



**Astronaut Lacy Veach Day
of Discovery**
Saturday, October 27, 2018
Punahou School

*"You've got to believe in your dreams,
and you've got to be hard-headed
enough to never let them go."*

Charles Lacy Veach, Astronaut

8:00 – 1:15 p.m.
7:45 – 8:45 a.m.
9:00 – 9:50 a.m.

10:05 – 11:05 a.m.
11:20 – 12:20 p.m.
12:20 – 1:15 p.m.
1:25 – 2:45 p.m.

Interactive displays available for viewing
(Mamiya Science Center)
Check in (Dillingham Hall)
Opening general assembly (Dillingham Hall)
Dr. Jim Scott, President, Punahou School
Workshop Session I (Mamiya Science Center)
Workshop Session II (Mamiya Science Center)
Lunch (bring your own lunch/drink or purchase on campus)
General Assembly (Dillingham Hall) – Dr. Scott Rowland, Geology,
SOEST, University of Hawai'i at Mānoa, Kilauea/East Rift Zone
eruption update, Science is Fun demonstrations by Elemental Minds

WORKSHOP 2018-01 Mystery and Intrigue: The Wide World of Electricity

Marvin Galicha, Hawaiian Electric team (Hawaiian Electric, Energy Solutions Engineering Division)

Learn some exciting aspects of electricity and battery storage. Build a battery storage experiment that should impress your friends, family and teachers. No previous experience necessary. Just bring your eagerness to participate and learn.

WORKSHOP 2018-02 Paper Circuits

Danielle Young, Candice Sarangay, Jianna Orias, Michelle Reed, Paul Baessler, Kevin Williams, Society of Women Engineers, University of Hawai'i at Mānoa

Get creative with paper circuits. Learn the basics of circuitry and make light-up cards and artwork!

WORKSHOP 2018-03 Commander Thomas' Quintessential Cubee Bots

Lorie Javier, Ian Pelayo, Mark Iwasaki, Liane Kim, Gerald Javier, Challenger Center Hawaii

Create and design your own wooden robot and fight with the power of hydraulics!

WORKSHOP 2018-04 Jousting Cars

Kalani Robotics Team #3008, Team Magma, Kalani High School

Explore gravity and the scientific method through car jousting.

Build your own unique car which you will take home.

WORKSHOP 2018-05 AHA Family & Friends Hands-Only CPR

CPT Charles Griep, FF3 Barry Burnett, Honolulu Fire Department

What's simple, fun to learn and can save a life? Cardio Pulmonary Resuscitation (CPR) if performed immediately, can double or triple a cardiac arrest victim's chances of survival.

WORKSHOP 2018-06 Gelatin Volcanoes, Dikes, Rift Zones

Scott Rowland, Geology, SOEST, University of Hawai'i at Mānoa

Experience how magma migrates within a volcano and learn how it is related to the shape of a volcano and lava flow hazards. Inject "magma" into a gelatin volcano and see how it reaches the surface.

WORKSHOP 2018-07 Hardware Science

Lisa Loo, Melanie Ho, HouseMart Ace Hardware

Hardware meets science! Explore different ways that supplies from your local hardware stores can be used to learn about STEM. Nails, magnets and hex nuts are some of the items to be used.

WORKSHOP 2018-08 Looking at Hawai'i with a View from Space

Amber Imai-Hong, Hawaii Space Grant Consortium, Linda Martel, Andrea Gabrieli, Hawai'i Institute of Geophysics and Planetology, University of Hawai'i at Mānoa

What can you learn about an active volcano using satellite sensor technology? Explore the volcanic gases and changes on Kilauea, from the rim and walls of Halema'uma'u down to the lava's ocean entry, in thermal infrared and visible light.

WORKSHOP 2018-09 Story Telling with Ozobots

Hope Espinda, STEM teacher, Campbell/Kapolei Complex, John Constantinou, Waialae Elementary PCS

Design your own story with an Ozobot (a miniature robot) using visual codes such as line following and color sensing.

WORKSHOP 2018-10 Let's Explore Comets at the Core

Larry Wiss, NASA JPL Solar System Ambassador

How do comets differ from asteroids or meteors? Compare the differences between these celestial wanderers and use everyday materials to create a personal comet model.

WORKSHOP 2018-11 Water Powered Bottle Rockets

Joshua Jackson, Punahou Case Middle School

Make a bottle rocket and apply Newton's Laws. Launch your water powered "shuttle" into orbit in this sure-to-be "explosive" activity.

WORKSHOP 2018-12 Defying Gravity: Man's On Going Quest to Leave Earth's Surface

Roger Kwok, Leeward Community College

Explore the many ways that man has utilized (or will be utilizing) in attempts to overcome the constant pull of Earth's gravitational force.

WORKSHOP 2018-13 You Are My Density (aka Hot Air Balloons)

Matt Capps, Hawai'i State Science Olympiad

Delve into density by building and launching your own hot air balloon!

WORKSHOP 2018-14 Marshmallow Launcher

Renee Kaneshiro, Barbers Point Elementary, STEM Teacher, Liane Tanigawa, Hookele Elementary, STEM Teacher

Experience the Engineering Design Process and explore Newton's Laws by designing and constructing a launcher that shoots marshmallows!

WORKSHOP 2018-15 Aerofoil or Airfoil? Aerodynamic or Aerodynamique?

Victor Velasco, Paul Fetherland, Honolulu Seawater Air-Conditioning and InSynergy Engineering

Living at the bottom of an ocean of air or water has motivated humans around the world to figure out new ways to move efficiently through air and water using airfoils and hydrofoils. Foils are a part of our everyday lives and their uses extend beyond the common airplane wing. Learn the basics of how foils work, and experiment with foils

WORKSHOP 2018-16 Biology and DNA Analysis

Sebastian Yuen, Honolulu Police Dept., Scientific Investigation, Forensic Biology Unit

What does a DNA analyst do? Extract your own DNA with members of the Honolulu Police Department's Forensic Biology Unit and learn how DNA analysis is used to aid police investigations.