



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

UPDATED 2-17-16

8:00 a.m. - 8:45 a.m. – Sessions

Bridging Physical Education and Environmental Education at the Elementary Level

Patricia McNinch, Mayville Elementary School

Primary Subject: EN

Interest Level: EE, LE

Location: R - Capital 1

Teaching Physical Education through experiences in Environmental Education gives opportunities for students to become physically fit and to encourage students to explore science in new ways.

SCECH's Session

Elementary Strand

Catapult your kids into an Elementary STEM project!

Crystal Brown, Parsons Elementary School

Primary Subject: GS, IN

Interest Level: EE, LE

Location: LC - 104

Elementary students thrive in STEM based projects! They want to create, build, tear apart and re-build. K-5 teachers will walk away with hands on experience and resources for a unit that is project-based and developed for students to explore, research and learn about the concepts of energy. They will then apply their understanding to build and redesign their best performing catapult model. Students are questioning, researching, analyzing, testing, and re-designing. Come see how a catapult unit can incorporate the cross-cutting concepts, disciplinary core ideas, and scientific and engineering practices in a meaningful way!

Chemistry Teacher Meeting

Mary Jordan McMaster, Allen Park High School

Primary Subject: CH

Interest Level: HS

Location: R - Regency 1

Join other high school chemistry teachers to discuss recent developments and opportunities pertaining to teaching Chemistry.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued - Saturday, March 5, 2016
8:00 a.m. - 8:45 a.m. – Sessions

SCECH's Session

Vendor Session

Get a Sneak Peek at the BCAMSC MSS Aligned Units

Nancy Karre, Battle Creek Area Math/Science Center

Primary Subject: AS, IN

Interest Level: EE, LE, MS

Location: LC - Banquet 8

This session will give current and interested participants in the BCAMSC Science unit program a glimpse into the BCAMSC alignment process, progress, and how districts and teachers can prepare for MSS in the classroom.

SCECH's Session

Great, Cheap, Easy Demonstrations for Matter and Energy

Andrew Frisch, Farwell Area Schools

Primary Subject: GS, IS

Interest Level: LE, MS, HS

Location: LC - 203

There will be several great demonstrations designed for upper elementary through introductory high school science courses. These demonstrations will focus on Laws of Conservation of Energy and Law of Conservation of Matter.

SCECH's Session

Human Population: Past, Present and Future Carrying Capacity

Larry Feldpausch

Primary Subject: EN

Interest Level: MS, HS

Location: LC - 102

More than the demographic facts of life, the social, economic and environmental impact of a burgeoning population will also be explored. The approach to the issue is interdisciplinary. Lessons for teachers outside of science will be shared.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued - Saturday, March 5, 2016
8:00 a.m. - 8:45 a.m. – Sessions

SCECH's Session

MSS & STEM can be FUN!!

Lu Anne Clark

Primary Subject: ES, PH

Interest Level: EE, LE

Location: R - Michigan 3

A fun, hands-on and interactive presentation of several Michigan science standard STEM earth and physical science related activities for children that are cheap and supply friendly. Handouts will be available.

Muffins for Members

Robby Cramer, MSTA Executive Director

Jen Arnsward, MSTA President Elect

Paul Drummond, MSTA Membership Chair

Primary Subject: IS, AS

Interest Level: EE, LE, MS, HS, CO, Administrators

Location: LC – 101

Consider the next steps needed regarding the new Science standards. What do you need from your professional organization? Meet MSTA teacher early adopters! Learn more about the current work of MSTA leaders to help Michigan teachers transition to the new Michigan Science Standards. Share your needs!

SESSION CANCELLED

SCECH's Session

Next Steps Planning for Curriculum and Instruction

Megan Schrauben, Tamara Smolek, MDE – John Hannah Bldg.

Primary Subject: GS

Interest Level: EE, LE, MS, HS, CO

Location: LC – 104

~~MDE has grant opportunities and standards updates to share. We hope to show how the different initiatives support each other and answer any questions that you may have for us.~~



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

8:00 a.m. - 9:45 a.m. – Workshops

Energizing Lessons Learned from a Chemistry Teacher & Industry Partnership

R. Charles Dershimer, U of M - School of Education

Vicki Behe

Rebecca Talik, Carrollton High School

Mary Hillebrand, Calvary Baptist Academy

Scott Harrison, Freeland Middle School

Primary Subject: CH

Interest Level: MS, HS

Location: LC - Banquet 6

Learn about engaging chemistry lessons developed through a partnership with the American Association of Chemistry Teachers and Dow Chemical Company. Handouts for lessons and information on ACS Science Coaches provided.

SCECH's Session

Vendor Session

Investigate Photosynthesis and Cellular Respiration Using Algae Beads!

Tamica Stubbs, Bio-Rad Laboratories

Primary Subject: CH, BI

Interest Level: MS, HS

Location: LC - Banquet 2

In this hands-on workshop, learn how algae beads can be used in inquiry investigations to study photosynthesis and cellular respiration in a calorimetric assay that examines CO₂ consumption and release.

SCECH's Session

NASA STEM: The Scoop on Soils (Grades K-9)

Susan Kohler, NASA Glenn Research Center

Primary Subject: ES, IN

Interest Level: EE, LE, MS

Location: LC - 202

Experience water studies with the NASA GLOBE resources including teacher guides, ELA storybooks and related STEM activities designed for grades K-6. The activities promote problem solving, and communication skills.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued - Saturday, March 5, 2016
8:00 a.m. - 9:45 a.m. – Workshops

SCECH's Session

Physics Make and Take

Steve Dickie, Divine Child High School

James Gell, Plymouth High School

Primary Subject: PH

Interest Level: MS, HS

Location: R - Capital 3

Participants will have the opportunity to construct several apparatuses for classroom demonstrations of physics phenomena. These apparatuses will be constructed of inexpensive and easily-obtainable materials. Sponsored by the MIAAPT.

SCECH's Session

Playing with Underwater Gliders and Exploring Engineering Design Process

Nina Mahmoudian, Donna Ziaee Fard, Michigan Tech

Primary Subject: AS, EN, IN

Interest Level: MS, HS

Location: LC - 205

A hands-on activity for exploring engineering design process inspired by underwater gliders exploring ocean environment will be presented. The activity is inexpensive and can be easily adopted in classrooms.

SCECH's Session

Vendor Session

Project-based Learning - Using Video-enhanced Lessons

Mike Heithaus, Houghton Mifflin Harcourt

Primary Subject: BI

Interest Level: MS, HS

Location: LC - 204

Project-based Learning - Using Video-enhanced Lessons to Bring Students Into the Field.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI

Michigan
Education
Partnership
Pure Michigan
Science

2016 Session Information

Continued - Saturday, March 5, 2016
8:00 a.m. - 9:45 a.m. – Workshops

SCECH's Session

Shish-Kebab Planet: (This is not a cooking class)

David Mastie

Primary Subject: ES, GS

Interest Level: LE, MS

Location: R - Michigan 2

Participants will: Skewer an Earth model, Illustrate Earth's tilt, model latitude and longitude, discover year, seasons, time zones and satellite orbits. Build a magnetometer to find Earth's magnetism and poles, and use sky calendars.

SCECH's Session

Stability and Change in Michigan Ecosystems: An Example Mi-STAR Unit

Robin Allen, Barbara McIntyre, Midland Public Schools

Steph Tubmand, Anthony Matthys

Primary Subject: AS, GS

Interest Level: MS

Location: R - Capital 2

Mi-STAR is developing an integrated science curriculum for Michigan that aligns with NGSS. Participate in hands-on activities from a classroom-tested unit on health and disturbance of Michigan ecosystems. Handouts provided.

SCECH's Session

The Physiological Impact of Poverty on Behavior and Academic Performance

Audrey Richardson, Detroit Public Schools

Primary Subject: GS, IN

Interest Level: EE, LE, MS, HS, CO

Location: LC - Governors

Examine how acute and chronic stressors impact low socioeconomic students' behavior and academic performance. Demonstrate and discuss effective strategies to reduce the impact of poverty on behavior and academic performance. This includes a "hands-on" activities. Handouts will be provided.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued - Saturday, March 5, 2016
8:00 a.m. - 9:45 a.m. – Workshops

SCECH's Session

What's in Your Walls? Teaching Sustainability through NGSS

Gwen Windiate, Sheri Turner, Emily Gochis, Luke Bowman

Primary Subject: CH, ES

Interest Level: MS, HS

Location: LC - 201

Mi-STAR is developing an integrated science curriculum for Michigan that aligns with NGSS. Participate in activities from a classroom-tested unit on the life cycles of building materials. Handouts provided.

Saturday, March 5, 2016
8:30 a.m. - 10:30 a.m. – Workshop

SCECH's Session

MEECS Climate Change

Janet Vail, Grand Valley State University

Primary Subject: AS, EN

Interest Level: MS, HS

Location: LC - 103

Learn about climate and weather, the energy balance, the carbon cycle, and the Greenhouse effect. Students will observe change in the Earth's cycles and climate.

9:00 a.m. - 9:45 a.m. - Sessions

Elementary Inquiry Extravaganza!

Tim Larrabee, Oakland University

Betty Crowder

Primary Subject: GS

Interest Level: EE, LE, MS, HS

Location: LC - Banquet 1

Join the fun as Oakland University pre-service teachers provide you with a wealth of inquiry and engineering activities that will engage your students and their inquisitive minds. This hands-on session targets elementary science and engineering, but many of the activities could be adjusted for younger or older students.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued – Saturday, March 5, 2016
9:00 a.m. - 9:45 a.m. – Sessions

SCECH's Session

Energy that Powers Michigan

Andrew Frisch, Farwell Area Schools

Primary Subject: GS, PH

Interest Level: LE, MS, HS

Location: LC - 203

The Law of Conservation of Energy rules our modern world. This session will explain how our natural resources are turned into electricity. Then it will expand into how these fuels are the cause of Global Climate change. It will demonstrate how leaving your lights on is causing the polar ice caps to melt.

SCECH's Session

Engaging Science for English Language Learners (ELLs)

Puja Mullins, Brick Elementary School

Amanda Pringle, Lincoln Consolidated Schools

Primary Subject: AS, IN

Interest Level: EE, LE, MS, HS

Location: R - Michigan 3

Children learn language and science in much the same way through authentic, meaningful experiences. Learn strategies for ELLs and struggling readers in your science class. Participate in activities that target language and literacy goals through science content.

SCECH's Session

Vendor Session

Facilitating Students' Understanding of the Structure and Properties of Matter

David Doherty, BitWixt Software Systems

Primary Subject: CH, CO

Interest Level: MS, HS

Location: LC - Banquet 4

From middle to high school, students' understanding of the structure/properties of matter increases in complexity. We demonstrate 3D atomic and molecular models, for laptops/Chromebooks and iPads, to facilitate this growth in understanding.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued – Saturday, March 5, 2016
9:00 a.m. - 9:45 a.m. – Sessions

SCECH's Session

Global Change in the Classroom: Creating Stewards of the Earth

Zakiya Jackson, Detroit Public Schools

Diana Koss, Ralph J. Bunche Pre K-8 School

Primary Subject: EN

Interest Level: LE, MS

Location:

Make environmental science come alive for all students through interactive and engaging hands-on projects. Global change topics including stewardship, outdoor education, and environmental appreciation and literacy will be addressed. For general Ed, and special Ed. teachers alike.

SCECH's Session

Elementary Strand

How to Deliver a Dynamic Elementary Science Lesson with Rigor

Derek Sale, Gompers Elementary/Middle School

Primary Subject: GS, IN

Interest Level: EE, LE, MS

Location: LC - 101

This session will provide several strategies to transform your everyday elementary science lesson plan into a dynamic learning moment for your students.

SCECH's Session

Science and the MDE early literacy and numeracy initiative

Megan Schrauben, MDE - John Hannah Bldg.

Primary Subject: LT, IN

Interest Level: EE, LE

Location: LC - 104

You may have heard about the Governor's Third-Grade Literacy Workgroup Report and how additional funds are moving into classrooms to support this work--come find out how science directly relates to this work, the supports and initiatives that MDE is working on, and how your students will greatly benefit.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI

Michigan
Education
Partnership
Pure Michigan
Science

2016 Session Information

Continued – Saturday, March 5, 2016
9:00 a.m. - 9:45 a.m. – Sessions

SCECH's Session

Teacher Professional Development without the Loss of Instructional Time with Students

Michelle Cline, Hope for K-8 Education

Primary Subject: IS

Interest Level: EE, LE, MS

Location: LC - 102

Does your district struggle with finding substitutes? Are you tired of leaving plans that are not taught by the sub while you attend PD? We have the solution for you!

SCECH's Session

The Art of Chemistry

Jelane Richardson, Allen Park High School

Primary Subject: CH

Interest Level: HS

Location: R - Regency 1

Come see how Art and Chemistry blend to make great hands-on experiences for Chemistry.

Vendor Session

The Chemistry of Color: Getting Students on the Right Frequency

Bill Cline, LAB-AIDS

Primary Subject: CH

Interest Level: HS

Location: LC - Banquet 5

Would you use a spectrophotometer in your high school chemistry classes if it were inexpensive, reliable, and easy for students to use? Since this powerful tool is a common feature in modern chemical analysis - of course you would! Join us for hands-on activities using RGB spectrophotometers to explore simple serial dilutions and core applications of the technology. From a Natural Approach to Chemistry from LAB-AIDS.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI

Michigan
Science
Conference
Pure Michigan Science

2016 Session Information

Continued – Saturday, March 5, 2016

9:00 a.m. - 9:45 a.m. – Sessions

SCECH's Session

Vendor Session

What's Going On Under Ground? Michigan Potatoes: Nutritious and Delicious!

Amelia Miller, Michigan Farm Bureau

Primary Subject: BI, EN

Interest Level: MS

Location: LC - Banquet 7

Investigate differences between roots and tubers in this plant science and nutrition lesson.

Meeting 7 - 9 grade science and main standards.

Saturday, March 5, 2016

9:00 a.m. - 10:45 a.m. – Workshops

SCECH's Session

Eco Impact: How Our Choice Affect the Earth and Its Inhabitants

Lisa Forzley, Detroit Zoological Society

Primary Subject: EN

Interest Level: EE, LE, MS, HS, CO

Location: R - Capital 4

Participate in hands-on activities/discussions that will connect our daily choices with the impact they have on the planet. Walk away with lessons that you can immediately implement in your classroom.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued - Saturday, March 5, 2016

9:00 a.m. - 10:45 a.m. – Workshops

SCECH's Session

Engineering the Future - Exploring Engineering Design in the NGSS

Dr. Eric Mann, Hope College - Dept of Math/Phy/Eng.

Susan Ipri-Brown, Lindsey Gryniewics, Sherah Head, Alex Klunder, Hope College

Primary Subject: EN

Interest Level: EE

Location: LC - Banquet 3

After a brief introduction to the engineering design process, participate in a hands-on design challenge that you can take back to your classrooms. Handouts will be provided.

SCECH's Session

Framing Your Lessons in Phenomena

Nancy Karre, Battle Creek Area Math/Science Center

Primary Subject: IN

Interest Level: EE, LE, MS

Location: LC - Banquet 8

Make the shift from inquiry-based lessons to a lessons framed in relevant phenomena! Learn how to frame lessons in phenomena that is applicable and significant to student learning and aligned with MSS.

9:00 a.m. – Noon – Workshop

SCECH's Session

The Modeling Method in Electricity and Magnetism

Donald Pata, Grosse Pointe North HS

Laura Ritter, Troy High School

Primary Subject: PH

Interest Level: EE, LE, MS, HS

Location: R - Regency 2

Participants will create and apply models in electrostatics, circuits and magnetism. They will be introduced to the Modeling Method for teaching physics through hands on activities designed to engage and enlighten.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

10:00 a.m. - 10:45 a.m. – Sessions

SCECH's Session

An Integrated Approach to Teaching Metamorphic Rocks of Michigan

Sarah Van Goor, GVSU

Primary Subject: ES

Interest Level: MS, HS

Location: R - Capital 1

Participants will explore a new, integrated approach to teaching about the metamorphic rocks and history of Michigan using hand samples, Google Earth, and geologic maps.

SCECH's Session

Vendor Session

Bacteria, Antibiotics and Antibiotic Resistance: What Your Students Need to Know

Elaine Bailey, MARR

Primary Subject: BI

Interest Level: LE, MS, HS

Location: LC - 204

This session will provide an overview of recent CDC report about antibiotic resistance threats in the U.S. and environmental impact and global concerns. Participants will also learn about a free two day high school biology/health, and a 2nd – 8th grade elementary curriculum. And much more!

SCECH's Session

Bridging the STEM Gap with Science Olympiad

Michele Svoboda

Primary Subject: AS

Interest Level: EE, LE, MS, HS

Location: R - Regency 1

Learn about the Science Olympiad program and how many of the events will translate into STEM lessons that support NGSS. Lesson ideas will be shared in a handout.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI

Michigan
Technology
Education
Pure Michigan Science

2016 Session Information

Continued - Saturday, March 5, 2016
10:00 a.m. - 10:45 a.m. – Sessions

SCECH's Session

Co-Robots Can Serve as Co-Educators for Students

Nina Mahmoudian, Michigan Tech

Primary Subject: AS, CO, IN

Interest Level: MS, HS, CO

Location: LC - 205

This session introduces two of Michigan Tech robots (GUPPIE and Neu-pulator) that enable students to learn how robots can help to explore the environment and augment human capabilities.

SCECH's Session

Continuing the Journey into Technology; Building a Curriculum

Carl Van Faasen, Holland High School

Primary Subject: CH

Interest Level: HS

Location: LC – 104

I will share the curriculum I built that is available to all online. We will discuss the advantages and disadvantages of 1:1 technology in the classroom as we prepare for the future of education.

Vendor Session

Fingerprint of an Atom

Bill Cline, LAB-AIDS

Primary Subject: CH

Interest Level: HS

Location: LC - Banquet 5

Students have trouble relating electron orbitals and spectra lines. Join us for a unique and fun atom building model experience. After modeling electron configurations, we will explore how color is used to identify elements using a unique deck of spectrum cards to take home, In fact, we will send you home with 58 engaging chemistry labs from [A Natural Approach to Chemistry](#) from LAB-AIDS that support the new teacher/student talk ratio.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued - Saturday, March 5, 2016
10:00 a.m. - 10:45 a.m. – Sessions

SCECH's Session

FREE teacher/student STEM labs and Career Exploration Labs

Robert Tonti, Macomb Community College

Primary Subject: IN, IS

Interest Level: MS

Location: LC - 102

FREE Teacher/Student STEM labs taught in your classroom for Macomb, Oakland and Wayne County schools. Learn how to bring the STEM Outreach program to your school or community group.

SCECH's Session

Elementary Strand

Integrate Literacy & Writing into Elementary Science by Using Interactive Notebooks

Carolyn Mammen, Hart Middle School

Brian Peterson, Musson Elementary School

Betty Crowder, Oakland University

Primary Subject: GS

Interest Level: EE, LE, MS

Location: LC - 101

Don't skip science in your elementary classroom - use it to strengthen your students expository writing and reading by integrating science notebooks into your instruction and make science fun!

Vendor Session

Michigan Environmental Literacy Plan Update

Elaine Kampmueller, MAEOE

Tom Occhipinti, DEQ

Megan Schrauben, MDE

Pan Bunch, STEM Learning Connections

Primary Subject: EN

Interest Level: EE, LE, MS, HS, CO

Location: LC - Banquet 7

A summary of the MIELP will be presented by members of the MIELP task force. Attendees will be able to ask questions, make suggestions, and give feedback on this plan.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued - Saturday, March 5, 2016
10:00 a.m. - 10:45 a.m. – Sessions

Michigan's Magnetic Secrets

Eric Engel, South Lyon East High School

Primary Subject: ES

Interest Level: HS

Location: LC - 202

See how Michigan Technological University's Research Experience for Teachers in Paleomagnetism can be used to help students get over their misconceptions about the Earth's magnetic field.

SCECH's Session

Modeling Dynamic Equilibrium Activity

Scott Milam, Plymouth Canton Community Schools

Primary Subject: CH

Interest Level: MS, HS, CO

Location: R - Capital 3

A hands on activity for representing dynamic equilibrium. Models will be constructed for concentration and rate. The activity can be used for AP chemistry or for physical equilibrium situations.

SCECH's Session

Science in the Making: 3-D Printing

Christie Gayheart, Jefferson Middle School

Primary Subject: GS

Interest Level: MS, HS

Location: LC - 203

Real-world engineering design and modeling. The fun begins by building 2-liter bottle rockets, and ends with a challenge between classes of redesigned bottle rockets with 3-D printed fins.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued - Saturday, March 5, 2016
10:00 a.m. - 10:45 a.m. – Sessions

SCECH's Session

Simple and Effective Ways to Bring Inquiry Into Your Classroom

Jaime Ratliff, Patrick Lothrop, Lapeer Community Schools

Primary Subject: GS

Interest Level: LE, MS

Location: LC - Governors

Leary of inquiry? Let us help you bring inquiry to your classroom. We have assembled an easy to follow plan to help you scaffold and get started right away! Handouts provided.

SCECH's Session

Small Eruptions with Big Impacts: An Eyjafjallajokull-like eruption in U.S.?

Brooke Ramsey

Steve Mattox, GVSU

Primary Subject: ES

Interest Level: MS, HS

Location: R - Michigan 2

Participants predict movement of the Eyjafjallajokull ash cloud and the economic and political impacts. Then apply a model of an ash cloud from Redoubt over America and evaluate the impacts.

SCECH's Session

"Spring" into Hands-on Learning

Krystle St. John, Nah Tah Wahsh PSA

Emily Gochis, Michigan Tech University

Primary Subject: ES, PH

Interest Level: MS, HS

Location: LC - 201

Engage students by connecting unique natural sites to scientific phenomena. In this NGSS hands-on lesson, students apply basic principles of energy to investigate the source of Michigan's largest spring.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued - Saturday, March 5, 2016
10:00 a.m. - 10:45 a.m. – Sessions

SCECH's Session

Standards-Based Grading in the Next Generation

Phil King, Erik Johnson, Lakeview Middle School

Primary Subject: AS, IN

Interest Level: LE, MS, HS

Location: LC - Banquet 4

Learn a practical set of steps to make the shift to a standards-based grading system. Promote student proficiency on learning targets, streamline your interventions, and foster student ownership and reflection.

Vendor Session

SCECH's Session

Teach Students How to Write a Story Using LEGO^R

Ivery Toussant, LEGO Education

Primary Subject: GS

Interest Level: EE, LE, MS, HS

Location: LC – Banquet 1

Is there a student on Earth who doesn't love LEGO? StoryStarter, from LEGO Education, taps into that enthusiasm with a language and literacy product that combines an inviting tub of LEGO's with thoughtful lessons on user-friendly writing and comic software while addressing core standards. Hands-on Elementary.

SCECH's Session

Three-Dimensional Learning in Your Classroom: Applying NGSS through Michigan Themes

Jennifer Grivins, Eaton Rapids High School

Brenda Bergman, Michigan Tech University

Dawn Kahler, Stephanie Tubman

Primary Subject: AS, GS

Interest Level: LE, MS, HS, CO

Location: R - Capital 2

Unpack the three dimensions of NGSS and identify ways to engage Michigan students in NGSS through 21st-century applications, real-world data, and significant places related to Michigan. Hands-on and handouts provided.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

10:00 a.m. - 11:45 a.m. – Workshops

SCECH's Session

Creative Engineering in STEM Using Design Thinking for Problem Solving

R. Charles Dershimer, U of M - School of Education

Christopher Patten, Henry Ford Learning Institute

Primary Subject: IN

Interest Level: MS, HS

Location: LC - Banquet 6

Participate in this hands-on design challenge where you use design thinking to creatively solve a problem that meets human needs. A great way to introduce engineering to your students.

SCECH's Session

Vendor Session

Institute of Food Technologists - Middle and High School Outreach Program

Gene Maly, Institute of Food Technologists

Primary Subject: AS, IN

Interest Level: MS, HS

Location: R - Michigan 3

IFT is an international professional association composed of chemists, microbiologists, nutritionists, and food scientists. IFT is dedicated to providing nutritious foods to the world. We will detail the teaching resources IFT has to assist middle and HS teachers to teach the basics of the chemistry of food.

SCECH's Session

Science Saturdays---Detroit Public Schools' Monthly Hands-On Science PLCs

Amy Lazarowicz, Neinas Elementary School

Alica Brown, Detroit Public Schools

Donna Holtz

Primary Subject: AS, IN

Interest Level: LE

Location: LC - Banquet 2

Participate in a condensed version of Science Saturdays Workshops. District Teacher Leaders plan and facilitate grade level PLCs using hands-on activities for the current curriculum and science concepts. GRADES 3-5.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

11:00 a.m. - 11:45 a.m. – Sessions

SCECH's Session

An Integrated to Teaching the Geology of the Cascade Volcanoes

Claire Sobolak, Grand Valley State University

Primary Subject: ES

Interest Level: HS, CO

Location: R - Michigan 2

Participants will explore a new integrated approach to teaching igneous petrology and volcanology of the Cascade Range using hand samples, Google Earth, and geologic maps.

SCECH's Session

Bull's Eye Lab for Different Levels of Physics

Amy Stone, Jason Colegrove, Forest Hills Central HS

Primary Subject: PH

Interest Level: HS

Location: LC - 205

Explore two dimensional projectile motion where students are required to predict where to place a target to be hit with a projectile. Hands on lab. Handouts are provided.

SCECH's Session

Challenge Your Students to Make Waves

Michael Suckley, Paul Klozik

Primary Subject: GS, IN, PH

Interest Level: LE, MS, HS, CO

Location: LC - 201

Sound is the sensation perceived by the ear caused by the vibration of some medium. This workshop will explore sound through the use of the "Sound Portal" which provides access to thirty classic hands-on activities/demonstrations designed to illustrate fundamental characteristics of sound using easily available materials. The "Portal" can be accessed through the internet or downloaded and modified for specific classroom or individual use.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued – Saturday, March 5, 2016
11:00 a.m. - 11:45 a.m. – Sessions

SCECH's Session

Differentiated Learning Through Stationed Activities

Cortney Ford, Mason High School

Primary Subject: BI

Interest Level: MS, HS

Location: LC - 204

Looking for lessons that get your students collaborating and thinking critically while they are actively engaged? Try using stations to reinforce old concepts and get your students thinking about new ideas.

SCECH's Session

Do It Outdoors - MSS/ GLCE's, ELA, Math, and More!

Jody Harrington

Primary Subject: AS, EN

Interest Level: EE, LE

Location: R - Regency 1

Combine science with reading, writing, and math in an active outdoor garden setting. Get students "doing science" using the latest Michigan Science Standards (or GLCE's), Science Practices, and Crosscutting Concepts. Participants will be presented with MSS Performance Expectations aligned to each grade level with the best Environmental Education activities.

SCECH's Session

Vendor Session

Enhancing Classroom Learning Through Digital Dissection

Samantha Suiter, PETA

Primary Subject: BI

Interest Level: MS, HS, CO

Location: LC - 202

This interactive session includes hands-on experience with dissection software programs, covering educational efficacy, economic benefits and current laws/policies regarding the use of animals in science. Participants are asked to bring a laptop.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued – Saturday, March 5, 2016
11:00 a.m. - 11:45 a.m. – Sessions

SCECH's Session

Exploring the Science Explanation Framework through What's Your Evidence?

Jan Douglas, Pioneer Middle School

Donna Pahl, Carrie McManus, Plymouth-Canton Community Schools

Primary Subject: IN

Interest Level: EE, LE

Location: LC - 102

A district science instructional coach and two elementary teachers will share their experience of transforming their teaching from "hands-on" to "minds-on" through a study of What's Your Evidence? Handouts provided.

SCECH's Session

Family Engineering Night: A Night for the Whole Family!

Kristie Massey, Allen Academy

Primary Subject: GS

Interest Level: EE, LE

Location: R - Capital 3

Want to get families involved and you're not sure how? Host a Family Engineering Night! Learn how with hands on activities. Hand outs will be provided.

SCECH Session

Interactive (and effective!) Formative Assessment for your Science Classroom

Shawn McNamara, Grosse Pointe Public Schools

Primary Subject: AS, ES

Interest Level: EE, LE, MS, HS, CO

Location: R - Capital 1

Looking for quick and effective ways to assess your students' progress? Experience first-hand how to use a variety of high-tech and low-tech tools for measuring student learning.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued – Saturday, March 5, 2016
11:00 a.m. - 11:45 a.m. – Sessions

Michigan's New Science Standards - Next Steps

Stephen Best, MI Department of Education-School Reform

Primary Subject: AS, GS

Interest Level: EE, LE, MS, HS

Location: LC - 101

Michigan has (finally) adopted new Science Standards for K-12 Students. So, now what do we do? This session will look at strategies that the Michigan Department of Education is moving on to implement the standards, and will look at a variety of considerations for schools and educators in what next to consider. Issues will include assessments, instructional practices, curriculum development and alignment, teacher certification, educator evaluation, and other issues impacted by the new standards.

SCECH's Session

NGSS, CCSS, and 21st Century Skills Oh MI!

Katie Stevenson, Fisher Elementary

Richard Bacolor, Pierce Middle School

Primary Subject: AS, IN

Interest Level: EE, LE, MS

Location: R - Capital 2

Overwhelmed with all of the standards you have to teach? Trying to get students college and career ready? Leave with strategies that address CCSS and NGSS while preparing students for the 21st century. Handouts provided.

SCECH's Session

Powerful Science Notebooks

Joanne Rowe, Birmingham Public Schools

Michelle Ladd, West Maple Elementary School

Primary Subject: GS, IN

Interest Level: EE, LE

Location: LC - 203

Learn how to leverage science notebooks using the NGSS Science and Engineering Practices. Templates, journal entry types, student examples, implementation strategies, assessments, rubrics will be shared. Electronic handouts provided.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued – Saturday, March 5, 2016
11:00 a.m. - 11:45 a.m. – Sessions

SCECH's Session

Reorganizing Biology Content - A Bottom up Approach

Julie Alexander, Erin Marsh, Grand Ledge High School

Primary Subject: BI

Interest Level: HS

Location: LC - Banquet 1

Join us on a journey through the biology content that begins in the cell and ends with ecology. Attendees will participate in several hands-on activities. Handouts will be provided.

SCECH's Session

Simple, Authentic Inquiry

Claire Lannoye-Hall, Detroit Zoological Society

Primary Subject: IN

Interest Level: EE, LE, MS, HS

Location: R - Capital 4

This hands-on workshop will provide attendees with examples of simple ways to incorporate authentic inquiry in the classroom. Successes and challenges will be openly shared and discussed.

SCECH's Session

Solutions for Delivering Engineering Design into the Science Classroom

Jason Albert Rossner, BES Solutions

Primary Subject: AS, IN

Interest Level: LE, MS, HS

Location: LC - Banquet 4

Our active-learner digital program teaches standards-based math, science, engineering, and English language skills to elementary, middle and high school children. The online digital curriculum is designed to meet the Next Generation Science Standards and aligns with a range of state standards. Students and teachers will want to spend time in our STEM labs. Our comprehensive library contains over 1,000 STEM lessons, which are available anytime, anywhere online.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued – Saturday, March 5, 2016
11:00 a.m. - 11:45 a.m. – Sessions

SCECH's Session

Supporting English Learners in the Science Classroom

Wendi Vogel, Kent Intermediate School District

Sanela Sprecic, Kentwood Public Schools

Primary Subject: IN

Interest Level: EE, LE

Location: LC - Banquet 8

Join an EL teacher and a science teacher walk through some research-based ways to assist these learners in your science classroom, while still honoring their culture.

SCECH's Session

The Kirtland's Warbler: A New Vision for Endangered Species Conservation

Abigail Ertel, Kirtland's Warbler Alliance

Primary Subject: BI, EN

Interest Level: EE, LE, MS, HS

Location: LC - Banquet 3

As birds go, the Kirtland's Warbler is a rock star. People come from all over the world to see it in its northern Michigan summer home. They are attracted to it because it is so rare (only about 4,000 birds in the total population) and because it has a fascinating story. That story may soon be changing: There are signs that the Kirtland's Warbler may soon be coming off the Endangered Species List. That change would present several challenges because the species is conservation reliant -- it depends upon continuing intervention by humans for its survival. So, what happens if the species is removed from the ESA and conservation efforts are withdrawn? The presentation will include an overview of the bird's biology, causes of its near extinction, efforts that have been made to bring it back from the brink, and a look at a new vision for conservation that relies on public-private partnerships. I will provide handouts.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued – Saturday, March 5, 2016
11:00 a.m. - 11:45 a.m. – Sessions

SCECH's Session

Transform your Science Fair into a STEM Challenge Fair!

Crystal Brown, Parsons Elementary School

Primary Subject: GS, IN

Interest Level: EE, LE

Location: LC - 104

If you've been doing the same old Science Fair, come learn about the amazing opportunities for a STEM Challenge Fair! You will see your students able to design their own models, analyze their own results, and use their data to re-develop a better model.

Vendor Session

Using Climate Proxies to Learn About Earth's Climate History

Bill Cline, LAB-AIDS

Primary Subject: ES

Interest Level: MS, HS

Location: LC - Banquet 5

How can scientists tell what Earth's climate was like thousands of years before human measurements? This activity simulates the use of fossil ocean foraminifera, tiny organisms whose growth patterns are different in warm and cold water. Your students will analyze and graph samples of replicas of these organisms, and use this information to determine relative warm and cold periods in the past 200,000 years. This activity is from EDC Earth Science, and new NSF-sponsored earth system program that uses an active, BIG DATA approach from LAB-AIDS that supports the new teacher/student talk ratio, and also has the literacy, notebooking, assessment strategies built in that make it NGSS ready!



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI

Michigan
Education
Partnership
Pure Michigan Science

2016 Session Information

Continued – Saturday, March 5, 2016

11:00 a.m. - 11:45 a.m. – Sessions

SCECH's Session

Introduction to MEECS On-line Learning Portal

Susan Loughrin, Kevin Holohan, Amanda Syers, Grand Valley State University

Primary Subject: EN

Interest Level: LE, MS

Location: LC - 103

MEECS Online! MEECS workshops have been offered to Michigan Educators since 2006. MEECS is now adding online course to supplement the workshop training.

Saturday, March 5, 2016

12:00 p.m. - 12:45 p.m. - Session

The Panel: Questions and Answers Regarding the Michigan Science Standards

MSTA Leadership

Primary Subject: AS, GS

Interest Level: EE, LE, MS, HS

Location: LC - 101

Panel: Stephen Best, MI Department of Education – School Reform

State and National Science Teachers from Michigan will share perspectives, resources, and thoughts about next steps for work on the new Michigan Science Standards. Some time will be given for questions.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

1:00 p.m. - 1:45 p.m. – Sessions

Bring Out the "T" in STEM with Special Education Students

Jennifer Wickersham, Peck Elementary School

Deb Stephan, Rockwell Junior High School

Primary Subject: CO

Interest Level: LE, MS

Location: R - Capital 4

Technology does not have to be overwhelming. Lessons that incorporate the use of technology by special education students will inspire you to remember that there are no limits to what students can do!

SCECH's Session

Design A Sustainable Future

Joan Chadde, W UP Cntr-Sci/M & Envir. Ed.

Lauri Davis, Houghton High School

Primary Subject: EN

Interest Level: LE, MS, HS

Location: R – Michigan 3

Students are confronted by many challenging issues in today's world, from climate change to pollution, overpopulation, and more. This session will present a positive counter-balance. There is a lot happening to support sustainability and today's youth need to hear about it so they can aspire to sustainable career paths and feel positive about the future. Students will investigate building design, renewable energy sources, product life cycles, transportation, vehicle design, sustainable forestry, and food systems.

SCECH's Session

Vendor Session

Energizing Education-A Complete and Free Energy Unit for Michigan Students

Michelle Mitchell, Michelle StepekConsumers Energy

Primary Subject: ES, EN

Interest Level: LE, MS, HS

Location: LC - 205

Consumers Energy will showcase our new Energy Unit targeted at middle and high school students and demonstrate several hands-on activities from the unit. Attendees receive a copy of the unit containing 12 energy lessons covering a range of energy topics.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI

Michigan
Science
Technology
Education
Pure Michigan Science

2016 Session Information

Continued – Saturday, March 5, 2016

1:00 p.m. - 1:45 p.m. – Sessions

SCECH's Session

Great Adaptations: Teaching Practices That Support Diverse Learners

Julia Maceri, Davis Jr. High School

Primary Subject: GS, IN

Interest Level: EE, LE, MS

Location: R - Regency 2

The power of a learning community builds strong relationships, resulting in adaptations of teaching practices. The outcome is highly engaging science for students with diverse needs.

SCECH's Session

Integrating Effective Leadership, Science Literacy, and Technology into Science Instruction

Tooba Mansoor, Dearborn Center for M/S/Tech

Primary Subject: GS

Interest Level: MS, HS

Location: R - Capital 3

Experience hands-on activities to incorporate literacy and technology in your science classroom. In addition, learn leadership skills to assist students to become better leaders. Handouts will be provided.

SCECH's Session

Interdisciplinary Learning for a Changing Planet

Holly Schaeffer, Pottersville Public Schools

Primary Subject: BI, EN

Interest Level: MS, HS

Location: LC - 202

Participate in hands-on activities that apply math and science skills to tackle major global challenges, including human population pressures, finite natural resources and climate change. Receive a CD of lesson plans.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued – Saturday, March 5, 2016
1:00 p.m. - 1:45 p.m. – Sessions

SCECH's Session

Letting Swift River Go

MCSS Strand

Carol Bacak – Egbo, Oakland University

Primary Subject: LT, EN

Interest Level: EE, LE

Location: LC – Banquet 7

Learn how to use picture books focusing on human/environment interaction to engage students in inquiry and connect science, social studies, and literacy.

SCECH's Session

Physics of Atomic Nuclei - learn about MSU Cyclotron and FRIB

Caleb Miller, Richard Lund, St. Johns Public High School

Primary Subject: CH, PH, AST

Interest Level: MS, HS

Location: R - Capital 1

Learn about the research being done at the MSU Cyclotron and FRIB facility including Summer workshops for teachers, students and field trips. Door prizes, hand-outs and hands on activities related to star life cycles, rare isotopes, and astro-physics for all ages!

SCECH's Session

Promoting Collaborative Learning and Productive Interactions in the Science Classroom

Paula Gentile, Jennifer Garland, Belleville High School

Primary Subject: GS, BI

Interest Level: HS

Location: R - Regency 1

This session focuses on strategies to support science students in collaborating on task-based initiatives, critiquing the work of their peers, and productively interacting with one another throughout the learning process.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Continued – Saturday, March 5, 2016

1:00 p.m. - 1:45 p.m. – Sessions

SCECH's Session

Science Saturdays---Detroit Public Schools' Monthly Hands-On Science PLCs

Jennifer Edwards, Ronald Brown Academy

Constance Elliott, Detroit Public Schools

Rosemarie Gurin

Primary Subject: AS, IN

Interest Level: EE

Location: LC - Banquet 4

Participate in a condensed version of Science Saturdays Workshops. District Teacher Leaders plan and facilitate grade level PLC's using hands-on activities for the current curriculum and science GLCEs. (First Grade).

SCECH's Session

STEM = STEAM Different sides of the Equation

David Larwa

Primary Subject: GS

Interest Level: EE, LE, MS, HS, CO

Location: LC - Governors

Artists and designers have given life and form to science. Join me for a new look at the technical and creative models of origami. Used today from auto design to heart operations, origami isn't a child's game.

SCECH's Session

Elementary Strand

STEM for All Elementary Students!

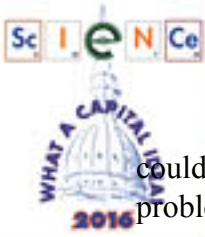
Crystal Brown, Parsons Elementary School

Primary Subject: GS, IN

Interest Level: EE, LE

Location: LC - 103

Providing incorporated Science, Technology, Engineering, and Mathematical experiences for ALL elementary students can be daunting. Come to gather ideas for STEM projects designed for each grade level, using materials readily available or inexpensive. I will provide resources teachers can use/adapt to teach any STEM project and we will complete one STEM project that



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI

2016 Session Information

could be adapted to be used K-5. Tap into your students' natural curiosity and desire to build and problem solve with a STEM project!

Continued – Saturday, March 5, 2016

1:00 p.m. - 1:45 p.m. – Sessions

SCECH's Session

Vendor Session

Contagion! Track the Progress of Dangerous Viruses throughout the Contry

Tamica Stubbs, Bio-Rad Laboratories

Primary Subject: CH, BI

Interest Level: MS, HS

Location: LC – Banquet 1

Disease can spread like wildfire through populations. Become an epidemiologist in this hands-on workshop and track diseases like the fictional Zombie Virus. See if you can track down patient zero!

SCECH's Session

Super Science from the Smithsonian

Laura Trombley, Shields Elementary School

Mary Jo Griffin, Adams Elementary School

Primary Subject: ES, BI, CO

Interest Level: EE, LE

Location: LC - 102

Looking for new ways to strengthen the science curriculum in your classroom? Why not look to the most notable science institution in the world? Join members from the 2014 and 2015 Smithsonian Science Education Academies for Teachers (SSEATS) as they share many of the amazing activities and FREE resources offered by the Smithsonian.

SCECH's Session

Talk Moves: Guiding Engaging Science Discussions

Richard Bacolor, Pierce Middle School

Primary Subject: GS

Interest Level: EE, LE, MS, HS

Location: R - Michigan 1

NGSS asks students to do the heavy lifting developing a deep understanding of science concepts. This session gives teachers a framework for facilitating small and whole group discussions that help students go beyond "learn about" science, and "figure out" science for themselves.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI

Michigan
Technology
Education
Pure Michigan Science

2016 Session Information

Continued – Saturday, March 5, 2016

1:00 p.m. - 1:45 p.m. – Sessions

SCECH's Session

Teaching Evolution: A Conversation About Misconceptions and Models

Kara Haas, MSU - Kellogg Bird Sanctuary

Jamie Bowman, Thornapple Kellogg Schools

Primary Subject: BI

Interest Level: MS, HS

Location: LC - 204

Hands-on models and discussion tips for Teaching Evolution (TE). The TE project brought together students, mentor teachers and MSU faculty/educators to learn about evolution and methods to engage students in the classroom.

SCECH's Session

Thermochemistry and LOL Diagrams for All Levels

Peg Convery, Farmington High School

Primary Subject: CH

Interest Level: MS, HS

Location: R - Capital 2

Use modeling techniques to teach thermochemistry conceptually through the use of energy exchange diagrams, affectionately called LOL diagrams.

SCECH's Session

Tools for Helping Teach Meiosis

Arthur Wohlwill, Lansing Community College

Primary Subject: BI

Interest Level: HS, CO

Location: LC - Banquet 6

In order to help students understand meiosis I have developed several hands-on activities including a cooperative game that links genetics and meiosis.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI

Michigan
Science
Education
Conference
Pure Michigan Science

2016 Session Information

Continued – Saturday, March 5, 2016
1:00 p.m. - 1:45 p.m. – Sessions

Update on Credit-by-Exam at Michigan High Schools for University Physical Geology

Christina Sobolak, Steven Mattox, Grand Valley State University

Primary Subject: AS, ES

Interest Level: HS, CO

Location: R - Michigan 2

The number of students taking and passing the exam for college credit continues to grow. We share and discuss challenges, support, and opportunities for your students to succeed in geology.

SCECH's Session

Elementary Strand

Using Outstanding Science Trade Books

Conni Crittenden, Williamston Schools

Primary Subject: GS

Interest Level: EE, LE

Location: LC - 101

Connecting science with great trade books. List from the Children's Book Council/NSTA Outstanding Science Trade Book Awards and activities to use with the books provided.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

1:00 p.m. - 2:45 p.m. – Workshops

CANCELLED

SCECH's Session

Asking Questions About Our Changing Climate: An Example Mi-STAR Unit

Stephanie Tubman, Michigan Tech University

Primary Subject: AS, GS

Interest Level: MS

Location: LC – Banquet 2

~~Mi-STAR is developing an integrated science curriculum for Michigan that aligns with NGSS. Participate in hands-on activities from a classroom-tested unit on climate change causes and mitigation. Handouts provided.~~

SCECH's Session

Implementing Low Cost Engineering Projects for the MS/HS Classroom

Yonee' Bryant-Kuiphoff, Linden Grove Middle School

Chery Hach, Kalamazoo Area M/S Center

Primary Subject: GS, IN

Interest Level: MS, HS

Location: LC - 203

Are you experiencing anxiety with Engineering Practices? Let us help you discover low cost projects to take back to your classroom. Hands-on experience.

SCECH's Session

Lloyd's Toolbox of Engineering Ideas & Activities

Lloyd Hilger, Jonesville Middle School

Judy Warner, Williams Elementary School

Primary Subject: GS

Interest Level: LE, MS, HS, CO

Location: LC - 104

In this presentation we will be looking at the engineering design process and how to teach engineering in a variety of grade levels. We will also look at ways to help students become more aware of various engineering careers. Many lesson plans and resources will be provided. Also, please come ready to share any engineering resources that you have.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

1:00 p.m. - 2:45 p.m. – Workshops

SCECH's Session

The Arts in ENGINEERING

Kimberlee Quinn, Miller Elementary School

Michael Quinn, Centerline Public Schools

Primary Subject: GS, IN

Interest Level: EE, LE, MS

Location: LC - 201

Come experience one the many authentic and engaging Engineering Design Challenges that can be created by YOU! Gain a new perspective on every day materials and how to integrate multiple content areas into a single challenge. This is sure to get your students thinking critically and creatively.

Saturday, March 5, 2016

2:00 p.m. - 2:45 p.m. – Sessions

SCECH's Session

A Climate Change in Your Classroom!

Mary Ann DeVries

Primary Subject: IN

Interest Level: EE, LE, MS, HS

Location: LC - Banquet 8

Science Education is extremely important! To be successful, effective management is essential. Join this session and leave with tools that will create a positive climate change in your classroom!

SCECH's Session

Advancements in Science and Medicine - History of Laboratory Animal Use

Robert Sigler, Unit for Laboratory Animal Medicine

Primary Subject: BI

Interest Level: MS, HS

Location: LC - 202

Examples of scientific and medical advancements with emphasis on Michigan contributions. The history and role of lab animals in these discoveries and regulatory oversight of animal use will be discussed.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

Continued - 2:00 p.m. - 2:45 p.m. – Sessions

Amazing Productive Discussion in the Science Classroom

James Dehaan, De La Salle Collegiate

Don Pata, Grosse Pointe High School

Primary Subject: IN

Interest Level: EE, LE, MS, HS, CO

Location: LC - 102

Through an immersion in the techniques and strategies that maximize dialogue, teachers will learn the tools that help initiate and sustain productive student discussions in science classrooms.

SCECH's Session

Creating and Programming Apps at the Elementary Level

Maggie Thelen, Carly Pomarius, Michele Bates, Kat Humphreys, Rockford Public Schools

Primary Subject: CO

Interest Level: LE

Location: LC - 103

Though a STEM grant from the state of Michigan, all upper elementary students have an opportunity to learn how to create a mobile app. We will be using the MAD-Learn site and curriculum along with learning HTML to create the apps.

SCECH's Session

Daytime Astronomy

Sherry Claflin, Hesperia High School

Primary Subject: ES, AST

Interest Level: MS, HS

Location: LC - 205

You can teach Astronomy in the daytime! Find out how to use real data to meet your STEM objectives. Hands-on activities with hand outs and resources provided.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

Continued - 2:00 p.m. - 2:45 p.m. – Sessions

Elementary Strand

Integrating Science in Social Studies

Brian Peterson, Musson Elementary School

Primary Subject: GS

Interest Level: EE, LE

Location: LC - 101

We have all heard of Aristotle, Galileo, Edison, and Newton. But do you know how Alf Adams impacted the world of science every time you go shopping? In this session we will help integrate the world of science with your social studies lessons.

SCECH's Session

Minecraft in the Classroom: Incorporating Video Games into Core Instruction

Melissa Gosbee, Carson City Crystal Upper Elementary School

Primary Subject: GS, CO

Interest Level: LE, MS, HS

Location: R - Michigan 3

Video games are a passion of many students. Bring their passion into the classroom by exploring what Minecraft truly involves and how to use it across the science curriculum. Handouts provided.

SCECH's Session

Science Saturdays---Detroit Public Schools' Monthly Hands-On Science PLCs

Kathryn Sergeant, Ronald Brown Academy

Deidre Davis, Detroit Public Schools

Primary Subject: AS, IN

Interest Level: EE

Location: LC - Banquet 4

Participate in a condensed version of Science Saturdays Workshops. District Teacher Leaders plan and facilitate grade level PLCs using hands-on activities for the current curriculum and science GLCEs. (Second Grade).



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI



2016 Session Information

Saturday, March 5, 2016

Continued - 2:00 p.m. - 2:45 p.m. – Sessions

SCECH's Session

Speed-Reading and Other Time Saving Teaching Techniques

Laura Harris, Davenport University

Primary Subject: BI, IN

Interest Level: MS, HS, CO

Location: R - Regency 1

Instructors can more efficiently use their time if they could read and grade faster. This hands-on presentation with handouts teaches Evelyn Wood speed-reading techniques and ways to grade faster.

SCECH's Session

Using Authentic Environmental Research to Engage High School Biology Students

Lauri Davis, Houghton High School

Primary Subject: BI, EN

Interest Level: MS, HS

Location: LC - 204

Learn how you can engage your students in real-world, authentic environmental research. All you need is a few simple supplies, an outdoor area, and some students! Informational handouts provided.

SCECH's Session

Using Particle Diagrams to Increase Student Learning in Chemistry

Michelle Tindall, Birmingham Public Schools

Primary Subject: CH, IN

Interest Level: HS

Location: R - Capital 2

Drawing particle diagrams can be used in chemistry classes to promote discussions, explain laboratory observations, and assess student understanding. Examples of these particle diagram activities using whiteboards will be discussed.



Join us for our Annual Conference
"What A Capital Idea"
March 3-5, 2016 at the Lansing Center
and Radisson Hotel, Lansing, MI

Michigan
Science
Education
Partnership
Pure Michigan Science

2016 Session Information

Saturday, March 5, 2016

Continued - 2:00 p.m. - 2:45 p.m. – Sessions

MCSS Strand

What Does This Graphic Say? Learning From Graphs or Maps

Phil Gersmehl, Michigan Geographic Alliance

Primary Subject: EN, IN

Interest Level: LE, MS, HS

Location: LC – Banquet 7

Brain research identifies multiple parallel “pathways” for processing visual input. These underlie individual differences in “reading” visual aids. The optimum window for developing graph-reading skill is earlier than formerly thought.