

“Innovate. Empower. Impact  
the World through STEM.”

# Conference

## May 2&3, 2014

**PROGRAM**

MAUI, HAWAII

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# WELCOME

## E KOMO MAI!

Welcome to the **5th Annual Hawaii STEM Conference** on the beautiful Island of Maui!

For 2014, we are introducing the conference theme: ***“Innovate. Empower. Impact the World through STEM.”*** Please keep this theme in mind throughout the event. As you gain new insights, consider what this phrase means to you and how you can apply your own STEM abilities to innovate, empower, and impact your community, if not the world.

Last year we were pleased to host over 350 students and dozens more industry presenters, educators, and top technology partners from the mainland, as well as Hawaii. This year we expect the numbers to be even higher so look forward to more valuable STEM knowledge and hands-on activities.

Our conference will challenge you and offer many new STEM skills and ideas. You will be joining fellow STEM/Service-Learning and Digital Media students, teachers, parents, and leaders from across the state who have gathered to celebrate their work over the past year, share stories, and meet peers from across the islands. We encourage you to participate in everything this event has to offer— breakout sessions, software competitions, a formal awards banquet, and exhibit presentations.

Our friends from Google, SketchUp, National Geographic, EPSCoR, Air Force Research Laboratory, University of Hawaii-Maui College, Searider Productions, 3D Innovations, Goma Games, and more are here for the breakout sessions. Also, a head’s up: Local industry partners will be participating in the **“5x5” networking event on Friday, May 2** — so this is your big chance to learn about different STEM career paths and how these professionals found success.

We look forward to seeing all of you and hope you have an enriching STEM Conference experience.

MAHALO,

THE HAWAII STEM CONFERENCE TEAM

# sponsors



Chevron Energy Solutions



Ben Franklin Crafts

ACE Hardware



HAWAI'I P-20  
Partnerships for Education  
Spark. Transform. Excel.



by HM HouseMart



Maui Electric



3D Academy  
A Division of 3D Innovations



WWW.HIGICC.ORG



UNIVERSITY of HAWAI'I\*  
MAUI COLLEGE



UNIVERSITY of HAWAI'I\*  
HILO



UNIVERSITY of HAWAI'I\*  
MĀNOA

# keynote speaker biographies



**Ben Pigao**  
Creative Artist

Ben Pigao is a graduate of Maui High School, Class of 2003. He has fond memories of participating in Project EAST, a STEM service-learning program that was replaced by our home grown, Hawaii-led STEMworks™. Ben's high school experience taught him self-motivation, teamwork, and the importance of gaining technical skills. After graduating with a double major in Art and Integrated media from Pacific University-Oregon, Ben has had some challenging jobs, the most cool being a brand designer for Nike. As a successful artist, photographer, and entrepreneur, Ben started his own creative agency in 2012 – Empire Green Creative. Along the way, Ben learned the importance of friends and good people; how to be flexible and take on different jobs; how to deal with a sneaker obsession; and the value of taking risks. Ben has traveled the globe to shoot models, celebrities, and star athletes. His passion became his job. He never looked back.



**Pono Shim**  
President and CEO

Pono Shim is President and CEO of Enterprise Honolulu, Oahu Economic Development Board. Under his leadership, Enterprise Honolulu has achieved financial stability and is considered an influential leader in economic development. He currently serves on more than 15 Non-Profit, For-Profit, Task Force, or Advisory Boards. He led the efforts to raise over 50 million dollars to assist economic development on Oahu, including STEM projects at 3 solar farms on West Oahu. A gifted story teller who uses illustrations to connect with audiences, Pono considers his exposure to Hawaii leadership philosophies as a child to be the backbone to his ideas, actions, and words.



**Rosemary Wardley**  
Senior GIS Cartographer

Rosemary Wardley is a Senior GIS Cartographer in the Maps Division of the National Geographic Society. In this position she is responsible for the development of NG's Cartographic Databases, as well as for managing and updating the various GIS datasets which the Society uses in its many projects. Her day -to-day tasks include gathering & editing data, compiling map layouts, and acting as GIS liaison to the Society at large. There are many different divisions which utilize GIS software and data across the Society, including the Magazine, Education, Research and Development, and Digital Media, and Rosemary loves working with all of them to spread the power and potential of GIS! She loves all types of geography and can often be found outside exploring the wonderful world in and around D.C.

# About STEMworks™

**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**

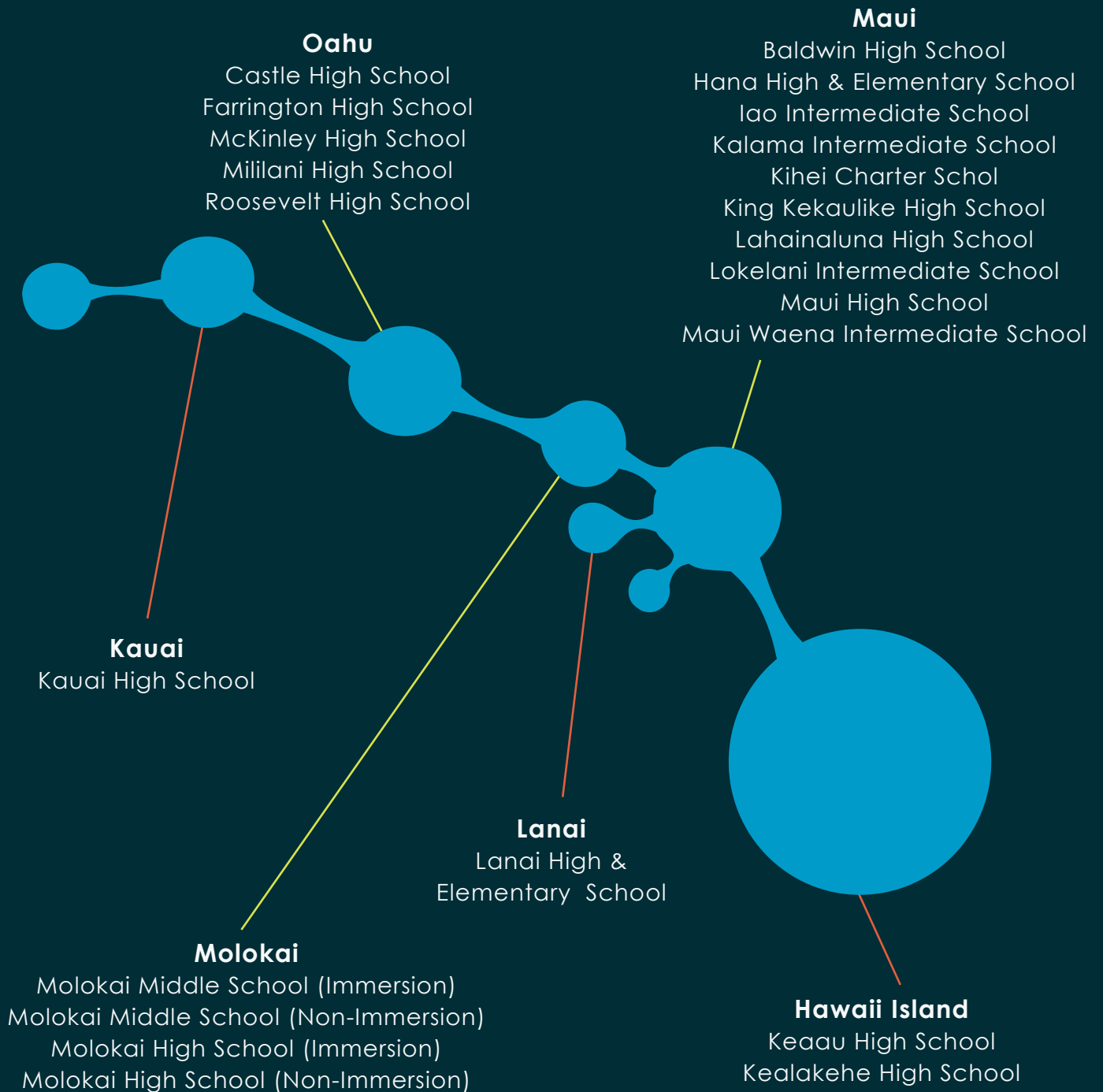
In tackling a range of challenges, STEMworks™ students have the chance to develop relevant 21<sup>st</sup> century skill in:

- Animation
- Computer-Aided Design (CAD)
- Engineering Design
- Visualization
- Database Design
- Geographic Information Systems (GIS)
- Programming
- Office Automation
- Global Positioning Systems (GPS)
- Webpage Design



[www.stemworkshawaii.org](http://www.stemworkshawaii.org)

# STEMworks™ schools



# industry session

## 5X5 SESSIONS

### industry professionals

2c4 Technologies

3D Innovations/3D Academy

ArdentMC

Brown and Caldwell

EPSCoR

Goma Games

Google

Kanu O Ka Aina

Makani Kai Tech

Maui Electric Company

National Geographic

Pacific Disaster Center

ReasonAbility

University of Hawaii at Manoa  
College of Engineering

University of Hawaii Maui College

University of Hawaii-Manoa

INSPIRE • MOTIVATE •  
ENCOURAGE • CONNECT



Hawaii STEM Conference is pleased to announce the return of last year's popular "5x5" event, a high energy networking session featuring over 30 local STEM professionals and 350 STEMworks™ students.

During these fast-paced, face-to-face sessions, students will have the opportunity to engage with 5 different industry professionals every 5 minutes to learn about college and career pathways, personal experiences and more.

Some questions commonly asked: "What inspired you to choose your major?"; "What type of education do you have?"; "What is the coolest project you have worked on?". We encourage you to think about the things YOU really want to know from professionals, then make the most of this great opportunity. Get focused. Have fun!



# program schedule

## THURSDAY : MAY 1

**9:00-8:00PM** 3C's Competition (Create, Communicate, Compete) *South Pacific Ballroom, Vanda*

## FRIDAY : MAY 2

**8:30-12:00PM** 3C's Competition (Create, Communicate, Compete) *South Pacific Ballroom, Vanda*

**7:30-4:45PM** Teacher Professional Development Workshop *Mauna Loa*

**8:00-9:20AM** STEM Conference Registration *Aulani Ballroom*

**9:25-9:40AM** Aloha & Welcome *Aulani Ballroom*

**9:45-10:40AM** Ice Breaker *Aulani Ballroom*

**10:00-2:00PM** College and Career Info Booths *Aulani Foyer*

**10:45-11:20AM** Booth Set up *Aulani Ballroom*

**10:45-11:00AM** Video on Site Competition Kick Off *Aulani Ballroom*

**11:30-12:30PM**

**INDUSTRY  
SESSION**  
*AULANI BALLROOM*

**12:30-1:30PM**

**LUNCH**  
*AULANI BALLROOM*

**5X5  
SESSIONS**

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

**MOTIVE** & share personal stories of your High Tech career

**ENCOURAGE** students to discover STEM opportunities

**CONNECT** the dots between the classroom & the real-world

## BREAKOUT SESSIONS

**1:45-2:45PM** Augmented Reality *Breakout Room 4619*

**1:45-2:45PM** Body Lingo Bingo *Ilima*

**1:45-4:45PM** CAD On Site Competition Kick Off *Haku II*

**1:45-2:45PM** Hardware Science needs YOU! *Vanda*

**1:45-2:45PM** Integrated Creativity *Puakenikeni II*

**1:45-4:45PM** iPad Game Development *Pikake I*

**1:45-2:45PM** Measure the Width of Your Hair *Awapuhii*

**1:45-2:45PM** Photoshop Advance *Pikake II*

## BREAKOUT SESSIONS

<b>2:45-4:45PM</b>	Canoe Design, Engineering & Performance	<i>Puakeniken I</i>
<b>2:45-3:45PM</b>	Hardware Science needs YOU!	<i>Vanda</i>
<b>2:45-4:45PM</b>	Hi-Sci-Fi 2014	<i>Breakout Room 4619</i>
<b>2:45-4:45PM</b>	InDesign	<i>Pikake II</i>
<b>2:45-3:45PM</b>	Integrated Creativity	<i>Puakeniken II</i>
<b>2:45-3:45PM</b>	Measure the Width of Your Hair	<i>Awapuhi</i>
<b>2:45-3:45PM</b>	Mapping Made Easy	<i>Haku I</i>
<b>3:45-4:45PM</b>	Hardware Science needs YOU!	<i>Vanda</i>
<b>3:45 -4:45PM</b>	Leadership Styles	<i>Ilima</i>
<b>3:45 -4:45PM</b>	Remote Sensing from Above	<i>Haku I</i>
<b>5:30PM</b>	STEM Conference 2014 Group Photo	<i>Banyan Tree, front lobby area</i>

**6:00-7:45PM**

**DINNER**  
AULANI BALLROOM



**KEYNOTE SPEAKER,**  
ROSEMARY WARDLEY  
NATIONAL GEOGRAPHIC

**8:00-10:00PM**

## STAR PARTY

SOUTH PACIFIC  
BALLROOM & LAWN

AN EVENING UNDER THE STARS WITH AMATEUR ASTRONOMERS, AND THE INSTITUTE FOR ASTRONOMY. STUDENTS WILL BE DAZZLED WITH NIGHT SKY DISCOVERIES.

**10:00PM**

Curfew

## SATURDAY : MAY 3

<b>7:30-4:45PM</b>	Teacher Professional Development Workshop	Mauna Loa
<b>8:30-10:30AM</b>	Digital Publishing	Pikake II
<b>8:30 -9:30AM</b>	Integrated Creativity	Puakenikeni II
<b>8:30-11:30AM</b>	iPad Game Development	Pikake I
<b>8:30 -9:30AM</b>	Island Energy Inquiry	Awapuhi
<b>8:30 -9:30AM</b>	Kahua A`o	Breakout Room 4617
<b>8:30-11:30AM</b>	Pre Engineering CAD & 3D Printing	Haku II
<b>8:30-10:30AM</b>	Story Boarding Your Life	Ilima
<b>9:00-11:00AM</b>	Project Impact Assessment Presentations	Aulani Ballroom
<b>9:30-11:30AM</b>	Canoe Design, Engineering & Performance	Puakenikeni I
<b>9:30-10:30AM</b>	Kahua A`o	Breakout Room 4617
<b>9:30-10:30AM</b>	Island Energy Inquiry	Awapuhi
<b>9:30-11:30AM</b>	Hi-Sci-Fi 2014	Breakout Room 4619
<b>10:30-11:30AM</b>	Integrated Creativity	Puakenikeni II
<b>10:30-11:30AM</b>	Island Energy Inquiry	Awapuhi
<b>10:30-11:30AM</b>	Listen To Me	Ilima

**11:30-12:30PM**

**LUNCH**  
AULANI BALLROOM



**KEYNOTE SPEAKER,**  
PONO SHIM  
ENTERPERISE HONOLULU

## BREAKOUT SESSIONS

<b>12:45-2:45PM</b>	Body Lingo Bingo	Ilima
<b>12:45-2:45PM</b>	Canoe Design, Engineering & Performance	Puakenikeni I
<b>12:45-1:45PM</b>	Hardware Science needs YOU!	Vanda
<b>12:45-3:45PM</b>	Hello World with Google Earth & Maps	Haku I
<b>12:45-3:45PM</b>	iPad Game Development	Pikake I
<b>12:45-2:45PM</b>	Illustrator Beginners	Breakout Room 4619
<b>1:00-4:00PM</b>	CAD On Site Presentations	Maui Room
<b>1:45P-3:45PM</b>	Community Geography with National Geographic	Haku II
<b>1:45-2:45PM</b>	Hour of Code	Breakout Room 4617

## BREAKOUT SESSIONS

<b>1:45-3:45PM</b>	Photoshop Beginners	<i>Pikake II</i>
<b>1:45-3:45PM</b>	True Colors	<i>Ilima</i>
<b>2:45-3:45PM</b>	Augmented Reality	<i>Breakout Room 4619</i>
<b>2:45-3:45PM</b>	Hour of Code	<i>Breakout Room 4617</i>
<b>2:45-3:45PM</b>	Hardware Science needs YOU!	<i>Vanda</i>
<b>2:45-3:45PM</b>	Integrated Creativity	<i>Puakenikenii II</i>
<b>2:45-3:45PM</b>	Island Energy Inquiry	<i>Awapuhi</i>
<b>3:00-4:00PM</b>	Hackathon Presentations	<i>Puakenikenii I</i>
<b>3:45-4:30PM</b>	Breakdown Booths	<i>Aulani Ballroom</i>

**6:00-8:00PM**

**AWARDS BANQUET**  
AULANI BALLROOM



**KEYNOTE SPEAKER**  
BEN PIGAO  
EMPIRE GREEN CREATIVE

**8:15PM**

Maui Schools Depart

**10:00PM**

Curfew

One of our goals for the 2014 Hawaii STEM Conference is to inspire 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
- GAME DESIGN
- GEOGRAPHIC INFORMATION SYSTEMS
- HACKATHON
- LOGO DESIGN
- MUSIC
- ON-SITE CAD
- ON-SITE VIDEO
- POSTER
- PROGRAM IMPACT DESIGN
- WEB DESIGN



# student breakout sessions

## Augmented Reality

What is your “aura”? Augmented Reality takes your physical world and overlays it with a sound, graphics, or video. This session is designed to create personalized auras or digital file overlays, to be published and managed through our online platform -- Aurasma Studio. Auras can then be seen through the Aurasma smartphone application. \*\*Smartphones optional.

**Presented By: Austin Amliguyuen & Racieli Andrada**

## Body Lingo Bingo: What your body language is telling others

Ever wonder what it means when someone scratches their nose? 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. This highly interactive workshop will teach you how to read other people's body language and give you more confidence.

**Presented By: Alexis Dascoulias**

## Canoe Design, Engineering & Performance

Listen to mo`olelo about canoe sailing and performance, assess various types of sailing vessels, learn about the ancient technology utilized by our ancestors to build voyaging canoes, as well as the various phenomena and forces associated with sailing dynamics. Then, utilize the `ike (knowledge/information) to create your own Hawaiian sailing canoe model.

**Presented By: Anela Benson**

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

Hang out with National Geographic to find cool mapping resources and fun outdoor science projects. Work with large maps of the United States and Hawaiian islands to see how reading and analyzing maps can help you better understand a place. Then, learn about citizen science and how many scientific projects around the world need your help, we'll even do some citizen science right at the conference!

**Presented By: Justine Kendall and Rosemary Wardley**



## Digital Publishing

Learn how to create fun, interactive pages that are viewable on your iPad or mobile device. Session 1 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**

## 50 Minutes of Code

Code is a program that does cool stuff...lets you send text messages on your phone, respond to Facebook posts, play your favorite video game etc. So, what is code, who writes it and how do they do it? In this 50-minute session, you'll learn how to write simple code as an introduction to the field of software programming and hopefully, write more code in the future. Come and learn about this emerging and important career profession. Must have a Facebook, Google or Twitter account log in.

**Presented By: Debasis Bhattacharya**

## Hardware Science needs YOU!

Like Science? If you've got a schedule filled with nothing but boring everyday times, we've got the class for you! Learn how to build your own air cannon, make your own putty, trick your friends and more! Experiment and learn about science using simple items you see every day.

**Presented By: Carrera Catugal and Cory Chigami**

## Hello World with Google Earth and Maps

Join members of Google's GeoEDU team as they show you exciting ways to use Google Earth, Google Maps and more. This session will involve outside collection of imagery and data, followed by hands-on work in the computer lab. Discover how you can create your own Google streetview imagery, tell stories using 3D Google Earth imagery, or even fly a fighter jet over the Himalayan Mountains or dive into the Molokini Crater all on own laptop, tablet or smartphone.

**Presented By: John Bailey and Emily Henderson**



## HI-Sci-Fi 2014: Exploring STEM through fiction and iBooks Author

This workshop introduces students and teachers to Apple's iBooks Author production tool for creating interactive texts on the iPad. It blends creative writing, critical technical analysis, and 2D and 3D digital production.

In advance of the actual workshop, you will be provided a framework for contributing to a collaborative science fiction story about life in Hawaii in the near future. This project is based on the logic of the classic Madlibs game where players provide parts of speech to complete the skeleton of a short narrative.

In HI-Sci-Fi, students treat concepts and examples from science, technology, and culture as if they were parts of speech. The story plot involves issues of ecology, sustainable energy and the unintended consequences of technology. Because students will be coming from different islands, each will be encouraged to look at local reactions to plot elements that affect all of Hawaii. This way, they will get an understanding of how different communities react to technological impacts.

**Presented By: David Goldberg**

## 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**

## Illustrator -Beginners

If you have ever thought about getting a job in graphic design, Adobe Illustrator is a must requirement. This vector graphic program is an industry standard. Learn the basics of Illustrator to get you design or draw your own vector graphics.

**Presented By: Maui High Digital Media Team**

## Illustrator - Intermediate / Advanced

Want to take your Illustrator skills to the next level? This course is for you. This intermediate session will expand upon a basic foundation skills developed in Adobe Illustrator. Previous Illustrator knowledge is highly recommended.

**Presented By: Maui High Digital Media Team**



## Integrated Creativity

Being innovative is what Waianae High School Searider Productions is all about. With over 350 students and 3 majors covering journalism, film production, animation, and graphic design, teachers have found ways to integrate the different types of media to create a more efficient and efficient work environment. In this session, you will see how creativity is integrated into the yearbook, the Web, video production, social media, blogging, and print.

**Presented By: John Allen III and Kevin Matsunaga**

## iPad Game Development

You will learn the basics of game development using Javascript, and gain an understanding of variable, functions, objects, and events in order to write, edit, and debug a simple iPad Game. No prior programming experience is required. If students wish to use their own game graphics or sounds in the game, they can prepare these assets in advance.

**Presented By: Jon & Kelli Borgonia**

## Island Energy Inquiry Sustainability Power of Students

If you like lots of action combined with learning, this lab is 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**

## Kahua A`o – A Learning Foundation: Earth Science using Hawaiian Language Newspaper research and ArcGIS.

Session will be based around research, place-, culture- and standards-based Earth science STEM lessons using Hawaiian language newspapers and ArcGIS software to explore Hawaii's experiences of storms, drought, rains, volcanic activity, and tsunamis.

**Presented By: Kelly Lance, Lindsey Spencer and Pomai Stone**

## Leadership Styles: How to Identify yours & use them to your advantage.

Have you ever noticed that 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**





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

Sharpen fundamental skills for public speaking that can help in all life situations -- presentations at school, competitions, job interviews, college interviews, networking and more. 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**

## Mapping Made Easy with GIS/GPS

Learn how to build your own customized map using geospatial technology. 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: Chris Nishioka and Nick Turner**

## Measure the Width of Your Hair Using LASER Diffraction

Find out about the fascinating properties of light, particularly diffraction. Diffraction is a phenomenon that describes how light bends as it passes through very narrow slits or around a very small barrier (like a hair). Thinking of light as a wave, consider that as light passes a very small barrier (like a hair), two distinct wave patterns are formed. Those waves interfere with each other to either amplify the wave pattern (constructive interference) or dampen the wave pattern (destructive interference). Students will determine width of human hair using diffraction and a LASER of known wavelength.

**Presented By: Air Force Research Laboratory**

## Pre Engineering in 3D CAD - Beginners

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**

## Photoshop - Beginners

Get 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: Maui High Digital Media Team**



## Photoshop - Intermediate/Advanced

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

**Presented By: Eva Richman and Aitana Shough**

## 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 to 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 and information to answer questions about the world around us. Join us and explore the different technologies used in Remote Sensing.

**Presented By: Chris Nishioka and Nick Turner**

## Story Boarding Your Life: Setting Realistic Goals and Achieving Them!

Take a goal (getting into your top choice college, landing that great summer internship, etc.) and work as a film director to create a storyboard for accomplishing that goal. Pre-visualize your life and goals with images, words, illustrations and even interactive media. Leave this session with a storyboard and fantastic tools!

**Presented By: Alexis Dascoulias**

## True Colors: What Makes You Successful

Identify your true colors and personality traits by recognizing your values, motivations, strengths and stressors. Then use this knowledge as a tool to build better understanding and rapport with diverse groups. Understand better ways to communicate your ideas and relate to others. This is a true team-building workshop.

**Presented By: Alexis Dascoulias**



# teacher professional development workshops

**FRIDAY : MAY 2 & SATURDAY : MAY 3**

<b>7:30-7:50AM</b>	Registration
<b>8:00-8:10AM</b>	Aloha & Welcome
<b>8:15-4:30PM</b>	Teacher Breakout Sessions
<b>11:30-12:00PM</b>	Lunch
<b>4:45PM</b>	Closing

## TEACHER BREAKOUT SESSIONS

### **Apple for Education - Much more than music! Accessing and Integrating Great Content for Your Classroom using iTunes**

Learn how to find and leverage excellent free curricular and subject area content using iTunes and iBooks. These applications offer a wealth of supplemental material at your fingers - literally! During this session you'll explore the iTunes U app and the resources you can access to create a learning system that enables your students to be self-directed learners. Let the students do the work once you've found the right learning tools for your lessons.

**Presented by: Matt Kraus and Jim Uyeda**

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

Hang out with National Geographic to find cool mapping resources and fun outdoor science projects. Work with large maps of the United States and Hawaiian islands to see how reading and analyzing maps can help you better understand a place. Then, learn about citizen science and how many scientific projects around the world need your help, we'll even do some citizen science right at the conference!

**Presented by: Justine Kendall and Rosemary Wardley**

### **Gender Equity in the STEM Classroom**

The STEM Gender Equity Professional Development will be a fact-based, interactive workshop to impact teacher knowledge and classroom behavior on issues of gender bias. The workshop will examine: 1) the general landscape of gender discrimination and inequity in STEM careers and education, 2) how gender stereotypes are created and maintained, especially in the classroom, and 3) practical strategies to assist teachers in encouraging girls and women to actively engage in the STEM classroom and explore STEM careers (i.e., strategies to increase self-efficacy and self-esteem in relation to STEM).

**Presented by: Frank De Rego, Jr. and Leslie Wilkins**



## Google Geo in the Classroom

Google Geo applications offer range of opportunities to explore, discover and create geospatial content. Google's GeoEDU team will demonstrate ways to explore maps and streetview imagery, map your own data, create stories using Google Earth imagery, and more. We will also discuss how these technologies can be used in different classrooms because whilst location is fundamental for Geography, it is also an important concept for many subjects across the curriculum.

**Presented by: John Bailey and Emily Henderson**

## Kahua A`o – A Learning Foundation: Using Hawaiian Language Newspaper Articles for place and culture-based Weather & Geoscience.

Session will be based around research, place-, culture- and standards-based Earth science STEM lessons using Hawaiian language newspapers and ArcGIS to explore Hawaii's experiences of storms, drought, rains, volcanic activity, and tsunamis.

**Presented by: Kelly Lance, Lindsey Spencer and Pomai Stone**

## Mapping Made Easy with GIS/GPS

Learn how to build your own customized map using geospatial technology. 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

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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: Chris Nishioka and Nick Turner**

# 3C's digital media competition



The fifth 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, 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!

## THURSDAY : MAY 1

<b>9:00-10:00AM</b>	Registration, Arrival, & Set-up	<i>Vanda</i>
<b>10:00-12:00PM</b>	Briefing/Working Session	<i>Vanda</i>
<b>12:00-1:00PM</b>	Lunch	<i>Off Site Location</i>
<b>1:00-5:30PM</b>	Working Session	<i>Vanda</i>
<b>5:30-6:30PM</b>	Dinner	<i>Off Site Location</i>
<b>8:00PM</b>	Competition Deadline	
<b>10:00PM</b>	Curfew	

## FRIDAY : MAY 2

<b>9:00-9:30AM</b>	Team Interviews	<i>Vanda</i>
<b>9:25-9:40AM</b>	Aloha & Welcome	<i>Aulani Ballroom</i>
<b>9:45-10:40AM</b>	Ice Breaker	<i>Aulani Foyer</i>
<b>9:45-12:00PM</b>	Team Interviews	<i>Vanda</i>
<b>11:30-12:30PM</b>	Industry Session "5x5"	<i>Aulani Ballroom</i>
<b>12:30-1:30PM</b>	Lunch	<i>Aulani Ballroom</i>
<b>1:45-4:45PM</b>	Student Breakout Sessions	<i>Various Locations</i>
<b>5:30PM</b>	STEM Conference 2014 Group Photo	<i>Banyan Tree, front lobby area</i>
<b>6:00-7:45PM</b>	Student Breakout Sessions	<i>Various Locations</i>
<b>8:00-10:00PM</b>	Star Party	<i>South Pacific Ballroom &amp; Lawn</i>
<b>10:00PM</b>	Curfew	

# 2014 Hawaii STEM Conference Highlights



**500+**

Conference  
Attendance

**300**

Student  
Participants

**26**

Student  
Breakout  
Sessions

**150**

Laptops & iPads  
used in Interactive  
Sessions

**120**

Professional  
Development  
Teachers

**30+**

Schools and  
Organizations  
Statewide

**6**

Professional  
Development  
Breakout  
Sessions

**75**

Industry  
Professionals

**9**

Software  
Competitions

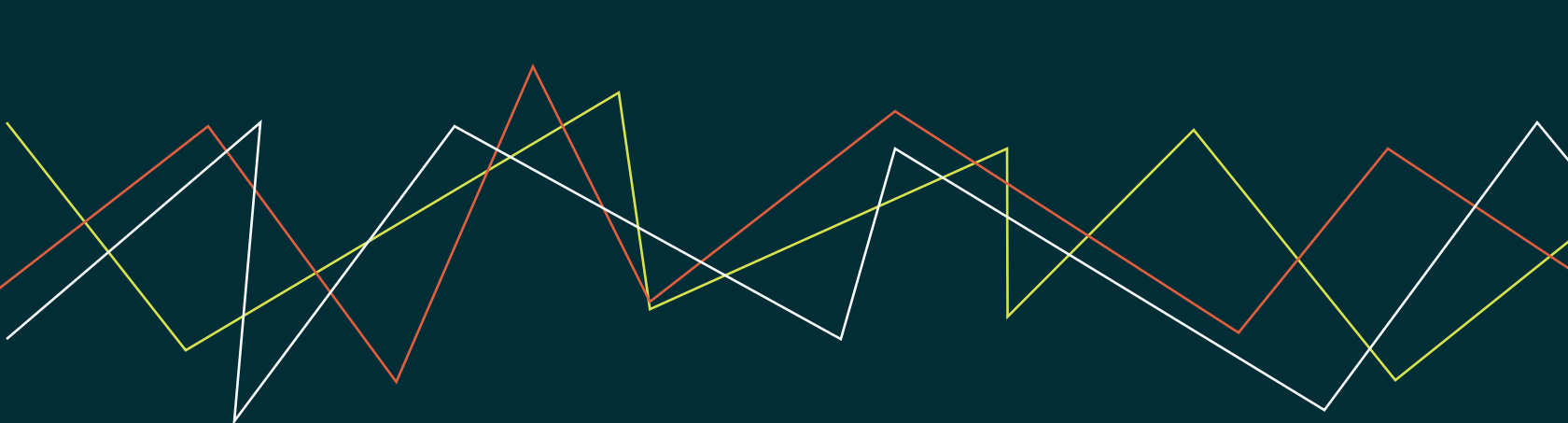
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**WOMEN IN TECHNOLOGY PROJECT**

an initiative of the Maui Economic Development Board, Inc.



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[www.medb.org](http://www.medb.org) | [www.womenintech.com](http://www.womenintech.com) | [www.stemworkshawaii.org](http://www.stemworkshawaii.org)

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