

INTERACTIVE WORKSHOPS TO CHOOSE FROM FOR 3<sup>RD</sup>-12<sup>TH</sup> GRADE STUDENTS, THEIR PARENTS, AND TEACHERS



**Astronaut Lacy Veach Day**

**of Discovery**

Saturday, October 26, 2019  
Kamehameha School Kapalama

*"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

**WORKSHOP 2019-01 Mystery and Intrigue: the Wide World of Electricity**

*Rogelio Buccat, Hawaiian Electric team*

Build a battery storage experiment and learn about an exciting aspect of electricity.

**WORKSHOP 2019-02 Letry robotics: Building the Circuits that run your Robot**

*Linda Wong, Stevenson Middle School students*

Use the Letry robot to build circuits to operate a robot and use sensors.

**WORKSHOP 2019-03 Designing Sails using Mav Lev**

*Randal Lau, Future Flight Hawaii*

Use a magnetic levitation platform, design a sail to sail from Hawaii to Tahiti. Receive a solar powered grasshopper.

**WORKSHOP 2019-04 Recycling Film Cans**

*Colleen Morimoto, Future Flight Hawaii*

Using film cans, make a kaleidoscope, a rocket, and a powered boat.

**WORKSHOP 2019-05 Paper Circuits**

*Mija Wheeler, Team Magma, Kalani High Robotics*

Make your own low voltage circuit while learning about the function of circuits and basics of electricity.

**WORKSHOP 2019-06 Discovering the Microscopic World**

*Lori Shimoda, Chaminade University*

Experience how scientists use microscopes; prepare samples and use a variety of microscopes.

**WORKSHOP 2019-07 Extreme Skydive Engineering**

*Charles Souza, Ryan Saito, Elemental Minds, 21<sup>st</sup> Century Educational Service*

Design a device to keep your test pilot floating within the safe zone of the extreme skydiving wind chamber.

**WORKSHOP 2019-08 Gelatin Volcanoes**

*Scott Rowland, SOEST, University of Hawaii*

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

**WORKSHOP 2019-09 Hands on CPR**

*Charles Griep, Honolulu Fire Department*

Learn Life Saving Bystander CPR that can double or triple the chances of survival and could save a life.

**WORKSHOP 2019-10 Hardware Science**

*Lisa Loo, Melanie Ho, HouseMart Ben Franklin Crafts, Ace Hardware*

Use everyday hardware store supplies to explore simple STEM skills while learning about inertia, physics and math.

**WORKSHOP 2019-11 Fossils: the Tales they Tell**

*Roger Kwok, Leeward Community College*

Examine genuine fossils, what stories each specimen can tell, envision the lives of the animals that lived millions of years ago.

**WORKSHOP 2019-12 Geometry using the Safe-ty Compass**

*Lee Kimura, Lisa Yamamoto, Ethan Kimura, Maya Kimura*

Receive and use a Safe-ty kit with compass, ruler, protractor and learn how to use them for geometry.

**WORKSHOP 2019-13 Toys! Toys! Toys!**

*Stacy George, Institute for Teacher Education, University of Hawaii*

Explore how toys can make you wonder about science.

**WORKSHOP 2019-14 Racing Brushbots**

*Carole Kono, JoAnn Nakashima, Future Flight Hawaii*

Make a mini sumo robot made from a toothbrush. Receive brushbot kit and an energy ball.

7:45 - 8:15 a.m. **Check in** (Princess Ruth Ke'elikōlani Performing Arts Center)

8:30 - 9:30 a.m. **Opening general assembly** (Princess Ruth Ke'elikōlani Performing Arts Center)  
Nainoa Thompson, Polynesian Voyaging Society

9:45 – 10:35 a.m. **Workshop Session I** (Konia, Midkiff Learning Center)

10:45 – 11:35 a.m. **Workshop Session II** (Konia, Midkiff Learning Center)

11:45 a.m. – 12:30 p.m. **General Assembly** ((Princess Ruth Ke'elikōlani Performing Arts Center)  
Joe Acaba, NASA Astronaut

**WORKSHOP 2019-15 Secret World of Viruses**

*Petra Byl, Adrian Gajigan, Anamica Bedi de Silva, Department of Oceanography, University of Hawaii*

Infect a model host cell with a virus, while learning about what viruses are and how they are also beneficial to the environment.

**WORKSHOP 2019-16 Coding Mini Push Button Robot**

*St. Louis Middle School Robotics*

Code a mini programmable robot by pushing buttons and complete the challenge. Receive a mini push button programmable robot to continue to share with others.

**WORKSHOP 2019-17 Exploring Galaxies**

*Larry Wiss, NASA Solar System Ambassadors Program*

Explore the elements and different forms of galaxies and build a spiral galaxy pinwheel.

**WORKSHOP 2019-18 Looking at Hawaii with a View from Space**

*Amber Imai-Hong, Andrea Gabrieli, Linda Martel, Hawaii Space Grant Consortium, Hawaii Institute of Geophysics and Planetology*

Use satellite remote sensing and understand Hawaii and our planet.

**WORKSHOP 2019-19 Vroom! Vroom!**

*Candice Sarangay, Society of Women Engineers, University of Hawaii*

Create propeller powered cars with popsicle sticks and rubber bands applying air powered thrust and inertia.

**WORKSHOP 2019-20 Inflatable Space Balloons and Small Space Satellites**

*Art Palisoc, L-Garde*

Learn about inflatables and small satellites in space.

**WORKSHOP 2019-21 Tripping the Light**

*Victor Velasco, Service Command (NEXCOM), InSynergy Engineering*

With hands on experiences, learn about heliostatus and how sunlight is used for green energy.

**WORKSHOP 2019-22 Applied Biogeochemistry in Waste Processing**

*Ned Murphy, FRGS, Central Planet Repair, LLC*

Bacteria move electrons around in the natural world. Studying the interactions of biology and chemistry in the world such as in waste processing is biogeochemistry. Make a composter prototype to process coffee grounds.

**WORKSHOP 2019-23 Citizen Forester**

*Wai Lee, Smart Trees Pacific*

Become a Citizen Forester in Hawaii which includes a hands-on outdoor exercise with a tree.

**WORKSHOP 2019-24 Pollinators of Hawaii**

*Jason Graham, University of Hawaii*

Learn about the importance of bees for food production, social and solitary bees, their behavior and visual differences through a live beehive. Become a citizen scientist through contributing to active research.