

**JUNE 21-26**

**Adventures in Extraordinary Chemistry in Extraordinary Lives (Rising 6-9)**

As a budding chemist, try out hands-on experiments that will help you connect real-world situations with science. Have you ever wondered about the cosmetics, food and medicine you use? This adventure will help you uncover the science — and chemistry — behind those and many more. Practice concepts from chemistry, the science that investigates the very small, to understand the large. An expert in USC's Department of Chemistry and Biochemistry will show you that a sparkle of imagination has created a constellation of essential, amazing products. Using various techniques and equipment, discover how chemistry is touched by and used in our everyday lives. Study career fields and what it takes to be a chemist.



**Adventures in Aerospace (Rising 9-12)**

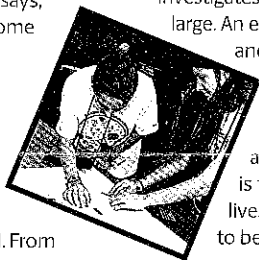
Have you ever wondered what it takes to be an aerospace engineer? Spend the week with us, and you will learn about the research, design, development and manufacture of aircraft. Discover new innovations in the USC McNAIR Center for Aerospace Innovation and Research, and then head over to the Challenger Learning Center of Richland School District One to learn about rocketry. See the future of 3D printing technologies and learn the basics of composite materials, computer aided design and manufacturing, program industrial-scale robots and test manufactured products. End your week by creating your very own composite aerospace part!

**Adventures in Creative Writing (Rising 9-12)**

Develop your writing skills, discover new techniques and polish your prose in your chosen genre. Visit the local art museum to release creativity in your writing and expand your imagination. Work with distinguished and published faculty from the USC Poetry Initiative and the English department to employ a variety of styles and themes to write essays, fiction, poetry and short stories. Take home your work in a small class anthology.

**Adventures in Neuroscience (Rising 9-12)**

Join us to learn about the fundamentals of the brain and neuroscience! Explore the brain in both health and disease at the cellular and systems level. From neurotransmission to human consciousness and sleep, discover how the brain's dynamic plasticity is implicated in exercise, emotion, learning, memory and so much more! Take a peek into some of the most intriguing topics in neuroscience and dive into recent discoveries that are changing the field of brain research. Experience what it is like to be a scientist as you participate in experiments, engage in discussions and attend lectures about the most unknown organ in the body!



**Adventures in Filmmaking (Rising 9-12)**

Lights, camera, Action! Do you see yourself writing a movie script or working on a movie set? In this class, we will introduce basic filmmaking. Class topics include story development and writing a short script; technical instruction with the camera, tripod and

editing software and shooting and editing your film. We will balance between in classroom instruction and hands-on production experience. By the end of this adventure, you will write a script, direct filming and edit the film.

**JULY 5-10**

**Adventures in Law and Crime (Rising 6-9)**

Spend your day in court — as an attorney! Learn about the court system, criminal investigation, defense and prosecution and evidentiary and trial prosecution. Work with real-life attorneys and law enforcement officers, tackling a real case from the moment the crime is perpetrated. Your team will even bring a case to court through a mock trial. Visit local and supreme courts and see the legal system from the inside!

**Adventures in Engineering (Rising 9-12)**

Do you think you have the "knack" to be a future engineer but are not sure which area you want to specialize in? Here, you will experience different types of engineering and find out what engineers really do in mechanical, electrical, civil, chemical and biomedical engineering to gain a clearer picture of what it means to earn a degree in one of these fields. Your adventure will include hands-on activities and building sessions in university labs in each area of engineering so you can personally experience how each field is unique and fascinating. This experience will help you decide which area of engineering you want to pursue.

**Adventures in Extraordinary Chemistry in Extraordinary Lives (Rising 9-12)**

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**Adventures in Culinary Arts (Rising 9-12)**

Experience the world of culinary arts as you master some of the skills required of a professional chef: knife skills, safety, sanitation, culinary terminology, and dining room etiquette. A professional chef instructor will teach you how to prepare dishes from start to finish and students will be able to explore various cooking techniques, such as dry cooking, moist cooking and combination cooking. Learn and practice these techniques while preparing dishes from all over America!

**Adventures in 3D Printing (Rising 9-12)**

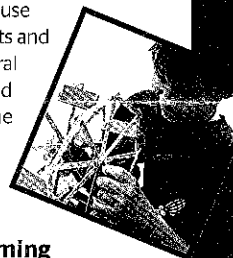
Have you ever wondered if you can engineer your imagination to life? Do you know you can explore your love to create by 3D printing? Come join us in

the Adventures of 3D Printing to be a "Print-ineer" for life by initiating your 3D printing journey in this adventure series. You will experience diverse facets of engineering design from architecture to structural to aerospace to automotive and learn about their structural design, manufacturing, and health monitoring. At the end of the adventure, you would have the opportunity to create 3D printed engineered structures and enjoy a team "building" project.

**JULY 12-17**

**Adventures in 3D Printing (Rising 6-9)**

Have you ever wondered if you can bring your imagination to life? Do you know you can explore your love to create and invent new things by 3D printing? Come join us in the Adventures of 3D Printing to be a young "Print-ineer" for life by initiating your 3D printing Journey in this summer camp. You will learn about exciting ways you can 3D print daily use objects to real structural components and learn about the strategies of structural design and manufacturing. At the end of the adventure, you would have the opportunity to create your own 3D printed engineered structures and enjoy a team "building" project.



**Adventures in Computer Gaming (Rising 9-12)**

Venture into the exciting, interactive world of computer gaming! Using a game engine, you'll learn the skills behind graphics, modeling, animation, multi-level game design, artificial intelligence and basic programming techniques, such as if/switch, for/while loop and more. Through instruction by USC's Computer Science department and hands-on programming, you will work in a group to create a finished product: your own video game.

**Adventures in Medicine (Rising 6-9)**

See a white coat in your future? If so, start learning about the intricacies of the human body and symptomatology through the examination of the body's many incredible organ systems. This adventure will include multiple presentations from medical students and attending physicians and possibly even a trip to the University of South Carolina School of Medicine cadaver lab. Begin your path toward becoming a physician through interactive learning experiences, fascinating lectures and presenting on your favorite body systems. If you're curious about how your body works or how we recover from injury, this adventure is for you!

**Adventures in Information Technology (Rising 9-12)**

Dive into engineering and computing using the Arduino microcontroller. This STEM+C camp will feed your interest in learning to code and understand the basics of electrical engineering. Join the Information Technology Department in the College of Engineering and Computing who will help you design your own electrical circuits and sensors, and learn about programming them using the Arduino IDE, a simplified version of C++. You'll learn how to control lights, motors and speakers and how to make your Arduino sense its environment. Applying everything you've learned; you'll end your adventure by making your own electrical engineering coding and programming project to solve an everyday problem.

**Sign up today! [discover.sc.edu/youth](http://discover.sc.edu/youth)**



**South Carolina**