



November 17, 2017

# Colorado Science Conference

## PRESENTATIONS AT-A-GLANCE\*

### Session 1: 8:00-8:55

#### **Awesome Activities for an NGSS Classroom**

James Oliver

**Audience:** Gen Elem (K-6)

**Focus:** Other

**Room:** J 30-38

#### **Cross Curricular Collaboration: Yes You Can!**

Dana Abbey

**Audience:** MS/HS

**Focus:** Other

**Room:** K 41-47

#### **Developing Models and Writing Scientific Explanations**

Mary Hunter-Laszlo

**Audience:** MS

**Focus:** General

**Room:** J 40-46

#### **Discover Materials Science**

Marilyn Kemp

**Audience:** MS/HS

**Focus:** Other

**Room:** K 35-39

#### **Energy in Ecosystems Online E-Unit for 3-5: New from Project Learning Tree**

Shawna Crocker

**Audience:** Elem (3-6)

**Focus:** Enviro.Sci

**Room:** H 39-45

#### **Forest School**

Megan Patterson

**Audience:** General

**Focus:** Enviro.Sci

**Room:** G 30-36

#### **Grant Writing for Science Teachers - Paid to Travel and Learn**

Norman Leonard

**Audience:** General

**Focus:** General

**Room:** J 48-52

#### **High Quality Evidence for Argumentation & Explanation Writing**

Tim Blesse

**Audience:** MS/HS

**Focus:** General

**Room:** G 31-37

#### **Incorporating Renewable Energies into Your Science Curriculum**

Stephan Graham

**Audience:** MS/HS

**Focus:** General

**Room:** J 41-47

#### **Make&Take - Putting a BANG Into Your Teaching**

Harvey Gendreau

**Audience:** MS/HS

**Focus:** Chemistry

**Room:** K 49-53

#### **MapTime! - GeoSpatial Thinking for All!**

Heidi Ragsdale

**Audience:** General

**Focus:** Earth/Space Sci

**Room:** H 48-52

#### **Nature Thought of It First: Biomimicry**

DeLene Hoffner

**Audience:** Gen Elem (K-6)

**Focus:** General

**Room:** J 31-39

#### **Searching for Marine Mammals in Hawaii - a journey on the "HI-CEAS" with Teacher at Sea**

Staci DeSchryver

**Audience:** MS/HS

**Focus:** Enviro.Sci

**Room:** G 38-44

#### **STEMify Your Classroom**

Sandy Lamb

**Audience:** Gen Elem (K-6)

**Focus:** Other

**Room:** G 39-45

#### **Supporting Students in Making Sense of Content Representations and Models**

Cindy Gay

**Audience:** MS/HS

**Focus:** General

**Room:** H 30-38

#### **The CU-Boulder Museum's Fossils in the Classroom Project: The Hands-on Study of Fossils**

Jim Hakala

**Audience:** Elem (3-6)

**Focus:** Earth/Space Sci

**Room:** G47-5

#### **Transplantation Science - A FREE Hands-on Workshop for Students**

Anne Gaspers

**Audience:** MS/HS

**Focus:** Life Sci/Bio

**Room:** H 40-46

#### **What's the Big Deal with Radon?**

Roger Felch

**Audience:** MS/HS

**Focus:** Chemistry

**Room:** J 49-53

#### **Zombie Attack!**

Cassie Whitecotton

**Audience:** MS/HS

**Focus:** Phys Sci

**Room:** H 31-37

#### **\*Please Note:**

Sessions and room numbers may change

## Session 2: 9:10-10:05

### **"Hey Where Are the Sandwiches?"**

Tom Bindel

**Audience:** HS

**Focus:** Chemistry

**Room:** J 40-46

### **"Simple"ly the Best Demos**

Bette Bridges

**Audience:** HS

**Focus:** Chemistry

**Room:** J 30-38

### **Bats Inspiring Innovation**

Tabbi Kinion

**Audience:** MS

**Focus:** Life Sci/Bio

**Room:** J 41-47

### **Carbon & Climate Online E-Unit for 6-8: New from Project Learning Tree**

Shawna Crocker

**Audience:** MS

**Focus:** Enviro.Sci

**Room:** H 39-45

### **Circular Motion, Gravitation, and Dark Matter**

Christine Nichols

**Audience:** HS

**Focus:** Physics

**Room:** J 49-53

### **Creative, Authentic and Feasible Project Based Learning Experiences**

Heather Berry

**Audience:** MS/HS

**Focus:** Enviro.Sci

**Room:** F 46-52

### **Elementary Science Make and Take**

Teresa Higgins

**Audience:** Gen Elem (K-6)

**Focus:** General

**Room:** G 46-52/H47-53

### **Engineering and Science Activities with Inexpensive Drones**

Randy Russell

**Audience:** MS

**Focus:** Tech Ed

**Room:** F 30-36

### **Hands-On, Minds-On STEM: Better Learning through Engineering Design**

Sandra Robertson

**Audience:** HS

**Focus:** Other

**Room:** F 38-44

### **How does a two-dimensional map represent a three-dimensional landform?**

Jessie Herman

**Audience:** MS/HS

**Focus:** Earth/Space Sci

**Room:** K 49-53

### **Inquiry in the Science Classroom**

Terry Bramschreiber

**Audience:** General

**Focus:** General

**Room:** G 38-44

### **Integrating Chromebook with Vernier Technology**

Roger Larson

**Audience:** General

**Focus:** General

**Room:** H 48-52

### **Making Student Thinking Visible to Improve Teaching and Learning**

Cindy Gay

**Audience:** MS/HS

**Focus:** General

**Room:** H 30-38

### **NGSS? What is that all about?**

Eileen Patrick

**Audience:** General

**Focus:** General

**Room:** G 31-40

### **STEAM-a-lama-ding-dong...**

Cassie Whitecotton

**Audience:** MS/HS

**Focus:** Phys Sci

**Room:** H 31-37

### **STEM difference makers**

Chris Schaumberg

**Audience:** MS/HS

**Focus:** Enviro.Sci

**Room:** J 31-39

### **STEM via 3D Printing**

Nadene Klein

**Audience:** MS/HS

**Focus:** General

**Room:** K 41-47

### **Taking your Environmental Science students on the road!**

Rose Banzhaf

**Audience:** HS

**Focus:** Enviro.Sci

**Room:** G 39-45

### **Teacher or Speed Bump?**

Ben Wolfe

**Audience:** MS/HS

**Focus:** Other

**Room:** K 35-39

### **Teaching About Climate & Energy with Confidence**

Jennifer Taylor

**Audience:** MS/HS

**Focus:** General

**Room:** G47-53

### **The Biology of Skin Color: A Human Example of Natural Selection**

Jamie Gay

**Audience:** HS

**Focus:** Life Sci/Bio

**Room:** H 40-46

### **Using Pear Deck to Support the 5Es of Inquiry**

Kevin Murray

**Audience:** MS/HS

**Focus:** General

**Room:** G 30-36

### **Using Storytelling to Engage Students on STEM Topics**

Erin Leckey

**Audience:** MS/HS

**Focus:** General

**Room:** J 48-52



## Session 3: 12:15-1:10

### **A Community-based Approach to Engaging Students and Teachers in Effective STEM Education**

Janelle Johnson

**Audience:** General

**Focus:** Enviro.Sci

**Room:** K 35-39

### **Argument Writing in Science**

Wendy Ward Hoffer

**Audience:** MS

**Focus:** General

**Room:** J 40-46

### **Argument-Driven Inquiry: Promoting Science Proficiency by Transforming Lab Activities**

Victor Sampson

**Audience:** MS/HS

**Focus:** General

**Room:** G 39-45

### **Bringing Our Ecosystem into the Classroom**

Jen Boussetot

**Audience:** MS/HS

**Focus:** Life Sci/Bio

**Room:** F 30-36

### **Building STEM Identity through Hands-On Kits**

Chris DeKay

**Audience:** Gen Elem (K-6)

**Focus:** General

**Room:** J 31-39

### **Caves, Slime Molds, & Waterproof Flashlights**

Tracy Jackson

**Audience:** General

**Focus:** General

**Room:** J 30-38

### **Discussing How Scientists Use Notebooks with Elementary Students**

Ingrid Carter

**Audience:** Gen Elem (K-6)

**Focus:** General

**Room:** F 46-52

### **Drought in Africa Inspires Students to Invent a Smart Irrigation System**

Cassie Whitecotton

**Audience:** MS/HS

**Focus:** Enviro.Sci

**Room:** H 31-37

### **Engaging Students with Technology (Featuring Google Expeditions)**

Damon Smerchek

**Audience:** General

**Focus:** Tech Ed

**Room:** G 30-36

### **Exploring the Practices of Science and Engineering**

Brooke Bourdelat-Parks

**Audience:** MS/HS

**Focus:** General

**Room:** H 30-38

### **Hands-on Water Quality Testing**

Peter Modreski

**Audience:** MS/HS

**Focus:** Enviro.Sci

**Room:** J 41-47

### **Linking Science and Literacy**

Eileen Patrick

**Audience:** Gen Elem (K-6)

**Focus:** General

**Room:** G 31-37

### **Little Shop of Physics presents: Air in Motion**

Sheila Ferguson

**Audience:** General

**Focus:** Physics

**Room:** G 46-52/H47-53

### **Shake It Up - Designing Earthquake Resistant Structures!**

Deborah Linscomb

**Audience:** MS

**Focus:** Earth/Space Sci

**Room:** G 38-44

### **STEM and NGSS Inquiry in Chemistry: Effective, Efficient, Economical**

Ed Waterman

**Audience:** HS

**Focus:** Chemistry

**Room:** J 48-52

### **STEM in the General Ed Classroom**

Michael Stover

**Audience:** MS

**Focus:** Phys Sci

**Room:** F 38-44

### **Story of the Mountains - Rocky Mountain National Park as an Outdoor Classroom**

Katie Phillips

**Audience:** Gen Elem (K-6)

**Focus:** Earth/Space Sci

**Room:** K 41-47

### **Teaching in Australia! The Australian Exchange: Expanding the Scientific Classroom Experience**

Pam Gabarron

**Audience:** General

**Focus:** General

**Room:** H 48-52

### **The Difference Between Chemicals, Hazardous Substances, and Hazardous Waste**

Marian O'Connor

**Audience:** MS/HS

**Focus:** Chemistry

**Room:** H 40-46

### **Tremendous Science Online E-Unit for K-2: New from Project Learning Tree**

Shawna Crocker

**Audience:** Elem (K-2)

**Focus:** Enviro.Sci

**Room:** H 39-45

### **Using PhET Interactive Simulations to Facilitate Student Learning**

Amy Rouinfar

**Audience:** General

**Focus:** General

**Room:** G 47-53

### **What's inside an Atom?**

Jessie Herman

**Audience:** MS/HS

**Focus:** General

**Room:** K 49-53

### **What's the Cosmological Evidence for Dark Energy?**

Christine Nichols

**Audience:** HS

**Focus:** General

**Room:** J 49-53

## Session 4: 1:55-2:50

### **Crowdsource, Map, Analyze and Present Your Data!**

Roger Felch  
**Audience:** MS/HS  
**Focus:** General  
**Room:** J 49-53

### **An Amped up Electricity Lab**

Dianne Ferrari  
**Audience:** MS/HS  
**Focus:** Chemistry  
**Room:** G 30-36

### **Argument-Driven Inquiry in the Elementary Classroom**

Victor Sampson  
**Audience:** Elem (3-6)  
**Focus:** General  
**Room:** G 39-45

### **Batteries: From Cell Phones to Cars and Tiny Houses, Exploring the Life Cycle of Batteries**

Ben Geller  
**Audience:** MS/HS  
**Focus:** Phys Sci  
**Room:** F 38-44

### **Bringing Livestream to Life**

Erin Dreps  
**Audience:** Gen Elem (K-6)  
**Focus:** Life Sci/Bio  
**Room:** F 30-36

### **Careers in Chemistry -**

Debbie Crans  
**Audience:** General  
**Focus:** Chemistry  
**Room:** H 48-52

### **De-extinction - blending scientific discovery and moral implications of genetic engineering**

Heather Berry  
**Audience:** HS/College  
**Focus:** Life Sci/Bio  
**Room:** F 46-52

### **ENGAGE YOUR STUDENTS IN GREENING THEIR SCHOOL**

Shawna Crocker  
**Audience:** General  
**Focus:** Enviro.Sci  
**Room:** H 39-45

### **How Do GPS Satellites Find You?**

Christine Nichols  
**Audience:** MS/HS  
**Focus:** General  
**Room:** J 48-52

### **Hypothesis Generation in Science**

Paul Strode  
**Audience:** General  
**Focus:** General  
**Room:** G 38-44

### **Investigating Environmental Issues**

Katie Navin  
**Audience:** MS/HS  
**Focus:** Enviro.Sci  
**Room:** J 30-38

### **Learning gains across subgroups within PET High School classroom**

Nicole Schrode  
**Audience:** HS  
**Focus:** Physics  
**Room:** J 41-47

### **May Contain Peanuts: Allergies and Scientific Inquiry**

Cindy Gay  
**Audience:** MS  
**Focus:** General  
**Room:** H 30-38

### **Modeling: Smelling Things From A Distance!**

Marilyn Schmidt  
**Audience:** MS  
**Focus:** General  
**Room:** H 31-37

### **NGSS and Three Dimensional Learning: Designing Tasks**

Laurie Wretling  
**Audience:** MS/HS  
**Focus:** General  
**Room:** K 35-43

### **NOAA SOS Explorer - Earth Science Data Visualizations in the Classroom**

Hilary Peddicord  
**Audience:** General  
**Focus:** Earth/Space Sci  
**Room:** K 41-47

### **Stoichiometry, A Concept Every Student Can Learn**

Harvey Gendreau  
**Audience:** HS  
**Focus:** Chemistry  
**Room:** K 49-53

### **Taste of GLOBE: Practices to enhance your teaching**

Jennifer Taylor  
**Audience:** MS/HS  
**Focus:** General  
**Room:** G47-53

### **Teachers in the KNOW... Colorado Environmental Education Plan**

DeLene Hoffner  
**Audience:** General  
**Focus:** Enviro.Sci  
**Room:** J 31-39

### **Thirty science demos in 50 minutes**

Rob Reinsvold  
**Audience:** General  
**Focus:** General  
**Room:** G 46-52/H47-53

### **Using Large Data Sets in the Classroom.**

Mary Hunter-Laszlo  
**Audience:** MS/HS  
**Focus:** General  
**Room:** J 40-46

### **Water Ecology and Climate Change: Bringing Naturalism Into the Classroom**

Jamie Gay  
**Audience:** HS  
**Focus:** Life Sci/Bio  
**Room:** H 40-46

### **What If? Genius Hour in the STEM Classroom**

Rob Funk  
**Audience:** General  
**Focus:** Other  
**Room:** G 31-37



## Session 5: 3:05-4:00

### **Air Force Academy K-12 STEM Outreach Program**

Sandy Lamb

**Audience:** General

**Focus:** Other

**Room:** G 39-45

### **AP Chemistry Teaching Resources You Gotta Have!**

Ed Waterman

**Audience:** HS

**Focus:** Chemistry

**Room:** J 48-52

### **Cultivating STEM Identities**

Wendy Ward Hoffer

**Audience:** Gen Elem (K-6)

**Focus:** General

**Room:** J 40-46

### **Curriculum for a Crowded World**

Eugene Kutscher

**Audience:** MS/HS

**Focus:** Enviro.Sci

**Room:** F 30-36

### **Does this Engineering Make Me Look Nerdy?: Making Engineering Accessible to Every Learner**

Tara Hardman

**Audience:** MS/HS

**Focus:** Other

**Room:** F 38-44

### **How Can Geospatial Inquiry Improve Your Class?**

Roger Felch

**Audience:** MS/HS

**Focus:** General

**Room:** J 49-53

### **How to choose - chemistry, material science, physics, biology?**

Debbie Crans

**Audience:** General

**Focus:** Chemistry

**Room:** H 48-52

### **Impact of Counter-Stereotypical Scientist Spotlight on Secondary Student Perspectives about Who Does**

Julie Thompson

**Audience:** HS/College

**Focus:** General

**Room:** H 40-46

### **Integrating Peer Instruction with POGIL Activities in High School Biology Classrooms**

Jennifer Parrish

**Audience:** HS

**Focus:** Life Sci/Bio

**Room:** J 30-38

### **Introduction to Modeling Instruction**

Earl Legleiter

**Audience:** MS/HS

**Focus:** Phys Sci

**Room:** H 30-38

### **Kids Teaching Kids**

Nadene Klein

**Audience:** MS/HS

**Focus:** General

**Room:** K 41-47

### **Know Your Why: Student Ownership of Learning**

Rob Funk

**Audience:** General

**Focus:** Other

**Room:** G 31-37

### **Nature in the Classroom! Turn it inside OUT!**

DeLene Hoffner

**Audience:** Gen Elem (K-6)

**Focus:** Enviro.Sci

**Room:** J 31-39

### **Protect your Pooch with STEM!**

Cassie Whitecotton

**Audience:** MS/HS

**Focus:** General

**Room:** H 31-37

### **Teaching From The North Pole**

Bill Schmoker

**Audience:** General

**Focus:** General

**Room:** K 35-39

### **The Engineering Design Process in Counseling Groups-Developing Active STEM Learners in Elementary Sc**

Helen Douglass

**Audience:** Gen Elem (K-6)

**Focus:** Other

**Room:** H 39-45

### **Time to Teach Classroom Management Strategies**

Gordon Gibson

**Audience:** MS/HS

**Focus:** Other

**Room:** G47-53

### **Using Biointeractive Resources to Help Students Understand Genetic Engineering**

Paul Strode

**Audience:** MS/HS

**Focus:** Life Sci/Bio

**Room:** G 38-44

### **Using the PET-HS curriculum to create a culture of success for all students in physics.**

Nicole Schrode

**Audience:** HS

**Focus:** Physics

**Room:** J 41-47

### **Visualizing Data in Virtual & Augmented Reality**

Kevin Murray

**Audience:** MS/HS

**Focus:** General

**Room:** G 30-36

### **What's Up with Cannabis? Answers for You and Your Students**

Caren Kershner

**Audience:** General

**Focus:** General

**Room:** K 49-53