



21ST ANNUAL ASTRONAUT LACY VEATCH DAY OF DISCOVERY

Saturday, October 29, 2022
Kamehameha Schools, Kapālama

INTERACTIVE WORKSHOPS **FOR STUDENTS IN GRADES 3-12, ADULTS, AND TEACHERS**

2022-01 HAWAIIAN ELECTRIC PRESENTS THE WIDE WORLD OF ELECTRICITY

Nelson Wong and the Customer Solutions Team, Hawaiian Electric

Discover the newest renewable energy component, battery storage. You may even be installing it at your own home! Create your own battery storage unit which will impress your family, friends, and teachers. No previous experience necessary. Just bring your eagerness to participate and learn.

2022-02 PAST, PRESENT, AND FUTURE OF POLYNESIAN CANOE VOYAGING

Mark Ellis, Captain, Educator, Polynesian Voyaging Society

Learn how to prepare for a voyage on the Hōkūleʻa. What skills would one need to become a crew member?

2022-03 NEWTON'S BALLOON CAR CHALLENGE!

Richard Jones, UH West Oahu/NSTA/HaSTA

Build Basic Meat Tray Balloon Race Cars to explore Newton's Laws of Motion.

2022-04 GELATIN VOLCANOES

Scott Rowland, SOEST, University of Hawai'i

Use gelatin volcanoes to understand how magma travels from the magma chamber to the surface.

2022-05 LEARNING WITH LIGHT: HOW SATELLITES USE LIGHT

Team Laniakea, Hawai'i Space Flight Laboratory, University of Hawai'i

Learn how a satellite sees from space, and what they do with that information in a workshop about light. Take a photo in the infrared photo booth for you to take home.

2022-06 MARS ROVER

Team Rose (Robotic Space Exploration), College of Engineering (CoE), Hawaii Institute of Geophysics (HIGP), and The School of Ocean and Earth Technologies (SOEST), University of Hawai'i

Rosie, the Martian Exploration Rover, will be demonstrating her abilities to navigate the terrain by control from our pilot and by herself autonomously. Learn how mechanisms work through a take-home project and check out "rover vision," what Rosie sees versus what we see.

2022-07 PAPER CIRCUITS

Lillian Shibata, Jeraldine Milla, Alyssa Watanabe, Nyah Chamberlain, Society of Women Engineers UH Manoa Chapter

Learn about basic circuits through the use of LEDs, copper tape, and a battery and apply your new knowledge of circuits by incorporating them into an arts and crafts project.

2022-08 MINI AIR CANNON

Lisa Loo, Melanie Ho, Hardware Science, Housemart, Ace Hardware

Learn how air flows and can make objects move by building a vortex generator that creates pulses of air.

2022-09 GRAVITATIONAL CHALLENGE - KEEPING THE BALANCE

Roger Kwok, Leeward Community College

Participate in and solve a collection of challenges and activities to explore the effects of the gravitational force on objects and their ability to maintain balance and not fall down!

2022-10 CODE AND GO FOR EARLY LEARNERS

University of Hawai'i STEM teacher candidates, University of Hawai'i at Manoa

Learn how to code by using touch to control movement and sound with the VEX 123 robot. Early learners can learn to sequence their code, use logic, and problem solve.

2022-11 BUILD A SUPERCAR!

University of Hawai'i STEM teacher candidates, University of Hawai'i at Manoa

Use engineering skills to build a car from the VEX Go kit, and then test it out! Explore how different variables can affect speed and distance traveled.

2022-12 CHALLENGE ACCEPTED! MASTERING CODING CHALLENGES WITH DASH ROBOTS

University of Hawai'i STEM teacher candidates, University of Hawai'i at Manoa

Help Dash the robot figure out ways to work around obstacles and challenging tasks with your creative coding skills.

2022-13 BRING OUT THE CREATIVITY IN YOU! ENGAGING IN CREATIVE CODING WITH SPHERO

University of Hawai'i STEM teacher candidates, University of Hawai'i at Manoa

Create your own code and engage in activities that explore SPHERO robot's exciting skills and capabilities.

2022-14 DRINKING STRAW PRESSURE DROP

Antonio Isom, David Lebowitz, Marites Calad, Les Taniyama, ASHRAE Hawai'i

Learn what pressure drop is and how it can affect the amount of energy that is required to move a fluid through a conduit with this hands-on activity.

2022-15 SAILING THROUGH THE ISLANDS

Jessica Barbera, Kelly Sutcliffe, Jefferson Elementary School

Learn about how the ancient Hawaiians travelled by way of double-hulled canoes as well as the Hokulea's Voyage. Experiment with different designs and materials to build your own canoe and test out your design using wind power!

2022-16 NANOSCIENCE AND MICROSCOPES

Lori Shimoda, Chaminade University of Honolulu, I Am a Scientist

Nanoscience combines science, engineering and technology to study and create very tiny things. From fabrics to computer chips, nanotechnology is an integral part of our daily lives. To "see" what nanotechnology is all about, use our microscopes to learn, do, and create your own mega nano-experiences.

2022-17 LET'S SHAKE IT UP

Julia Segawa, Craig Segawa, Stevenson Middle School

Explore using the engineering design process to construct an earthquake resistant structure. Test its resiliency on a simulation shake table. Let's rock and roll!

2022-18 CARDS & GUMMY BEARS TOWER

Bryan Silver, Leilani Phan, Chloe Ho, Stephanie Lee, Andrew Lee, Magma Robotics

Students will use index cards, tape, and scissors to build a tower that can withstand wind for the bears living in Bear Valley! Students will learn about designing to withstand wind motions, building a structure to support weight, and analyzing constraints of different materials.

2022-19 IDENTIFYING THE FIBONACCI SEQUENCE IN NATURE

Maya Kimura, Ethan Kimura, Lee Kimura, Lisa Yamamoto, K-Y Ohana

The Fibonacci sequence is a set of integers (the Fibonacci numbers) that starts with a zero, followed by a one, then by another one, and then by a series of steadily increasing numbers. Use a protractor and ruler to see the Fibonacci Sequence in nature.

2022-20 CHEMISTRY OF SLIME

Francis Sakai-Kawada and the Chaminade University Chemistry Club

Learn how to make slime using common household products and learn the fundamental chemistry behind it.

2022-21 MAGICIANS USE PRINCIPLES OF SCIENCE TO CREATE MYSTERY AND WONDER

Harvey Ouchi and Ron Ishimaru, Society of American Magicians

Learn how science concepts magicians use to entertain and create amazing results and apply those principles to create your own magic.