

# *science* DISCOVERY

Online registration going on now!



## SUMMER 2025

K-12 Summer Camps and High School Classes  
STEM Research Experience

**NEW!** EARLY RELEASE FRIDAYS

# Summer 2025 Camps for Grades K-8

Calling all future scientists, engineers, and creatives! Get ready to embark on an explorative journey with CU Science Discovery’s summer camps and high school classes for grades K-12. At Science Discovery, we believe in the power of coupling engaging, hands-on activities with inspiring, inquiry-based teaching. Summer programs combine both of these tools to inspire creativity, quality engagement and the joy of discovery for participants of all ages.

ONLINE REGISTRATION OPENS  
JANUARY 8 at 8am

The final pages of this catalog feature answers to our most commonly asked questions, including those regarding:

- Cancellation and transfer policies
- Grade level selection
- What to bring to camp
- Scholarship opportunities
- Waitlist process and more

## FREQUENTLY ASKED QUESTIONS

QUESTIONS?  
[www.colorado.edu/sciencediscovery](http://www.colorado.edu/sciencediscovery)  
[scidisc@colorado.edu](mailto:scidisc@colorado.edu)  
303-492-7188

**NEW for 2025! EARLY RELEASE FRIDAYS:** All camps end at 3pm on Fridays.  
**All K-8 camps will be held at CU Science Discovery unless otherwise noted. Please see website for complete location details.**

		June 2-6	June 9-13	June 16-18*	June 23-27	July 7-11	July 14-18	July 21-25	July 28-August 1
GRADES K-2	The Art of Science	9-4					9-4		
	Decomposer Detectives + Power to the Pebble								9-4
	Kinder Campers: EcoAdventures*			9-12					
	Kinder Campers: Outdoor Odyssey*							9-12	
	Nature Explorers + Volcanoes, Caves, and Canyons, Oh My!		9-4						
	Power to the Pebble + Decomposer Detectives				9-4				
	Rockets for Junior Astronauts		9-4				9-4		
	Volcanoes, Caves, and Canyons, Oh My! + Nature Explorers					9-4			
GRADES 2-4	Boulder Botanists							9-4	
	Bounce and Tangle: The World of Polymers		1-4				9-12		
	Clay Creations	1-4					1-4		
	LEGO Essentials				9-4				9-4
	Novel Engineering	9-12				1-4			
	Science of Toys		9-12			9-12			
	Water Works			9-4					
GRADES 3-5	Climate Curiosities							9-4	
	Fossils, Crystals, and Rocks			9-4					
	Math Games and Puzzles from Around the World				1-4		1-4		
	Minecraft EDU				9-12				
	Muggle Magic: The Science of Harry Potter	9-4							9-4
	Sphero Adventure Park		9-4			9-4			
GRADES 4-6	Creative Coders		1-4				1-4		
	Explore the Force: The Science of Star Wars				1-4	1-4			
	Minecraft: Astronomy Adventures					9-12			
	Science in Motion	9-4							9-4
	The Science of Art				9-12	9-12			
	Scratch Stories and Games		9-12				9-12		
GRADES 6-8	Arduino: An Introduction				1-4	9-12			
	Artificial Intelligence: Harnessing the Power of Technology	1-4							1-4
	Bilingual Arduino: An Introduction / Bilingue Introducción a Arduino			9-4				1-4	
	Data Art: Using Creativity to Transform Information	9-12							9-12
	Drone Flight School				9-12		9-12		
	Girls in STEAM		1-4				9-12		
	LEGO Spike Prime Robotics		9-12				1-4		
	Minecraft: Mission to Mars			9-12					
	Navigating Nature			9-4					
	Programming with Python					1-4			
	Wilderness Challenge							9-4	

**\*For first-time campers only.** **\*\*These are 3-day camps.**  
**Note: All high school classes and programs being held at CU Anschutz can be found at the end of this catalog.**



# K-2 CAMPS for JUNIOR SCIENTISTS

June 2-6	<u>The Art of Science</u>	9am-4pm	\$595
June 9-13	<u>Nature Explorers + Volcanoes, Caves, and Canyons, Oh My!</u>	9am-4pm	\$595
June 23-27	<u>Power to the Pebble + Decomposer Detectives</u>	9am-4pm	\$595
July 7-11	<u>Volcanoes, Caves, and Canyons, Oh My! + Nature Explorers</u>	9am-4pm	\$595
July 14-18	<u>The Art of Science</u>	9am-4pm	\$595
July 28-August 1	<u>Decomposer Detectives + Power to the Pebble</u>	9am-4pm	\$595

**NEW for 2025!**  
**EARLY RELEASE FRIDAYS**  
All camps end at 3pm on Fridays.



## THE ART OF SCIENCE

The connection between art and science is often overlooked, but in this camp, we'll explore how the two are inseparable! Join us for a celebration of the “art of science,” where we'll practice essential scientific skills and use math and engineering principles to create one-of-a-kind art that will encourage us to tap into our creative brains. In addition to taking home some amazing projects, we'll also be able to explain the science behind what we create—everything from rainbows and forces to plant anatomy!

## DECOMPOSER DETECTIVES

What happens to our waste? Join us for a hands-on adventure exploring the fascinating world of decomposers! From moldy mysteries to crawly critters and compost creations, we'll discover how nature's cleanup crew works to break it all down. We'll dig deep into both natural and human-made processes, learning how the world cleans up its messes—one tiny organism at a time!

## VOLCANOES, CAVES, AND CANYONS, OH MY!

Get ready to dig deep and explore the wonders of our planet Earth in the new *Volcanoes, Caves, and Canyons* camp! This hands-on adventure builds upon our knowledge of rocks by exploring how volcanic eruptions, deep caves, and towering canyons are made. Each day is packed with fun activities like modeling volcanic eruptions, creating glow-in-the-dark cave art, and experimenting with water erosion to uncover how these natural wonders are formed. Our junior geologists will have a blast getting their hands dirty while learning how Earth's dynamic forces shape the world around them!

## NATURE EXPLORERS

This camp will inspire us to take a closer look at nature all around us! *Nature Explorers* will sharpen our observation skills as we spend the week learning cool observation techniques and documenting our findings in our nature journals like real naturalists. Our next generation of naturalists will have a blast as we uncover the wild world that exists in our very own community. Let's grab our magnifying glasses and start exploring!

## POWER TO THE PEBBLE: A ROCK CAMP YOU CAN'T TAKE FOR GRANITE

Calling all junior geologists – get ready for a rockin' week filled with marvelous rocks and minerals. In this camp, we'll discover how rocks are formed, observe their unique properties, learn how to use tools like an expert rockhound, and maybe even start a rock collection of our own. We'll practice our observational skills, learn about the ways geologists identify unknown samples, and make some new rock-loving friends along the way. Join us as we dig deep into the fascinating world of geology – it's a *boulder* move but we hope you're in!





### **ROCKETS for JUNIOR ASTRONAUTS**

June 9-13\*; 9am-4pm

July 14-18\*; 9am-4pm

\$595

Location: Fiske Planetarium

3, 2, 1 – BLAST OFF! Spend the week at Fiske Planetarium learning about flight on Earth and in space, rocket design, and life as an astronaut in Science Discovery's longest-running summer camp. In the weeks leading up to camp, be sure to gather a variety of clean recyclables as we'll be using them to construct our very own handmade, life-sized rockets. Storybooks will spark our engineering imaginations as we explore how to create simple machines to enhance our rocket designs. On Friday, loved ones are invited to join us at the Fiske Planetarium Dome to help launch our rockets into outer space!

**\*IMPORTANT NOTE WHEN REGISTERING:** There are two sessions of *Rockets for Junior Astronauts* being offered each of these weeks. Within the Active Network registration system, the sessions will be labeled A and B. If you wish to have your child in the same camp session with a friend or sibling, please ensure that you're selecting the same session name when registering.

# **NEW! KINDER CAMPERS**

## **EXPLORING, LEARNING, AND ADVENTURING TOGETHER**

This summer, we're introducing two exciting new summer camps designed exclusively for curious 5-year-olds ready to explore, create, and discover! These camps are reserved for children who are stepping into their first formal classroom or camp experience, offering a nurturing environment full of wonder and adventure.

Each day will be packed with hands-on STEM activities, outdoor explorations, and engaging projects that inspire creativity and curiosity, while simultaneously teaching participants how to be a part of a classroom community. From investigating the fascinating ecosystems of our planet to uncovering the magic of nature right in our own backyard, these camps encourage little ones to think like scientists, explore like adventurers, and play like kids. With plenty of time for outdoor fun, teamwork, and snack breaks, our camps are designed to be the perfect balance of learning, adventure, and joy. Your young camper is guaranteed an unforgettable summer filled with new friends, making memories, and fun!

**NOTE: ALL PARTICIPANTS MUST BE 5 YEARS OF AGE BY THE START DATE OF CAMP.**

### **KINDER CAMPERS: ECOADVENTURES**

June 16-18\*; 9am-12pm

\$175

Note: This is a 3-day camp.

Join us as we explore the unique features of some of Earth's different ecosystems! Through simple experiments, hands-on activities and craft projects, we'll learn about the wonders of the oceans, rainforests, deserts and polar regions. We'll learn about bioluminescence and ocean dynamics as we explore deep-sea ecosystems. We'll explore the biodiversity of tropical rainforests as we journey from the forest floor to the sky above. From hot deserts to the cold arctic, we'll learn how plants and animals survive in extreme environments. We'll even take a look into our own backyard. Join us for an exciting peek into some of the most fascinating places on Earth and learn what we can do to protect the environment.

### **KINDER CAMPERS: OUTDOOR ODYSSEY**

July 21-25; 9am-12pm

\$295

Gear up, young adventurers! Grab your backpack and magnifying glass as we set off to uncover the wonders of nature right here in Boulder. From investigating plants and animals to exploring streams and meadows, we'll use our curiosity and detective skills to unlock the secrets of the great outdoors. Through hands-on activities, games, and plenty of adventure, we'll discover the incredible magic hidden in the world around us. Get ready for outdoor odysseys full of exploration, discovery, and unforgettable moments in nature!





# 2-4 CAMPS

## BOULDER BOTANISTS

July 21-25; 9am-4pm  
\$595

Step into a world of wonder and get lost among the flowers! Together, we'll uncover the incredible beauty and amazing purpose of the plants that blanket our Earth. Peek inside plant cells to see how they "experience" the world—from the vibrant colors they perceive to the sensations they feel. Along the way, we'll discover how plants sustain life, providing us with oxygen, food, medicine, and so much more. Grab your magnifying glass, your sense of adventure, and your curiosity about the plant kingdom—there's a wild, green world waiting for us to explore!

## CLAY CREATIONS

June 2-6; 1-4pm  
July 14-18; 1-4pm  
\$295

Ever wondered how clay can turn into a masterpiece? In this hands-on camp, we'll dive into the science behind the art! We'll learn about the materials that make up different types of clay, how they change when they're baked or air-dried, and the cool chemistry that makes them harden and hold their shape. As we sculpt our own creatures, plants, and tiny worlds, we'll discover the science of texture, form, and structure—plus how heat and time can transform soft clay into something solid. Whether we're building a mythical creature or a mini habitat, we'll explore the magic and science behind every squish, roll, and pinch. By the end of the camp, we'll have our very own clay creations, complete with a little scientific wonder built in!

## BOUNCE AND TANGLE: THE WORLD OF POLYMERS

June 9-13; 1-4pm  
July 14-18; 9am-12pm  
\$295

Prepare to stretch your imagination and bounce into the world of polymers! In this hands-on camp, we'll explore the science behind these incredible materials that can stretch, bounce, and twist in all sorts of fun ways. We'll make our own squishy bouncy balls, create stretchy slime, and experiment with other cool polymer creations. Learn how polymers are used in everyday life—from the rubber in our sneakers to the plastic in toys—and discover how these materials are made and why they behave the way they do. Each day, we'll take on a new polymer project, where we'll unleash our creativity to design our very own squishy, bouncy, and tangly inventions. Get ready for a week of experiments, scientific discoveries, and plenty of polymer-powered fun!

## LEGO ESSENTIALS

June 23-27; 9am-4pm  
July 28-August 1; 9am-4pm  
\$595

Learn to build and code robots with LEGO Spike Essentials! Working with LEGO Spike, campers will engage in hands-on investigations of STEAM concepts to build, code, and test LEGO robots. Working collaboratively in small groups, we'll use engineering and critical thinking skills to design, build and code robotic challenges as we explore the fascinating world of LEGO robotics!

## NOVEL ENGINEERING

June 2-6; 9am-12pm  
July 7-11; 1-4pm  
\$295

Step into the world of *Novel Engineering*, where stories come to life and our engineering skills will help solve the problems some of our favorite book characters are facing! In this exciting one-week class, we'll dive into captivating book adventures and then use our imagination and creativity to design hands-on solutions to the challenges the characters face. Each day, we'll read a chapter from a new story and discuss the problems the characters encounter. Then, it's our turn to be the hero— we'll work with friends to design, build, and test engineering solutions using simple materials. Whether it's building a bridge to help a character cross a river, creating a machine to solve a problem, or designing a new invention to make the story better, our ideas will bring the story to life in the most creative ways!

## SCIENCE OF TOYS

June 9-13; 9am-12pm  
July 7-11; 9am-12pm  
\$295

Toy Science Lab: Build, Experiment, and Discover! Ever wondered what makes a rocket soar or an airplane defy gravity? Curious about what helps you stay balanced when you're spinning around? Or how about the science behind your favorite toy lighting up or making sounds? Get ready to dive into the exciting world of science through some of the coolest toys and gadgets around! In this action-packed week, we'll explore the science behind flight, energy, and electricity while building and testing our own creations. Our imaginations will take flight as we design and launch flying contraptions, experiment with the power of potential and kinetic energy by making your own race cars, and spin into stability while crafting custom hula hoops. We'll even use fruit to investigate the amazing flow of electricity! But that's just the beginning – we'll also build rockets, airplanes, cars, boats, musical instruments, and much more. As we construct, test, and play, we'll observe the science behind each creation, collect data, and see how all of our toys come to life with a bit of scientific know-how.

## WATER WORKS

June 16-18\*; 9am-4pm  
\$350

\*Note: This is a 3-day camp.

Famous oceanographer Jacques Cousteau once said, "We forget that the water cycle and the life cycle are one." Water is essential to life on Earth! Since we use water every day and it's so vital to life, it's important to understand and conserve this precious resource. Join us for three days of splashing into the science of water as we explore its unique properties, characteristics, and behaviors. From how water shapes incredible weather phenomena like rainbows, snowflakes, and clouds, to how it nourishes every cell in our bodies to keep us alive, we'll dive deep into the molecule we call H<sub>2</sub>O. Together, we'll discover how water sustains life on Earth and how we can protect and conserve clean water resources for generations to come!

NEW for 2025!  
EARLY RELEASE FRIDAYS  
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# 3-5 CAMPS

## CLIMATE CURIOSITIES

July 21-25; 9am-4pm  
\$595

Why do some places have scorching deserts while others are buried in snow? What causes wild weather like tornadoes and hurricanes? In this hands-on camp, we'll dive into the fascinating world of climate science to discover how climate shapes our weather patterns, creates extreme weather events, and changes over time. We'll also take a closer look at mountain weather and explore orographic lift—how air rises over mountains, cools, and creates Boulder's unique mix of sunny days, sudden storms, and snowy peaks. Through exciting experiments and engaging activities, campers will uncover the science behind Boulder's wacky weather and gain a deeper understanding of the forces that shape our world!

## MUGGLE MAGIC: THE SCIENCE OF HARRY POTTER

June 2-6; 9am-4pm  
July 28-August 1; 9am-4pm  
\$595

Unlock the secrets of science with your fellow wizards-in-training! Every young wizard needs a wand to begin their magical journey, so we'll start by learning the enchanting art of circuits to craft our very own light-up wand. Once we've mastered some basic spells, we'll design our own mystical incantations and discover how to bend our minds with images that seem to come to life. In the starry realm of astronomy, we'll explore the wonders of the sun, moon, and stars as we gaze beyond the night sky. Next, we'll venture into the Potions Lab to test the mysterious consistency of troll boogers, awaken our taste buds with Bertie Bott's Every Flavor Beans, and uncover the science behind the magical art of flight as we build broomsticks that soar through the air. The week will culminate in an exhilarating game of Quidditch, where we'll test our skills and teamwork. We'll end our adventure with a frothy, homemade batch of Butterbeer to celebrate. Join us for a week of STEM-filled enchantment, where every spell, potion, and invention brings a little more magic to life!

## FOSSILS, CRYSTALS, AND ROCKS

June 16-18\*; 9am-4pm  
\$350

\*Note: This is a 3-day camp.

Join us for an exciting journey through the world of geology! *Fossils, Crystals, and Rocks* (FCR) is the perfect adventure for curious young explorers who want to dig deep into the Earth's natural wonders. Campers will have the opportunity to identify different types of rocks and minerals, crack open geodes to reveal their hidden treasures, and discover how rocks form, change and transform during the natural cycles on our planet. Take part in fun activities and experiments that will teach you how Earth's materials shape the world around us and leave us clues about the past. FCR will help you develop a deeper appreciation for Earth science while making new friends and discovering the wonders beneath your feet.



## MATH GAMES AND PUZZLES FROM AROUND THE WORLD

June 23-27; 1-4pm  
July 14-18; 1-4pm  
\$295

Experience math in a whole new way. We'll play in the world of math like never before—where puzzles, games, and mysteries from across the globe come to life! In this adventure, we'll tackle exciting problem-solving challenges from Ancient China, Egypt, Europe, Asia, Africa, and the Americas, unlocking the secrets of math in cultures throughout history. From toothpick puzzles to brain-bending tangrams, we'll test our logic skills and explore strategies that have stood the test of time. Get ready to play strategy games with friends, crack the code of the ancient Chinese magic square, and dive into puzzles that will have you thinking outside the box. But the fun doesn't stop there! We'll also face an exciting challenge: helping a man escape from a deep pit using nothing but our wits and problem-solving skills. It's a math adventure full of mystery, fun, and brainpower—join us as we journey through time and space to unlock the power of numbers and logic!



## MINECRAFT EDU

June 23-27; 9am-12pm  
\$330

Embark on a week of epic STEM adventures in our very own Minecraft world! Grab your pickaxe and join us as we dive into the infinite possibilities of Minecraft EDU, where imagination meets innovation. Together, we'll explore, design, and build incredible structures and entire worlds, all in a collaborative digital sandbox. Whether crafting towering castles or futuristic cities, we'll tackle exciting design challenges that test our creativity and problem-solving skills. But that's just the beginning! We'll power up our creations with redstone as we unlock the secrets of circuits and electricity, turning simple builds into interactive wonders. We'll also take our first steps into the world of coding, learning to program our very own Minecraft agent and giving it commands to explore the digital landscape. Finally, we'll venture into the thrilling realms of artificial intelligence and cybersecurity, learning how to keep our digital worlds safe and smart. Minecraft isn't just a game—it's a world full of endless opportunities to create, collaborate, and innovate. Join us for a week of hands-on fun where every block you place is a step closer to building something amazing!

## SPHERO ADVENTURE PARK

June 9-13; 9am-4pm  
July 7-11; 9am-4pm  
\$595

Join us as we explore the world of Sphero Minis and the wide spectrum of what they can do! We'll start by learning all the ways to control Sphero's movement using a tablet to drive, sling, and tilt our robot through obstacles. We'll develop coding skills by learning the three different coding "canvases" for the Mini – draw, block, and text – designed to move users from beginner to advanced coding skills. From there, we'll use the engineering design process to design, build, and test obstacle courses for Sphero to navigate through. Next, we'll create an adventure park with different activities for Sphero Mini to explore. Finally, we'll design, build, and test new challenges for the adventure park, such as mazes, obstacle courses, suspension bridges, and roller coasters.



## A student is working on a complex contraption in a workshop. The device features a long, curved track made of red and purple material, supported by a wooden frame. The track is suspended in the air, curving upwards. The student is leaning over a wooden table, adjusting the base of the structure. Various materials are scattered on the table, including a green ball, a yellow ball, a roll of green tape, and several white sticks. The background shows a workshop environment with tools and equipment.



# 6-8 CAMPS

## AI EXPLORERS: HARNESSING THE POWER OF TECHNOLOGY

June 2-6; 1-4pm  
July 28-August 1; 1-4pm  
\$330

Dive into the fascinating world of Artificial Intelligence! This camp combines hands-on projects, thought-provoking discussions, and cutting-edge technology to explore how AI is shaping our future. We'll explore the science behind AI technologies like self-driving cars and image recognition, experiment with generative AI to create original art and music, and build our own AI-powered gadget using Google Teachable Machine and micro:bit. Throughout the week, we'll also tackle big questions about some of the ethical challenges AI presents, empowering students to think critically about technology. Whether your interest is in science, technology, art, or innovation, this camp will ignite your curiosity and creativity!

## DATA ART: USING CREATIVITY TO TRANSFORM DATA

June 2-6; 9am-12pm  
July 28-August 1; 9am-12pm  
\$330

Unleash your creativity and explore the fascinating intersection of art and data! In this camp, we'll learn how to research real-world data, uncover meaningful trends, and transform raw information into visually stunning works of art. Whether it's through infographics, sculptures, or digital designs, Data Art challenges us to express what numbers and facts reveal about our world. At the end of the week, we'll present our data-driven art projects, showing how facts and figures can be as beautiful as they are insightful. No prior art or data experience required—just bring your curiosity and creativity!

## ARDUINO: AN INTRODUCTION

June 23-27; 1-4pm  
July 7-11; 9am-12pm  
\$370

This tech-centered camp is an introduction to physical computing using the popular Arduino microcontroller platform. We'll learn how to assemble simple electronic circuits and write programs (Arduino "sketches") to create projects that light up, move, and make sound. We'll use the Seeed Studio Grove Beginner Kit for Arduino, which is both user-friendly and expandable, making it perfect for future projects. As an added bonus, you'll get to take home your own Arduino kit at the end of camp, allowing you to continue building and expanding your creations! No prior experience necessary.



## ARDUINO: AN INTRODUCTION / BILINGUE INTRODUCCIÓN A ARDUINO

June 16-18\*; 9am-4pm  
July 21-25; 1-4pm  
\*Note: This is a 3-day camp.  
\$370

Please see *Arduino: An Introduction* description for details.

EXCITING NOTE FOR THIS CAMP: These sessions of Arduino: An Introduction will be co-taught by both a Spanish-speaking instructor and an English-speaking instructor, making this a perfect camp for bilingual students.

ESPECIAL PARA ESTE CAMPAMENTO: Estas sesiones de Arduino: Una introducción serán impartidas conjuntamente por un instructor de habla hispana y un instructor de habla inglesa, lo que lo convierte en un campamento perfecto para estudiantes bilingües.

## DRONE FLIGHT SCHOOL

June 23-27; 9am-12pm  
July 14-18; 9am-12pm  
\$330

Welcome to Drone Flight School! At D.F.S., you and your team will be put in charge of our fleet of code-able drones. First up is pilot training, where we'll learn how to control the drones using a controller as well as with drag-and-drop coding. After pilot training, we'll get a chance to learn more about what these drones are capable of doing. From making decisions without input, avoiding obstacles, and knowing where they have landed using color-sensing technology, we'll begin to design and carry out missions ranging from navigating a cityscape to executing search and rescue missions. Come join us for D.F.S. – no flight experience necessary! Three drones will be utilized throughout this camp: Robolink's CoDrone EDU, the SYMA X5SW, and the DJI Mini 2.



## GIRLS IN STEAM

June 9-13; 1-4pm  
July 14-18; 9am-12pm  
\$295

Are you ready to unlock your inner innovator, creator, and problem-solver? Welcome to *Girls in STEAM*—a camp where science, technology, engineering, art, and math come together to inspire, challenge, and empower YOU! This isn't just any camp; it's a launchpad for girls to explore their creative potential and see the world through the lens of innovation. Over the course of five exciting days, we'll dive into a variety of hands-on projects that span across all aspects of STEAM learning. Whether we're building robots, designing stunning artwork, or solving real-world challenges, we'll gain the confidence, skills, and mindset needed to turn our ideas into reality. This camp will show us how STEAM fields are shaping the future—and how we, too, can be a part of that future. We'll get the chance to collaborate with other girls who share your passion for discovery, while learning from women innovators who are trailblazing in these exciting fields today. This camp will inspire us to think outside the box, embrace our unique perspective, and take bold steps toward shaping a better tomorrow. Join us and be a part of the next generation of women in STEAM—where the possibilities are endless!





**LEGO SPIKE PRIME ROBOTICS**

June 9-13; 9am-12pm  
July 14-18; 1-4pm  
\$330

Learn to build and code robots with LEGO Spike Prime! In this camp, we will develop our engineering and programming skills as we build, code and test LEGO Spike Prime robots to complete a series of different tasks. We'll design and build robots for different scenarios and learn how to control motors and use sensors for data collection. After mastering the basics, we'll utilize the engineering design process to complete more advanced design challenges! We'll learn and apply physical science and math principles to design and maneuver our robots.

NEW for 2025!

EARLY RELEASE FRIDAYS

All camps end at 3pm on Fridays.

**MINECRAFT: MISSION TO MARS**

June 16-18\*; 9am-12pm  
\$330  
\*Note: This is a 3-day camp.

What if Earth had no moon? What if our sun were colder? Join us for a week exploring imaginative worlds and astronomy scenarios using a special Minecraft Java Edition server with tools for simulating science discovery and design. We'll learn all about space as we investigate the scientific consequences of alternative versions of Earth by asking "what if?" questions, like "What if the Earth were a moon?" We'll use our new knowledge and our Minecraft design skills to design a Minecraft base for exploring Mars and project our designs on the Fiske Planetarium dome!



**PROGRAMMING WITH PYTHON**

July 7-11; 1-4pm  
\$330

Python is a fast, versatile, and powerful open-source programming language used by professionals around the world—and now you can learn to use it too! In this camp, we'll explore the fundamental principles of programming using python, giving us the tools to start building our very own games. We'll start by mastering key programming concepts, from writing simple commands to creating more complex structures. Then, we'll put our skills to the test by designing interactive games from scratch, using python's simplicity and power to bring our ideas to life. Whether you're looking to kickstart your game development journey or simply want to see how coding can bring your ideas to life, this camp will provide the perfect foundation. **Important Note:** To get the most out of this camp, participants need to be familiar with basic math concepts such as addition, multiplication, angles, and measurements—don't worry, we'll help connect these math skills to your coding projects!



**NAVIGATING NATURE**

June 16-18\*; 9am-4pm  
\$350  
\*Note: This is a 3-day camp.

Discover the secrets of navigation in this camp focused on finding your way using nature as your guide! We'll learn how both humans and animals navigate the world around them by studying the sun, stars, and natural landmarks. This camp culminates in as thrilling navigation challenge to put our newfound skills to the test. Perfect for adventurers ready to explore the world in a whole new way!

**WILDERNESS CHALLENGE**

July 21-25; 9am-4pm  
\$595

In this camp, we'll explore the essentials of wilderness survival and naturalist knowledge! From the backyards of Boulder, we'll dive into map and compass navigation, practice packing the perfect backpack, and learn how to stay safe in back-country scenarios. We'll also uncover the secrets of local ecosystems, identify plant and animal species, and develop practical skills to prepare for future mountain adventures. This is the perfect introduction for explorers dreaming of their next big outdoor journey!



# HIGH SCHOOL CLASSES

## AEROSPACE

June 9-13; 9:30am-3pm

July 21-25; 9:30am-3pm

\$650

Location: Ofelia Miramontes and Leonard Baca Education Building

To date, sixteen CU Boulder astronaut affiliates have flown on forty space shuttle missions! Join some of the leaders in aerospace technologies in learning about what it takes to be an aerospace engineer. In this week-long class, we'll meet scientists from the Laboratory for Atmospheric and Space Physics (LASP), learn about astrobiology, and plan our mission to Mars. We'll get a chance to see one of only a few university-based Mission Operations Centers, where LASP undergraduate and graduate students perform mission operations for NASA satellites totaling more than \$1.5 billion in value. Additionally, we'll get a chance to work on gliders, airfoils, and jet engines, as well as testing composites for aircraft wings. Finally, we'll learn about alternative applications of aerospace technologies, including wind turbines and parachutes.

## COMPUTER SCIENCE AND ROBOTICS

July 21-25; 9:30am-3pm

\$650

Location: ATLAS Institute

Through hands-on experiments, programming design and development, we'll learn the basics of robot motions, sensors, and controls. Participants will have a chance to play with several robot platforms including Cubelets, Sphero, Dot and Dash, Redbot, and more. We'll get to use and take home our own SparkFun XRP, which includes a robot platform with a Raspberry Pi Pico W microcontroller. We'll assemble our XRP robot and complete a set of experiments, ranging from learning how to maneuver our robot to using sensors. We'll participate in group activities to design, build, and demonstrate our own robot projects. Upon completion of this course, participants will have gained an understanding of complex robot motion, sensing and control, as well as experience with mechanical and electrical design and construction of this unique robot.

## BIODIVERSITY IN COLORADO AND BEYOND: UNLOCKING THE SECRETS OF LIFE ON EARTH

June 9-13; 9:30am-3pm

\$650

Location: TBD

The field of inquiry that uses an observation-focused approach to understand nature is called natural history, and understanding natural history can teach us about local organisms, inspire creative research, and connect us to the places where we live. What's more, is that studying natural history can help us develop observational and problem solving skills, interdisciplinary thinking, and provides us with the detailed information needed to understand and solve environmental problems from the local to the global scale. In this course, we will learn about the biodiversity of the Front Range, focusing on insects, reptiles and amphibians, and plants with historical importance.



## CREATIVE TECHNOLOGY AND DESIGN

July 7-11; 9:30am-3pm

\$650

Location: ATLAS Institute

At the intersection of technology, engineering, and art, this class at the ATLAS institute will get you "hands-on" with technology and expand your knowledge in the field of Human-Computer Interaction (HCI). The course will take students on a tour of the ATLAS labs, where they will have the opportunity to participate in hands-on building and gain practical experience in the latest technologies and techniques in the HCI field. Learn the fundamentals of programming, circuitry, 3D design and printing in a lively, project-driven environment. Team up and create something completely new, such as an electronic musical instrument, a kinetic art installation, a piece of interactive clothing or a computerized toy. You will be led through a series of design challenges and lab tours aimed at identifying the limits of maker technologies and will be able to let your imagination run wild as you create your own mini world. Enjoy the autonomy to freely design, build, test, and interact with your creations. Building awesome stuff with tech and art has never been more fun, or more approachable. This class is perfect for students who are interested in design, toys, games, and music, or who are simply curious about the potential of technology to make a positive impact on our world.



## ENGINEERING BIOLOGY WITH POLYMERS

June 23-27; 9:30am-3pm

\$650

Location: Jennie Smoly Caruthers Biotechnology Building

Ever wondered how scientists can create new tissues, deliver life-saving drugs, or even use tiny enzymes to clean up pollution? It's all thanks to the amazing world of polymers! Polymers are long chains of repeating molecules, kind of like the beads on a candy necklace. In this hands-on experience, you will discover how polymers are being used to solve some of the world's biggest challenges. Learn how polymers are being used to carry medicine directly to where it's needed in the body. Create polymer scaffolds that support tissue healing and re-growth. Attach tiny enzymes (nature's catalysts) to polymers to create micro-factories that help us make medicines, fuel, and even food in a sustainable manner. Get ready to experiment with all this technology in a university lab. You'll even get to try scaling up production in bioreactors, just like scientists do in the pharmaceutical and food industries. Plus, you'll hear from real-world chemical and biological engineers about careers in this exciting field.



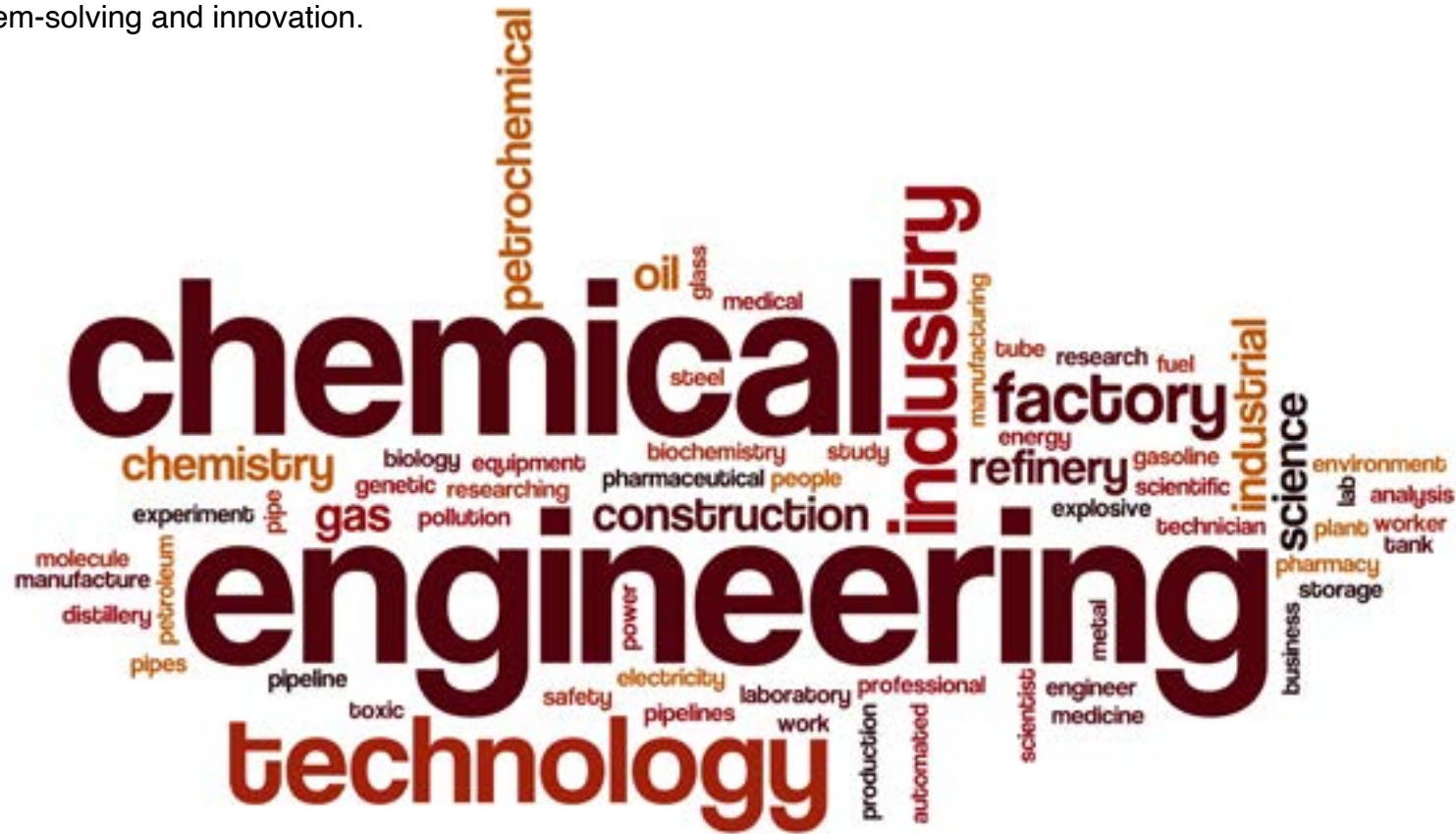
## FROM CONCEPT TO CREATION: THE WORLD OF CHEMICAL ENGINEERING

June 9-13; 9:30am-1pm

\$415

Location: Jennie Smoly Caruthers Biotechnology Building

Get ready to dive into the exciting world of Chemical Engineering! This class isn't about memorizing the periodic table or mixing chemicals – it's about engineering processes that power the world. In this immersive program, we'll learn how to design experiments, analyze data, and solve real-world challenges using creativity and cutting-edge tools. We'll explore how chemical engineers characterize a product and compare performance, optimize systems to make industries sustainable, and develop new techniques to shape the future of energy, medicine, and technology. Through hands-on activities and fun experimental modules, we'll step into the shoes of an engineer, designing our own experiments and learning the art of problem-solving and innovation.



## NEUROSCIENCE

June 23-27; 9:30am-3pm

\$650

Location: Jennie Smoly Caruthers Biotechnology Building

How does the brain control our actions, and how do scientists study this largely unknown frontier? This class will dive into topics such as sensory systems, learning, memory, and behavior, and explore numerous questions about the mind and brain from a variety of disciplines, including anatomy and physiology, neuroscience, psychology and genetics. The course will begin with an introduction to the anatomy and physiology of the brain as we learn about different brain structures and their related functions. Hands-on activities and experiments, together with laboratory tours and guest presentations, will allow us to build on this foundation and develop our understanding of the brain. We'll explore the topics of brain plasticity in the context of development, as well as the role that genetics may play in behavior. We'll also engage in mini-experiments on topics such as memory, sensory processing, and cognitive load in order to learn how scientists conduct research on the brain.

# STEM RESEARCH EXPERIENCE

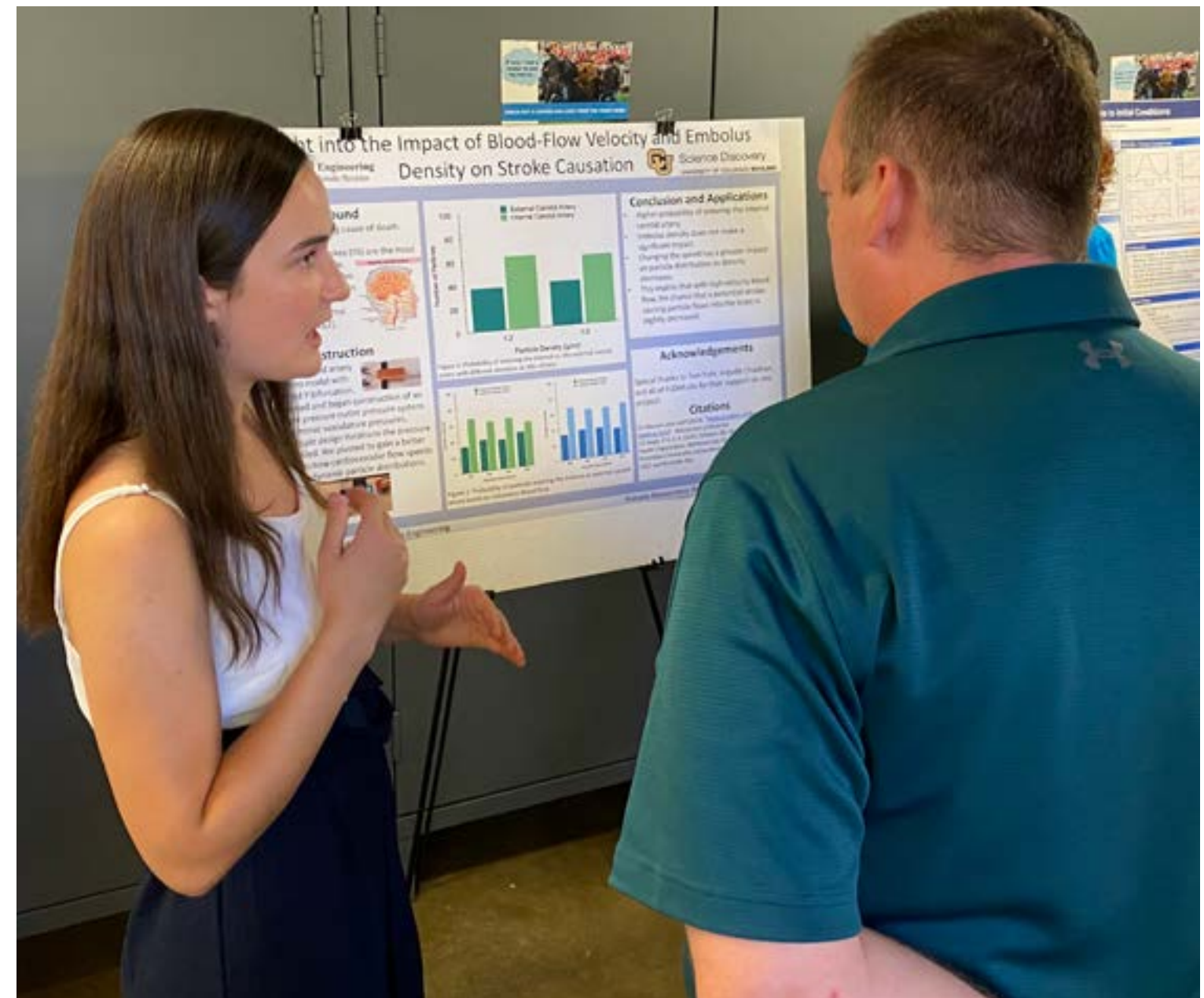
**JUNE 6 - JULY 25, 2025**

In this 6-week program, CU Boulder and CU Anschutz faculty and graduate students act as mentors to highly motivated high school students interested in gaining real-world laboratory experience.

Program participants will learn:

- What it's like to be a scientific researcher
- The path to becoming a research scientist
- The process by which research is conducted
- How to probe data for answers to important questions

Visit the [Science Discovery website](https://www.sciencediscovery.org/) for application information and timeline.





# CU ANSCHUTZ MEDICAL CAMPUS GRADES 7-12

All programs below will be held at the CU Anschutz Medical Campus. Please see website for complete location details.

## **ABCs of DNA**

Grades 7-9

June 23-27; 9am-4pm

\$650

We all depend on the letters D-N-A for life, but what is really spelled out by our genetic code? How do cells use DNA and why do scientists study it? During this camp, we will inspect the structure of DNA, investigate its function, and examine variations in its code. Activities will include fun, hands-on experiments and interactions with Anschutz Medical Campus scientists. No spelling tests – just an exciting exploration of a molecule essential for life!

## **INVISIBLE WORLD OF MICROBES**

Grades 7-9

June 9-13; 9am-4pm

\$650

Come learn about the wild world of microbes inside and outside of the human body. Whether they are making us sick, keeping us healthy, or producing some of our favorite foods, microbes have a tremendous impact on our everyday lives. Together, we'll investigate bacteria and viruses, identify ways we defend ourselves from them, and try out microbiology laboratory techniques. We will also explore the coronavirus and how it interacts with our bodies and the world. This camp will give us a glimpse in to what's happening in the invisible world of microbes all around us!

## **ANIMAL SCIENCE ADVENTURES + POISONS TO POTIONS**

Grades 7-9

June 16-20; 9am-4pm

\$650

*Animal Science Adventures* explores topics such as animal behavior, care of lab animals, and practice of techniques used by scientists and animal care technicians. We will conduct experiments with pill bugs, learn about careers involving laboratory animals, and tour the Anschutz Medical Campus animal facility. Camp continues with *Poisons to Potions* as we learn about the science of "Poisons," substances that can harm us, and "Potions," substances that can help us. We will conduct experiments using flatworms to test the effects of chemical exposure and practice pharmaceutical compounding. We will also be introduced to careers in toxicology and pharmacology, the sciences behind poisons and potions. Come on this adventure to learn how animals contribute to modern medicine and to increase your knowledge about chemicals we encounter every day!



## **BIOMEDICAL RESEARCH BOOTCAMP**

Grades 10-12

June 9-20; 9am-4pm

Note: This is a 2-week course.

\$1,200

Do you have what it takes to be a biomedical scientist? Get a head start on your future coursework, internship, or research career with an introduction to biomedical laboratory techniques, visits to cutting edge facilities, exploring the ethics of biomedical research, learning about research careers, meeting scientists, and developing your own scientific research proposal. Prior knowledge of cells, DNA, RNA, and protein is helpful for the labs, but not required. Students will need to follow safety guidelines, read and follow experimental protocols, and record data in lab notebooks. If you are ready to learn about how science solves health problems in a high-intensity workout for your brain, then this research-focused course is for you!

## **MEDICAL STUDENT EXPERIENCE**

Grades 10-12

June 23-27; 9am-4pm

\$650

Try this week-long course to get a small taste of the medical world. Activities may include practicing physical exams, clinical research presentations, seeing how health professionals learn with medical simulations, visiting anatomy labs, practicing suturing and injections, and more. This week is full of hands-on activities and interactions with medical trainees and professionals, giving you a fun look at the science and practice of medicine.





Science Discovery

UNIVERSITY OF COLORADO BOULDER

# FREQUENTLY ASKED QUESTIONS

For a complete list of frequently asked questions, please visit the Science Discovery website.



**When does online registration open?**

Wednesday, January 8 at 8am



**How do I register my child?**

Simply click the registration button on any camp or class description page. You may also register for programs by phone or in-person.



**When registering my child for a Science Discovery program, which grade level should I select?**

Please select the rising grade level, meaning the grade level the child will be entering for the upcoming school year.



**My child is 4. Are they permitted to join a Science Discovery camp?**

Participants are required to have reached their 5th birthday by the start date of their first camp. All participants must be a minimum of 5 years of age to attend a Science Discovery camp.



**Does Science Discovery offer scholarship support?**

Yes, Science Discovery provides scholarships for many programs, depending on availability of funding and financial need. To apply, please submit a scholarship application as soon as you're able. Scholarship applications are accepted and awarded on a first-come, first-served rolling basis.



**What is the Science Discovery cancellation and transfer policy?**

Cancellations made more than 30 days prior to the start of the camp/class will incur a \$35 administrative fee. No refunds will be given for cancellations made within 30 days of the start of the camp/class. In the event that a program is canceled by Science Discovery, registrants will receive a full refund.

Transfer requests made up to 30 days prior to the start of a camp/class will incur a \$15 administrative fee. Transfer requests made within 30 days will incur a \$35 administrative fee.



**My child is in a morning and an afternoon camp. Do I have to transport them in the middle of the day?**

If your child is in a morning camp and an afternoon camp at the same location, Science Discovery provides free lunchtime supervision and will ensure they arrive safely at their afternoon camp. Locations are listed on the description page for every camp and class.



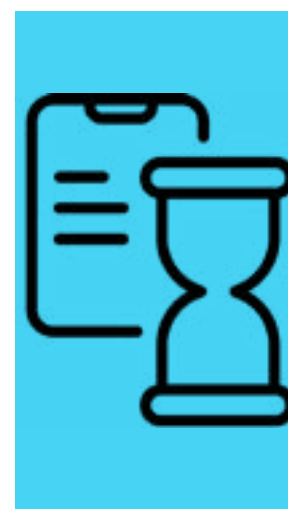
**Does Science Discovery provide snacks or lunch?**

No, Science Discovery is unable to provide snacks or lunch. All participants are required to bring 2 or more snacks daily (depending on the child's needs) and a sack lunch that does not require refrigeration (for full-day camps/classes only).



**Can I transfer my child from one camp or class to another?**

Transfer requests made up to 30 days prior to the start of the camp/class will incur a \$15 administrative fee. Transfer requests made within 30 days of the start of the camp/class will incur a \$35 administrative fee. In order to transfer your child from one camp/class to another, simply log in to your Active Network account and follow the prompts.



**My child is waitlisted for a camp or class. How does the waitlist process work?**

Science Discovery is unable to predict when a spot will open in a camp or class, as a spot will only become available if someone cancels out of a program. If a spot should become available, the first family on the waitlist will be notified by email. They will have approximately 72 hours to claim or pass on the spot. If they refuse the spot, the next family on the waitlist will be notified, and so on until all families have been notified. Once the waitlist has been exhausted, the spot will be made available to the public. Note: If you receive a waitlist notification email and do not take action within the specified time period, your child will be removed from the waitlist altogether.

Please do not call requesting to add additional students to a camp/class. Science Discovery adheres to camp and class enrollment caps for a number of reasons (safety, materials limitations, space constraints, etc.) and cannot make exceptions.

 303-492-7188

 [scidisc@colorado.edu](mailto:scidisc@colorado.edu)

 [colorado.edu/sciencediscovery](https://colorado.edu/sciencediscovery)

**Tax ID Number: 846000555**