

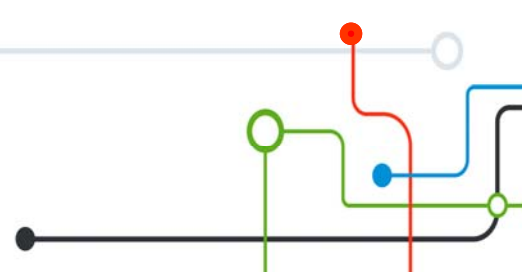
# PROGRAM

April 19 & 20 | Maui, Hawaii



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A program of  
Maui Economic Development Board, Inc.  
Women in Technology Project





# Welcome e komo mai!

We are pleased to welcome you to the 4<sup>th</sup> Annual Hawaii STEM Conference on the beautiful Island of Maui.

You are joining hundreds of STEM/Service Learning and Digital Media students, teachers, parents, community and business leaders from across the state who have gathered here to celebrate their work over the past year, share stories and meet other STEM/Service Learning students from different islands. For many, it is their first experience at a regional technology conference complete with breakout sessions, software competitions, a formal awards banquet, and exhibit presentations.

This year, we are proud to feature our national partners – Google, SketchUp, National Geographic – who along with our key Hawaii partners will be conducting stimulating hands-on sessions, as well as presenting the latest information on a wide range of engaging and informative STEM topics. Our goal is to inspire and challenge our Hawaii STEM students to become creative, intuitive, adaptable learners who can solve unpredictable, real-world problems.

We urge you to take advantage of as many breakout sessions as possible. We look forward to you connecting the dots between your STEM classroom and the emerging High Tech Careers in Hawaii.

Mahalo,  
The Hawaii STEM Conference Team





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# Keynote Speaker Biographies

## Ken "East3" Nishimura | Multi-Media Artist

### EAST 3

Ken "East-3" Nishimura is a multi-media artist from Honolulu, Hawaii with a strong background in brand design, graphic arts & murals. Ken has done graphic design and mural work for the Kid Robot (NYC), Adidas Originals (Soho), Dj Qbert & Thud Rumble (SF), Play Station Portable & UK B-Boy Championships, Rawkus Records, Clear Channel Broadcasting, & GQ Magazine and more. Currently, Ken is preparing for public mural works with Pow Wow Hawaii 2013 (Honolulu) and co-organized for Midnight Marauders Art Movement 2013 (Las Vegas). He is also working with numerous fashion and creative based brands as a designer, nationally as well as internationally.



## Keolani Lindsey Noa | STEM Outreach & Native Coordinator UH Kapiolani Community College

Mrs. Keolani Lindsey Noa is currently the STEM Outreach, Indigenous Native Hawaiian and TCUP Coordinator at UH/Kapi'olani Community College's Science, Technology, Engineering and Mathematics Program. Prior to joining STEM, Keolani Lindsey taught Hawaiian Studies and Health for twelve years in Honolulu's private school sector. She is also certified in specialty education with Schools Attune, Oli, Ho'oponopono and Religious Education. Keolani holds a Bachelor of Science degree in Business Management which has prepared her for her life of service in community development, student affairs and facilitating cross-cultural awareness.



## Allyson McDuffie | Program Manager Sketchup for Education

Allyson McDuffie manages the SketchUp for Education Program for 6 years while at Google, which took her to many parts of the globe spreading the SketchUp love to educators and students alike. While at Google, she was a co-organizer of the Geo Teacher Institutes and the project manager for 5 competitions where people from all over the world modeled their towns using SketchUp and geo-located those buildings in Google Earth for the world to view. She graduated from Ohio University with a BFA in Studio Art, and an MFA in Printmaking. Although an Ohio native, she has lived and worked in Boulder, Colorado for the past 21 years. She enjoys making art, hiking and skiing in the Rocky Mountains, and raising her 11 year old daughter, Avery, who is destined to save every animal on the planet.



# About STEMworks™



Download Knowledge. Upload Service.

## An innovative approach to STEM education

STEMworks™ is an original program of the Maui Economic Development Board. Unlike any other class in Hawaii's middle and high school curriculum, STEMworks™ is a multi-faceted, hands-on program where students get to use the most current, high-end technologies in actual service learning projects.

### Becoming critical thinkers

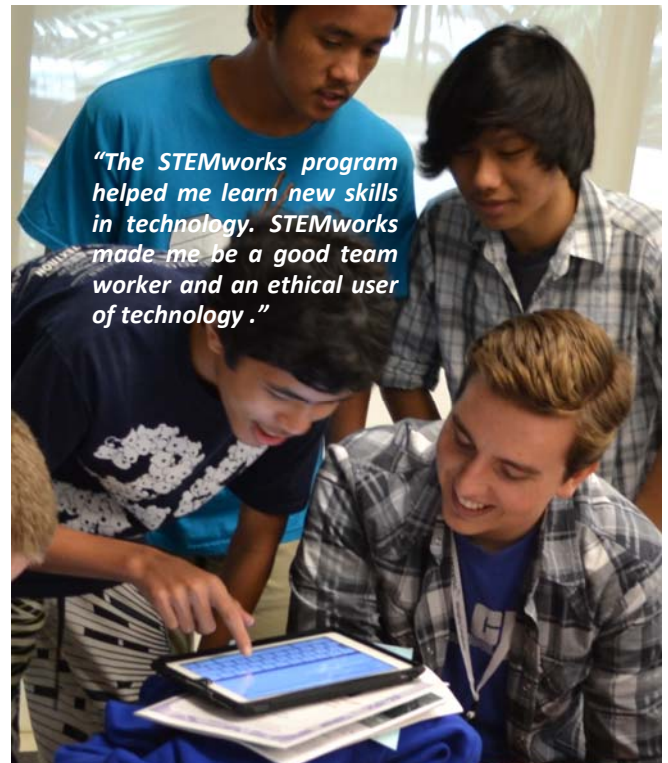
Students join a STEMworks™ Lab not only to learn the latest science, technology, engineering and math (STEM) technologies, they also get to work with local industry partners to apply their skills to specific issues, gaining the satisfaction of knowing their efforts are contributing toward improving life on their respective islands.

Once a STEMworks™ team identifies an existing problem/opportunity, each is tasked with creating a project design to customize and test their solution. During the process, they learn how to develop an industry partner relationship, provide an actual deliverable, and maintain an ongoing solution for the future.

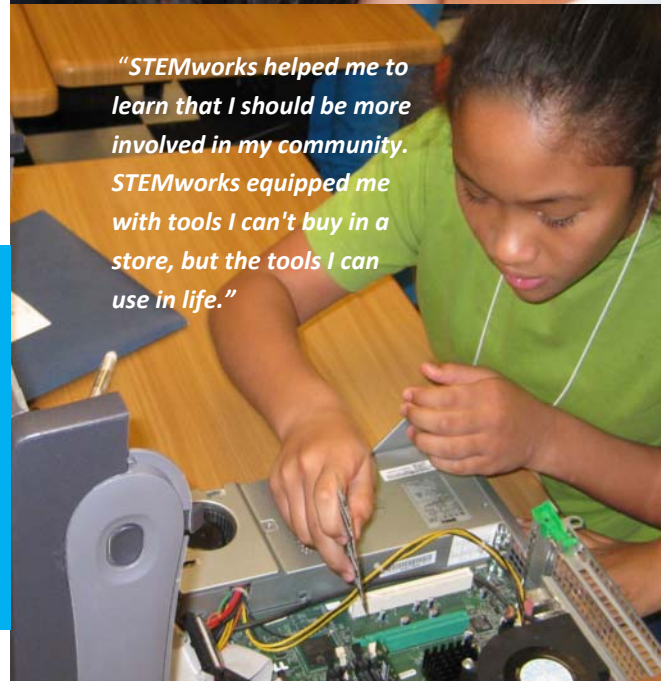
### Learning to Use Cool Tools

In tackling a range of challenges, STEMworks™ students have the chance to develop relevant 21<sup>st</sup> century skill in:

- Animation
- Computer-aided design (CAD)
- Engineering design
- Visualization
- Database design
- Geographic Information Systems (GIS)
- Programming
- Office automation
- Global Positioning Systems (GPS)
- Webpage design



*"The STEMworks program helped me learn new skills in technology. STEMworks made me be a good team worker and an ethical user of technology."*



*"STEMworks helped me to learn that I should be more involved in my community. STEMworks equipped me with tools I can't buy in a store, but the tools I can use in life."*

# Participating STEMworks™ Schools



## HAWAII ISLAND

Keaau High School  
Kealakehe High School

## KAUAI

Kapaa Middle School  
Kauai High School

## OAHU

Castle High School  
Farrington High School  
McKinley High School  
Mililani High School  
Roosevelt High School



## MAUI

Baldwin High School  
Maui High School  
Maui Waena Intermediate School  
Lahainaluna High School  
Lokelani Intermediate School  
King Kekaulike High School  
Kihei Charter School

## MOLOKAI

Molokai High School  
Molokai Immersion School  
Molokai Middle School

## THURSDAY, APRIL 18

8:00 - 4:00pm 3C's Competition (Create, Communicate, Compete) | Lokelani II/III

## FRIDAY, APRIL 19

8:00 - 9:00am Registration/Store Luggage | Aulani Foyer/Lokelani I

8:00 - 12:00pm 3C's Competition | Lokelani II/III

9:00 - 9:30am Booth Set-up | Aulani Ballroom

9:30 - 9:45am Welcome and Aloha | Aulani Ballroom

9:45 - 10:00am Icebreaker | Aulani Ballroom

10:00 - 10:15am Video Competition Kickoff | Aulani Ballroom



### BREAKOUT SESSIONS

10:00 - 12:00pm Photoshop/Illustrator Beginners | Pikake I

10:00 - 12:00pm InDesign | Pikake II

10:00 - 12:00pm Game Design, Creativity with Prototypes | Breakout Room 4615

10:00 - 12:00pm Community Geography, Exploration & Mapping | Jade

12:00 - 12:30pm 5X5 Session | Aulani Ballroom



**5x5**  
sessions

**Inspire** the next generation of STEM leaders & teachers

**Motivate** and share personal stories of your High Tech career

**Encourage** students to discover STEM career opportunities in Hawaii

**Connect** the dots between the classroom and the real-world

12:30 - 1:30pm **LUNCHEON** | Aulani Ballroom

### BREAKOUT SESSIONS

1:45 - 2:45pm Island Energy Inquiry (IEI) – Power of Students | Breakout Room 4619

1:45 - 2:45pm Remote Sensing | Plumeria

1:45 - 3:45pm Art of Film Making | Awapuhi

1:45 - 3:45pm Micro/Meso/Arco Tech | Pikake II

1:45 - 3:45pm Community Geography, Exploration & Mapping | Jade

1:45 - 3:45pm Storytelling –Basic | Puakenikeni

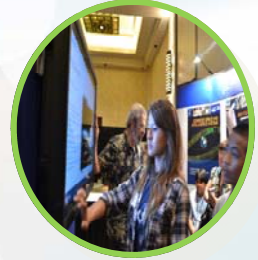
1:45 - 4:45pm HTMLS for Games | Breakout Room 4615



*"The STEMworks, experience as a whole, was a turning point for me, as I was exposed to a field of technology that I was previously unaware of. Particularly SolidWorks helped me to realize my potential in working with technology and is one of the programs I hope to continue working on next year."*



- 2:45 - 3:45pm Fingerprinting Matter with Light | Breakout Room 4617
- 2:45 - 3:45pm Mapping Made Easy | Plumeria
- 2:45 - 4:45pm Photoshop/Illustrator Advance | Puakenikeni
- 2:45 - 4:45pm Vector Voyage | Vanda
- 3:45 - 4:45pm Fingerprinting Matter with Light | Breakout Room 4617
- 3:45 - 4:45pm Lightning in a Bottle | Puakenikeni
- 3:45 - 4:45pm Island Energy Inquiry (IEI) – Power of Students | Breakout Room 4619
- 6:00 - 7:45pm **Dinner** | Aulani Ballroom  
*Keynote Speaker, Ken “East 3” Nishimura, Multi-Media Artist*
- 8:00 - 10:00pm Star Party | Rooftop



An evening under the stars with amateur astronomers and the Institute for Astronomy. Students will be dazzled with night sky discoveries.

## SATURDAY, APRIL 20

- 7:30 - 8:30am Breakfast | Aulani Ballroom

### BREAKOUT SESSIONS

- 8:30 - 4:00pm Teacher Professional Development Workshop | Various Locations
- 8:30 - 9:30am Island Energy Inquiry (IEI) – Power of Students | Breakout Room 4619
- 8:30 - 9:30am Lightning in a Bottle | Puakenikeni
- 8:30 - 9:30am Science of Ag | Breakout Room 4617
- 8:30 - 10:30am Game Design, Creativity with Prototypes | Breakout Room 4615
- 9:00 - 11:30am Program Impact Assessment Presentations | Aulani Ballroom
- 9:30 - 10:30am Leadership Style | Awapuhi
- 9:30 - 10:30am Science of Ag | Breakout Room 4617
- 9:30 - 11:30am Pre Engineering in CAD - Beginners | Plumeria
- 9:30 - 11:30am Micro/Meso/Arco Tech | Pikake II
- 10:30 - 11:30am Body Lingo Bingo | Awapuhi
- 10:30 - 11:30am Building Blocks of Video | Puakenikenil
- 11:30 - 12:30am **Lunch** | Aulani Ballroom  
*Keynote Speaker, Keolani Lindsey Noa, STEM Outreach & Native Coordinator University of Hawaii, Kapiolani Community College*



*“The highlight of STEMworks was attending the Hawaii STEM Conference. The experience of learning GIS, Animation and Game Design, Engineering, Renewable Energy and Technology in two days was a learning experience. It was a different view of education and opened many doors in my future.”*

## BREAKOUT SESSIONS

12:30 - 1:30pm	Listen To Me   Awapuhi
12:30 - 1:30pm	Lightning in a Bottle   Puakenikeni
12:30 - 2:30pm	Vector Voyage   Aulani Ballroom
12:30 - 3:30pm	HTMLS for Games   Breakout Room 4615
12:30 - 3:30pm	Google – SketchUp, Earth & Urban Design   Various Locations
1:30 - 3:30pm	Cybersecurity   Plumeria
1:30 - 3:30pm	Digital Publishing   Pikake II
1:30 - 3:3 pm	Storytelling– Advance   Pikake I
3:30 - 4:00pm	Breakdown Booths   Aulani Ballroom
6:00 - 8:30pm	<b>Awards Banquet</b>   Aulani Ballroom <i>Keynote Speaker, Allyson McDuffie, Program Manager Sketchup for Education</i>
8:45pm	Maui schools depart
10:00	Curfew



One of our goals for the 2013 Hawaii STEM Conference is to encourage as many participants as possible from all STEM/Service Learning Labs across the islands. To accomplish this, we will host a number of student-centered competitions before and during the Hawaii STEM Conference.

### Competitions

- CAD Application Showcase
- Geographic Information Systems (GIS)
- Video
- Music
- Game Design
- Poster Competition
- Web Design
- Sketchup Urban Competition
- Program Impact Assessment

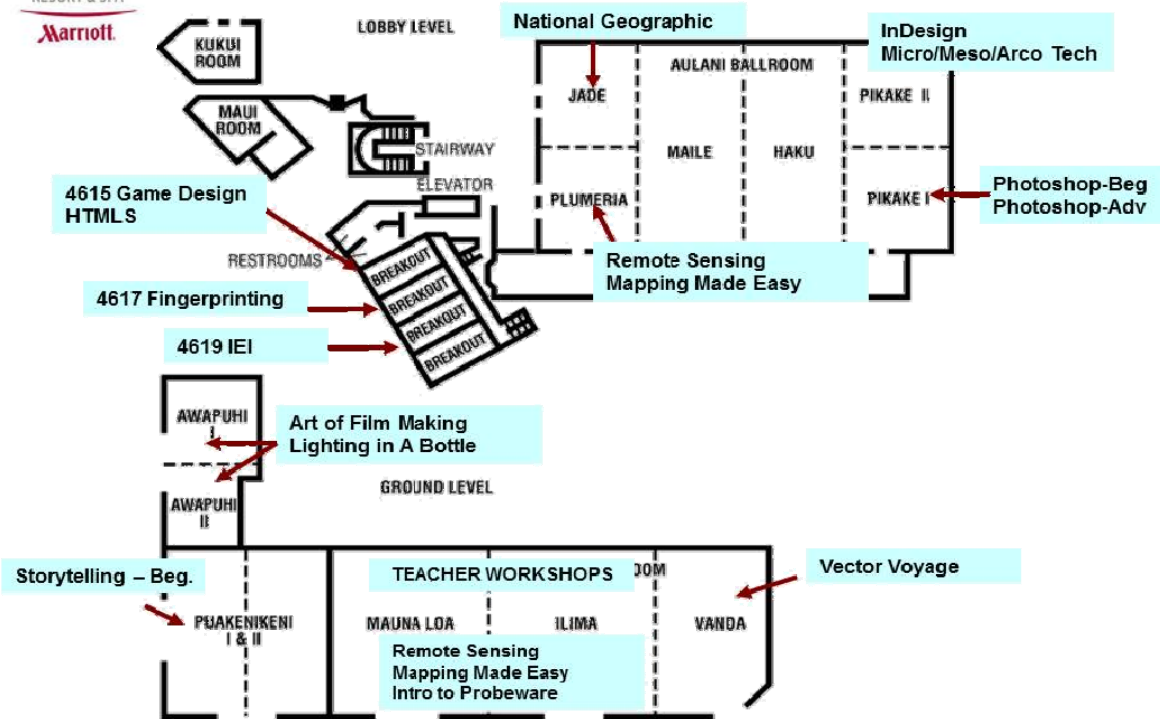


*“What I’ve learned in STEMworks has helped me become more proficient in softwares beneficial to becoming more successful in schooling, and my career. Being exposed to so many different programs provided by the MEDB, and the STEMworks program has helped me to narrow down some of my fields of interest.”*

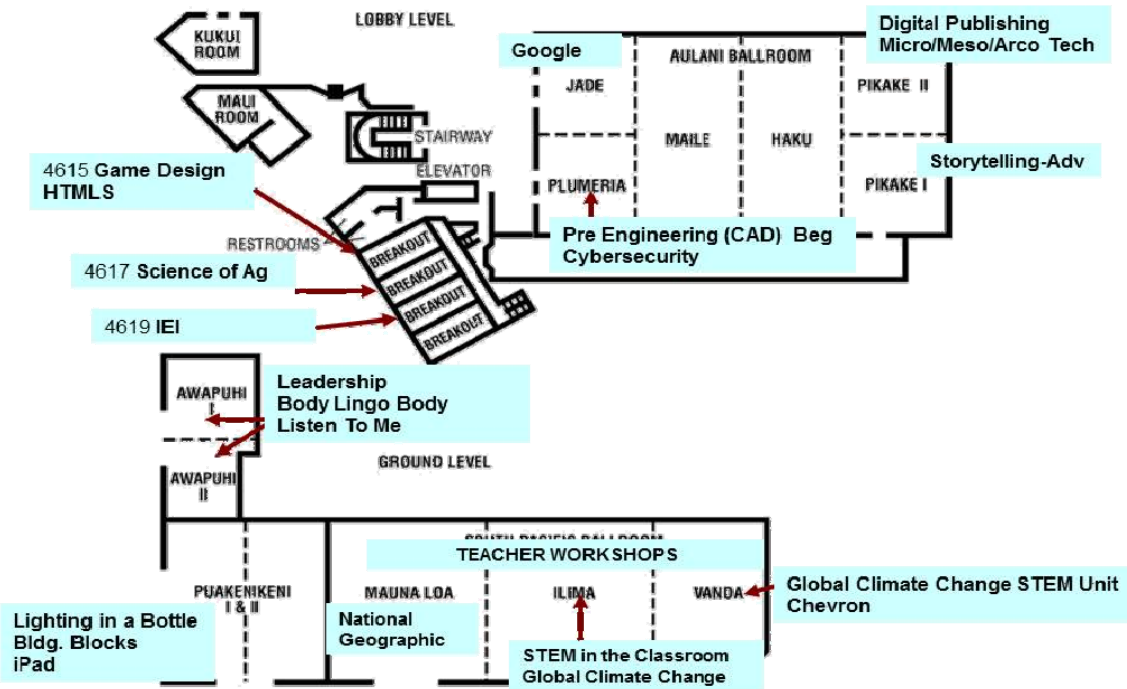
# Session Maps



FRIDAY, APRIL 19



SATURDAY, APRIL 20





### **Art of Film Making**

Join film industry professional Jess Cole, as she explores the world of filmmaking. Jess was a key part of the hit show LOST, and is leading the development of the new UHMC Digital Media program. Are you interested in working in the film industry? What does it take to get in the door? Jess will be conducting a hands-on session to share her insights and knowledge about the amazing world of film and related careers.

*Presented by: Jess Cole*

### **Career/College Options**

### **Body Lingo Bingo**

One of the most pervasive forms of communication is not the spoken word, but our body language. Body Lingo Bingo will explore non-verbal communication including body posture, gestures, eye contact and facial expressions. Learn how to walk into a room with confidence and read other people's body language. Ever wonder what it means when someone scratches his ear or fidgets with her necklace? Find out at Body Lingo Bingo.

*Presented by: Alexis Dascoulias*

### **Leadership**

### **Building Blocks of Video**

Get your video project critiqued by an expert! With over 10+ years of producing and directing videos professionally, six Emmy awards plus numerous local awards for his broadcast news work, John Allen of Waianae High School's Searider Productions will provide insightful suggestions to help take your work from good to great. Bring your videos on a DVD or flash drive in QuickTime format.

*Presented by: John Allen III*

### **Digital Media**

### **Community Geography, Exploration and Mapping with National Geographic**

Learn about citizen science -- how amateurs and non-professional scientists like yourself can collect data and contribute to many scientific projects around the world that need your help. Begin by participating in some interesting citizen science projects right here at the conference. Then explore the fascinating art of mapping by working with large maps of the United States and Hawaiian islands. See how reading and analyzing maps can help you better understand different places at home or abroad.

*Presented by: Sean O'Connor*

### **Geography**

### **Cybersecurity**

Have you heard of Ethical Hacking? Do viruses, DDoS attacks, or buffer overflows tickle your fancy? If so, you might consider becoming a legal hacker, aka an ethical hacker, "white hat" hacker, or penetration tester. This workshop will explain what ethical hacking is all about, why it is completely legal and in high demand by businesses and government organizations. Various hands-on exercises will demonstrate the tips and tricks of ethical hacking, something you can do at home! Finally, the workshop will differentiate between ethical hacking and illegal, "black hat" hacking which will (eventually) land you in jail! Come and learn about this emerging and important career profession.

*Presented by: Debasis Bhattacharya*

### **Computing**

## Digital Publishing

Learn how to create fun, interactive pages that are viewable on your iPad or mobile device. Session. InDesign introduced you to the basic tools, and taught you skills applicable to both and digital publishing. This session will expand on the skills learned in InDesign. It walks you through the process of creating an interactive digital publication that will be viewed and tested on an iPad/mobile device at the end of the class. NOTE: Prerequisite - InDesign

*Presented by: Sara Asato*

## Digital Media

## Fingerprinting Matter with Light

Scientists at the Maui Space Surveillance Site use light that emanates from space to study phenomena in space. One technique critical to the site's mission is spectroscopy -- the study of light interactions with the electronic structure of matter. The way light interacts with different types of matter is unique and can be used as a "fingerprint" to identify the matter. This course will teach you the fundamentals of spectroscopy and challenge you to conduct a short laboratory experiment utilizing spectroscopy.

*Presented by: Stacie Williams, Skip Williams, and Curtis Peterson*

## Optics

## Game Design, Creativity with Prototypes

Learn the Game Design Cycle through physical prototypes. Session starts off with an introduction/discussion about the Game Design Industry & Cycle. Students will form teams to brainstorm, pitch ideas and create the strategy for building a fictitious videogame, board game (or any other type of media). Students will then mock up the game using various toys and existing physical materials and present their game idea to the group. The mocked-up game will be tested by peers and feedback will be given.

*Presented by: Kelli Harada and Jon Borgonia*

## Game Design

## Google – SketchUp, Earth and Urban Design

Design a community together using Trimble SketchUp and Google Earth! This workshop is designed for students who already have some basic SketchUp and Google Earth skills. We'll decide together what area to develop/redevelop, contribute ideas on what things are important to include/exclude, and parse out areas to groups of 3-5 students to collaborate and design in SketchUp, with the final designs assembled and shown in Google Earth.

*Presented by: Allyson McDuffie and Tina Ornduff*

## Software Applications

## HTML5 for Games

Get familiar with Code and Variables. Session starts off with an introduction/discussion about the Game Design Industry & Cycle. Students will be introduced to game code templates/snippets. Students will learn to edit variables and game code snippets and download their version of code to the computer. Students will import their own graphics to create a finalized "minigame."

*Presented by: Kelli Harada and Jon Borgonia*

## Game Design



STUDENT BREAKOUT  
SESSIONS



### **InDesign**

Explore the many facets of this core application for printing and layout design. The interactive Session 1 will introduce you to the basics of InDesign, how to apply those concepts to developing a newsletter and how to integrate the software using Photoshop.

*Presented by: Sara Asato*

### **Digital Media**

### **Island Energy Inquiry Power of Students**

If you like lots of action, this lab is geared for you. First, we'll move water, then ourselves, to find out how much power each student has. Are you as bright as a 50-watt bulb? Are you as powerful as a horse? Let's find out about Power.

*Presented by: Graham DeVey and Denissa Andrade*

### **Sustainability**

### **Leadership Styles:**

#### ***How to identify yours & use them to your advantage***

Have you ever noticed that some group projects go well while others fall flat? Some teams or groups just click while others argue and fight? Learn how to identify your leadership style and the strengths and weaknesses of those around you. Are you an idea generator or an implementer? Explore the characteristics of four fundamental leadership styles and how to form the most dynamic group based on members' styles and ability to work together. This interactive workshop will have you talking about yourself and partnering with a surprisingly opposite leader!

*Presented by: Alexis Dascoulias*

### **Leadership**

### **Lightning in a Bottle**

Get your creative juices flowing! In this workshop, John Allen of Waianae High School's Searider Productions will talk about one of the many processes that he uses to inspire ideas. Come prepared to join in on this hands-on, practical activity that you will be able to immediately take back and use in your own classroom.

*Presented by: John Allen III*

### **Digital Media**

### **Listen to Me! How to Get Your Ideas Heard & Understood**

Learn fundamental skills for public speaking that can help in all life situations. Presentations at school, competitions, job interviews, college interviews and networking will be more successful with sharpened public speaking skills. This interactive workshop will be informative and confidence building, whether you're in a small group or in front of hundreds of people. Learn how to get your ideas heard!

*Presented by: Alexis Dascoulias*

### **Leadership**

### **Mapping Made Easy**

### **GIS/GPS**

Build your own customized map. Our database contains a comprehensive collection of items (layers) that can be customized, printed, saved, and even emailed and shared with your colleagues. Using publicly available data, we'll walk you through mapping out your own backyard or creating a special school project using ArcGIS Explorer online.

*Presented by: Lisa Canale, Chris Nishioka, Nick Turner, Noe Puniwai*

### **Micro/Mes. Arco-Tech A STEAM-driven Digital Fiction Project**

### **Digital Media**

The year is 2037. Hawai'i experiences the introduction of radical new technologies that solve an impending crisis but at the same time create new problems. In this innovative workshop, students will customize and develop a science fiction narrative based on science-based thinking, community consciousness and visualizations.

Integrating their creative writing skills with Sketchup (3D modelling), iBooks Author (digital book development) and Photoshop (2D digital imaging), participants will be encouraged to consider the future of Hawai'i at three levels: the *micro* (small), the *meso*(middle) and the *arco*(upper).

*Presented by: David Goldberg*

### **Photoshop/Illustrator - Beginners (PS)**

### **Digital Media**

This session will provide an exciting introduction to the design industry standard -- Adobe Photoshop. Topics to be covered: combining elements, layer styles, brushes, text tool, mask tools. Plus many more tips and tricks. Students who want to get started in graphic design and Web design are encouraged to sign up.

*Presented by: Adrienne Sayno, Kevin Oliveros, Joyce Galapon, and Ryan Bartolome*

### **Photoshop - Intermediate/Advanced (PS2)**

### **Digital Media**

Want to push your Photoshop skills to the next level but wondering how to do it? This intermediate session will build and expand upon a basic foundation in Photoshop technique. Previous Photoshop knowledge is highly recommended.

*Presented by: Adrienne Sayno, Kevin Oliveros, Joyce Galapon, and Ryan Bartolome*

### **Pre-Engineering In 3D - Beginners**

### **CAD**

Discover Pre-Engineering and Design methods using 3D CAD. This hands-on session demonstrates how 3D Technology makes engineering & design interactive, transforming ideas into prototypes and products.

*Presented by: Collin Kobayashi*



STUDENT BREAKOUT  
SESSIONS



### Remote Sensing from Above

### GIS/GPS

Have you ever taken a picture from an airplane? Or played with Google Earth? Satellites, aircraft and even UAV (Unmanned Aerial Vehicles) use Remote Sensing technology allow us to see invisible parts of the electromagnetic spectrum and study the earth remotely. Cameras that capture bands of light such as the infrared, thermal and ultraviolet provide us with images we can use to extract information to answer questions about the world around us. Join us and explore the different technologies used in Remote Sensing.

*Presented by: Lisa Canale, Chris Nishioka, Nick Turner, and Noe Puniwai*

### Science of Ag

### Career/College Options

In today's society, the challenge is to produce more food while protecting the soil and maintaining water supply. Discover agricultural solutions that combine conservation, education and innovation. Understand the role of technology within sustainable agriculture and how science can help farmers make informed choices. Session will feature hands-on activities and discussion. Learn about local agricultural training opportunities at UH-Maui College's Ag and Natural Resources Program and available student internships. If you are interested in agriculture and growing food more sustainably, this is the workshop for you!

*Presented by: Cynthia Nazario-Leary*

### Storytelling - Basic

### Digital Media

Learn basic composition shots, photo composition, sequencing and how to create a story treatment through this introductory digital media workshop. This two-hour session will include practical, hands-on group exercises that will provide students with an opportunity to practice the skills they learn. Each exercise will be followed by a critique session that enables students to see how they can improve their composition techniques.

*Presented by: Kevin Matsunaga and Donn Yamamoto*

### Storytelling - Advanced

### Digital Media

Challenging, hands-on instruction to learn advanced audio and video sequencing. This workshop teaches how to create videos that focus on capturing good audio and developing skills for advanced composition. The two-hour session will bring theory to practice and include group video exercises that will provide excellent opportunities to practice the skills learned.

*Presented by: John Allen III and Luane Higuchi*

### Vector Voyaging

### Navigation

Students will learn the basics of Polynesian Navigation or Wayfinding, by simulating a voyage around the grounds of the Wailea Marriott. Through the process, they will learn the fundamentals of the Hawaiian Star Compass, the navigational system of Ded Reckoning, and the significance of Vectors.

*Presented by: Anela Benson*



# Educator Workshops

Hawaii educators at the 2013 Hawaii STEM Conference will have the opportunity to learn state-of-the-art software using high-tech educational tools. This two-day Professional Development Workshop will offer sessions led by industry leaders from local, national, and global companies/institutions such as Google, Sketch Up, National Geographic, EPSCoR, and more.

## AGENDA

### FRIDAY, APRIL 19

9:00 - 9:30am	Registration   Aulani Ballroom Foyer
9:30 - 9:45am	Welcome and Aloha   Aulani Ballroom
9:45 - 10:00am	Icebreaker with Alexis   Aulani Ballroom
10:00 -10:30am	Activity with Alexis   Mauna Loa/Ilima
10:30 - 11:30 am	EPSCoR – Remote Sensing   Mauna Loa/Ilima
11:30 - 12:30pm	EPSCoR – Mapping Made Easy   Mauna Loa/Ilima
12:30 - 1:00 pm	Lunch   Aulani Ballroom
1:00 - 4:00 pm	Hawaii DOE STEM Resource Teachers’s – Introduction to Probeware-LabQuest 2   Mauna Loa/Ilima



### SATURDAY, APRIL 20

8:30 - 11:30 am	Various Breakout Sessions   Locations listed on the agenda
11:30 - 12:30pm	Lunch   Aulani Ballroom <i>Keynote Speaker, Keolani Lindsey Noa, STEM Outreach &amp; Native Coordinator, University of Hawaii, Kapiolani Community College</i>
12:30 - 4:30pm	Breakout Sessions   Various Locations

EDUCATOR WORKSHOPS

## PARTICIPATING SCHOOLS

Baldwin High School	King Kekaulike High School	Molokai Middle School
Farrington High School	Lahaina Intermediate School	Molokai Middle School/Immersion
Iao Intermediate School	Lahainaluna High School	Mountain View Elementary
Kalama Intermediate School	Lanai Elementary & High School	Pahoa High & Intermediate School
Kauai High School	Maui High School	Pomaikai Elementary School
Kaunakakai Elementary	Maui Waena Intermediate School	Pukalani Elementary School
Keaau Elementary School	Mililani High School	Roosevelt High School
Keaau High School	Molokai High School	Sacred Hearts School
Kihei Public Charter School	Molokai High School/Immersion	Seabury Hall
		St. Anthony Junior-Senior High School
		St. Francis School





### **Community Geography, Exploration, and Mapping with National Geographic**

This informative session teaches educators how to work with maps and resources from the National Geographic Education website. Lots of hands-on activities will involve a tile map of Hawai'i, a U.S. map plus other free downloadable maps from the National Geo website. Participants will also use computers or laptops to create their own geo-tours using a large tiled map.

*Presented by: Sean O'Connor*

### **Building Blocks of Video**

Get your work critiqued by an expert! With over 10+ years producing and directing videos, six Emmy awards and numerous local awards for broadcast news under his belt, John Allen of Waianae High School Searider Productions will provide insightful suggestions to help take your work from good to great. Bring your videos on a DVD or flash drive in QuickTime format.

*Presented by: John Allen III*

### **Global Climate Change – A Practical Approach to a Difficult Subject**

How do you begin to teach the complex problem of global warming to your students? This workshop will give you the relevant tools because it employs tried and true resources aligned with Hawaii State Science, Technology, and Math Standards along with equipment available for FREE. Participate in a survey designed to identify climate change facts from fiction, and discover how you can use it in your classroom. Explore the latest online tools developed by NOAA explicitly for classroom teachers. Sign up for this workshop and teach your students to become part of the solution.

*Presented by: Maggie Prevenas and Sara O'Rourke*

### **Global Climate Change STEM Unit**

Come see how STEM is integrated into a Global Climate Change Unit. Use hands-on inquiry activities infused with math and technology.

*Presented by: John Constantinou, Jeanine Takakura and Hawaii DOE STEM Resource Teacher's*

### **Google – SketchUp, Earth and Urban Design**

Design a community together using Trimble SketchUp and Google Earth apps! This workshop is designed for students who already have some basic SketchUp and Google Earth skills. We'll decide together what area to develop/redevelop, contribute ideas on what things are important to include/exclude, and parse out areas to groups of 3-5 students to collaborate and design in SketchUp. The final designs will be assembled and shown in Google Earth.

*Presented by: Allyson McDuffie and Tina Ornduff*

### **Hydrogen Fuel Cell Technology**

This hydrogen fuel cell program is designed as a multidisciplinary curriculum with two hands on activities and a fuel cell simulation. This curriculum investigates the role hydrogen can play in meeting our energy challenges and the scientific basis for hydrogen as a fuel. Teachers will have an opportunity to use the hands on activities and model the curriculum opportunities.

*Presented by: Dawn Johnson and Brian Kealoha*

### **Incorporating the Innovative iPad**

Chiefess Kamakahalei Middle School is continuously trying to innovate and integrate. Media teacher Kevin Matsunaga will share many different and fun ways to use the Apple iPad, discussing a few of the apps that can be used within the current curriculum to engage students and get them excited about learning.

*Presented by: Kevin Matsunaga*

## Introduction to Probeware-LabQuest2

Looking for a dynamic, proven method to teach science? Vernier helps educators develop the next generation of scientists and engineers by putting easy-to-use Probeware technology, experiments and software into the hands of students, giving them the tools to analyze data and think like real scientists. In this session, you'll learn the basic features of the LabQuest 2, collect data using Probeware, review Vernier curriculum resources and participate in a LabQuest.

*Presented by: Alan Nakagawa, Leslie Hamasaki, Jeanine Nakakura, John Constantinou and Linda Higashi*

## Lightning in a Bottle

Get your creative juices flowing! In this workshop, John Allen of Waianae High School's Searider Productions will talk about one of the many processes that he uses to inspire ideas. Come prepared to join in on this hands-on, practical activity that you'll be able to immediately take back and use in your own classroom.

*Presented by: John Allen III*

## Mapping Made Easy

Build your own customized map. Our database contains a comprehensive collection of items (layers) that can be customized, printed, saved, and even emailed and shared with your colleagues. Using publicly available data, we'll walk you through mapping out your own backyard or creating a special school project using ArcGIS Explorer online.

*Presented by: Lisa Canale, Chris Nishioka, Nick Turner, and Noe Puniwai*

## Island Energy Inquiry (IEI) - Phoning for Food

A hands-on, interactive teaching activity where we'll attempt to pop some popcorn in an unusual way, then apply new knowledge using the E-M spectrum to analyze Maui's Smart Grid project.

*Presented by: Graham DeVey and Denissa Andrade*

## Remote Sensing from Above

Have you ever taken a picture from an airplane? Or played with Google Earth? Satellites, aircraft and even UAV (Unmanned Aerial Vehicles) use Remote Sensing technology allow us to see invisible parts of the electromagnetic spectrum and study the earth remotely. Cameras that capture bands of light such as the infrared, thermal and ultraviolet provide us with images we can use to extract information to answer questions about the world around us. Join us and explore the different technologies used in Remote Sensing.

*Presented by: Lisa Canale, Chris Nishioka, Nick Turner, and Noe Puniwai*

## STEM in the Classroom

The Wolf Trap: Engineering a Solution. You'll learn how to teach our keiki about simple engineering concepts using a familiar metaphor they can all relate to. In this session, we'll demonstrate how to use a basic engineering design process to create a trap that will capture the wolf and save the three little pigs from harm.

*Presented by: Alan Nakagawa, Leslie Hamasaki, Jeanine Nakakura, John Constantinou, and Linda Higashi*

## Using Technology to Inspire Outdoor Learning

In this workshop, we find out why citizen science is fun and cool. We explore different tools for mobile phones like Project Noah, FieldScope and the Encyclopedia of Life and see how they can be used to gather data to help real scientific projects around the globe. We also discover resources for finding new projects, and use our National Geographic BioBlitz as an exciting example of citizen science that people can do in the schoolyard or community.

*Presented by: Sean O'Connor*





# CREATE COMMUNICATE COMPETE

The fourth annual Create, Communicate, Compete (3C's) Digital Media Advertising Competition is honored to partner with the Hawaii STEM Conference to showcase the talented youth of Hawaii. Hawaii Digital Media program participants will be creating a promotional package, clothing line, 30 second commercial, PowerPoint/Prezi, and a slogan. Students will have just one day to create and submit their work. The competition will be an amazing, fast-paced, and innovative time!

## SCHEDULE

### THURSDAY, APRIL 18

8:00am	Registration   Lokelani Ballroom
9:00am	Briefing   Lokelani Ballroom
9:30 -10:15am	Client Tour   Off Site Location
10:15 -11:00am	Storyboarding   Off Site Location
11:00 -1:30pm	Video/Picture shoot   Off Site Location
12:00 - 1:30pm	Lunch   Off Site Location
1:30 - 6:25pm	Working session   Lokelani Ballroom
6:30pm	Competition Deadline
7:00pm	Dinner & Movie   Lokelani Ballroom
9:00pm	Return to Hotel
10:00pm	Curfew



### FRIDAY, APRIL 19

8:15 - 9:45am	Team Interviews   Lokelani Ballroom
9:30 - 9:45am	Welcome   Aulani Ballroom
9:45 - 10:00am	Ice Breaker with Alexis   Aulani Ballroom
9:45 - 11:00am	Team Interviews   Lokelani Ballroom
10:00 - 12:00pm	Breakout Sessions   Various Locations
11:00 - 12:00pm	Finalize Judging & Results   Lokelani Ballroom
12:00 - 12:30pm	5x5 Session   Aulani Ballroom
12:30 - 1:00pm	Lunch   Aulani Ballroom
1:00 pm - 4:00pm	Breakout Session
6:00pm	Dinner   Aulani Ballroom
7:45pm	Star Party   Roof top
10:00pm	Curfew



### PARTICIPATING SCHOOLS

- Baldwin High School
- King Kekaulike High School
- Lahaina Intermediate School
- Lahainaluna High School
- Maui High School
- Maui Waena Intermediate School
- Roosevelt High School

# 2013 Maui Graphics Showcase Winners

## BEGINNING DIVISION (I)

### CATEGORY A : CD/DVD COVER

1st Place:  
Genevieve Tagayuna - Lahainaluna School  
2nd Place:  
Alani Blando - Maui High School  
3rd Place:  
Dylan Berzabal - Lahainaluna School  
Honorable Mention:  
Noah Galvin - Maui High School

### CATEGORY B : POSTER/FLYER/INVITATION

1st Place:  
Julie Rasos - Maui High School  
2nd Place:  
Jennifer Aleya Martin - Baldwin High School  
3rd Place:  
Janelle Feliciano - Maui High School  
Honorable Mention:  
Dylan Berzabal - Lahainaluna School

### CATEGORY C : INFORMATIONAL LAYOUT

1st Place:  
Bridget Joy - Lahainaluna School  
2nd Place:  
Candace Hanneman - Lahainaluna School  
3rd Place:  
Liana Beyer - Lahainaluna School

### CATEGORY D : BUSINESS CARD + LETTERHEAD

1st Place:  
Shantel Longboy - Maui High School  
2nd Place:  
Katya Brody - Lahainaluna School  
3rd Place:  
Kyle Bush - Maui High School  
Honorable Mention:  
Aulana Lee - Lahainaluna School

### CATEGORY E : LOGO

1st Place:  
Kailey Sager - Lahainaluna School  
2nd Place:  
Jennifer Aleya Martin - Baldwin High School  
3rd Place:  
Gina Dumangeng - Baldwin High School  
Honorable Mention:  
Maddi Vasquez - Lahainaluna School

## ADVANCED DIVISION (II)

### CATEGORY A : CD/DVD COVER

1st Place:  
Ashley Caarang - Maui High School  
2nd Place (Tie):  
Stephaine Lawless - Lahainaluna School  
Chelsea Caarang - Maui High School  
3rd Place (Tie):  
Maddi Vasquez - Lahainaluna School  
Roneth Aspillia - Maui High School  
Honorable Mention:  
Jeffrelyn Tagayuna - Lahainaluna School

### CATEGORY B : POSTER/FLYER/INVITATION

1st Place:  
Lealani Galvin - Maui High School  
2nd Place:  
Brittney Queral - Maui High School  
3rd Place:  
Zachary Taylor - Maui High School  
Honorable Mention:  
Terra Miller - Lahainaluna School

### CATEGORY C : INFORMATIONAL LAYOUT

1st Place:  
Regina Prudenciano - Maui High School  
2nd Place:  
Adrienne Sayno - Maui High School  
3rd Place:  
Kristi Togashi - Lahainaluna School  
Honorable Mention:  
Kristine Urbanec - Maui High School

### CATEGORY D : BUSINESS CARD + LETTERHEAD

1st Place:  
Keisha Arquero - Maui High School  
2nd Place:  
Samantha Fenton - Maui High School  
3rd Place:  
Kailey Sager - Lahainaluna School  
Honorable Mention:  
Jordan Patao - Baldwin High School

### CATEGORY E : LOGO

1st Place:  
Angelo Sanakli - Maui High School  
2nd Place:  
Jordan Patao - Baldwin High School  
3rd Place :  
Adrienne Sayno - Maui High School  
Honorable Mention:  
Jeffrelyn Tagayuna - Lahainaluna School

# Sponsors



Chevron Energy Solutions



# Mahalo

We would like to thank the following organizations and individuals for their commitment and support of the 2013 Hawaii STEM Conference

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