

<b>Student Workshops</b>
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**1: Breathe Like a Fish**

Use hands-on kits to help understand the principles of scuba diving. Then use Bio-mimicry to discover a new way to breathe under water

*Laura Erlig, Educator, Steve Rodgers, Engineer, Agilent*

**2: Rockets, Worms and Disappearing Cups**

How can you make a rocket out of a water bottle or make a Styrofoam cup disappear? Join us and you can experience amazing chemical reactions and learn about careers in chemistry.

*Tiffany Pawluk, Chemistry Professor, Moorpark College*

**3: Project Brainstorm: Learn About Your Brain**

Have you ever wondered what a real brain looks like? Do you want to learn how your brain works? This fun workshop will teach you about your amazing brain.

*Sarah Madsen, Neuroscientist, Medical Comm., Artemis Zavaliangos-Petropul, Martina DeSalvo, Kate Fehlhaber*

**4: Molecular Gastronomy and Food Science**

Learn about food science and how to use chemistry to make agar spaghetti and berry drops.

*Vanessa Lopez, Natalie Chavez, Chemistry Students, CSUCI*

**5: Control Your Electronic World**

Learn to use the small, stackable electronic device called Microduino and discover some of its limitless possible uses.

*Derek Hibar, Asst. Professor of Neurology, USC, Bin Feng, Microduino Inc.*

**6: Why Worry About Water?**

Learn how water systems work and how the things that happen today affect the groundwater table in the future.

*Jennifer Aguilar, Water Conservation Coord., Glendale Water*

**7: What It's Like To Be A Doctor !**

A hands on experience of the way physicians keep you healthy.

*Rauz Eshraghi, Physician, UCLA*

**8: Keeping Your Pets Healthy**

Learn about a career in small animal veterinary medicine. Be introduced to a pet physical exam and learn bandage techniques.

*Kathy Jonokuchi, Veterinarian*

**9: The Forensics of Fingerprints**

Learn how to identify different fingerprint patterns. Practice making and lifting prints and see how you do at matching in a Fingerprint Challenge.

*Lucinda Sullivan, Maria Perez, Forensic Scientists, Ventura County Forensic Sciences Lab*

**10: A Day in the Life of a Park Ranger**

Explore career opportunities in science-related jobs with the National Park Service. No matter what your interests you'll find something for you.

*Kelly Moore, Park Ranger and Marine Biologist, NPS*

**11: What's Buggin' Your Garden ?**

Solve the mystery of what is eating your garden plants. Learn about different bugs and how they impact your food & flowers.

*Anna Howell, Entomologist, UC ANR*

**12: Space Exploration - Help Wanted!**

Learn how space exploration plays an important role in protecting your planet and investigating the universe. Explore career opportunities at the Jet Propulsion Laboratory.

*Sherry Stukes, Software Systems Engineer, JPL*

**13: Discover Engineering**

Explore what engineers do? Make (chocolate) asphalt cookies, discover the tools that engineers use and do a design project with solar power (peanuts and walnuts used in demonstration). *Jeannette Baker, Electrical Engineer; Marta Alvarez, President, YCE Inc., Civil Eng. and Land Surveying; Kylara Hermansen, Ryan Hermansen, Students*

**14: Chemistry Solutions**

Explore the difference between chemical reactions and transitions and apply what you've learned to make something edible.

*Linda Narhi, Biochemist, Amgen; Diane Woehle, Principal Scientist, Amgen*

**15: Do You Have a Pulse?**

Discussion on what comprises vital signs, normal values and learn to take your own vital signs.

*Kemi Reeves, Nurse Practitioner, UCLA*

**16: Math With a Twist !**

Explore math with your own two hands and some twisty tricks. Learn about topology and test the famous Four Color Theorem.

*Carissa Romero, Math Student, CSUCI*

**17: Rock and Mineral Detectives**

Identify rocks and minerals, and learn how geologists find them and why they are important. Learn about geology career options.

*Peggye M. Ahlstrom, Jennifer Pavia, Professors of Geology, Moorpark College*

**18: Cosmetic Chemistry**

Explore how the chemistry of cosmetics can improve your skin and appearance. You will make a versatile gel, perfume and lip balm.

*Alicia Chavez, Biology Student, CSUCI; Brittany Bagdanov and Brianne Sullivan, Scientists, JAFRA*

**19: Gummy Fish Genetics**

Learn about the impact of environment on genetics by mating fish in a gummy fish pond.

*Tracy Blois, PhD, Amgen*

**20: Vital Vitamins**

Learn about vitamins and their benefit to your body. Explore foods that are highest in vital vitamins while making fruit infused water and other treats.

*Shelby Bublitz, Nutritional Scientist*

**21: Wilderness Medicine**

Come learn some first aid to help injured people in remote areas and some tricks I have used on my medical care trips around the world.

*Tracey Young, Physician*

**22: What Are Your Navy Neighbors Up To?**

Challenge your rocket launching skills by trying to hit a ship model target. Learn about Vertical Launching Systems and Laser Models.

*Karen Kjos-Racicot, Electronics Engineer, Navy*

*Liz Awa, Electronics Engineer, Navy*

**23: The Sky's The Limit !**

Learn about Armstrong Flight Center (NASA's premier aeronautical center for atmospheric flight research) and learn how to build and fly your own glider.

*Maria L. Caballero, Aerospace Engineer, NASA, Annamarie Schaecher, Educator, NASA*

**24: Bite Me !**

Examine animal teeth and skulls and learn about key skull features that scientists use to better understand relationships.

*Betsy Connolly, Veterinarian, College Instructor*

## **25: Living With a Star - Our Sun !**

Explore our sun and space weather. Use a telescope to safely search for sun spots. Understand magnetic field lines and their connection to coronal mass ejections (CME) and solar wind.

*Marge Bartholomew, Astronomer Coordinator VCAS*

## **26: Out in the Field**

We will discuss veterinary medicine with a large animal perspective and talk more specifically about working with horses.

*Marta Granstedt, Veterinarian*

## **27: Science of Slime!**

Explore the properties of non-Newtonian fluids using slime.

*Natalie Banakis, Chemical Engineer, Meissner*

## **28: Will It Fly ?**

Learn about various engineering concepts that are used for flight testing. Build your own paper airplanes and targets

*Silvia Faulstich, Flight Test Engineer, Navy*

## **29: Discovering the Sea Range**

Introduction to the testing facilities, instrumentation and operations of the Point Mugu NAVAIR Sea Range.

*Ilia Ford, Kenna Williams, Engineers, Navy, Pt. Mugu*

## **30: Tools of Biotechnology**

Explore biotechnology by learning how to use some of the tools that scientists in the field commonly use.

*Sherry Tsai, Bio-Organic Chemist, Amgen Biotech Experience*

*Carol Fujita, Biology teacher, Coord. ABE-LA at CSUCI*

*Karin Steinhauer, Microbiologist, Coord. ABE-LA at Pierce College*

## **31: DNA Isolation From a Strawberry**

DNA carries the instructions for life! We will extract the DNA from strawberry cells and convert it into a solid that you can take home.

*Laura Nary, Scientist*

## **32: What Microbe Are You?**

Examine marine microbes and their critical importance. Learn how infectious agents can spread and start an epidemic.

*Marisol Luis, Stephanie Soriano, Biology Students, CSUCI*

## **33: Recycling, Landfills and Trash - Oh My !**

Make your very own landfill. Learn why we need to "Recycle Often, Recycle Right" and -- talk trash !

*Lisa Hemenway & Mindy Paar, Waste Management*

## **34: Surgery Care - What's Involved?**

Learn how a surgical team of nurses, technicians and doctors work together as a team to take care of patients in surgery. Learn how to scrub in for surgery, prepare the room and even get a glimpse into surgery itself.

*Tamara Grisales, Physician, UCLA; Eleanor Mowbray, Registered Nurse; UCLA*

## **35: Flying Fruits and Sailing Seeds**

Learn what a fruit is and what its function is in plant reproduction and seed dispersal. Build a flying fruit and see how far its seeds can travel.

*Katherine Courtney, Professor of Biology, Moorpark College*