making of molecular gastronomic recipes such as oil powders, foams, fluid gels, and infusions, students will learn how different substances and chemicals added at the right time during the cooking process can change the molecular structure of solids and liquids, transforming them into completely new and interesting (and edible!) treats.	Fall								•	•	•	•



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Minecraft: Redstone (90 mins.)	Explore Minecraft’s mechanical and digital marvels and learn the fundamentals of computer engineering! In Minecraft, “redstone” refers to a set of game items and blocks that simulate electrical currents and components, allowing the player to create complex, automated mechanisms. Students will learn all about redstone, from basic “circuitry” to the core concepts of computer engineering, like logical gates and binary.	Fall								•	•	•	•
Game Design Lab (60 mins.)	Design, code, and perfect your very own video game! Students in the Game Design Lab will plan and develop a video game, including the code used to define the rules and mechanics of the game, as well as the artwork for their game's characters, objects, and environments.	Fall Winter Spring				•	•	•	•	•	•	•	•
Sensory Scientists (60 mins.)	Enter into an exciting world of making and experiments that will activate all of our senses! In our Sensory Scientists program, students will make and experiment with different objects that activate their senses to help them understand the world around them and how it works. Design and make kinetic sand, electromagnetic slime, and create all kinds of other experiences to light up your brain!	Winter	•	•	•	•							
Sound Engineers (60 mins.)	Explore the universe of sound and become a sound engineer! In our Sound Engineers program, students will learn how to design and make their very own instruments! Through the making of these instruments students will learn how sound travels and the many different ways humans have learned to produce sound. Have the next great beat or melody in mind? Join us and become the next great sound engineer!	Winter		•	•	•	•	•	•	•			



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Bio Blitz (60 mins.)	Jump into the field of biology research! EDMO is teaming up this summer with the California Academy of Science's nationwide STEM program, Science Action Club (SAC). Students become ornithologists (bird scientists), and explore feathers, flight, and the features that make birds unique. Using field research tools and smart technology, youth identify local birds and investigate environmental changes that impact bird behavior. The bird counts they submit to eBird – a citizen science project from the Cornell Lab of Ornithology – help scientists better understand these important species.	Winter								•	•	•	•
YouTube Star (90 mins.)	Take your first steps towards cyber stardom! In this course, students will learn about and practice the entire process of developing and maintaining a YouTube channel. Once they've decided on the subject, format, and style of their channel, students will record both real-world and screen-captured footage, edit their videos to add music and special effects, and finally upload their creations to YouTube.	Winter								•	•	•	•
Dino Discovery (60 mins.)	Travel back in time to a place where dinosaurs ruled the Earth. These creatures roamed the earth millions of years ago and their descendants still live on today! This week students will discover everything there is to know about dinosaurs. We will uncover fossils, learn the basics of paleontology, and understand what life was like for animals in prehistoric times.	Spring	•	•	•	•							
Jurassic Journey (60 mins.)	Travel back in time to a place where dinosaurs ruled the Earth. These creatures roamed the earth millions of years ago and their descendants still live on today! This week students will discover everything there is to know about dinosaurs. We will uncover fossils, learn the basics of paleontology, and understand what life was like for animals in prehistoric times.	Spring		•	•	•	•	•	•	•			

Visit bookedmo.org for more information about our After School Programs.



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Design Crew/ Squad (60 mins.)	Are you up to the challenge? Join our Design Crew for your chance to create and compete! In Camp EDMO's Design Crew, students will engage in different design challenges each day as they are taken through the cycle of the engineering design process, from idea to prototype. They'll learn each part of this process and how problems are solved through different applications of design elements.	Spring								•	•	•	•
Roblox: Game Architects (90 mins.)	Design and construct your own 3D game world in Roblox! Roblox is a free platform for creating 3D environments and games, which can easily be shared with friends and family. Students will learn how to create and customize their game world, as well as how to use code to define the rules and mechanics of their own custom "mini-games".	Spring								•	•	•	•