

Matter and Stability Forces and Interactions

HASTI: The Next Generation

Hoosier Association
of Science Teachers, Inc.

From molecules to organisms:
Structures and processes

Heredity:
Inheritance
and Variation
of Traits

Earth's
Systems

Energy



43rd Conference Program

Waves and Their Applications
in Technologies for Information Transfer

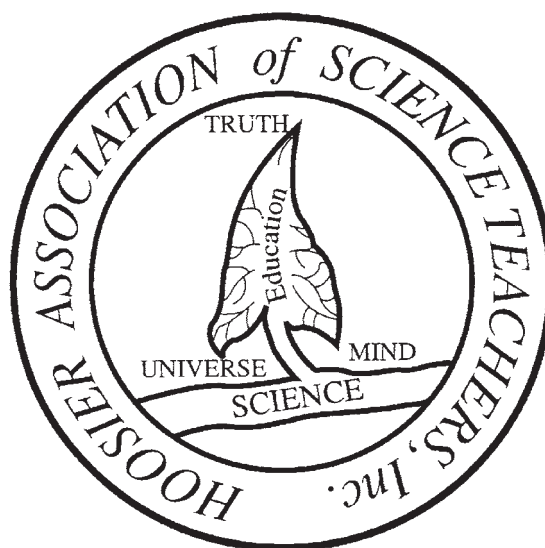


Welcome to the 43rd annual HASTI Conference! Due to the inspirational legacy of many HASTI members, Hoosier science teachers have consistently enjoyed one of the country's largest and most vibrant state science conferences. As we express gratitude for our predecessors and their foundational work, it is equally as important to look toward HASTI's future and "The Next Generation" of teachers, content, pedagogy, and technology. You'll experience a vast and exciting array of concurrent sessions that will nurture your ability to create meaningful learning experiences for your students. Our two keynote speakers represent the next generation: Tyler DeWitt, an innovative science educator who uses technology to merge "classic with the new," and Ted Willard, an NSTA expert who will discuss

the Next Generation Science Standards. This year's HASTI social will take place on the campus of IUPUI and generously sponsored by its School of Science so HASTI conference attendees will have an opportunity to tour the new state-of-the-art labs and meet faculty. Let's continue to forge ahead as a collective group of science educators by continuing to support this conference and high quality education in our classrooms. Have a great time this year!

A handwritten signature in cursive script that reads "Sherry Annee".

Sherry Annee
HASTI Conference Chair



CONFERENCE AND SPECIAL EVENTS AT-A-GLANCE

Wednesday, February 5	Thursday, February 6	Friday, February 7
<p>11:00 a.m. - 6:30 p.m. Registration Open</p> <p>8:00 a.m. - 5:00 p.m. Extended Workshops</p>	<p>7:00 a.m. - 6:30 p.m. Registration Open</p> <p>8:00 a.m. Exhibit Hall Grand Opening and Ribbon Cutting</p> <p>8:00 a.m. - 5:00 p.m. Exhibits Open</p> <p>8:30 a.m. - 10:15 a.m. Concurrent Sessions</p> <p>10:30 a.m. - 12:00 p.m. Sagamore Ballroom 3 Remarks, Glenda Ritz, State Superintendent of Public Instruction General Session Featured Speaker: Tyler DeWitt <i>"Generations Merge: How to Incorporate Next Generation Tools, Technology and Methods into Classic, Transformative, Quality Teaching"</i></p> <p>12:30 p.m. - 3:15 p.m. Concurrent Sessions</p> <p>3:30 p.m. - 5:00 p.m. Association Meetings</p> <p>5:00 p.m. - 6:30 p.m. HASTI Social IUPUI School of Science</p>	<p>7:00 a.m. - 12:00 p.m. Registration Open</p> <p>8:00 a.m. - 12:30 p.m. Exhibits Open</p> <p>8:30 a.m. - 10:15 a.m. Concurrent Sessions</p> <p>10:30 a.m. - 12:00 p.m. Sagamore Ballroom 3 General Session Featured Speaker: Ted Willard, NSTA <i>"Standards for the Next Generation"</i></p> <p>12:30 p.m. - 3:15 p.m. Concurrent Sessions</p> <p>2:00 p.m. - 3:30 p.m. Field Trip Indianapolis Zoo</p>

ZOO FIELD TRIP

Get a Behind-the-Scenes Look at the Indianapolis Zoo

Friday, February 7 • 2:00 p.m. – 3:30 p.m.

Come see all the Indianapolis Zoo has to offer! Learn about the zoo's educational programming, get a behind-the-scenes look, and explore the exhibits in the Oceans building. The bus will board at the Maryland Street lobby at 1:30 p.m., and will return to the Indiana Convention Center approximately 3:45 p.m. If you would like to take advantage of this unique opportunity, please visit the registration desk to sign up.

Fee: \$15

TABLE OF CONTENTS

Welcome from the Conference Chairperson.....	Inside Front Cover
Table of Contents.....	2
Conference Information and Events	3
Where Should I Go? What Should I Do?.....	4
Conference Committee	4
HASTI Board of Directors	5
HASTI Social	6
Thank You to Sponsors	6
IABT Events	7
UESTA Breakfast	7
Extended Workshops	8-10
Featured Speakers:	
Tyler Dewitt, <i>Generations Merge: How to Incorporate Next-Generation Tools, Technology and Methods into Classic, Transformative, Quality Teaching</i>	12
Ted Willard, NSTA, <i>Standards for the Next Generation</i>	13
Concurrent Sessions	14-44
2013 PAEMST Finalists	46
The Hoosier Science Teacher	46
Cheryl Cowan Memorial Award for Innovative Elementary Science Teaching	47
Charlotte M. Boener Award for Innovative Middle School Science Teaching	48
Distinguished Award for Innovative College Science Teaching.....	49
Presidential Award for Excellence in Mathematics and Science Teaching	50
HASTI Past Presidents	51
2014 HASTI Sessions by Audience	53-57
2014 HASTI Conference Strands	58-63
2014 HASTI Conference Exhibitors	64
Exhibit Hall D Floor Plan	65
Indiana Convention Center Map	66-67
Index of Presenters	68
College Credit Information, and Professional Growth Points	69-71
Conference Planner.....	Inside Back Cover

CONFERENCE INFORMATION & EVENTS

Meeting Locations

Concurrent sessions will be held in the Indiana Convention Center. The Exhibit Hall is located in the Convention Center Hall D. The headquarter hotel is the Indianapolis Marriott Downtown. The social will be held at the IUPUI School of Science. The floor plan of the Convention Center is on pages 66–67 and the Exhibit Hall map on page 65.

Conference Office

The HASTI Conference office is located in Conference Room West, located on the first floor near the escalators in the Maryland Street Lobby. Presenters, please feel free to store your presentation materials in the office during convention hours. Please stop by the registration desk or call the HASTI Office, (877) 427-8499, with any questions you may have.

Registration

The Registration Area, located near Hall D of the Convention Center, will be open during the following hours:

Wednesday, February 5, 2014.....11:00 a.m. – 6:30 p.m.
Thursday, February 6, 2014.....7:00 a.m. – 6:30 p.m.
Friday, February 7, 2014.....7:00 a.m. – 12:00 p.m.

Presenters

Presenters should check in at the Information Booth in the Registration Area. Equipment and materials for presentations may be stored in the HASTI Conference Office, Conference Room West.

Exhibit Hall D

Registration badges are required for admission to the Exhibit Hall. Exhibits, located in Hall D of the Convention Center, will be open for viewing during the following hours:
Thursday, February 6, 2014.....8:00 a.m. – 5:00 p.m.
Friday, February 7, 2014.....8:00 a.m. – 12:30 p.m.

Coat Room

Coat racks are available in the East Lobby Chamber, located at the bottom of the Hyatt escalators in the Convention Center. Any personal items will be left at your own risk. HASTI will not be responsible for lost or stolen items.

Program Changes

Last minute changes to a program of this size are inevitable. If changes are necessary, please be sure to note the program changes sheet provided with your program and also see any changes on the change board near the Registration Area.

Audio-Visual Equipment

Presentation rooms will be equipped according to the presenter requests for an LCD projector, overhead projector, screen, and/or VCR/DVD player. For any last-minute audiovisual needs, presenters must arrange and pay for their own equipment. Markey's Audio Visual is the designated AV company. You may contact Brian Solomon at Markey's AV at (317) 780-3951.

Evaluations

HASTI Conference evaluations will be online in 2014. Please watch for an email the week after the conference.

Name Badges

Your registration package should include a name badge, program book and ticket for a complimentary Indiana Mineral Aggregate mineral kit. Your name badge is your “ticket of admission” to all sessions, exhibits, and other activities except those for which a separate fee is stated (extended workshops).

Raffle Tickets

You will receive a raffle ticket as you enter general session each day. Your ticket will be entered in a drawing to win door prizes. Winners will be announced at the conclusion of each general session. You must be present to win.

Sessions and Times

Extended workshops, concurrent sessions, and association meetings will be held at the Indiana Convention Center. A 15-minute break between sessions is built into the program to allow adequate time to get to sessions.

Information Booth: Outside Exhibit Hall D

The HASTI Booth will provide information on membership and services. HASTI items will be available for purchase. The HASTI Booth will have answers to conference questions, details on associated groups, and information on area restaurants and attractions.

The booth will be open the following hours:

Thursday, February 6, 2014.....7:00 a.m. – 4:00 p.m.
Friday, February 7, 2014.....7:00 a.m. – 4:00 p.m.

Message Board

A message board for conference attendees will be set up in the registration area by Hall D in the Convention Center. Please view the message board for conference updates.

Where to Eat

Maryland Grille, located in the Wabash concourse near the elevators to the Marriott Skywalk, will be open from 10:30 a.m. until 2:30 p.m. Thur. and Fri.. Maryland Espresso will also be open from 7 a.m. to 11 a.m. on Thur. and Fri..

Other food and beverage locations:

Hyatt Regency..... Lobby Area
Marriott Hotel..... Champions Restaurant
Circle Centre Food Court..... Second Level Circle Centre Mall
JW Marriott..... High Velocity

IS THIS YOUR FIRST HASTI CONFERENCE?

Where Should I Go? What Should I Do?

Find out where to go and what to see to make your first HASTI Conference a success.

8:00 a.m. Thur. and Friday, Sagamore Ballroom 3

Presented by: John Moore, President of Hoosier Association of Science Teachers, Inc.

2014 CONFERENCE COMMITTEE

Conference Chair Sherry Annee
 President John Moore
 Vice-President Kate Baird
 Life Science Sherry Annee
 Physical Science Rich Perry
 Earth Science Tina Harris
 Interdisciplinary K-6 Kristen Poindexter
 Interdisciplinary 7-12 Carrie Sanidas
 Biology Donna Keller
 Ecology / Environment Tom McConnell
 Chemistry Claire Baker
 Physics Charles Emmert


Science, Technology, and Society Sherry Annee
 Science Education Ed Mottel, Danae Wirth
 and Shannon Hudson
 Awards Danae Wirth
 PGPs Edward Frazier
 Exhibits Charlie Flack
 Raffle Frank Drumwright
 Website / Publicity Marvin Giesting
 Special Meetings Edward Frazier
 Conference Office Elizabeth Frazier
 Conference Planning & Registration Laura Jackson and
 Tammie Corbett, cmcglobal



Enjoy a cup of coffee with Exhibitors and Colleagues!

Available each morning in the Lounge Area of Exhibit Hall D

Courtesy of
Hoosier Association of Science Teachers, Inc.



GET TO KNOW YOUR HASTI DIRECTORS



by the HASTI Booth at the Registration Area
and Meet Your HASTI Director.

HASTI BOARD MEMBERS

President John Moore
Vice President Kate Baird
Secretary Claire Baker
Treasurer..... Greg McCurdy
Immediate Past President.....Sherry Annee

Board Members:

District I Director..... Carrie Sanidas
District II Director..... Danae' Wirth
District III Director..... Liz Schemm
District IV Director..... Marva Moore
District V Director Frank Drumwright
District VI Director.....Tom McConnell
District VII Director.....Dianna Cooper
District VIII Director.....Rich Perry
District IX Director..... Ginger Shirley

Elementary School..... Kristen Poindexter
Middle-Junior High School Jane Hunn
High School Donna Keller
CollegeEd Mottel
At Large 1..... Carl Wilms
At Large 2..... Shannon Hudson

Ex-Officio Members:

Resident Agent..... Edward Frazier
DOE Science Consultant..... Jeremy Eltz
NSTA.....Janet Struble

Publications:

Editor, Sci-Ed-ogram..... Vacant
Editor, The Hoosier Science Teacher.....Patty Zeck

CONFERENCE EVALUATION

HASTI Evaluations will be *ONLINE* in 2014!

Please watch your email the week after the conference to complete the evaluation.
We greatly appreciate your input! **Earn a chance to win a free HASTI membership.**

HASTI SOCIAL

hot food! free drinks! good company!

THURSDAY, FEB 6TH
5:00 - 6:30PM

Join your fellow colleagues in a wonderful reception generously hosted by the IUPUI School of Science!

Mingle with friends, enjoy refreshments, interact with IUPUI students and faculty, and tour the new forensic science and other research labs!

You must have a HASTI Social ticket to attend. Stop by conference registration to pick up your ticket!

Buses will depart from the Maryland Street lobby beginning at 4:45 p.m. and will depart from the IUPUI School of Science at 6:30 p.m.

science!iupui

THANK YOU!

HASTI CONFERENCE SPONSORS

Social.....IUPUI School of Science
Indiana Mineral Aggregate Association.....Mineral Kits
Graduate Level Credit.....Indiana University-Purdue University Columbus



IABT

Indiana Association of Biology Teachers

Join the Indiana Association of Biology Teachers for the special events being offered this year at HASTI!

**Thursday, February 6**

- IABT Quick Hits (Room 103, 2:30 p.m.) – Great practical ideas for the classroom which is always a HASTI favorite so don't miss this one!!

Friday, February 7

- IABT Breakfast Membership Meeting and Quicker Hits (Room 103, 7:30 a.m.)
Announce IABT Excellence in Teaching Award winner, Door Prizes and Election of officers
- ALL are welcome

2013 IABT Officers:

Past President:	Chris Donovan	donovanc@rushville.k12.in.us
President:	Heather Briggs	hbriggs@bishoplueers.org
President Elect:	David Butler	dbutler@swell.k12.in.us
Secretary:	Alyce Myers	amyers@njsp.k12.in.us
Treasurer:	John Gensic	john.gensic@gmail.com



For IABT membership information or support please email us at: indianabiologyteachers@gmail.com

INDIANA EARTH SCIENCE TEACHERS ASSOC. BREAKFAST & ROCK RAFFLE

Friday, February 7, 2014, 7:30 a.m. – 8:15 a.m.
TGI Fri.s, 501 W. Washington St., Indianapolis, IN 46204
(Located near the JW Marriott Hotel)

*Enjoy a hot breakfast buffet and guest speaker.
 Meet with people interested in discussing
 earth science education.*

The 6th annual rock raffle at
 a HASTI conference will follow
 immediately after the IESTA breakfast!

(IESTA members free, non-members \$5)



EXTENDED WORKSHOPS

Extended Workshops will be located at the Indiana Convention Center, 100 S. Capitol Avenue, Indianapolis, IN 46225. HASTI registration does not begin until 11 a.m.; therefore, please go to the appropriate location to attend your 8 a.m. Extended Workshop. Extended Workshops are only available to pre-registrants.



= Inquiry Instructions



= Technology Applications in Science Instruction



= Incorporation of Literacy into Science Education



= Human Impacts on the Environment



= Assessment for Understanding

Wednesday, February 5, 2014

8:00 a.m.

**Home and School Science Activities***Physical Science*

Promote literacy by exploring relationships of seemingly unrelated events including gravity, inertia, centripetal force, pressure, atoms, molecules and more. Materials provided.

Presenter (s): Bernard Horvath (retired)

Fee: \$35; Limited to 50 attendees

Room 101*Middle Level***Teaching Physics for the 1st Time***Physics*

If you are new to the teaching of physics of ICP, join us as we use the 5E model to work through an entire learning cycle.

Presenter (s): Elaine Gwinn (Shenandoah High School)

Fee: \$50; Limited to 30 attendees

Room 102*High School***Historical Developments in Electricity and Magnetism***Physics*

Participants will construct working replicas of historical electrical devices, including the electroscope, Leyden jar, electrophorus, Voltaic pile, electromagnet, Faraday motor, dc motors, and more.

Presenter (s): Joel Bryan (Ball State University)

Fee: \$20; Limited to 30 attendees

Room 103*General***ED2: Earth Day Every Day***Ecology/Environment*

Interested in learning more about community connections to your content? ED2 provides hands-on activities that directly link to outside organizations to STEM. Join us!

Presenter (s): Terri Hebert (Indiana University South Bend), Tracy Slattery (South Bend Community School Corp Central Office)

Fee: \$0; Limited to 25 attendees

Room 105*Middle Level***Exploring the Moon with NASA- Lunar Rock and Meteorite Certification Workshop***Earth Science*

Educators will be qualified to borrow lunar as well as meteorite samples from Johnson Space Center to use in Project Based Learning.

Presenter (s): Susan Kohler (NASA Glenn Research Center)

Fee: \$0; Limited to 40 attendees

Room 106*General*

EXTENDED WORKSHOPS

Wednesday, February 5, 2014

8:00 a.m.

**Science in Seconds***Science Education*

Join us for inquiry-based experiments that are adaptable for your middle level classroom and connected to the standards. Goody bags to take home too!

Presenter (s): Teri Folta (Riverside Junior High)

Fee: \$10; Limited to 30 attendees

Room 107*Middle Level***Explore STEM Learning with NASA Ignite!***Interdisciplinary*

Join educators from NASA Ignite! to learn about the hands-on STEM activities available from NASA education.

Presenter (s): Adrienne Evans Fernandez (WisdomTools, Inc./NASA Ignite!), Julie Muffler

Fee: \$20; Limited to 40 attendees

Room 108*Middle Level*

Wednesday, February 5, 2014

9:00 a.m.

**BioBuilder: Ready-to-use Classroom and Lab Curricula that Integrates Engineering Into Biology***Interdisciplinary***Brebeuf Jesuit Preparatory School***High School*

BioBuilder connects students to current research questions and asks them to use synthetic biology to solve real world problems through engineering, design, and biotechnology.

**Please note, this session meets at Brebeuf Jesuit Preparatory School, 2801 W. 86th Street, Indianapolis, IN 46268*

Presenter (s): Natalie Kuldell (MIT/BioBuilder Educational Foundation), Sherry Annee (Brebeuf Jesuit Preparatory School), Kari Clase (Purdue University), Jenna Rickus (Purdue University), Rebecca Schini (Greenfield Central High School)

Fee: \$20; Limited to 12 attendees

Wednesday, February 5, 2014

1:00 p.m.

**Bring the Ocean to Your Classroom while Enhancing STEM Instruction – Ocean Waves, Tides, Upwelling, and El Ninos***Interdisciplinary***Room 101***General*

Come learn about how to use Maury Project Modules to bring physical oceanography topics into your classroom while also enhancing STEM instruction. Free PowerPoint documents and Maury Project modules will be provided to attendees.

Presenter (s): Kevin Spingler (La Lumiere School)

Fee: \$0; Limited to 30 attendees

**Working “in Space” with LEGOs***Science/Technology/Society***Room 102***Middle Level*

Labs simulating working “in space” with LEGO models (simple/complex machines and robotics) along with astronauts. Experience following directions and difficulties of working in space.

Presenter (s): Loretta Kosloske (Knox Community Middle School)

Fee: \$0; Limited to 30 attendees

**Hands-On with Nuclear Science***Physics***Room 103***High School*

Use magnetic marbles to teach nuclear science (radioactivity, reactions, etc.). Take home your own model “nuclei” and lessons/activities. For teachers grades 6-12.

Presenter (s): Micha Kilburn (Joint Institute for Nuclear Astrophysics)

Fee: \$0; Limited to 24 attendees

EXTENDED WORKSHOPS



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Wednesday, February 5, 2014

1:00 p.m.

**Hands-On Experiments Using a Mini Gas Chromatograph****Room 104***High School**Chemistry*

In this workshop, participants will be presented with a brief overview of what gas chromatography is and how it works before being let loose in groups to learn how to run the Mini GC Plus and then design and write up their own experiments that can be used.

Presenter (s): Cheryl Wistrom (Saint Joseph's College)

Fee: \$0; Limited to 24 attendees

**Project Learning Tree® (PLT) GreenSchools!****Room 105***General**Ecology/Environment*

Project Learning Tree® (PLT) GreenSchools! inspires students to take responsibility for improving the environment at their school, home, and in their community.

Presenter (s): Shannon Hudson (Tuttle Middle School), Donna Rogler (Department of Natural Resources)

Fee: \$0

**Climate Change Exploration with NASA****Room 106***Middle Level**Earth Science*

Participants will explore the Climate Kids, Eyes on the Earth educator materials and use real time data to explain the affects of climate change.

Presenter (s): Susan Kohler (NASA Glenn Research Center)

Fee: \$0; Limited to 40 attendees

**Mars, Magnetism and MAVEN (the next big mission to Mars)****Room 107***General**Interdisciplinary*

Expand your students' appreciation of magnetism, the atmosphere and climate in this workshop of activities related to the "MAVEN Mission to Mars" (launched late 11-Nov-2013).

Presenter (s): Candice Kissinger (Tecumseh JHS)

Fee: \$30; Limited to 25 attendees

**Monarchs in the Classroom: Creating Citizen Scientists****Room 108***General**Ecology/Environment*

Participants delve in to get schools/students as involved as citizen scientists with Monarchs in three national programs: Monarch Watch, Minnesota Monarch Larva Monitoring Project, and Journey North.

Presenter (s): Kirsten Carlson (Consultant)

Fee: \$25; Limited to 25 attendees

CANCELLED

EXPERIENCE

Purdue Agriculture

**WE PREPARE STUDENTS TO HELP
SOLVE THE WORLD'S GREATEST CHALLENGES.
FOOD. NATURAL RESOURCES. AGRICULTURE. LIFE.**



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ETHOS, a not-for-profit science education organization, supports STEM initiatives within the school district and after-school programming.



ETHOS provides refurbishment and PD support for STC, FOSS, GEMS, BBS and Lab-Aids inquiry-based science kits.



ETHOS is contracted by Immersion Learning to produce science kits for Immersion's curriculum.

For more information, visit www.ethosinc.org

***Helping Children Learn Science.
Helping Children Love Science.***

THUR. GENERAL SESSION SPEAKER

**Tyler DeWitt**

Tyler DeWitt is a research scientist, high school teacher, and digital content creator whose free online chemistry tutorial series has influenced science instructors across the nation to change how they think about teaching and learning in the STEM fields. His goal is to replace the often stale state of science, technology and math textbook teaching with systems for learning that promote critical thinking and “360 degree” understanding. Science, he believes, can be much more accessible (and entertaining) for students. Tyler has taught high school Biology and Chemistry in the United States and South Korea. He received a Ph.D. in Microbiology from MIT, where he teaches Chemistry in a

summer program to high school students from underserved backgrounds. Tyler works as Teaching Lead at the educational technology startup Socratic.org, serves as a program coordinator for the MIT+K12 video outreach project, and as an MIT student was a National Science Foundation Fellow and a Graduate Resident Tutor.

THURSDAY, FEBRUARY 6, 2014, 10:30 A.M.

Generations Merge: How to Incorporate Next-Generation Tools, Technology and Methods into Classic, Transformative, Quality Teaching

Join Tyler as he discusses the cool new stuff that the “next generation” of teachers are doing in their classrooms: with games, with video, with smartphones, with tablets, with Google Glass, and more! Learn how to tie those strategies into a larger curricular framework, by coupling them with meaningful assessment and thoughtful pedagogy, and how these technologies and methods change—and how they don’t change—the traditional classroom relationship between teachers and students.

OPENING REMARKS

Glenda Ritz, State Superintendent of Public Instruction

**Don’t forget to collect your raffle ticket as you enter General Session!
Your ticket will be entered in a drawing to win a door prize. Winners will be
announced at the conclusion of general session. You must be present to win!**

FRI. GENERAL SESSION SPEAKER

**Ted Willard**

Ted Willard is a Program Director of NGSS@NSTA at the National Science Teachers Association (NSTA). In that role, he oversaw NSTA's feedback during the development of the Next Generation Science Standards (NGSS) and now coordinates NSTA's efforts to support teachers in implementation of NGSS.

Prior to joining NSTA two years ago, Ted spent 12 years at Project 2061. There he was responsible for the development of the growth-of-understanding maps published in *Atlas of Science Literacy*, Volume 2. Ted also was involved in many other areas of Project 2061's efforts towards standards-based education reform including curriculum resources development, assessment development, science education research and teacher professional development.

Earlier in his career, Ted spent five years teaching high school physics in Asheville, North Carolina and five years editing elementary and high school science textbooks for the Globe Book Company (now part of Pearson) and Harcourt Brace School Publishers (now part of Houghton Mifflin Harcourt).

Ted holds a B.S. in earth, atmospheric, and planetary science from the Massachusetts Institute of Technology.

FRIDAY, FEBRUARY 7, 2014, 10:30 A.M.

Standards for the Next Generation

A once-in-a-generation change is underway in science education with the release of the *Framework for K-12 Science Education* and the *Next Generation Science Standards*. These reports provide guidance for educators on how to help students engage in science and engineering practices such as modeling and argumentation to gain a deep understanding of the core ideas in each of the science disciplines as well as concepts such as causality and systems that cut across all disciplines. In addition, these reports describe a vision of STEM education where science and engineering are intertwined and connections to mathematics and English language arts are made explicit.

But while the *Framework* and *NGSS* have much to offer, they can take some getting used to. This session will provide a tour of both documents that highlights the overall vision they describe, explains their essential elements, and describes how educators can use them to improve teaching and learning right away and over the years to come.

Don't forget to collect your raffle ticket as you enter General Session!
Your ticket will be entered in a drawing to win a door prize. Winners will be announced at the conclusion of general session. You must be present to win!



= Inquiry Instructions



= Technology Applications in Science Instruction



= Incorporation of Literacy into Science Education



= Human Impacts on the Environment



= Assessment for Understanding

Don't forget to pick up Social Tickets at the HASTI Booth located across from Registration!**Thursday, February 6, 2014****8:00 a.m.****So This Is *Your First* HASTI Conference?****Sagamore 3**

Learn how to navigate the HASTI conference by learning tips to make your experience meaningful.

Presenter(s): John Moore (HASTI President)

Thursday, February 6, 2014**8:30 a.m.****Kinesthetic Activities for High School Classrooms****Room 101***High School**Interdisciplinary*

Tired of only finding kinesthetic material for elementary and middle school students. This session will introduce you to some ideas that you can use in your high school classroom. You will leave with ideas that you can go home and implement right away at a low cost!

Presenter (s): Shannon Wenning (Castle High School)

**Indiana Science Initiative Seventh Grade Roundtable: Physical Science****Room 102***Middle Level**Physical Science*

The physical science strand of the Indiana Science Initiative working on two kits in one grading period.

Presenter (s): Joseph Bellina (Northern Indiana Science, Math, and Engineering Collaborative)

Engaging Students in Mitosis and Meiosis**Room 103***High School**Biology*

Participate in ten different teaching methods to increase students' understanding of basic cell reproduction concepts.

Presenter (s): Mary Gobbett (University of Indianapolis), Smithson, Candace (Cowan Jr-Sr High School)

Science Matters in Indiana – Even More Today Than Yesterday!**Room 104***General**Science Education*

Indiana has a Science Matters web site and resources that many teachers do not know about. Learn how to become part of this virtual community of science teachers.

Presenter (s): Kate Baird (IUPUC)

**Physics First: Building (or rebuilding) a Physics Program at your School****Room 105***High School**Physics*

Results of a pilot program to teach physics to freshmen in a Title I high school, with resources to adapt it to other schools.

Presenter (s): Michael Kelley (William Henry Harrison High School), Thomas Jankowski

Physics Demonstrations: Vibrations, Waves, and Sound**Room 106***High School**Physics*

Physics demonstrations about vibrations, waves, and sound will be presented that could be used in the classroom to present physics concepts and challenge students' thinking.

Presenter (s): Charles Emmert (Noblesville High School)

**FUN = Foods Help to Understand Nutrition****Room 107***Elementary**Chemistry*

A simple chemistry experiment, identifying starch, leads students to a better understanding of plant biology, the foods they eat, the digestion process, and balanced nutrition.

Presenter (s): Suzanne Cunningham (Purdue University; Agronomy)

**An Energy Efficient Way to Teach Energy****Room 108***High School**Chemistry*

How can we teach all the energy concepts in an efficient manner that goes beyond the plug-and-chug of equations? We will weave together the complete energy picture using inquiry, labs, thought problems, and particle diagrams.

Presenter (s): Becky Creech (West Lafayette Jr/Sr High School), Jane Schott (West Lafayette Jr/Sr High School)



Commercial Workshop



Poster Session

Thursday, February 6, 2014

8:30 a.m.

**Inquiry Learning in the Chemistry Classroom using POGIL****Room 109***High School**Chemistry*

POGIL (Process Oriented Guided Inquiry Learning) lessons will be shared from Flinn's POGIL Chemistry book and other sources. Door Prize (Flinn's POGIL book)!

Presenter (s): Lori White (Cascade High School)

**Bring the Ocean into Your Indiana Classroom While Enhancing STEM Instruction – Wind-Driven Circulation****Room 110***General**Interdisciplinary*

Come learn about how to use Maury Project Module on Wind-Driven Circulation to bring a physical oceanography topic into your classroom while also enhancing STEM instruction. PowerPoint documents and Maury Project modules will be provided to attendees.

Presenter (s): Kevin Spingler (La Lumiere School)

**Improving Student Learning through the Engineering of Compost!****Room 116***Elementary**Life Science*

Improve students' understanding of decomposition using the engineering design process. Curriculum materials will be provided.

Presenter (s): Nikki Rumpler, Stacy VanDerWeele (Riverside Intermediate School), Brenda Capobianco (Purdue University)

**Relevant Communication****Room 117***General**Interdisciplinary*

A practical approach to improve parental communication while simultaneously introducing more relevant technology into your classroom, e.g., blogs, Twitter, apps, emails and more.

Presenter (s): Jeremy Johnson (Woodrow Wilson Middle School)

Integrating the Math Practices and Nature of Science Standards**Room 120***General**Interdisciplinary*

Teachers will discover points of integration between math and science through the math practices and nature of science standards.

Presenter (s): Heather Baker, Bill Reed (Indiana Department of Education)

**Talk to Think, Listen to Understand, Write to Explain****Room 121***Middle Level**Science Education*

Strategies will be presented to incorporate verbal and written literacy into inquiry-based science activities. Emphasis is on talking and writing using the science notebook.

Presenter (s): Carrie Sanidas, Laurie Little (Willowcreek Middle School)

**Indiana Science Initiative (ISI) in a 1:1 School****Room 122***Middle Level**Science Education*

Using iPads to create digital science notebooks with more detail than we have ever been able to get from students using traditional science notebooks.

Presenter (s): Jeff Chicki (Rensselaer Central Middle School), Becky Zacher

Grey Matter: Learning and Teaching Science with the Brain in Mind**Room 136***General**Science Education*

Experience through science activities how discoveries in cognitive neuroscience are applied to the NSES teaching standards and the principles of how students learn science.

Presenter (s): Carolyn Hayes (Indiana University)

**Going Paperless: Electronic Lab Notebooks in the High School Classroom****Room 137***High School**Science Education*

See just how painless paperless can be! Learn how LabArchives Electronic Lab Notebooks (ELNs) will transform your students lab work and improve collaboration.

Presenter (s): Erica Posthuma-Adams (University High School)



= Inquiry Instructions



= Technology Applications in Science Instruction



= Incorporation of Literacy into Science Education



= Human Impacts on the Environment



= Assessment for Understanding

Thursday, February 6, 2014

8:30 a.m.



STEM is Elementary

Room 138

Elementary

Science/Technology/Society

Engaging classroom instruction through the lens of STEM.

Presenter (s): Sara Hunter (Union Elementary School), Ryan LaPlante (Stonegate Elementary School), Stephanie Compton (Pleasant View Elementary School), Kelly Masters (Eagle Elementary School), Rebekah Graham (Boone Meadow Elementary School)



Developing Spatial Skills through Geographic Information Systems (GIS) Technologies

Room 139

General

Science/Technology/Society

This presentation will introduce technologies that enhance the learning of spatial skills when employed in a interdisciplinary science curriculum.

Presenter (s): Shireen Desouza (Ball State University)



Collaboration Made Easy: Using Google Apps (and Chromebooks) in High School Classrooms

Room 210

High School

Science/Technology/Society

Learn how Google Apps such as Google Docs, Google Slides, and more can be used to make collaboration between students easier.

BYOD!

Presenter (s): Rebecca Taylor (Lanesville Jr/Sr High School)



Outdoor Science

Room 205

Ecology/Environment

General

Use lessons from the Association of Fish & Wildlife Agencies' Conservation Education Toolkit.

Help students use scientific method to design and conduct outdoor field investigations.

Presenter (s): Warren Gartner (Indiana Division of Fish & Wildlife)



The Forces of Learning

Room 206

High School

Interdisciplinary

This session will be hands on demonstrations of how you can help your students learn about forces in physics, chemistry and ICP.

Presenter (s): John Calhoun (Salem High School), Steve Riggle (Salem High School), Merle Callahan (North Daviess High School)



Wonderful Weather!

Room 207

Elementary

Earth Science

Learn how to make weather concepts exciting and easy to understand in your K-2 classroom!

Make examples to take back to your classroom.

Presenter (s): Kristen Poindexter (Spring Mill Elementary School), Cindy Moore (Spring Mill Elementary School)



The Science in Soil

Room 208

Middle Level

Ecology/Environment

Hands-on demonstrations show how soil and water relationships are used in the classroom to teach earth and environmental sciences, math, chemistry, physics and general sciences.

Presenter (s): Sherry Fulk-Bringman (Purdue University)



Empower Students as Environmental Stewards

Room 209

General

Ecology/Environment

Learn how to empower students as stewards of their environment, while making responsible decisions regarding our waterways. Join us in hands-on activities to incorporate in your classroom.

Presenter (s): Terri Hallesy (University of Illinois), Robin Goettel



Commercial Workshop



Poster Session

Thursday, February 6, 2014

8:30 a.m.

**Engage Students and Bring Inquiry into the Human Body Systems Curriculum****Room 212***High School**Life Science*

Participate in a hands-on STEM lesson that incorporates critical thinking and real-life applications. By building body systems, students experience three-dimension and are actively engaged.

Presenter (s): April Albrecht, Ben Poli (Anatomy in Clay Learning System)

Thursday, February 6, 2014

9:30 a.m.

**Hawaii Marine Science Seminar****Room 101***High School**Interdisciplinary*

This is an opportunity for teachers to learn how to recruit and escort their students to Hawaii for a two week program which mainly focuses on Marine Science.

Presenter (s): Dennis O'Rourke (Retired), Steve Makurat

**Making Sense of Graphs in the ISI FOSS Force and Motion Module****Room 102***Middle Level**Physical Science*

We explore how to use graphs to enhance ideas about motion in the context of the ISI FOSS Force and Motion Module.

Presenter (s): Joseph Bellina (Northern Indiana Science, Math, and Engineering Collaborative)

Experience Purdue Agriculture through Careers in Plant Sciences and Admissions Preparation**Room 103***General**Life Science*

Give yourself a refresher on the exciting opportunities your students have in Plant Sciences, an industry that is growing in jobs and skills.

Presenter (s): Amy Jones, Tracie Egger (Purdue University)

**Using an NSTA Student Chapter to Change Science Education through Hands-On Science Saturdays' Workshops****Room 104***General**Science Education*

Science Saturdays' Workshops offers K-6 students an opportunity to experience hands-on inquiry based activities with the next generation science standards and STEM areas in mind.

Presenter (s): Kate Baird, Davida Hardin (Indiana University Purdue University Columbus)

**Q & A with Chemistry Modelers****Room 105***High School**Chemistry*

Join a discussion with Chemistry Modelers of various levels of experience as they share how the curriculum has transformed their teaching. Sample modeling lessons provided.

Presenter (s): Erica Posthuma-Adams (University High School), Jeremy Horner (Carmel High School), Amanda Horan (Bishop Chatard High School), Ben Buehler (Blue River Valley Jr./Sr. High School), Stacey Summitt-Mann (University High School)

**"How Do You Know?" - The Most Important Question in Science****Room 106***General**Physics*

This session will showcase several examples of physics topics in which that one simple question can be used to facilitate authentic inquiry.

Presenter (s): Joel Bryan (Ball State University)



= Inquiry Instructions



= Technology Applications in Science Instruction



= Incorporation of Literacy into Science Education



= Human Impacts on the Environment



= Assessment for Understanding

Thursday, February 6, 2014

9:30 a.m.

**Smiling Faces***Chemistry*

A simple assay for the presence of starch teaches students about the similarity between plants and animals.

Presenter (s): Suzanne Cunningham (Purdue University; Agronomy)

Room 107*Elementary***Science Express Lessons for Chemistry, Biology, Physics and Earth Science Teachers***Science Education*

Science Express is a delivery system for high school science classes. We are going to share some of the labs using the equipment.

Presenter (s): Bill Bayley, Zach Grigsby, Isidore Julien, Steven Smith, David Sederberg (Purdue University)

Room 108*High School***New Advanced Inquiry Labs for AP Chemistry from Flinn Scientific***Chemistry*

Hands-on, interactive workshop to help you implement the revised curriculum for AP Chemistry! Join Flinn as we present two new guided-inquiry experiments that support the learning objectives and applied science practice skills your students will need.

Presenter (s): Joan Berry (Flinn Scientific)

Room 109*High School***Simon Says Have Fun With Anatomy***Life Science*

Students unmotivated with the memorization of anatomy terms and processes? Come find activities and lessons we have found successful. Bring your own ideas to share!

Presenter (s): Ashlee Giordano (Northfield High School), Reena Marksthaler (Southwood High School)

Room 116*High School***Context and Content: Combining STEM Learning and History at Conner Prairie***Interdisciplinary*

Discover Conner Prairie's initiative to combine STEM learning and history. We will share findings, discuss techniques, and offer hands-on examples that provide ideas for the classroom.

Presenter (s): Jason Adams (Conner Prairie), Nancy Stark (Conner Prairie), Gail Brown (Conner Prairie)

Room 117*General***Elementary Literacy Framework: Methods for Teaching Literacy in Elementary Science***Science Education*

Elementary Literacy Framework Provided by the Indiana Department of Education's Elementary Literacy Specialist, John Wolf.

Presenter (s): John Wolf (Indiana Department of Education)

Room 120*Elementary***Reciprocal Teaching: Using the Fab Four Reading Strategies to Improve Comprehension***Science Education*

Reciprocal Teaching is a technique that uses four strategies to improve reading comprehension.

Teachers will share how they incorporate this method in their science instruction.

Presenter (s): Carrie Sanidas (Willowcreek Middle School), Laurie Little (Willowcreek Middle School)

Room 121*Middle Level***Bring the Ocean to Your Classroom While Enhancing STEM Instruction – Density-Driven Ocean Circulation***Interdisciplinary*

Come learn about how to use a Maury Project Module to bring physical oceanography topics into your classroom while also enhancing STEM instruction. PowerPoint documents and Maury Project modules will be provided to attendees.

Presenter (s): Kevin Spingler (La Lumiere School)

Room 110*General***Ignite the T in STEM!***Science Education*

A fun and fast-paced smackdown session of resources, project ideas, tips and tricks for making connections to all parts of STEM through technology.

Presenter (s): Sara Hunter (Union Elementary School), Stephanie Compton (Pleasant View Elementary School), Ryan LaPlante (Stonegate Elementary School), Kelly Masters (Eagle Elementary School), Rebekah Graham (Boone Meadow Elementary School)

Room 136*General*



Commercial Workshop



Poster Session

Thursday, February 6, 2014

9:30 a.m.

**iPad Apps for STEM Activities in the Classroom***Science/Technology/Society*

Discover many challenging, exciting iPad apps for doing STEM activities in the classroom. Practical tips for integrating iPad apps into the curriculum will be presented.

Presenter (s): Janet Jordan, Ken Jordan (IPFW)

Room 138*Elementary***Indiana Children & Nature***Ecology/Environment*

The Indiana Children and Nature movement connects children, families and communities to nature. Learn how this effort can help you excite kids about outdoor investigations.

Presenter (s): Warren Gartner (Indiana Division of Fish & Wildlife)

Room 205*General***Encouraging Student Thinking and Engagement through Effective Questioning***Interdisciplinary*

Do your questioning strategies need a boost? Explore principles for designing effective questions along with strategies and structures that lead to increased student thinking and engagement.

Presenter (s): Deb Sachs (University of Indianapolis)

Room 206*General***Science through the Seasons***Earth Science*

K-2 teachers will learn how to incorporate children's literature and easy science lessons to teach their students about the seasonal changes that happen each year.

Presenter (s): Kristen Poindexter (Spring Mill Elementary School)

Room 207*Elementary***Science Education for Global Citizenship: People, Food, Energy and Sustainability***Ecology/Environment*

Discover interdisciplinary, hands-on activities to prepare all students to think critically and creatively about global challenges to the planet and human well-being.

Presenter (s): Meredith McAllister (Butler University)

Room 208*Middle Level***CW Project Passenger Pigeon***Ecology/Environment*

2014 marks the centennial of the extinction of passenger pigeons. Meet experts working on the Project Passenger Pigeon, which promotes conservation of species and habitat.

Presenter (s): Joanna Hahn (Indiana State Museum), Damon Lowe, Joel Greenberg

Room 209*General***If You Put a Teacher in the Amazon...***Interdisciplinary*

Participants will learn how an experience in the Amazon Rain Forest this summer transformed a teacher and her classroom. Resources & ideas will be shared about incorporating the Amazon into any classroom.

Presenter (s): Melissa Jordan (Woodrow Wilson Middle School)

Room 210*General***STEM Initiatives of the United States Air Force Auxiliary-Civil Air Patrol***Aerospace*

We will be introducing resources such as ready made standards based lesson plans, lab kits, and networking connections that can be of benefit to educators at many levels.

Presenter (s): Darrel Williamson (Indiana University Southeast)

Room 211*General***Wearable Science - State Tested and Kid-Approved***Science Education*

A Disney award-winning teacher presents WEARABLE student projects: cell organelles, Guts, Atomic Attire, science cycles, and glow-in-the-dark Lunar Cycle.

Presenter (s): Jody Hodges (ScienceWear), Ron Hodges (ScienceWear)

Room 212*Middle Level*



= Inquiry Instructions



= Technology Applications in Science Instruction



= Incorporation of Literacy into Science Education



= Human Impacts on the Environment



= Assessment for Understanding

Thursday, February 6, 2014

10:30 a.m.

Thursday General Session

Opening Remarks – Glenda Ritz, State Superintendent of Public Instruction

Generations Merge: How to Incorporate Next-Generation Tools, Technology and Methods into Classic, Transformative, Quality Teaching

Join Tyler DeWitt as he discusses the cool new stuff that the “next generation” of teachers are doing in their classrooms: with games, with video, with smartphones, with tablets, with Google Glass, and more! Learn how to tie those strategies into a larger curricular framework, by coupling them with meaningful assessment and thoughtful pedagogy, and how these technologies and methods change—and how they don’t change—the traditional classroom relationship between teachers and students.

Presenter(s): Tyler DeWitt

Thursday, February 6, 2014

12:30 p.m.



Density Challenge with Inquiry

Physical Science

A series of four density challenges will be explored using colored liquids and straws.

Presenter (s): Amy Resler (Allisonville Elementary), Desiree’ Brooks

Room 101

Elementary



Grade 7 Science Teachers—Force and Motion Unit part of the SEPUP Indiana Model Curriculum (Grades 6-8)!

Physical Science

SEPUP is the research-based, field-tested, hands-on core program that builds content and process skills in the context of an issue. Vehicle safety provides context for activity we’ll do—Measuring Speed and Interpreting Motion Graphs. All SEPUP Units use several types of literacy, formative assessment strategies, and exemplifies NGSS vision for science and engineering curriculum.

Presenter (s): Denis Baker, Bill Cline (Lab-Aids)

Room 102

Middle Level



Incorporating Inquiry Instruction & Statistical Analysis in the Science Classroom

Biology

Participants will walk away with a clearer understanding of statistical analysis and lessons focused on AP Biology that are designed to incorporate more data analysis.

Presenter (s): Georgia Everett (Western High School), Dr. Kari Clase (Purdue University), Kathy Daniels (Mississinewa High School), Gary Cooper (Pike High School), Susan Lobsiger (Mississinewa High School), Amanda Shanley (Purdue University)

Room 103

High School

The 2013 AP Biology Exam - A Debriefing

Biology

This session will present a debriefing PowerPoint on the new AP Biology exam format of 2013.

Emphasis will be made on mistakes and improving scores.

Presenter (s): Jeff Smith (Indiana Academy)

Room 104

High School

Biology Modeling: Transform Your Classroom by Engaging Your Students through Biology Modeling!

Biology

See what Biology Modeling is all about, how you can access all the lessons for FREE, and how you can get involved in the Indiana Biology Modeling project.

Presenter (s): Dr. Lance Brand (Delta High School), John Gensic (Penn), Holly Hauck (New Prairie), Dr. Gordon Berry (University of Norte Dame)

Room 105

General



You CAN Get There from Here!

Physics

Modern technology has changed navigation. Experience a lesson designed to help students understand abstract concepts relating GPS and relativity. You can’t leave home without it!

Presenter (s): Elaine Gwinn

Room 106

High School



Commercial Workshop



Poster Session

Thursday, February 6, 2014

12:30 p.m.

**Understanding Enzymes using the Alphabet, Puzzles and LEGOs™***Chemistry*

High school students become LEGO™ ‘Lunatics’ as they synthesize the sugar glucose. Various methods assist students to visualize polymerization and enzyme specificity.

Presenter (s): Suzanne Cunningham (Purdue University; Agronomy)

Room 107*High School***Looking Through the Eyes of a Chemistry Professor***Chemistry*

Purdue University Professor in Chemistry, who has taught introductory chemistry, will talk about how college chemistry instruction is changing.

Presenter (s): Bill Bayley (Purdue University)

Room 108*High School***Teaching Electron Configuration Using a Popular Board Game***Chemistry*

The 3 rules governing electron configuration are taught using the board game Monopoly.

Presenter (s): Jeff Springer (Southwood High School)

Room 109*High School***An Introduction to Standards-Based Grading in Science***Science Education*

This presentation introduces the core philosophical beliefs of standards-based grading and shares perspectives on using this grading philosophy in secondary science classrooms.

Presenter (s): Jeremy Horner (Carmel High School), Kimi Fellers (Carmel High School)

Room 110*High School***Concentrated Animal Feeding Operations (CAFOs) as Potential Incubators Influenza Outbreaks***Life Science*

With the development of CAFOs the need for training of animal caretakers to observe, identify, treat, vaccinate and cull is important to safeguard public health.

Presenter (s): James Hollenbeck, Logan Jackson (Indiana University Southeast)

Room 116*General***How to Incorporate STEM in Your Outdoor Learning Spaces***Interdisciplinary*

Does your school have an outdoor lab or wooded area? Are you looking for ways to get your students outside & engage them in STEM activities? At Skiles Test, we have created a grid system in our outdoor lab that allows for: Geocaching, tree studies, water quality testing, and on-going research of our property.

Presenter (s): Dave Shafer (Skiles Test School of Science, Technology, Engineering & Math)

Room 117*Elementary***STEM Education and STEM Schools - Indiana Department of Education's STEM Initiative***Interdisciplinary*

The Indiana Department of Education will review its efforts to improve the status and stature of Science, Technology, Engineering, and Mathematics education.

Presenter (s): Jeremy Eltz (Indiana Department of Education)

Room 120*General***Neuroscience: The Brain & Beyond***Science Education*

Engage teenagers on neuroscience and related careers. Educate that neuroscience is the scientific study of the body's nervous system including the brain, spine and nerves.

Presenter (s): Aimee Lacey (IU Health Neuroscience Center), Nicholas Barbaro, MD (IU Health Neuroscience Center), Gerry Oxford, PhD (IU Health Neuroscience Center), Andrew Saykin, PsyD (IU Health Neuroscience Center)

Room 121*High School*



= Inquiry Instructions



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= Human Impacts on the Environment



= Assessment for Understanding

Thursday, February 6, 2014

12:30 p.m.

**Making Science Notebooking Manageable***Science Education*

Scaffolding, grading, and reviewing science notebooks can be intimidating. Join us to learn how to make it manageable to switch to science notebooking full time. Presenter (s): Sherri Foster (Carroll Middle School), Jason Corah, Brett Windmiller

Room 122*Middle Level***Preparing Science Teachers for High Needs High School Students:****The Woodrow Wilson Indiana Teaching Fellowship Program at Ball State University***Science Education*

We will share an evolving model for preparing beginning science teachers. It includes expanded clinical experiences, Grand Rounds, interdisciplinary collaboration, and content pedagogy emphasizing inquiry. Presenter (s): Susan Johnson (Ball State University), Laurie Mullen (Teachers College, Ball State University), Peggy Lewis (Teachers College, Ball State University), Tom McConnell (Biology, Ball State University), Joel Bryan (Physics, Ball State University), Jason Dunham (Chemistry, Ball State University), Karen Ford (Teachers College, Ball State University), Jayne Beilke (Teachers College, Ball State University)

Room 136*General***Notebook Foldables – Not for Novices!***Interdisciplinary*

You've mastered the basics of Notebook Foldables®? Discover more folds to move students to the next level of science notebook 3D graphic organizers. Presenter (s): Deb Vannatter (Vogel)

Room 137*General***Using the Science News to Spark Students' Ideas About Civic Participation***Science/Technology/Society*

In this discussion, we will look at how the science news can be used as a means of building students' ideas about civic participation.

Presenter (s): Megan Anderson (Indiana University)

Room 138*General***Recharge your Teaching Batteries with the Flipped Classroom***Science/Technology/Society*

Why utilizing 1 to 1 is the best approach for the science classroom: our reasons and how we have flipped the classroom.

Presenter (s): Jacob Swartz (East Noble), Shawn Kimmel

Room 139*General***Engineering STEM Success – Building PBL Projects:****Warsaw Community Schools/Ball State University MSP Partnership***Interdisciplinary*

Learn about the design of Warsaw Community Schools' Math-Science Partnership, and see examples of PBL Unit plans designed and tested by teachers.

Presenter (s): Tom McConnell (Ball State University), Chris Bonifield (Warsaw Community Schools), Joel Bryan (Ball State University), Susan Johnson (Ball State University)

Room 205*General***The Power of Formative Assessment***Interdisciplinary*

Ideas for using formative assessment in the science classroom, including how TI-nspire technology can be useful in these techniques, will be shared.

Presenter (s): William Webb, Janell Webb (Covenant Christian High School)

Room 206*General*



Commercial Workshop



Poster Session

Thursday, February 6, 2014

12:30 p.m.

**The Power of Plants***Life Science*

Teachers will learn new ideas for using plants in their classrooms. Favorite children's literature and make-and-takes will leave teachers ready to implement these ideas!

Presenter (s): Kristen Poindexter (Spring Mill Elementary School)

Room 207*Elementary***Empowering Students to Impact the Environment***Ecology/Environment*

Teachers will work through activities showing students how virtually everything they do uses energy and generates carbon dioxide.

Presenter (s): Caryn Turrel (National Energy Education Development Project (NEED))

Room 208*Middle Level***Every School Yard is a Habitat***Ecology/Environment*

Participants will learn about Trees Indiana Urban Forestry Teacher Leader program.

Activities that include ideas for science notebooking and hands-on experiences will be presented.

Presenter (s): Liz Schemm, Mary Matthew (Churubusco Elem/ Smith-Green Comm. Schools), Mary Ibe (Trees Indiana Instructor)

Room 209*Elementary***Collaborating with Science Centers***Interdisciplinary*

Learn how working with your local science center / children's museum can benefit your science program.

Collaborative ideas include demonstrations, volunteer opportunities and guest presentations.

Presenter (s): Abby Koester, Rachael Nickel (Terre Haute Children's Museum), Teresa Cribelar (Rockville Jr./Sr. High School)

Room 210*General***You're NOT Gonna Believe What We Did in Science Class Today!***Physical Science*

Mom and Dad will hear about these discrepant events at the dinner table... and you'll be teaching the National Science Education Standards as well!

Presenter (s): Margaret Flack (Educational Innovations, Inc.)

Room 211*Elementary***What is the Connection Between Science and Engineering?***Science Education*

Investigate lessons that explore the natural world and build understandings to work as an engineer to solve problems.

Presenter (s): Deborah Gaff (Greensburg Junior High School)

Room 212*Middle Level*

Thursday, February 6, 2014

1:30 p.m.

**The Ups and Downs of Teaching Energy***Physical Science*

Assess students' understanding of energy transformation using the engineering design process.

Curriculum materials will be provided.

Presenter (s): Heidi Vance, Carol Fitzgerald (Taylor Intermediate School), Brenda M. Capobianco (Purdue University)

Room 101*Elementary***Grade 6 Science Teachers—Energy Unit part of the SEPUP Indiana Model Curriculum (Grades 6-8)!***Physical Science*

SEPUP is the research-based, field-tested, hands-on core program that builds content and process skills in the context of an issue. Potential/Kinetic transformations and battery use provides context for the activity we'll do—Chemical Batteries. All SEPUP Units use several types of literacy, formative assessment strategies, and exemplifies NGSS vision for science and engineering curriculum.

Presenter (s): Denis Baker, Bill Cline (Lab-Aids)

Room 102*Middle Level*



= Inquiry Instructions



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= Incorporation of Literacy into Science Education



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= Assessment for Understanding

Thursday, February 6, 2014

1:30 p.m.



“Urination” – It’s Not Just a Patriotic Story about the Founding of Our Country

Biology

Room 103

High School

Let me share how I use classroom and laboratory stations to teach a chapter on the urinary system.

Copies of handouts will be digitally provided.

Presenter (s): Gregory McCurdy (Salem High School)



ISI Middle Level Discussion Pit

Interdisciplinary

Room 104

Middle Level

Come visit with other ISI teachers to talk about challenging lessons and/or favorite additions.

Time to help each other do our best.

Presenter (s): Jane Hunn (Tippecanoe Valley Middle School)



The Indiana Modeling Curriculum: New Results for 1st Year Biology and ICP;Future PD Workshops

Biology

Room 105

High School

A hands-on example of modeling; NISMEC’s (Notre Dame) PD modeling program in physics, chemistry, biology and ICP program, in 2013 and plans for 2014.

Presenter (s): Gordon Berry (University of Notre dame), Lynda Rose (Penn-Harris-Madison High School, Mishawaka),

Lynne Barden (LaVille Jr-Sr. High School, Lakeville), Robert Pustek (Morton Governors High School, Hammond)



Catch a Wave

Physics

Room 106

High School

Engage and explore the world of waves, sound, and light – demos and activities will be shown that utilize inquiry methods that will energize your classroom.

Presenter (s): Elaine Gwinn (Shenandoah High School)



Exploring Chemistry Beyond the Classroom-Activities for Science Nights and Outreach Programs

Chemistry

Room 107

General

The American Chemical Society (ACS) ChemClub is a high school chemistry club that provides students with a unique opportunity to experience chemistry beyond the classroom community projects. Learn about chemistry careers, and enjoy social events.

Presenter (s): Linda Monroe (Warren Central High School)

The Chemistry Conversation Pit

Chemistry

Room 108

High School

Join Bill and Ed for an unscripted opportunity to meet and talk about chemistry and the teaching of chemistry.

Everyone is welcome.

Presenter (s): Ed Mottel (Rose-Hulman Institute of Technology), Bill Bayley (K-12 Chemistry Outreach,

Director of Science Express, Purdue University)



Sensible Steps for Improving Chemical Management in Schools

Chemistry

Room 109

High School

Improperly stored, hazardous, outdated chemicals in science laboratories can pose hazards.

This presentation will increase awareness of chemical management and safety and identify sustainable solutions.

Presenter (s): Maryann Suero (US Environmental Protection Agency)



Standards-Based Grading in Science: Management and Implementation

Science Education

Room 110

High School

Strategies for how to implement standards-based grading will be shared as well as perspectives on addressing the challenges of transitioning to this method of assessment.

Presenter (s): Jeremy Horner (Carmel High School), Kimi Fellers (Carmel High School)



Commercial Workshop



Poster Session

Thursday, February 6, 2014

1:30 p.m.

**Science Fiction to Reach Science and Science Literacy***Interdisciplinary*

Scientists have used fiction to explain and explore their science, and professional writers have used science to extend the limits of fiction.

Presenter (s): James Hollenbeck, Justin Lee (Indiana University Southeast)

Room 116*High School***Introducing Science Notebooking in the Inquiry Classroom***Interdisciplinary*

This session will demonstrate how to set up the science notebook for the very first time by using videocases of K-4 teachers with their students in their VERY first science lesson of the year.

Presenter (s): Jennifer Hicks (Purdue University), Joe Bellina (NISMEC), Megan Schneider (Pine Tree Elementary, Avon Community Schools), Lori Fields (Richmond Community Schools), Jenni Kruse (White Oak Elementary, Avon Community Schools)

Room 117*Elementary***IDOE Office of eLearning: eLearning in Indiana - What's Now, What's New, What's Possible?***Science/Technology/Society*

Join the Indiana Department of Education Office of eLearning as we share the supports and resources available for your work.

Presenter (s): Candice Dodson (Indiana Department of Education), Jason Bailey (Indiana Department of Education)

Room 120*General***Successful PBL: Design, Momentum and Accountability***Science Education*

Not sure how to develop PBL units that address the goals of a high stakes environment? Come join our discussion. Handouts included.

Presenter (s): Susan Becker (STEM Consultant)

Room 121*General***Inquire Handbook***Science Education*

Come and learn why you have to have the handbook for all those science skills you have to teach. Door prizes will be given.

Presenter (s): Shannon Hudson (Tuttle Middle School)

Room 122*Middle Level***Hands-On with Hissers***Science Education*

Change your students' ideas about insects. Participants will learn all about Madagascar Hissing Cockroaches and how to incorporate them into their classrooms.

Presenter (s): Melissa Jordan (Woodrow Wilson Middle School)

Room 136*General***Active Learning and eLearning***Interdisciplinary*

Explore digital resources including interactive whiteboard lessons, streaming video clips, and multimedia student activities that support K-6 inquiry science and notebooking. Bring your electronic device.

Presenter (s): Deb Vannatter (Vogel School/EVSC)

Room 137*Elementary***Driving on Sunshine – Cars\$, Co2, and You***Science/Technology/Society*

A graphing activity that utilizes chemistry, physics, and energy balances to show students the ecological and economic impacts of their personal transportation choices.

Presenter (s): Dave Wilms (Stevenson High School)

Room 138*General*



= Inquiry Instructions



= Technology Applications in Science Instruction



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Thursday, February 6, 2014

1:30 p.m.

**Mobile Learning - Exploring Energy Systems***Science/Technology/Society*

Let's explore how iPads equipped with GPS and barcode apps can extend opportunities for learning about energy technology in your community.

Presenter (s): Bianca McRae (Burris Laboratory School), Mary Annette Rose (BSU, Dept of Technology)

Room 139*Middle Level***How to Effectively Increase Student Participation in the Classroom***Interdisciplinary*

In this workshop attendees will participate in several activities designed to engage and encourage all students to be active participants in the classroom.

Presenter (s): Dain Kavars (Indiana Academy for Science, Mathematics, and Humanities)

Room 205*High School***Building Science Vocabulary One Fold at a Time***Interdisciplinary*

Time flies in this hands-on, minds-on session as you learn how Notebook Foldables® can help your instruction of, and student retention of, academic vocabulary.

Presenter (s): Nancy Wisker (Dinah Zike Academy)

Room 206*General***Walking with Science***Earth Science*

Inspire student curiosity (inquiry) using dinosaur trackways. Lesson plans provided from Paluxy River (Texas) dinosaur trackway research project (IPFW and National Geographic Society).

Presenter (s): Martha Goings, LPG (Huntington North High School/Indiana University Purdue University at Fort Wayne), Lori Fox (Retired)

Room 207*General***Carbon Cycle and Climate Change - How They're Connected***Ecology/Environment*

Participants will engage in an activity that models carbon moving through reservoirs on earth, relating it to climate change. Information about free resources provided.

Presenter (s): Caryn Turrel (National Energy Education Development Project (NEED))

Room 208*High School***Model Student Stewardship Projects to Foster Watershed Protection***Ecology/Environment*

Learn how to create place-based, experiential learning for your students. Hear from teachers about their successful stewardship projects that promote great lakes literacy and conservation.

Presenter (s): Robin Goettel, Eileen DeJong (Illinois-Indiana Sea Grant Program)

Room 209*General***The Annual Collaborating for Education and Research Forum:
A Catalyst for Building Professional STEM Community***Interdisciplinary*

We explore the nature and role of the annual Forum as the lynchpin in a coherent strategy for building professional STEM community in Michiana.

Presenter (s): Thomas Loughran (University of Notre Dame)

Room 210*General***Preparing Students for Careers in Science and Technology***Science/Technology/Society*

Opportunities abound for students in science and technology. IU Bloomington faculty and career advisors will discuss paths for students interested in science and technology careers.

Presenter (s): Catherine Pilachowski (Indiana University Astronomy), Anastasia Bednarski (IU Biology), James Stanton Clark (IU Chemistry), Patrick Donahue (IU Career Services), Harold Evans (IU Physics), Nancy Lemons (IU School of Informatics & Computing)

Room 211*High School*



Commercial Workshop



Poster Session

Thursday, February 6, 2014

1:30 p.m.

**The International Orangutan Center's Educator Academy –
Teacher Professional Development at the Indianapolis Zoo!****Room 212***General**Science Education*

Come learn about the Educator Academy, a program to help teachers create inquiry-based science lessons based on work at the Indianapolis Zoo's International Orangutan Center.

Presenter (s): Tom McConnell (Ball State University), Tolly Foster (Indianapolis Zoo)

Thursday, February 6, 2014

2:30 p.m.

**Cardboard Regatta – A Great Way to End the School Year!****Room 101***General**Physical Science*

Learn about an activity in which students build life-size boats out of cardboard, Styrofoam, and duct tape and race them across a swimming pool.

Presenter (s): Chris Ludy, Carrie Anderson (New Augusta Public Academy North), Bill Gee (Lebanon High School)

**Grade 8 Science Teachers—Chemistry of Materials Unit
part of the SEPUP Indiana Model Curriculum (Grades 6-8)!****Room 102***Middle Level**Physical Science*

Make the periodic table more meaningful for students. By establishing a classification scheme based on 13 elements' physical and chemical properties, you will generate columns of the periodic table. In the succeeding activities, you will use literacy strategies in a reading about Mendeleev, and molecular models to extend learning about bonding and balancing chemical equations. All SEPUP Units use several types of literacy, formative assessment strategies, and exemplifies NGSS vision for science and engineering curriculum.

Presenter (s): Denis Baker, Bill Cline (Lab-Aids)

**IABT Quick Hits****Room 103***High School**Biology*

Indiana Biology teachers will present lessons, activities, and labs that have been successful in classrooms.

(Examples of Best Practices)

Presenter (s): Darlene Seifert (New Palestine High School), David Butler Southern Wells High School

Middle Level Sharathon - Sharing Our Best with the Best**Room 104***Middle Level**Interdisciplinary*

Middle level teachers are invited to bring their best/favorite lessons to share with their peers. Lots of good discussion and tips!

Presenter (s): Jane Hunn (Tippecanoe Valley Middle School)

**Modeling Instruction in the Classroom: Physics****Room 105***High School**Physics*

Learn the modeling approach to science curriculum through activities, discussion and demonstration with a physics topic. Advanced modelers will share best practices and experiences.

Presenter (s): Craig Williams (Northwestern High School), Hugh Ross (Guerin Catholic High School), Ben Grimes (Roncalli High School)

**Flinn Activities to Integrate STEM Education****Room 106***Middle Level**Interdisciplinary*

Hands-on interactive workshop to integrate STEM inquiry and design principles into your science curriculum. Join Flinn Scientific in a "build-it-yourself" lab that engages student's and increases understanding of concepts across science disciplines.

Presenter (s): Janet Hoekenga (Flinn Scientific Inc.)



= Inquiry Instructions



= Technology Applications in Science Instruction



= Incorporation of Literacy into Science Education



= Human Impacts on the Environment



= Assessment for Understanding

Thursday, February 6, 2014

2:30 p.m.

Corny Enzyme Activity Assays*Biology*

A hands-on laboratory activity that contains applications to plant science, digestion and human nutrition and also incorporates graphing, geometry and math calculations into data analysis.

Presenter (s): Suzanne Cunningham (Purdue University)

Room 107*High School***IACt Share-A-Thon***Chemistry*

The Indiana Alliance of Chemistry Teachers will share best practices in chemistry teaching.

Presenter (s): Bill Bayley (Purdue University), Heather Heinig (Rensslear High School), Annette Maier (North Putnam High School), Linda Monroe (Ben Davis High School)

Room 108*High School***Crime Busters: A Mobile Hands-On Chemistry Camp***Chemistry*

A curriculum was developed to teach chemistry to elementary students using a Forensics theme and hand's-on learning. The curriculum and results will be presented of this unique camp funded by the Dreyfus Foundation.

Presenter (s): Linda (Lin) Wozniowski, Cora Boender, Joseph White, Lori Rose, Scott Pilarczyk (Indiana University Northwest)

Room 109*Elementary***Science Notebooking in an Inquiry-Based Classroom***Interdisciplinary*

This session will focus on how to set up and use science notebooks to enhance and enrich the understanding of science concepts.

Presenter (s): Kelly Masters, Sara Hunter, Ryan LaPlante, Stephanie Compton, Rebekah Graham (Zionsville Community Schools)

Room 110*General***Sustainability in Science in the High School Classroom***Science Education*

Recently developed lessons will be presented in relation to sustainability in science as implemented in the high school classroom setting.

Presenter (s): Megan Ewing (Hamilon Southeastern School Corp), Robert Rice

Room 116*High School***The Psychological Science: Mind, Brain, and Behavior***Interdisciplinary*

Discussion and demonstrations of experimental approaches to perception, thought, and behavior, which exemplify the types of questions addressed by modern psychological science.

Presenter (s): Benjamin Motz (Indiana University)

Room 117*General***Outreach Division of School Improvement-Indiana Department of Education's Initiative to Support Schools***Interdisciplinary*

The Outreach Division of School Improvement is committed to fulfilling the vision of supporting all Indiana schools and students by providing grassroots levels of support and intervention.

Presenter (s): Teresa Brown (Indiana Department of Education), Leroy Robinson (IDOE)

Room 120*General***Making Sense of Data Using Google Forms***Science Education*

Learn how Google Forms simplifies student lab data collection, aggregation, and analysis, and learn how to create and use Google Forms in your classroom.

Presenter (s): Ryan Bruick (Noblesville High School)

Room 121*General***What Every Middle School Teacher Needs....***Science Education*

Experiments are the highlight for every science class. Come and learn about some of the experiments that I have done in my middle school classroom.

Presenter (s): Crystal Pryor, Cessa McMullen (Tri-West Middle School)

Room 122*Middle Level*



Commercial Workshop



Poster Session

Thursday, February 6, 2014

2:30 p.m.

**Innovative Thinking: Inspiring Students to be Innovators****Room 136***General**Science Education*

This session will discuss developing student innovation and higher-level thinking. Attendees will learn processes, such as design thinking, to engage students in project-based learning.

Presenter (s): Michael O'Bryan (360Thinking)

**I Taught It, Did They Learn It?****Room 137***Elementary**Interdisciplinary*

Explore easy, efficient formative assessment strategies of hands-on science and notebooking.

Learn about a new online formative assessment that generates reports for teachers, students and parents.

Presenter (s): Deb Vannatter (Vogel Elementary-EVSC)

**Blogging Isn't Just for Feelings: Science Blogging in Your Classroom****Room 138***Middle Level**Science/Technology/Society*

Blogging is a tremendous way to promote science writing with students. Attendees will understand how to use blogging to compliment or replace traditional journals.

Presenter (s): Eric Johnson (LaSalle Elementary)

**Teaching Engineering Concepts to Harness Future Innovators and Technologists (TECHFIT)****Room 139***Middle Level**Science/Technology/Society*

This presentation will describe the TECHFIT professional development opportunity for teams of middle school teachers interested in making their students innovators of exergames.

Presenter (s): Alka Harriger (Purdue University), Brad Harriger

**Assessments Made Easy: Find FREE Online Tools for Developing Assessments to Refresh Your Inquiry/PBL classroom****Room 205***High School**Interdisciplinary*

Effectively assessing learning in Problem-Based Learning units can be difficult. Hear new ways to update and revive your classroom assessments keeping them fresh yet viable. Come get ideas and maybe win a door prize!

Presenter (s): Lisa Kirkham (Purdue University), Rachel Williamson, Tim Strand (Mississinewa High School), Michael Kelley (Harrison High School/Evansville)

**Ice Age Animals of Indiana's Karst****Room 206***General**Interdisciplinary*

Initial research findings of pleistocene bones discovered in 2010 in Indiana's longest cave system. Surface identification includes only known bison from Indiana caves, more than 200 peccaries, bear, passenger pigeon and many more.

Presenter (s): Rob Houchens, Carol Groves, Debbie Haeberlin, Ron Richards (Indiana Caverns)

**Earth Science Teachers Share-A-Thon****Room 207***General**Earth Science*

Come join Earth Science teachers from around Indiana to share ideas, lesson plans, references, and resources that work for you in the classroom.

Presenter (s): Vickey Zehringer (Northwestern Middle School), Gary A. Potter (Indiana University Southeast), Sherri Bryant (Cardinal Ritter High School), Steven Smith (Purdue University)

**Monarchs in the Classroom: Creating Citizen Scientists****Room 208***General**Ecology/Environment*

Participants learn how schools/students become citizen scientists to monitor the Monarch with three national programs: Monarch Watch, Minnesota Monarch Larva Monitoring Project, and Journey North.

Presenter (s): Kirsten Carlson (Consultant)



= Inquiry Instructions



= Technology Applications in Science Instruction



= Incorporation of Literacy into Science Education



= Human Impacts on the Environment



= Assessment for Understanding

Thursday, February 6, 2014

2:30 p.m.

**Fusing Science and Art***Ecology/Environment*

Help students create designs to be placed on city storm drains that educate the community about the connection between storm drains and water quality.

Presenter (s): Stephanie Dege (Michigan City High School), Nicole Messacar (Laporte County Soil and Water Conservation District)

Room 209*General***The Evolution of Online Science Education***Science Education*

Science education is challenged by the demands and rapid growth of online education. This informational session will outline the current landscape of online lab science courses and discuss emerging trends. Come prepared to engage with other education prof

Presenter (s): Dr. Ron Weiss (eScience Labs)

Room 212*College*

Thursday, February 6, 2014

3:30 p.m.

Annual Association Meetings

IN-AAPT: American Association of Physics Teachers – Room 106, IACT: Indiana Alliance of Chemistry Teachers – Room 108, IESTA: Indiana Earth Science Teachers Association – Room 207, IABT: Indiana Association of Biology Teachers – Room 103, Middle Level Conversation Pit – Room 104

Friday, February 7, 2014

7:30 a.m.

IABT Breakfast Meeting*Biology*

Join the Indiana Association of Biology Teachers for breakfast and a shortened version of IABT Quick Hits

Presenter (s): Darlene Seifert (New Palestine High School), David Butler (Southern Wells High School)

Room 103*High School*

Friday, February 7, 2014

8:00 a.m.

So This Is *Your First* HASTI Conference?**Sagamore 3**

Learn how to navigate the HASTI conference by learning tips to make your experience meaningful.

Presenter(s): John Moore (HASTI President)



Commercial Workshop



Poster Session

Don't forget to pick up Social Tickets at the HASTI Booth located across from Registration!

Friday, February 7, 2014

8:30 a.m.

**I Teach ICP Differently and So Can You!***Physical Science*

How can ICP be taught differently? Come see how a lecture driven class has evolved into activity and lab driven opportunities with some student choice.

Presenter (s): Dustan Smith (Muncie Southside High School)

Room 101*High School***CW What The Heck Happened?!?!?***Physical Science*

Discrepant events seize students' attention, and Educational Innovations has real jaw droppers. Come explore our favorite student confusers. Door prizes and freebies!

Presenter (s): Ted Beyer (Educational Innovations, Inc)

Room 102*Middle Level***How the NSTA Learning Center Can Make Teaching Easier***Science Education*

NSTA offers many free resources through the Learning Center. Come and see what's in it for you.

Presenter (s): Kate Baird (IUPUC)

Room 104*General***Physics I Standards: IDOE vs. NGSS***Physics*

What impact would adoption of the Next Generation Science Standards have for physics classes in the state of Indiana?

Presenter (s): Stacy McCormack (Indiana University)

Room 105*High School***Introducing Forces First***Physics*

Define forces as interactions before formalizing kinematics, then follow kinematics with Newton's Second Law.

Presenter (s): Peter Berg (Decatur Central High School), Amy Haywood (Decatur Central High School)

Room 106*High School***Teaching Science with Engineering Design***Interdisciplinary*

A hands-on exploration of a design-based lesson which focuses on integrating engineering practices in the science classroom.

Presenter (s): Laura O'Shaughnessey (Lafayette Christian School), Madeline Rupp (Purdue University)

Room 107*Middle Level***CW Using Technology to Build Student Understanding of the Structure, Properties, and Changes of Matter***Chemistry*

Learn to use physics-based, interactive, 3D atomic and molecular models on iPads and laptops that provide engaging tools to progressively build students' understanding of matter.

Presenter (s): David Doherty (Bitwixt Software Systems)

Room 108*High School***Reading, Writing, and Chemistry***Chemistry*

In this session, several ideas will be given to integrate reading, writing, and other literacy strategies into the chemistry curriculum.

Presenter (s): Lori White (Cascade High School)

Room 109*High School*



= Inquiry Instructions



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Friday, February 7, 2014

8:30 a.m.

**Thermodynamics with Project Based Learning***Interdisciplinary*

Students will research the insulation properties of a set of materials, then create a travel mug that is graded on its effectiveness, cost, and the infomercial created to market it.

Presenter (s): Kristen Swagin (Edgewood Middle School)

Room 110*Middle Level***Integrate iPad® and BYOD with Vernier Technology***Interdisciplinary*

In this hands-on workshop, you will use Vernier's digital tools, such as probeware, to conduct an investigation with either Graphical Analysis for iPad, or Vernier Data Share for tablets, Chromebooks, and BYOD environments.

These tools can help you address

Presenter (s): Angie Harr (Vernier Software & Technology)

Room 116*General***Interactions Toward Promoting the Development of Whole-Class Dialogue in a Middle School Science Classroom***Science Education*

This study examines how a middle school science teacher promotes the development of whole-class dialogue that fosters rich opportunities for writing, talking, reading, and listening.

Presenter (s): Matthew Benus (Indiana University Northwest), Carrie Sanidas (Willowcreek Middle School, Portage Township Schools)

Room 117*Middle Level***Educator Licensing and Evaluation-Question and Answers***Interdisciplinary*

Educator Licensing and Evaluation-Question and Answers with the Indiana Department of Education's Office of Educator Licensing and Development.

Presenter (s): Katie Russo, Sarah Pies (Indiana Department of Education)

Room 120*General***Why Go Wi-Fi***Science Education*

Learn how to go digital using NGSS and Wi-Fi technology.

Presenter (s): David Doty (Swift Optical), Larry Winkleman (Winkleman Microscope Service)

Room 121*General***Don't Call It the Vomit Comet: Weightless Wonders with NASA***Science Education*

Learn about how 5 teachers from Evansville flew their students' experiment in microgravity.

Presenter (s): Tracy Conklin (Evansville Day School), Soi Powell (Evansville Day School), Ali Buchanan (Evansville Day School), Jose Manuel Mota (Evansville Day School), Sarah Sutton (Evansville Day School)

Room 122*General***If I Could Only Read Their Minds***Science Education*

Multiple techniques using student response systems will be demonstrated, to ascertain the students' understanding of the content presented during class. Once data is obtained, how to respond instructionally to the instantaneous feedback from students.

Presenter (s): Craig Smiley (Harrison High School)

Room 136*General***Environmental Literacy - What It Is, How to Include It, and Why It's Important!***Interdisciplinary*

Interested in including environmental literacy in your lessons? Come learn about best practices and receive resources to help you integrate it into your existing curriculum.

Presenter (s): John Brady (Brebeuf Jesuit Preparatory School), Jabin Burnworth (Manchester High School)

Room 137*General*



Commercial Workshop



Poster Session

Friday, February 7, 2014

8:30 a.m.

**Science Olympiad: A Standards-Based Curriculum****Room 138***Science/Technology/Society**General*

Participants will try out various Science Olympiad events and see the correlations with the Next Generation Science Standards.
Presenter (s): Linda (Lin) Wozniowski (Indiana University Northwest)

**Examining the Evidence for Student Learning****Room 139***Interdisciplinary**Elementary*

Watch several video cases as K-8 teachers use well defined objectives and focus on the evidence for student learning in their inquiry lessons.

Presenter (s): Jennifer Hicks (Purdue University), Joe Bellina (NISMEC), Megan Schneider (Pine Tree Elementary, Avon Community Schools), Jenni Kruse (White Oak Elementary, Avon Community Schools), Lori Fields (Richmond Community Schools), Kristen Poindexter (Spring Mill Elementary, MSD Washington Township Schools)

**Problem-Based Learning: Changing the Way a Department Works****Room 205***Interdisciplinary**High School*

The Quick and Dirty HOW-TOs of PBL combined with one department's evolution with PBL and a group of first-year teachers' experiences starting off with PBL.

Presenter (s): Lisa Kirkham (Purdue University), Kathy Daniels (Mississinewa High School), Susan Lobsiger (Mississinewa High School), Tim Strand (Mississinewa High School), Rachel Williamson (Mississinewa High School), Samantha Schwartz (Purdue University), Laura Heavenly (Purdue University), Emily Fero (Purdue University)

**Bioethics in The Hunger Games: Evaluating the Effects of Genetic Engineering through Popular Fiction****Room 206***Life Science**High School*

Students are highly motivated by the ever popular series the Hunger Games. How can we use this to explore genetically engineered organisms in the classroom?

Presenter (s): Donna Keller (North Judson-San Pierre High School), Kristen Cook, PhD (Bellarmine University), Alyce Myers (North Montgomery Schools)

**IESTA Annual Rock Raffle****Room 207***Earth Science**General*

Come join Earth Science teachers from Indiana for our 6th annual rock raffle.

Presenter (s): Gary Potter (Indiana University Southeast), Sherri Bryant (Cardinal Ritter High School), Steven Smith (Purdue University), Vickey Zehringer (Northwestern Middle School)

**Composting with Worms – Make a Worm Bin****Room 208***Ecology/Environment**General*

Build your own worm compost bin (easy and light to carry). How to care for bin and worm activities included. Session limited to 25 participants.

Presenter (s): Jennifer Woolson-Helrigel (Indiana Department of Environmental Management)

**Solid Waste Management: Issues and Options****Room 209***Ecology/Environment**High School*

Help your students generate awareness, interest and understanding of waste management issues and options by sampling activities from Project Learning Tree's Municipal Solid Waste module.

Presenter (s): Donna Rogler (Indiana Project Learning Tree)

**Inquiry and Creativity****Room 210***Interdisciplinary**General*

Does inquiry-based STEM learning intersect with the Arts? We'll explore how exposure to arts-related instruction can give an advantage to learning STEM-related skills and concepts.

Presenter (s): Susan Disch (ETHOS Science Center), Matthew McQueen (Elkhart Community Schools/ETHOS Science Center), Douglas Hunnings (Elkhart Community Schools)



= Inquiry Instructions



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Friday, February 7, 2014

8:30 a.m.

**Working “in Space” with LEGOs***Science/Technology/Society*

Labs simulating working “in space” with LEGO models (simple/complex machines and robotics) along with astronauts.

Experience following directions and difficulties of working in space.

Presenter (s): Loretta Kosloske (Knox Community Middle School)

Room 211*Middle Level***generationOn - Real-World Learning Through Service-Learning***Science Education*Educate and equip K-12 science teachers with free standards-aligned philanthropy education lessons and resources from generationOn.org, www.generationOn.org. Engage student learning through service-learning teaching strategy.

Presenter (s): Joan Belschwender (generationOn), Shannon Hudson (Tuttle Middle School, Crawfordsville),

Ryan Steuer (generationOn and former teacher at Decatur M.S., Indpls)

Room 212*Middle Level*

Friday, February 7, 2014

9:30 a.m.

**Modeling Chemical Bonds and Reactions with Legos***Physical Science*

Students can memorize rules for writing ionic formulas and balancing chemical equations, but by building particle models with Legos true comprehension is unlocked.

Presenter (s): Craig Williams (Northwestern High School)

Room 101*High School***Simple and Cheap Demos and Experiments to do with Elementary Students***Interdisciplinary*

Join us for hands-on experiments to encourage science in your students’ lives. Experiments are for all elementary ages, require readily-available materials and explain simple science concepts.

Presenter (s): Abby Koester (Terre Haute Children’s Museum), Rachael Nickel (Terre Haute Children’s Museum), Teresa Cribelar (Rockville Jr./Sr. High School)

Room 102*Elementary***We have iPads®, Now What?***Biology*

Now you have iPads in the classroom and you are not sure what to do next. Learn tips, tricks, apps and ideas on how to integrate the iPads for real learning in the science classroom.

Presenter (s): Kim Terry (South Vermillion High School)

Room 103*High School***Earning Money for your Classroom Through Grant Writing***Science Education*

Join me as I walk you through the basics of grant writing for classroom projects. Links to possible grantors will be distributed.

Presenter (s): Kate Baird (IUPUC)

Room 104*General***Coaching and Teaching Science - Are There Enough Hours in the Day?***Interdisciplinary*

Presenters will share over 50 years of combined experiences of teaching science and coaching extra-curricular sports.

Both aspects of being an educator require many hours of dedication, and some insights and helpful hints will be shared to help others with the desire to be an effective classroom teacher and coach.

Presenter (s): Marshal Overlay (West Lafayette), Jane Schott

Room 105*High School*



Commercial Workshop



Poster Session

Friday, February 7, 2014

9:30 a.m.

**21st Century Education***Science Education*

Our approach addresses differentiation, diversity, and transience in the modern public high school.

Presenter (s): Peter Berg (Decatur Central High School)

Room 106*High School***Up, Up, and Away***Physical Science*

Come “float Among the stars” as participants explore a comprehensive hands-on unit with hot air balloons and Archimedes’ Principle of Buoyance.

Presenter (s): Ken Wertz (Fremont Community Schools)

Room 107*Middle Level***Lab Performance Assessments***Chemistry*

Student lab practical exams can be a management nightmare. We want to encourage you to go for it (assessment ideas with standards-based rubrics included).

Presenter (s): Elizabeth Ernst (Herron High School), Mary Hansen (Saint Maria Goretti Catholic School), Noelle King

Room 108*High School***Individualized Honors Chemistry (iChem)***Chemistry*

This session introduces iChem: a student-centered, honors level, 1st year chemistry class in which students decide when and where to do most assignments.

Presenter (s): Kendal Smith (Lake Central)

Room 109*High School***Medical Explorer - Making Real World Connections with Medical Case Studies***Life Science*

This FREE classroom ready curriculum includes global health issues, diverse cultures, service learning, and a variety of life science topics explored through guided inquiry.

Presenter (s): Dr. Lance Brand (Delta High School), Dr. Chuck Dietzen (Timmy Global Health)

Room 110*General***CW Integrate iPad® and other Mobile Devices with Vernier Technology***Interdisciplinary*

In this workshop, you will use Vernier’s digital tools to carry out an investigation with either Graphical Analysis for iPad or Vernier Data Share for other mobile technologies (BYOD). Design and conduct an investigation that addresses NGSS Practices and Performance Expectations, as well as many state standards.

Presenter (s): Angie Harr (Vernier Software & Technology)

Room 116*General***Digital Resources and Tools for Science Teachers***Science Education*Multiple digital resources and tools are available. The most successful ones used by our science teachers will be shared. See www.evscicats.com for a sample.

Presenter (s): Vic Chamness (Evansville Vanderburgh School Corporation)

Room 117*Middle Level***Secondary Literacy Framework: Methods for Teaching Literacy in Secondary Science***Science Education*

Incorporating Indiana’s Common Core Literacy Standards for Technical Subjects requires teachers of all disciplines to engage students in reading nonfiction and technical text.

Presenter (s): Jill Lyday, Caitin Beatson (Indiana Department of Education)

Room 120*High School***CANCELLED**



= Inquiry Instructions



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Friday, February 7, 2014

9:30 a.m.

**Create a Digital Wi-Fi Classroom****Room 121***General**Science Education*

Create a Digital Wi-Fi Classroom... Swift Optical and Fisher Science Education WiFi Products!

Presenter (s): David Doty (Swift Optical), Roger Wedig (Fisher Science Education)

**Creating An Environment for Academic Success for All in the Science Classroom****Room 122***General**Science Education*

The attendees in the session will receive vital information that will turn their science classrooms into global areas for successful science teaching and learning.

Presenter (s): Deborah Calhoun (Pike High School)

How to Fund Science Projects through Successfully Writing Grant Requests**Room 136***General**Science Education*

Many teachers want to travel or to create novel lessons, but lack funding. Learn basics of grant and fellowship writing for science teachers.

Presenter (s): Norman Leonard (Pike High School)

**ULTIMATE Project-Based Learning: Changing the World!****Room 137***General**Interdisciplinary*

Teachers describe how their project-based science assignment became nationally-recognized learning-across-the curriculum that is "Making a World of Difference" in water purification.

Presenter (s): Michael Baer (South Adams HS), Myron Schwartz (South Adams HS)

**FIRST Lego League****Room 138***General**Science/Technology/Society*

Workshop participants will learn about the FIRST Lego League and how to program Lego NXT robots.

Presenter (s): Linda (Lin) Wozniowski (Indiana University Northwest)

**Game On: Video Games as Tools for Teaching STEM****Room 139***General**Science Education*

Learn how video games can be used as a tool to engage middle and high school students in STEM topics and scientific inquiry.

Presenter (s): Sonny Kirkley (WisdomTools, Inc./NASA Ignite!), Adrienne Evans Fernandez

**When Does the Gender Pipeline Start to Leak?****Room 205***General**Science Education*

We will examine gender differences in K-12 students' attitudes towards science through summer program surveys and possible teacher bias at the high school level.

Presenter (s): Micha Kilburn (Joint Institute for Nuclear Astrophysics)

Meteor Impacts: What Can We Do About/With Them?**Room 206***General**Earth Science*

Large scale meteor impacts can have drastic effects on our planet. Can they happen again? What can we do to prevent another devastating impact on our planet?

Jeramy Powers (Indiana University Southeast)

**Urban Green: The Next Generation****Room 208***General**Ecology/Environment*

Explore a native landscape created by students in a city with minimal green space. Developmental process, funding, and sustaining a native landscape will be addressed.

Presenter (s): Erin Nolan-Higgins (School City of East Chicago)



Commercial Workshop



Poster Session

Friday, February 7, 2014

9:30 a.m.

**Earth Partnership for Schools****Room 209***Ecology/Environment**General*

This workshop will provide a few lessons from a whole curriculum designed to actively engage students in restoring ecosystems in their schools.

Presenter (s): Leslie Samelson (Michigan City Area Schools), Amy Hammond (Barker Middle School), Amanda Maycroft (Krueger Middle School), Nicole Messacar (LaPorte County Soil and Water Conservation District)

**Infusing Real Research into the Science Classroom!****Room 210***Interdisciplinary**High School*

We will show several research projects that have been completed in our biology and research classes over the past years.

Presenter (s): Becky Kehler (Greenwood Community High School), Rich Perry (Greenwood Community High School)

**Foldable Projects – Let's Push the "Envelope"****Room 211***Interdisciplinary**General*

In this fast-paced, interactive session you will cut, fold, and more as you transform manila envelopes into project-based Envelope Graphic Organizers.

Presenter (s): Nancy Wisker (Dinah Might Adventures)

**Beyond the Classroom: Challenging your Students with Independent Research****Room 212***Science Education**High School*

Your students have ideas. Empower them through independent research! Learn the time- saving tools on how to start and manage long-term student projects.

Presenter (s): Stacey Summitt-Mann (University High School of Indiana)

Friday, February 7, 2014

10:30 a.m.

Friday General Session**Standards for the Next Generation****Sagamore Ballroom 3**

A once-in-a-generation change is underway in science education with the release of the Framework for K-12 Science Education and the Next Generation Science Standards. These reports provide guidance for educators on how to help students engage in science and engineering practices such as modeling and argumentation to gain a deep understanding of the core ideas in each of the science disciplines as well as concepts such as causality and systems that cut across all disciplines. In addition, these reports describe a vision of STEM education where science and engineering are intertwined and connections to mathematics and English language arts are made explicit.

But while the Framework and NGSS have much to offer, they can take some getting used to. This session will provide a tour of both documents that highlights the overall vision they describe, explains their essential elements, and describes how educators can use them to improve teaching and learning right away and over the years to come.

Presenter(s): Ted Willard

Friday, February 7, 2014

12:30 p.m.

**The NSTA Learning Center – An Amazing Resource for Teachers****Room 101***Interdisciplinary**General*

You do not have to be a member of NSTA to access almost 4,000 free resources for teaching and professional development. Come find out how!

Presenter (s): Tina Harris (Indiana University)



Friday, February 7, 2014

12:30 p.m.

**No Note Taker Left Behind - Scrolling Powerpoint Notes****Room 102***Interdisciplinary**General*

Learn how to manipulate PowerPoint to produce notes that scroll like a teleprompter.

Template and demo files are available for download.

Presenter (s): Rick Dubbs (Monrovia Middle School)

**Fat Dogs and Coughing Horses****Room 103***Biology**High School*

Looking for new ways to teach traditional high school biology concepts? Come learn about teaching strategies flavored with veterinary medicine real-world relevancy.

Presenter (s): Joseph Ruhl (Lafayette Jefferson High School), Jenny Veatch (Crawfordsville High School)

Income Tax for Teachers**Room 104***Interdisciplinary**General*

Will answer income tax questions for teachers.

Presenter (s): Charles W Gwaltney (Retired)

**Measuring and Modeling the Invisible - Leading Edge Particle Physics and Applications for Science, Technology and Mathematics****Room 105***Physics**High School*

Explore concepts related to cosmic rays, models of matter and energy, measurement of the random, and analysis of the invisible with QuarkNet.

Presenter (s): David Sederberg (Purdue University), Matthew Jones (Purdue University)

**Engineering Projects for Physics****Room 106***Physics**High School*

Assigning introductory-level engineering projects with few constraints allows students to problem-solve in a more genuine way than by simply completing problem sets.

Presenter (s): Aaron Ellis (Brebeuf Jesuit Preparatory School)

**Inquiry Based Science Teaching and Cross-Curricular Connections****Room 107***Interdisciplinary**Middle Level*

An opportunity to gain an introduction to inquiry based teaching and learning techniques, as well as extend scientific concepts across the curriculum by providing resources and ideas for implementation.

Presenter (s): Demetrice Smith (EdPower), Roshelle Sayles (Tindley Preparatory Academy)

**Where's the DATA? Media Literacy and the Science Literacy Standards****Room 108***Chemistry**High School*

Creating scientifically literate students who can dissect science by learning to find data and give it a critical review.

Lesson plans and rubrics included.

Presenter (s): Elizabeth Ernst (Herron High School), Noelle King

**Catching a Mystic Tiger by the Tail - High Powered Rocketry in Secondary Education****Room 109***Chemistry**High School*

Guiding high school chemistry 2 students through AP/HTPB/Al (ammonium perchlorate/hydroxyl-terminated polybutadiene/aluminum) rocket motor research is a BLAST!

Presenter (s): Melissa McCarthy (William Henry Harrison High School)

**Starting a STEAM School****Room 121***Interdisciplinary**General*

What is a STEAM school? How do you start one? Learn what one school has discovered in its first six months of their transformation.

Presenter (s): Susan Disch (ETHOS Science Center), Matthew McQueen (Elkhart Community Schools/ETHOS Science Center), Douglas Hunnings (Elkhart Community Schools), Jeff Komins (Elkhart Community Schools)

CANCELLED



Commercial Workshop



Poster Session

Friday, February 7, 2014

12:30 p.m.

**Website Tools You Need for Science***Interdisciplinary*

This session will share online tools that can be used to research, explore, and communicate student understanding of science in creative ways.

Presenter (s): Sue Keene (West Newton Elementary)

Room 116*Elementary***Teaching Science as Questions, Claims, and Evidence.****An Introduction to the Science Writing Heuristic***Science Education*

This presentation explains how to teach science as questions, claims, and evidence and how to develop and foster this approach in your elementary classroom.

Presenter (s): Matthew Benus (Indiana University Northwest)

Room 117*Elementary***Next Generation Science Standards/ K12 Science Framework:****An Introduction, Overview, and Where Indiana Stands for Implementation***Science Education*

The IDOE's Science Specialist will provide Indiana's science teachers with information about the NGSS and Framework as well as where Indiana is with its implementation.

Presenter (s): Jeremy Eltz (Indiana Department of Education)

Room 120*General***The Advantages of Using Science Notebooks***Science Education*

Participants will better understand the advantages for the teacher and student when a science notebook is used. Receive a simple guide, tips, and see examples of student notebooks.

Presenter (s): Donna Phair (Franklin Community Middle School)

Room 122*Middle Level***Teaching Simple Machines, Force and Motion and a Little Energy Using LEGO***Science Education*

Hands-on session where teachers will be shown how to teach pulleys, levers, gears, wheels and axles, force and motion and a little energy using a LEGO®.

Presenter (s): Ivery Toussant, Jr. (LEGO Education)

Room 136*General***SCIENCE ON SATURDAYS! C.S.I. ELEMENTARY – An Experience-Based****Science Program for 3rd Graders***Interdisciplinary*

IMPD Officer Tracy Dobbs responded to a 911 call from someone at Sycamore School. He found no evidence of forced entry at the front door; however, evidence suggested someone had broken into the building.

Further investigation found a body on the premises!

Presenter (s): Mary Jo Wright (Sycamore School)

Room 137*Elementary***PASCO's SPARKscience for High School Students – Free Sensors for Lucky Attendees!***Science/Technology/Society*

Learn how SPARKscience engages students in scientific and engineering practices. Participate in real-time data collection with probeware and SPARKvue software investigations.

Presenter (s): Dorothy Haggerty (PASCO scientific)

Room 138*High School*



= Inquiry Instructions



= Technology Applications in Science Instruction



= Incorporation of Literacy into Science Education



= Human Impacts on the Environment



= Assessment for Understanding

Friday, February 7, 2014

12:30 p.m.



World Food Prize Youth Institute at Purdue

Room 139

High School

Interdisciplinary

Students complete a research paper on food security in a developing country to participate in a free two-day event at Purdue interacting with experts in global food security.

Presenter (s): Donna Keener (Purdue University), Kelly Delp (Purdue University)



Research Goes to School: Bringing Advanced Research on Biofuels to the High School Classroom

Room 205

High School

Interdisciplinary

High school STEM teachers show how they incorporated advanced research on the conversion of biomass to biofuels into their courses. Lesson plans and strategies included.

Presenter (s): Lisa Kirkham (Purdue University), Thomas Everett (Eastern High School), Laurie Simmons (Knox High School), Michael Kelley (Harrison High School/Evansville), Jordan Kelsey (Harrison High School/Evansville), Daniel Tillman (Harrison High School/Evansville), Rachel Williamson (Mississinewa High School), Tim Strand (Mississinewa High School)

Attention, Meaning, and Primacy-Recency: Making the Connection

Room 206

General

Interdisciplinary

Join the UIndy WW Fellows as they share brain-compatible strategies for engaging students in making meaningful connections to science in the first and last ten minutes of class.

Presenter (s): Deb Sachs (University of Indianapolis), Kelly Crider (University of Indianapolis), Corbin Feldhaus (University of Indianapolis), Nikki Holladay (University of Indianapolis), Sergio Madera (University of Indianapolis), Ashley Owen (University of Indianapolis)



Technology Activities 101 and More

Room 207

General

Science Education

Next Generation Science will include technology. Get a head start and come find some Web 2.0 Tools to explore.

Examples include Glogster, Prezi, and Pinterest.

Presenter (s): Reena Markstahler (Southwood High School), Esther Garrison (Southwood School), Becky Zacher (Rensselaer Central Middle School)



Meeting NGSS through Permaculture, Resiliency, and Biodynamics

Room 208

General

Ecology/Environment

Environmental STEM is moving forward fast. The terminology and links to classroom learning outcomes can be hard to figure out. How do you get past basic gardening and recycling and to deeper, meaningful, interactive, interdisciplinary curriculum?

Presenter (s): Teddie Mower (Indiana University Southeast/UofL)



The Dynamics of Climate: A Toolkit for Teacher Professional Development

Room 209

General

Ecology/Environment

This session will provide an overview of the Dynamics of Climate teacher professional development toolkit.

Several activities from the toolkit will be demonstrated.

Presenter (s): Dan Shepardson (Purdue University), Mary Cutler (Tippecanoe County), Ted Leuenberger, Hans Schmitz (Purdue Extension), Olivia Kellner (Purdue University), Dev Niyogi (Purdue University)



Geo Spatial Technologies in Your Classroom

Room 210

High School

Interdisciplinary

Using diverse, free resources from GeoSpatial technologies, help your students acquire, manage, and analyze information from a spatial perspective are the top skills for employment in the 21st Century.

Presenter (s): Kathy Kozenski (Geography Educators' Network of Indiana, Inc.), B. Dewayne Branch (Purdue University)



Are Your Students Excited About Science? Technology and the ISI curriculum

Room 110

Middle Level

Life Science

A hands-on Vernier extension from 2013 summer workshops of South Bend 5th-8th grade teachers investigating the Indiana Science Initiative kits.

Presenter (s): Gordon Berry (University of Notre Dame), Joseph J. Bellina, (Northern Indiana Science, Math & Engineering Collaborative), Patrick Kurowski (Edison Intermediate Center, SBCSC), Nate Cole (St. Joseph Grade School, South Bend)



Commercial Workshop



Poster Session

Friday, February 7, 2014

12:30 p.m.

**Two Birds with One Stone: Including Literacy in Energy Education***Interdisciplinary*

Use materials from NEED to improve literacy and teach your students about energy sources. Literature, drama, and informational text activities will be highlighted.

Presenter (s): Caryn Turrel (National Energy Education Development Project (NEED))

Room 211*Elementary***Microscope Cameras: Why You'll Love Them!***Science Education*

Come play with microscope cameras. It's easy! Walk away with sample lessons on how to adapt your classic activities into fun, modern laboratory investigations.

Presenter (s): Stacey Summitt-Mann (University High School of Indiana)

Room 212*High School*

Friday, February 7, 2014

1:30 p.m.

**Great Reads for Science Book Talk***Interdisciplinary*

A science teacher and school librarian share our favorite science themed reads with book talks. Read books aloud or encourage student exploration beyond the science classroom!

Presenter (s): Deborah Gaff (Greensburg Junior High School), Susan Knight (Greensburg Junior High School)

Room 101*Middle Level***Mixing Light and Paint***Physics*

Make art and learn how to combine it with physics to demonstrate how light mixes differently than paint. You'll have to see for yourself!

Presenter (s): Luke Crawley (University High School)

Room 102*High School***How to Grab a Teenager's Attention***Biology*

Take home ideas for fun, inexpensive biology demonstrations (sort of a "best hits" of this 35-year veteran's bag of tricks!) designed to engage your kids.

Presenter (s): Joseph Ruhl (Lafayette Jefferson High School)

Room 103*High School***Using the iPhone to Record Data in a Physics Classroom***Physics*

An introduction on how to use the Sensor Data app from Wavefront Labs to access sensors on the iPhone and stream this data to devices.

Presenter (s): Tim Duman (University of Indianapolis)

Room 105*College***The Joys of Teaching AP Science***Interdisciplinary*

Strategies that aid in student success!

Presenter (s): Karen Morris (Univ. of Notre Dame - AP-TIP IN), Amy Keller

Room 106*High School***Be Green, Learn Green, Earn Green: An EPA-Funded Intensive Summer Program in Sustainability for High School Science Teachers***Interdisciplinary*

Want to invigorate your curriculum, learn science, earn continuing education credits, and receive a paid stipend? Learn more about the Institute for Green and Sustainable Science.

Presenter (s): Carl Lecher (Marian University)

Room 107*High School*



= Inquiry Instructions



= Technology Applications in Science Instruction



= Incorporation of Literacy into Science Education



= Human Impacts on the Environment



= Assessment for Understanding

Friday, February 7, 2014

1:30 p.m.



The Principles of Mechanics from Less than One Second of Data

Physics

An outline for introducing kinematic and mechanics principles that are developed from a simple classroom demonstration (and data collection) of a falling ball.

Presenter (s): George Devendorf (Indiana Academy)

Room 108

High School

A Grab Bag of Biology and Chemistry Labs

Interdisciplinary

In our session we will share various labs that we do in our biology and chemistry classes.

Presenter (s): Rich Perry (Greenwood Community High School), Becky Kehler (Greenwood Community High School)

Room 109

High School



Endocrine Disruptors and PBDEs and Epigenetics, Oh My...Emerging Issues in Environmental Health

Interdisciplinary

Focus on current research challenging understanding of impacts that environmental exposures have on individuals and society, and resources to engage students on these relevant issues.

Presenter (s): Maryann Suero (US Environmental Protection Agency)

Room 110

High School



The Effect of Learner-Directed Scientific Investigations on Students' Questionings and Their Nature of Science Views

Science Education

Questioning is an important aspect of scientific inquiry. Students do not always ask "investigable" questions.

This study examined the effect of outdoor-learning on student questioning.

Presenter (s): Banu Avsar Erumit (Indiana University), Khadija Fouad (Indiana University), Valarie Akerson (Indiana University)

Room 116

General

What's so Flipping Exciting about Flipping the Classroom?

Lecture-Free Teaching Methods That Engage Students

Science Education

Come learn about how flipping your class puts the responsibility of learning on the student, allowing for a more engaging, higher order learning, classroom experience.

Presenter (s): Curt Coffman (Vincennes University), Aimee Hawley (Decatur Central High School)

Room 117

High School



Science Education, Literacy and Equity: Perfect Partners!

Science Education

This session will explore strategies for ensuring that all diverse learners - particularly English Language Learners and others with low reading and writing skills - have access to and success in science classrooms.

Presenter (s): Leslie Fatum (Indiana Department of Education)

Room 120

General



UIndy Jr-Scientist Program: Using Minds-on Science Activities to Complement Non-Fiction Literature

Science Education

Participate in 5E format lessons designed by the UIndy Jr-Scientist program, which get students thinking like scientists by combining minds-on activities with non-fiction literature.

Presenter (s): Mary Gobbett (University of Indianapolis), Smithson, Candace (Cowan Jr-Sr High School), Nancy Steffel (University of Indianapolis)

Room 205

Elementary



Is Paperless Possible?

Science Education

No more copiers! No more missed work folders! No more recycle bin piled to the ceiling!

The dream of a paperless environment is finally within reach!

Presenter (s): Timothy Martin (Batchelor Middle School), Cody Messmann

Room 122

High School



Hawaii Marine Science Seminar

Interdisciplinary

This is an opportunity for teachers to learn how to recruit and escort their students to Hawaii for a two week program which mainly focuses on Marine Science.

Presenter (s): Dennis O'Rourke

Room 136

High School



Commercial Workshop



Poster Session

Friday, February 7, 2014

1:30 p.m.

**Day in the Life of a 1:1 Science Teacher***Science Education*

Teachers from a 1:1 school will share what the classroom looks like when students have laptops in class.

Presenter (s): Carissa Prater (East Noble High School), Mark Liepe (East Noble High School), Cameron Lahee (East Noble High School)

Room 137*High School***Integrating Technology in the Middle School Science Classroom***Science/Technology/Society*

From bell ringers to exit slips, learn strategies to engage, challenge, and assess students using a variety of iPad applications and Senteo/SMART technologies.

Presenter (s): Sue Gnagy (Manchester Jr/Sr High School), Brooke Nelson (Southport Middle School)

Room 138*Middle Level***Converting Summer Research into Engaging Classroom Experiences***Interdisciplinary*

STEM Teachers who participated in Notre Dame's Summer RET describe their research and how they will use that research in their classrooms (come see a 3-D printer).

Presenter (s): John Gensic (Penn High School), Lexi Kutch (New Prairie High School), Ann Rutherford (Marian High School), Ken Poling (Penn High School)

Room 139*High School***The Quake Cottage Program***Earth Science*

The Quake Cottage Program provides teaching resources related to emergency preparedness and earthquakes in addition to simulation of various magnitude events.

Presenter (s): Walt Gray (Indiana Geological Survey)

Room 206*High School***Effective Strategies for Sharing Climate Change Science and Energy Consumption Implications in the Classroom***Ecology/Environment*

Explore the scientific foundations of what we know about climate change, greenhouse gases, and energy consumption through effective hands-on and data-rich classroom activities from NESTA.

Presenter (s): Steven Smith (Purdue University), Christopher M Roemmele (Purdue University: Department of Earth, Atmospheric, and Planetary Sciences)

Room 209*High School***A Blast From the Past***Physics*

Travel through time to see scientists from the past performing numerous experiments for the next generation.

Presenter (s): Pam Roller (Thompson Elementary)

Room 210*Elementary***How Do We Get All This Energy?***Physical Science*

Teachers will work through two kinesthetic activities designed to show energy flows to young students.

Presenter (s): Caryn Turrel (National Energy Education Development Project (NEED))

Room 211*Elementary***Biology Preconception Alert: PHOTOSYNTHESIS & RESPIRATION Are Linked!***Biology*

Students have major misconceptions about photosynthesis and cellular respiration, but this content is essential for understanding how matter and energy flows, both at the micro (cellular) and macro (ecosystem) levels. Using a computer simulation, a hands-on activity, and notebooking and discussion strategies, expose student thinking—all from SEPUP's new Science and Global Issues: Biology from LAB-AIDS.

Presenter (s): Denis Baker, Bill Cline (Lab-Aids)

Room 121*High School*



Friday, February 7, 2014

2:30 p.m.



Teaching H.S. Biology to 8th Graders Successfully!

Biology

Teaching Biology – 8th grade style. Hands-on activities, graphic organizers, teaching ideas and tips for helping your students do well on the Biology ECA.

Presenter (s): Deb Smith (Yorktown Middle School)

Room 103

Middle Level



Rube Goldberg Machine Encore

Physics

Using a Rube Goldberg machine as a high school physics project that incorporates physics modeling curriculum along with mentorship from engineers throughout the fall semester.

Presenter (s): Josie Sillampa (Western High School)

Room 105

High School



Delegating Lab Work Among Students: Cooperative – Inquiry Lab Teaming

Physics

Participants will engage in a discussion and brief lab activity of a teaming method, experiencing a lab structure that trains student as cooperative experimental teams.

Presenter (s): John Taylor (Elkhart Memorial High School), Heather Fellows (Elkhart Memorial High School)

Room 106

High School



30 Ideals in 30 minutes: An Action Packed Classroom!

Science Education

Join us for a session designed to give you things you can take back and use in your classroom at any grade level starting tomorrow.

Presenter (s): Jed Freels (Dekalb Middle School)

Room 117

General



Mastering the Chemical Formula: An Exceptionally Effective Way to Teach Subscripts and Coefficients

Chemistry

What is the difference between subscripts and coefficients? What does “balancing” a chemical equation mean? Many students have trouble with these fundamental concepts in chemistry. If students do not fully understand the chemical formula, then moles, reactions, and stoichiometry are hopelessly confusing. Join us for an elegant, intuitive lesson that encourages students of all levels to master the chemical formula and advance in this course from LAB-AIDS—A Natural Approach to Chemistry.

Presenter (s): Denis Baker, Bill Cline (Lab-Aids)

Room 121

High School



Using Lego Robotics to Support Math and Science Self-Efficacy in K-8 Learners

Science/Technology/Society

Join us as we walk through how we are using shared language, science notebooks, Lego robotics, and engineering challenges to build skills for K-8 learners.

Presenter (s): Kate Baird (Indiana University Purdue University Columbus), Craig Montgomery (Indiana University Purdue University Columbus), Davida Harden (Indiana University Purdue University Columbus)

Room 122

General



Labs for Understanding the Impacts of Global Warming: Designed for Climate Change Deniers

Science/Technology/Society

Three lab experiences will demonstrate the nature of science for implications of ice disappearance, subsequent ocean warming, ocean thermal expansion, and impacts on human society.

Presenter (s): Dave Wilms (Retired)

Room 138

General

ICE AGE GIANTS

The Mystery of Mammoths
and Mastodons

Dig in
to Indiana's History.

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UNCOVER INDIANA'S SECRETS

2013 PAEMST FINALISTS

Congratulations 2013 PAEMST Finalists:**Philip Cook** – Culver Academies**Liviu Haiducu** – Avon High School**Amy Hamman** – Barker Middle School**Hugh Ross** – St. Theodore Guerin High School**Kenneth Wertz** – Fremont Middle School

THE HOOSIER SCIENCE TEACHER

The editorial staff of *THE HOOSIER SCIENCE TEACHER (THST)* would like to invite all HASTI members and science educators to submit articles to the magazine editor for possible publication. We especially want to encourage presenters at the 2014 HASTI Conference to share their ideas with those who could not attend this year's conference. If you are scheduled to speak at the HASTI Conference and your presentation utilizes multimedia that you can communicate in writing, please consider writing for the THST.

However, we will accept submissions from all people whether or not they will be presenting at the conference.

Authors are asked to submit through our web site at <http://www.hasti.org/publications/thst.html>. A copy of "Guidelines for Authors" may be download here and your final electronic article should be submitted to the editor at E-mail: thst@hasti.org.

2013 CHERYL COWAN MEMORIAL AWARD FOR INNOVATIVE ELEMENTARY SCIENCE TEACHING



HASTI CONGRATULATES AARON PICKETT

Aaron Pickett is a teacher at Bradie Shrum Upper Elementary School in Salem, IN. He has taught for eleven years. Over the course of those eleven years, he has helped pilot the use of iPads in the classroom for student use, where now they are used in more classrooms. He has also worked on committees that have included ones to hire new teachers, adopt new textbooks, as well as working to help students through Response to Intervention (R.T.I).

Aaron spent his first ten years teaching fourth grade. During that time, he discovered his love of teaching science. "As a kid growing up, science was just something we read, if we did it at all. I do not remember doing any experiments until later in middle school. With that, I never had much appreciation for science. My first year teaching, I found science to be my most challenging subject to teach due to the fact that I had the least interest in it. The book we had to use was not the best either." Luckily, that book was at the end of its use, so the next year a new one was adopted, and it was better at explaining topics and had a lot of good experiments for the kids to perform. Each year Aaron found himself liking science more and more to the point that in the last two years, it has become one of his favorite subjects to teach. He loves watching students explore and learn through the act of doing something hands on like an experiment. Today, he now teaches fifth grade – where his students still spend their science time exploring, observing, predicting, and finding answers to their scientific questions.

"In teaching science through hands on methods, I hope to instill a love for the subject in my students, because over the years, teaching science has helped instill that love in me."

– Aaron Pickett

2013 CHARLOTTE M. BOENER AWARD FOR INNOVATIVE MIDDLE SCHOOL SCIENCE TEACHING

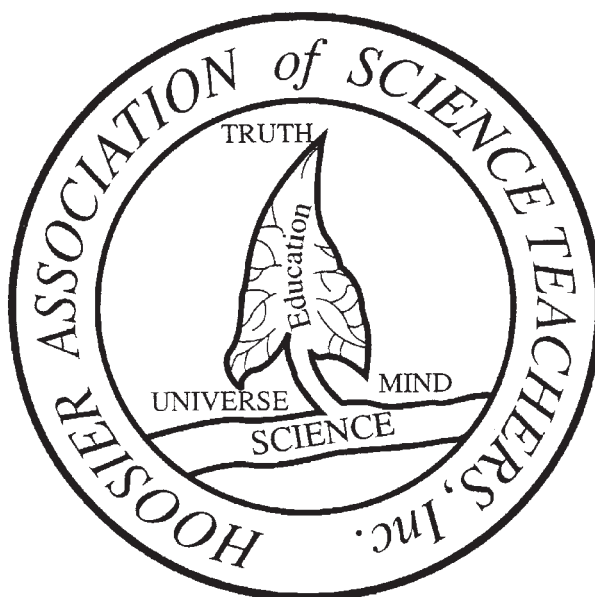


HASTI CONGRATULATES SAMANTHA JOLL

Samantha is a 2003 graduate of Valparaiso University, majoring in Chemistry and Education with a minor in Native a.m.ERICAN Studies. She is in her ninth year teaching, eighth year at Chesterton Middle School, as well as her eighth year coaching her school's Science Olympiad team. Samantha is married and lives in Porter, Indiana and is a mother of three children as well as three step children. Her hobbies include: geology, canoeing, gardening, reading, playing the banjo, hiking, and worm farming, to name just a few! Samantha enjoys her job immensely and works very hard at continually improving her curriculum and how it is delivered. However, though she is dedicated and driven, she also very much enjoys laughing and having fun!

"I chose teaching as my profession because I a.m. passionate about making a difference in the lives of young people. It is my way of "paying it forward" in remembrance of all of those who helped me succeed in life to the happy place I have found. It is a wonderful thing to know that I a.m. actually making a difference."

– Samantha Joll



DISTINGUISHED AWARD FOR INNOVATIVE COLLEGE SCIENCE TEACHING

HASTI CONGRATULATES DR. SHARON SCHLEIGH



Originally from Hawaii, Dr. Schleigh earned her bachelor's in Natural Science at the University of Hilo, a master's in curriculum & instruction at the University of Phoenix, a master's in space science and planetary sciences at the a.m.erician Military University, and her doctorate in Science Education, Earth & Space Science from Arizona State University. She taught at Arizona State University and East Carolina University before coming to teach at Purdue University Calumet in 2011 in the Chemistry & Physics Department. Dr. Schleigh is a co-author of the NSTA book titled *Scientific Argumentation in Biology: 30 Classroom Activities* and has been a leader in science education through her work with professional development and her interest in science education outreach. Aside from teaching astronomy, physics and science methods for educators, she has worked on projects such as the NASA Deep Impact project, the FINESSE (Faculty Institute for NASA Earth & Space Science Education) project, and

the Galileo Teacher Training Program, providing both pedagogical and content training for educators and their students. She has been involved in providing summer workshops for science and math educators such as CREATE (Classrooms Reaching Enquiry through Astronomy & Telescope Education) since 2005, involving k-12 students in her workshops to embed real experiences for the workshop participants to practice what they are learning. She has served as a State Science Fair judge, an international Science Fair Mentor, a Regional Science Fair Director in North Carolina, as the Regional Science Olympiad Director in Indiana, and as the Director of Mentor Coordination and Mentor Trainer for the International Virtual Science Fair for the Near East South Asia Collaboration of schools. This virtual science fair involves multiple universities across the United States and k-12 classroom students from over 50 countries. These efforts have lead to her nomination for the Association of Science Teacher Educators Award of Outstanding Science Educator Mentor in 2011 and 2012.

Dr. Schleigh has focused her classroom teaching on the implementation of argumentation through traditional classroom interactions as well as through online and hybrid learning environments, including the flip classroom structures. As an instructor she has successfully integrated technology to allow students to participate in online discussions and to engage in inquiry that students find exciting and meaningful. The students become a part of the science rather than merely the learners of science by using real data and providing their own ideas and evidence to support their claims as they learn about the topics in their coursework. Her expertise in flip classroom courses is supported by her research background in scientific argumentation and her experience as a *science as inquiry* teacher. While she works with students pursuing science careers, she enjoys working with STEM educators and future STEM educators to help them better prepare our future leaders and improve STEM education across the United States. She hopes to help make science a topic that more people find interesting and useful including those that come from underserved and underrepresented populations.

"Science is fun, but more importantly, it is how we make informed decisions and learn to ask the 'right' questions. People should learn to question what they are told and to ask for meaningful evidence, even in everyday circumstances. Science is not just what happens in the classroom, but what happens in our everyday lives; and it is therefore something that everybody can and should be actively engaged in."

– Dr. Sharon Schleigh

PRESIDENTIAL AWARD FOR EXCELLENCE IN MATHEMATICS AND SCIENCE TEACHING

The Hoosier Association of Science Teachers, Inc. would like to salute the Indiana teachers who have been selected as recipients of the prestigious Presidential Award for Excellence in Mathematics and Science Teaching. These teachers have exhibited exemplary teaching in their discipline and have justifiably been recognized nationally for their service. We are proud of their accomplishments and know that they will serve as models for their colleagues.

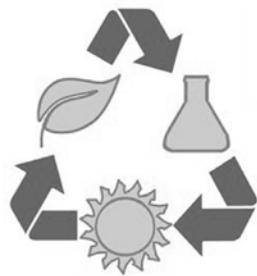
Year	Discipline	Name	School
1983	Secondary Science	Cheryl Mason	Highland High School
1984	Secondary Science	Nevin Longenecker	John Adams High School
1985	Secondary Science	Carole Goshorn	Columbus East High School
1986	Secondary Science	Gordon Mendenhall	Lawrence Central High School
1987	Secondary Science	Gladysmae Good	Arlington High School
1988	Secondary Science	Diane Burnett	Warren Central High School
1989	Secondary Science	Joseph Ruhl	Jefferson High School
1990	Elementary Science	Rick Crosslin	Chapel Glen Elementary
1990	Secondary Science	Kathleen Kaye	Pike High School
1991	Elementary Science	Sheryl Braile	Burtsfield Elementary School
1991	Secondary Science	Sam Chattin	Scottsburg Middle School
1992	Elementary Science	Monica Ellis	Indian Creek Elementary School
1992	Secondary Science	John Kasting	Columbus East High School
1993	Elementary Science	Cheryl Cowan	Mayflower Mill Elementary School
1993	Secondary Science	Stephen H. Randak	Jefferson High School
1994	Elementary Science	Amy McClelland	Indian Creek Elementary School
1994	Secondary Science	Patricia Strawbridge	Portage High School
1995	Elementary Science	Barbara Walczak	Lincoln Elementary School
1995	Secondary Science	Maria Walsh	Pike High School
1996	Elementary Science	Mark Beck	Indian Meadows Elementary School
1996	Secondary Science	Cherie Lehman	West Lafayette Jr./Sr. High School
1997	Elementary Science	William Schmidt	Emmanuel Lutheran School
1997	Secondary Science	Phillip McKinley	Lawrence High School
1998	Elementary Science	Michael Kaiser	Pine View Elementary School
1998	Secondary Science	Tony Hiatt	South Newton High School
1999	Elementary Science	Sandra Brown	Allisonville Elementary School
1999	Secondary Science	Claire Baker	Brebeuf Jesuit Preparatory School
2000	Elementary Science	Linda Ann Crissman	Model Elementary School
2000	Secondary Science	Carolyn A. Hayes	Center Grove High School
2001	Elementary Science	Kimberly Ann Pinto	Burnett Creek Elementary School
2001	Secondary Science	Patricia Zeck	Northwestern High School
2002	Elementary Science	Sara Lynn Jarvis	Washington – Carver Elementary School
2002	Secondary Science	Duane Nickell	Franklin Central High School
2003	Secondary Science	Patricia Mason	Delphi Community High School
2004	Elementary Science	Brenda Main	Creekside Elementary School
2005	Secondary Science	Jane Elizabeth Hunn	Tippecanoe Valley Middle School
2006	Elementary Science	Sharon McElroy	East Washington School Corporation
2007	Secondary Science	Deborah Teuscher	Pike High School
2008	Elementary Science	Regina Scott	Creekside Elementary School
2009	Secondary Science	Deanna York	Ben Davis High School
2010	Elementary Science	Jan Koloszar	Northwestern Elementary School
2010	Elementary School	Alicia Madeka	Kenwood Elementary School
2011	Post-Secondary Science	Stacey McCormack	Indiana University
2012	Elementary Science	Teresa Gross	Westwood Elementary School
2013			
2013			
2013			
2013			

HASTI Past Presidents 1969-2013

President	Service Years
Clyde Motts	1969-70
Virgil Imel	1970-71
Bill Greathouse	1971-72
Charles Richardson	1972-73
Charlotte M. Boener	1973-74
Edward Frazier	1974-75
Paul Tully	1975-76
Jane Kahle	1976-77
Charles Stephens	1977-78
Gordon Hopp	1978-79
Dorothy Gabel	1979-80
Stanley Shimer	1980-81
Virginia Rhodes	1981-82
Ken Potts	1982-83
Walter Cory	1983-84
Judy Douglas	1984-85
Lee Williford	1985-86
Sue Speece	1986-87
William Vernon	1987-88
Florence Juillerat	1988-89
Carole Goshorn	1989-90
John V. Davis	1990-91
James Baumgartner	1991-92
Priscilla Costello	1992-93
Michael Kobe	1993-94
Rick Crosslin	1994-95
Carolyn Hayes	1995-96
D'Ann Stouffer	1996-97
Patricia Zeck	1997-98
Dick Dettmer	1998-99
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Carol Chen	2002-03
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Monica Ellis	2004-05
Mark Mettert	2005-06
Greg McCurdy	2006-07
Jane Hunn	2008-09
Bobbi Speicher	2009-10
Kirsten Carlson	2010-11
Duane Nickell	2011-12
Duane Nickell	2012-13
Sherry Annee	2013-14

**Past Recipients of the Edward L. Frazier
HASTI Distinguished Service Award**

Recipient	Year
Charlotte M. Boener	1980
Jerry Colglazier	1980
Robert Milliron	1981
Edward Frazier	1982
Pam Steeves Kendall	1984
Walter A. Cory	1985
Stanley Shimer	1986
Jude B. Bingham	1987
Elizabeth A. Frazier	1988
Susan P. Speece	1988
Jane B. Kahle	1989
Hans O. Andersen	1992
James Baumgartner	1993
Priscilla Costello	1994
Judith Douglas Pritchett	1994
Florence L. Juillerat	1994
James E. Weigand	1994
Carole Goshorn	1994
William Gommel	1994
William Greathouse	1995
Gordon Hopp	1995
Clyde Motts	1995
Dorothy Gabel	1996
Virginia Rhodes	1996
John V. Davis	1997
Jon R. Hendrix	1997
Cheryl Cowan (in memoriam)	1997
Susan Johnson	1998
Michael Kobe	1999
Margaret Flack	1999
Charlie Flack	1999
Rick Crosslin	2000
Marshall Parks	2000
Kenneth Uhlhorn	2000
Emma Colglazier	2000
Carolyn Hayes	2001
D'Ann Stouffer	2002
Jane Kahle	2003
Marvin Giesting	2003
Patricia Zeck	2004
Karen Henman	2005
Carol Chen	2006
Sharon McElroy	2006
Monica Ellis	2007
Greg McCurdy	2009
Mark Mettert	2009
Jane Hunn	2013
Isadore Julien	2013



**Institute for
Green and
Sustainable
Science**

IGSS Summer Program 2014 Call for High School Teacher Applications

Attend: A seven-week, EPA-sponsored course on the science of sustainability on campus of Marian University

For: Central Indiana high school teachers in the life and physical sciences who want to add sustainability education to their curricula. Middle school science teachers with degrees in the life and physical sciences will also be considered.

When: June 9th – July 25th

Earn: five credit hours from Marian University with complete tuition remission

Earn: \$400 per week of research stipend (total of \$2,800)

Develop: environmentally relevant labs / modules for your classroom

Network: with science educators across the state

For more information visit our website at www.marian.edu/IGSS - or - www.facebook.com/MU.IGSS

HASTI Booth # 306-308



Summer 2013 IGSS Participants

10 Students, 4 teachers, 3 MU -Academic Leaders

MARIAN UNIVERSITY
— Indianapolis —®
School of Mathematics and Sciences

2014 HASTI SESSIONS BY AUDIENCE

Elementary Sessions

Date	SchedTime	End Time	Session Title	Audience	Discipline
Thur.	8:30 a.m.	9:15 a.m.	Elementary	FUN = Foods help to Understand Nutrition	Chemistry
Thur.	8:30 a.m.	9:15 a.m.	Elementary	Improving Student Learning through the Engineering of Compost!	Life Science
Thur.	8:30 a.m.	9:15 a.m.	Elementary	STEM is Elementary	Science/Technology/Society
Thur.	8:30 a.m.	9:15 a.m.	Elementary	Wonderful Weather!	Earth Science
Thur.	9:30 a.m.	10:15 a.m.	Elementary	Smiling Faces	Chemistry
Thur.	9:30 a.m.	10:15 a.m.	Elementary	Elementary Literacy Framework: Methods for Teaching Literacy in Elementary Science	Science Education
Thur.	9:30 a.m.	10:15 a.m.	Elementary	iPad Apps for STEM Activities in the Classroom	Science/Technology/Society
Thur.	9:30 a.m.	10:15 a.m.	Elementary	Science through the Seasons	Earth Science
Thur.	12:30 p.m.	1:15 p.m.	Elementary	Density Challenge with Inquiry	Physical Science
Thur.	12:30 p.m.	1:15 p.m.	Elementary	How to Incorporate STEM in Your Outdoor Learning Spaces	Interdisciplinary
Thur.	12:30 p.m.	1:15 p.m.	Elementary	The Power of Plants	Life Science
Thur.	12:30 p.m.	1:15 p.m.	Elementary	Every School Yard Is A Habitat	Ecology/Environment
Thur.	12:30 p.m.	1:15 p.m.	Elementary	You're NOT Gonna Believe What We Did in Science Class Today!	Physical Science
Thur.	1:30 p.m.	2:15 p.m.	Elementary	The Ups and Downs of Teaching Energy	Physical Science
Thur.	1:30 p.m.	2:15 p.m.	Elementary	Introducing Science Notebooking in the Inquiry Classroom	Interdisciplinary
Thur.	1:30 p.m.	2:15 p.m.	Elementary	Active Learning and eLearning	Interdisciplinary
Thur.	2:30 p.m.	3:15 p.m.	Elementary	Crime Busters: A Mobile Hands-On Chemistry Camp	Chemistry
Thur.	2:30 p.m.	3:15 p.m.	Elementary	I Taught It, Did They Learn It?	Interdisciplinary
Fri.	8:30 a.m.	9:15 a.m.	Elementary	Examining the Evidence for Student Learning	Interdisciplinary
Fri.	9:30 a.m.	10:15 a.m.	Elementary	Simple and Cheap Demos and Experiments to do with Elementary Students	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	Elementary	Website Tools You Need for Science	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	Elementary	Teaching Science as Questions, Claims, and Evidence. An Introduction to the Science Writing Heuristic	Science Education
Fri.	12:30 p.m.	1:15 p.m.	Elementary	SCIENCE ON SATURDAYS! C.S.I. ELEMENTARY - An Experience-Based Science Program for 3rd Graders	Interdisciplinary
Fri.	12:30 p.m.	2:15 p.m.	Elementary	Two Birds with One Stone: Including Literacy in Energy Education	Interdisciplinary
Fri.	1:30 p.m.	2:15 p.m.	Elementary	UnDy Jr-Scientist Program: Using Minds-on Science Activities to Complement Non-Fiction Literature	Science Education
Fri.	1:30 p.m.	2:15 p.m.	Elementary	A Blast From the Past	Physics
Fri.	1:30 p.m.	2:15 p.m.	Elementary	How Do We Get All This Energy?	Physical Science

Middle Level Sessions

Date	SchedTime	End Time	Session Title	Audience	Discipline
Wed.	8:00 a.m.	12:00 p.m.	Middle Level	Home and School Science Activities	Physical Science
Wed.	8:00 a.m.	12:00 p.m.	Middle Level	ED2: Earth Day Every Day	Ecology/Environment
Wed.	8:00 a.m.	12:00 p.m.	Middle Level	Science in Seconds	Science Education
Wed.	8:00 a.m.	12:00 p.m.	Middle Level	Explore STEM Learning with NASA Ignite!	Interdisciplinary
Wed.	1:00 p.m.	5:00 p.m.	Middle Level	Working "in Space" with LEGOs	Science/Technology/Society
Wed.	1:00 p.m.	5:00 p.m.	Middle Level	Climate Change Exploration with NASA	Earth Science
Thur.	8:30 a.m.	9:15 a.m.	Middle Level	Indiana Science Initiative Seventh Grade Roundtable: Physical Science	Physical Science
Thur.	8:30 a.m.	9:15 a.m.	Middle Level	Talk to Think, Listen to Understand, Write to Explain	Science Education
Thur.	8:30 a.m.	9:15 a.m.	Middle Level	Indiana Science Initiative (ISI) in a 1:1 School	Science Education
Thur.	8:30 a.m.	9:15 a.m.	Middle Level	The Science in Soil	Ecology/Environment
Thur.	9:30 a.m.	10:15 a.m.	Middle Level	Making Sense of Graphs in the ISI FOSS Force and Motion Module	Physical Science
Thur.	9:30 a.m.	10:15 a.m.	Middle Level	Reciprocal Teaching: Using the Fab Four Reading Strategies to Improve Comprehension	Science Education
Thur.	9:30 a.m.	10:15 a.m.	Middle Level	Science Education for Global Citizenship: People, Food, Energy and Sustainability	Ecology/Environment
Thur.	9:30 a.m.	10:15 a.m.	Middle Level	Wearable Science - State Tested and Kid-Approved	Science Education
Thur.	12:30 p.m.	1:15 p.m.	Middle Level	Making Science Notebooking Manageable	Science Education
Thur.	12:30 p.m.	1:15 p.m.	Middle Level	Empowering Students to Impact the Environment	Ecology/Environment
Thur.	12:30 p.m.	1:15 p.m.	Middle Level	What is the Connection Between Science and Engineering?	Science Education
Thur.	12:30 p.m.	1:15 p.m.	Middle Level	Grade 7 Science Teachers—Force and Motion Unit part of the SEPUP Indiana Model Curriculum (Grades 6-8)!	Physical Science
Thur.	1:30 p.m.	2:15 p.m.	Middle Level	ISI Middle Level Discussion Pit	Interdisciplinary
Thur.	1:30 p.m.	2:15 p.m.	Middle Level	Inquire Handbook	Science Education
Thur.	1:30 p.m.	2:15 p.m.	Middle Level	Mobile Learning - Exploring Energy Systems	Science/Technology/Society

2014 HASTI SESSIONS BY AUDIENCE

Date	SchedTime	End Time	Session Title	Audience	Discipline
Thur.	1:30 p.m.	2:15 p.m.	Middle Level	Grade 6 Science Teachers—Energy Unit part of the SEPUP Indiana Model Curriculum (Grades 6-8)!	Physical Science
Thur.	2:30 p.m.	3:15 p.m.	Middle Level	Flinn Activities to Integrate STEM Education	Interdisciplinary
Thur.	2:30 p.m.	3:15 p.m.	Middle Level	Middle Level Sharathon - Sharing Our Best with the Best	Interdisciplinary
Thur.	2:30 p.m.	3:15 p.m.	Middle Level	What Every Middle School Teacher Needs....	Science Education
Thur.	2:30 p.m.	3:15 p.m.	Middle Level	Blogging Isn't Just for Feelings: Science Blogging in Your Classroom	Science/Technology/Society
Thur.	2:30 p.m.	3:15 p.m.	Middle Level	Teaching Engineering Concepts to Harness Future Innovators and Technologists (TECHFIT)	Science/Technology/Society
Thur.	2:30 p.m.	3:15 p.m.	Middle Level	Grade 8 Science Teachers—Chemistry of Materials Unit part of the SEPUP Indiana Model Curriculum (Grades 6-8)!	Physical Science
Fri.	8:30 a.m.	9:15 a.m.	Middle Level	What The Heck Happened?!?!?	Physical Science
Fri.	8:30 a.m.	9:15 a.m.	Middle Level	Teaching Science with Engineering Design	Interdisciplinary
Fri.	8:30 a.m.	9:15 a.m.	Middle Level	Thermodynamics with Project Based Learning	Interdisciplinary
Fri.	8:30 a.m.	9:15 a.m.	Middle Level	Interactions Toward Promoting the Development of Whole-Class Dialogue in a Middle School Science Classroom	Science Education
Fri.	8:30 a.m.	9:15 a.m.	Middle Level	Working "in Space" with LEGOs	Science/Technology/Society
Fri.	8:30 a.m.	9:15 a.m.	Middle Level	generationOn - Real-World Learning Through Service-Learning	Science Education
Fri.	9:30 a.m.	10:15 a.m.	Middle Level	Digital Resources and Tools for Science Teachers	Science Education
Fri.	12:30 p.m.	1:15 p.m.	Middle Level	Inquiry Based Science Teaching and Cross-Curricular Connections	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	Middle Level	The Advantages of Using Science Notebooks	Science Education
Fri.	12:30 p.m.	3:15 p.m.	Middle Level	Are Your Students Excited About Science? Technology and the ISI curriculum	Life Science
Fri.	1:30 p.m.	2:15 p.m.	Middle Level	Great Reads for Science Book Talk	Interdisciplinary
Fri.	1:30 p.m.	2:15 p.m.	Middle Level	Integrating Technology in the Middle School Science Classroom	Science/Technology/Society
Fri.	2:30 p.m.	3:15 p.m.	Middle Level	Teaching H.S. Biology to 8th Graders Successfully!	Biology

High School Sessions

Date	SchedTime	End Time	Session Title	Audience	Discipline
Wed.	8:00 a.m.	12:00 p.m.	High School	Teaching Physics for the 1st Time	Physics
Wed.	9:00 a.m.	2:00 p.m.	High School	BioBuilder: Ready-to-use Classroom and Lab Curricula that Integrates Engineering Into Biology	Interdisciplinary
Wed.	1:00 p.m.	5:00 p.m.	High School	Hands-On with Nuclear Science	Physics
Wed.	1:00 p.m.	5:00 p.m.	High School	Hands-On Experiments Using a Mini Gas Chromatograph	Chemistry
Thur.	8:30 a.m.	9:15 a.m.	High School	Kinesthetic Activities for High School Classrooms	Interdisciplinary
Thur.	8:30 a.m.	9:15 a.m.	High School	Engaging Students in Mitosis and Meiosis	Biology
Thur.	8:30 a.m.	9:15 a.m.	High School	Physics First: Building (or rebuilding) a Physics Program at your School	Physics
Thur.	8:30 a.m.	9:15 a.m.	High School	Physics Demonstrations: Vibrations, Waves, and Sound	Physics
Thur.	8:30 a.m.	9:15 a.m.	High School	An Energy Efficient Way to Teach Energy	Chemistry
Thur.	8:30 a.m.	9:15 a.m.	High School	Inquiry Learning in the Chemistry Classroom using POGIL	Chemistry
Thur.	8:30 a.m.	9:15 a.m.	High School	Going Paperless: Electronic Lab Notebooks in the High School Classroom	Science Education
Thur.	8:30 a.m.	9:15 a.m.	High School	Collaboration Made Easy: Using Google Apps (and Chromebooks) in High School Classrooms	Science/Technology/Society
Thur.	8:30 a.m.	9:15 a.m.	High School	The Forces of Learning	Interdisciplinary
Thur.	8:30 a.m.	9:15 a.m.	High School	Engage Students and Bring Inquiry into the Human Body Systems Curriculum	Life Science
Thur.	9:30 a.m.	10:15 a.m.	High School	Hawaii Marine Science Seminar	Interdisciplinary
Thur.	9:30 a.m.	10:15 a.m.	High School	Q & A with Chemistry Modelers	Chemistry
Thur.	9:30 a.m.	10:15 a.m.	High School	Science Express Lessons for Chemistry, Biology, Physics and Earth Science Teachers	Science Education
Thur.	9:30 a.m.	10:15 a.m.	High School	New Advanced Inquiry Labs for AP Chemistry from Flinn Scientific	Chemistry
Thur.	9:30 a.m.	10:15 a.m.	High School	Simon Says Have Fun With Anatomy	Life Science
Thur.	12:30 p.m.	1:15 p.m.	High School	Incorporating Inquiry Instruction & Statistical Analysis in the Science Classroom	Biology
Thur.	12:30 p.m.	1:15 p.m.	High School	The 2013 AP Biology Exam - A Debriefing	Biology
Thur.	12:30 p.m.	1:15 p.m.	High School	You CAN Get There from Here!	Physics
Thur.	12:30 p.m.	1:15 p.m.	High School	Understanding Enzymes using the Alphabet, Puzzles and LEGOs™	Chemistry
Thur.	12:30 p.m.	1:15 p.m.	High School	Looking Through the Eyes of a Chemistry Professor	Chemistry
Thur.	12:30 p.m.	1:15 p.m.	High School	Teaching Electron Configuration Using a Popular Board Game	Chemistry
Thur.	12:30 p.m.	1:15 p.m.	High School	An Introduction to Standards-Based Grading in Science	Science Education
Thur.	12:30 p.m.	1:15 p.m.	High School	Neuroscience: The Brain & Beyond	Science Education
Thur.	1:30 p.m.	2:15 p.m.	High School	"Urination" - It's Not Just a Patriotic Story about the Founding of Our Country	Biology
Thur.	1:30 p.m.	2:15 p.m.	High School	The Indiana Modeling Curriculum: New Results for 1st Year Biology and ICP; Future PD Workshops	Biology
Thur.	1:30 p.m.	2:15 p.m.	High School	Catch a Wave	Physics
Thur.	1:30 p.m.	2:15 p.m.	High School	The Chemistry Conversation Pit	Chemistry

2014 HASTI SESSIONS BY AUDIENCE

Date	SchedTime	End Time	Session Title	Audience	Discipline
Thur.	1:30 p.m.	2:15 p.m.	High School	Sensible Steps for Improving Chemical Management in Schools	Chemistry
Thur.	1:30 p.m.	2:15 p.m.	High School	Standards-Based Grading in Science: Management and Implementation	Science Education
Thur.	1:30 p.m.	2:15 p.m.	High School	Science Fiction to Reach Science and Science Literacy	Interdisciplinary
Thur.	1:30 p.m.	2:15 p.m.	High School	How to Effectively Increase Student Participation in the Classroom	Interdisciplinary
Thur.	1:30 p.m.	2:15 p.m.	High School	Carbon Cycle and Climate Change - How They're Connected	Ecology/Environment
Thur.	1:30 p.m.	2:15 p.m.	High School	Preparing Students for Careers in Science and Technology	Science/Technology/Society
Thur.	2:30 p.m.	3:15 p.m.	High School	Corny Enzyme Activity Assays	Biology
Thur.	2:30 p.m.	3:15 p.m.	High School	IABT Quick Hits	Biology
Thur.	2:30 p.m.	3:15 p.m.	High School	Modeling Instruction in the Classroom: Physics	Physics
Thur.	2:30 p.m.	3:15 p.m.	High School	IABT Share-A-Thon	Chemistry
Thur.	2:30 p.m.	3:15 p.m.	High School	Sustainability in Science in the High School Classroom	Science Education
Thur.	2:30 p.m.	3:15 p.m.	High School	Assessments Made Easy: Find FREE Online Tools for Developing Assessments to Refresh Your Inquiry/PBL classroom	Interdisciplinary
Fri.	7:30 a.m.	9:15 a.m.	High School	IABT Breakfast Meeting/Quick Hits II	Biology
Fri.	8:30 a.m.	9:15 a.m.	High School	I Teach ICP Differently and So Can You!	Physical Science
Fri.	8:30 a.m.	9:15 a.m.	High School	Physics I Standards: IDOE vs. NGSS	Physics
Fri.	8:30 a.m.	9:15 a.m.	High School	Introducing Forces First	Physics
Fri.	8:30 a.m.	9:15 a.m.	High School	Using Technology to Build Student Understanding of the Structure, Properties, and Changes of Matter	Chemistry
Fri.	8:30 a.m.	9:15 a.m.	High School	Reading, Writing, and Chemistry	Chemistry
Fri.	8:30 a.m.	9:15 a.m.	High School	Problem-Based Learning: Changing the Way a Department Works	Interdisciplinary
Fri.	8:30 a.m.	9:15 a.m.	High School	Bioethics in The Hunger Games: Evaluating the Effects of Genetic Engineering through Popular Fiction	Life Science
Fri.	8:30 a.m.	9:15 a.m.	High School	Solid Waste Management: Issues and Options	Ecology/Environment
Fri.	9:30 a.m.	10:15 a.m.	High School	Infusing Real Research into the Science Classroom!	Interdisciplinary
Fri.	9:30 a.m.	10:15 a.m.	High School	Modeling Chemical Bonds and Reactions with Legos	Physical Science
Fri.	9:30 a.m.	10:15 a.m.	High School	We have iPads, Now What?	Biology
Fri.	9:30 a.m.	10:15 a.m.	High School	Coaching and Teaching Science - Are There Enough Hours in the Day?	Interdisciplinary
Fri.	9:30 a.m.	10:15 a.m.	High School	21st Century Education	Science Education
Fri.	9:30 a.m.	10:15 a.m.	High School	Lab Performance Assessments	Chemistry
Fri.	9:30 a.m.	10:15 a.m.	High School	Individualized Honors Chemistry (iChem)	Chemistry
Fri.	9:30 a.m.	10:15 a.m.	High School	Secondary Literacy Framework: Methods for Teaching Literacy in Secondary Science	Science Education
Fri.	9:30 a.m.	10:15 a.m.	High School	Beyond the Classroom: Challenging your Students with Independent Research	Science Education
Fri.	12:30 p.m.	1:15 p.m.	High School	Geo Spatial Technologies in Your Classroom	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	High School	Fat Dogs and Coughing Horses	Biology
Fri.	12:30 p.m.	1:15 p.m.	High School	Measuring and Modeling the Invisible - Leading Edge Particle Physics and Applications for Science, Technology and Mathematics	Physics
Fri.	12:30 p.m.	1:15 p.m.	High School	Engineering Projects for Physics	Physics
Fri.	12:30 p.m.	1:15 p.m.	High School	Where's the DATA? Media Literacy and the Science Literacy Standards	Chemistry
Fri.	12:30 p.m.	1:15 p.m.	High School	Catching a Mystic Tiger by the Tail - High Powered Rocketry in Secondary Education	Chemistry
Fri.	12:30 p.m.	1:15 p.m.	High School	PASCO's SPARKscience for High School Students - Free Sensors for Lucky Attendees!	Science/Technology/Society
Fri.	12:30 p.m.	1:15 p.m.	High School	World Food Prize Youth Institute at Purdue	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	High School	Research Goes to School: Bringing Advanced Research on Biofuels to the High School Classroom	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	High School	Microscope Cameras: Why You'll Love Them!	Science Education
Fri.	1:30 p.m.	2:15 p.m.	High School	Mixing Light and Paint	Physics
Fri.	1:30 p.m.	2:15 p.m.	High School	How to Grab a Teenager's Attention	Biology
Fri.	1:30 p.m.	2:15 p.m.	High School	The Joys of Teaching AP Science	Interdisciplinary
Fri.	1:30 p.m.	2:15 p.m.	High School	Be Green, Learn Green, Earn Green: An EPA-Funded Intensive Summer Program in Sustainability for High School Science Teachers	Interdisciplinary
Fri.	1:30 p.m.	2:15 p.m.	High School	The Principles of Mechanics from Less than One Second of Data	Physics
Fri.	1:30 p.m.	2:15 p.m.	High School	A Grab Bag of Biology and Chemistry Labs	Interdisciplinary
Fri.	1:30 p.m.	2:15 p.m.	High School	Endocrine Disruptors and PBDEs and Epigenetics, Oh My...Emerging Issues in Environmental Health	Interdisciplinary
Fri.	1:30 p.m.	2:15 p.m.	High School	What's so Flipping Exciting about Flipping the Classroom? Lecture-Free Teaching Methods That Engage Students	Science Education
Fri.	1:30 p.m.	2:15 p.m.	High School	Is Paperless Possible?	Science Education
Fri.	1:30 p.m.	2:15 p.m.	High School	Day in the Life of a 1:1 Science Teacher	Science Education
Fri.	1:30 p.m.	2:15 p.m.	High School	Converting Summer Research into Engaging Classroom Experiences	Interdisciplinary
Fri.	1:30 p.m.	2:15 p.m.	High School	The Quake Cottage Program	Earth Science
Fri.	1:30 p.m.	2:15 p.m.	High School	Effective Strategies for Sharing Climate Change Science and Energy Consumption Implications in the Classroom	Ecology/Environment
Fri.	1:30 p.m.	2:15 p.m.	High School	Hawaii Marine Science Seminar	Interdisciplinary
Fri.	1:30 p.m.	2:15 p.m.	High School	Biology Preconception Alert: PHOTOSYNTHESIS & RESPIRATION are Linked!	Biology

2014 HASTI SESSIONS BY AUDIENCE

Date	SchedTime	End Time	Session Title	Audience	Discipline
Fri.	2:30 p.m.	3:15 p.m.	High School	Rube Goldberg Machine Encore	Physics
Fri.	2:30 p.m.	3:15 p.m.	High School	Delegating Lab Work Among Students: Cooperative - Inquiry Lab Teaming	Physics
Fri.	2:30 p.m.	3:15 p.m.	High School	Mastering the Chemical Formula: an Exceptionally Effective Way to Teach Subscripts and Coefficients	Chemistry

College Sessions

Date	SchedTime	End Time	Session Title	Audience	Discipline
Thur.	2:30 p.m.	3:15 p.m.	College	The Evolution of Online Science Education	Science Education
Fri.	1:30 p.m.	2:15 p.m.	College	Using the iPhone to Record Data in a Physics Classroom	Physics

General Sessions

Date	SchedTime	End Time	Session Title	Audience	Discipline
Wed.	8:00 a.m.	12:00 p.m.	General	Historical Developments in Electricity and Magnetism	Physics
Wed.	8:00 a.m.	12:00 p.m.	General	Exploring the Moon with NASA- Lunar Rock and Meteorite Certification Workshop	Earth Science
Wed.	1:00 p.m.	5:00 p.m.	General	Bring the Ocean to Your Classroom while Enhancing STEM Instruction - Ocean Waves, Tides, Upwelling, and El Ninos	Interdisciplinary
Wed.	1:00 p.m.	5:00 p.m.	General	Project Learning Tree® (PLT) GreenSchools!	Ecology/Environment
Wed.	1:00 p.m.	5:00 p.m.	General	Monarchs in the Classroom: Creating Citizen Scientists	Ecology/Environment
Thur.	8:30 a.m.	9:15 a.m.	General	Science Matters in Indiana – Even More Today Than Yesterday!	Science Education
Thur.	8:30 a.m.	9:15 a.m.	General	Integrating the Math Practices and Nature of Science Standards	Interdisciplinary
Thur.	8:30 a.m.	9:15 a.m.	General	Grey Matter: Learning and Teaching Science with the Brain in Mind	Science Education
Thur.	8:30 a.m.	9:15 a.m.	General	Developing Spatial Skills through Geographic Information Systems (GIS) Technologies	Science/Technology/Society
Thur.	8:30 a.m.	9:15 a.m.	General	Empower Students as Environmental Stewards	Ecology/Environment
Thur.	8:30 a.m.	9:15 a.m.	General	Bring the Ocean to Your Classroom While Enhancing STEM Instruction - Wind-Driven Ocean Circulation	Interdisciplinary
Thur.	8:30 a.m.	9:15 a.m.	General	Relevant Communication	Interdisciplinary
Thur.	8:30 a.m.	9:15 a.m.	General	Outdoor Science	Ecology/Environment
Thur.	9:30 a.m.	10:15 a.m.	General	Using an NSTA Student Chapter to Change Science Education through Hands-On Science Saturdays' Workshops	Science Education
Thur.	9:30 a.m.	10:15 a.m.	General	"How do you know?" - The Most Important Question in Science	Physics
Thur.	9:30 a.m.	10:15 a.m.	General	Experience Purdue Agriculture through Careers in Plant Sciences and Admissions Preparation	Life Science
Thur.	9:30 a.m.	10:15 a.m.	General	Context and Content: Combining STEM Learning and History at Conner Prairie	Interdisciplinary
Thurs.	9:30 a.m.	10:15 a.m.	General	Bring the Ocean into Your Indiana Classroom While Enhancing STEM Instruction - Density-Driven Circulation	Interdisciplinary
Thur.	9:30 a.m.	10:15 a.m.	General	Ignite the T in STEM!	Science Education
Thur.	9:30 a.m.	10:15 a.m.	General	Encouraging Student Thinking and Engagement through Effective Questioning	Interdisciplinary
Thur.	9:30 a.m.	10:15 a.m.	General	Project Passenger Pigeon	Ecology/Environment
Thur.	9:30 a.m.	10:15 a.m.	General	If You Put a Teacher in the Amazon...	Interdisciplinary
Thur.	9:30 a.m.	10:15 a.m.	General	STEM Initiatives of the United States Air Force Auxiliary-Civil Air Patrol	Aerospace
Thur.	9:30 a.m.	10:15 a.m.	General	Indiana Children & Nature	Ecology/Environment
Thur.	12:30 p.m.	1:15 p.m.	General	Biology Modeling: Transform Your Classroom by Engaging Your Students through Biology Modeling!	Biology
Thur.	12:30 p.m.	1:15 p.m.	General	Concentrated Animal Feeding Operations (CAFOs) as Potential Incubators Influenza Outbreaks	Life Science
Thur.	12:30 p.m.	1:15 p.m.	General	STEM Education and STEM Schools - Indiana Department of Education's STEM Initiative	Interdisciplinary
Thur.	12:30 p.m.	1:15 p.m.	General	Preparing Science Teachers for High Needs High School Students: The Woodrow Wilson Indiana Teaching Fellowship Program at Ball State University	Science Education
Thur.	12:30 p.m.	1:15 p.m.	General	Notebook Foldables - Not for Novices!	Interdisciplinary
Thur.	12:30 p.m.	1:15 p.m.	General	Using the Science News to Spark Students' Ideas About Civic Participation	Science/Technology/Society
Thur.	12:30 p.m.	1:15 p.m.	General	Recharge your Teaching Batteries with the Flipped Classroom	Science/Technology/Society
Thur.	12:30 p.m.	1:15 p.m.	General	Engineering STEM Success – Building PBL Projects: Warsaw Community Schools/Ball State University MSP Partnership	Interdisciplinary
Thur.	12:30 p.m.	1:15 p.m.	General	The Power of Formative Assessment	Interdisciplinary
Thur.	12:30 p.m.	1:15 p.m.	General	Collaborating with Science Centers	Interdisciplinary
Thur.	1:30 p.m.	2:15 p.m.	General	Exploring Chemistry Beyond the Classroom-Activities for Science Nights and Outreach Programs	Chemistry
Thur.	1:30 p.m.	2:15 p.m.	General	IDOE Office of eLearning: eLearning in Indiana - What's Now, What's New, What's Possible?	Science/Technology/Society
Thur.	1:30 p.m.	2:15 p.m.	General	Successful PBL: Design, Momentum and Accountability	Science Education
Thur.	1:30 p.m.	2:15 p.m.	General	Hands-On with Hissers	Science Education
Thur.	1:30 p.m.	2:15 p.m.	General	Driving on Sunshine - Cars\$, Co2, and You	Science/Technology/Society
Thur.	1:30 p.m.	2:15 p.m.	General	Building Science Vocabulary One Fold at a Time	Interdisciplinary
Thur.	1:30 p.m.	2:15 p.m.	General	Walking with Science	Earth Science

2014 HASTI SESSIONS BY AUDIENCE

Date	SchedTime	End Time	Session Title	Audience	Discipline
Thur.	1:30 p.m.	2:15 p.m.	General	Model Student Stewardship Projects to Foster Watershed Protection	Ecology/Environment
Thur.	1:30 p.m.	2:15 p.m.	General	The International Orangutan Center's Educator Academy – Teacher Professional Development at the Indianapolis Zoo!	Science Education
Thur.	1:30 p.m.	2:15 p.m.	General	The Annual Collaborating for Education and Research Forum: a Catalyst for Building Professional STEM Community	Interdisciplinary
Thur.	2:30 p.m.	3:15 p.m.	General	Cardboard Regatta - A Great Way to End the School Year!	Physical Science
Thur.	2:30 p.m.	3:15 p.m.	General	Science Notebooking in an Inquiry-Based Classroom	Interdisciplinary
Thur.	2:30 p.m.	3:15 p.m.	General	The Psychological Science: Mind, Brain, and Behavior	Interdisciplinary
Thur.	2:30 p.m.	3:15 p.m.	General	Outreach Division of School Improvement-Indiana Department of Education's Initiative to Support Schools	Interdisciplinary
Thur.	2:30 p.m.	3:15 p.m.	General	Making Sense of Data Using Google Forms	Science Education
Thur.	2:30 p.m.	3:15 p.m.	General	Innovative Thinking: Inspiring Students to be Innovators	Science Education
Thur.	2:30 p.m.	3:15 p.m.	General	Ice Age Animals of Indiana's Karst	Interdisciplinary
Thur.	2:30 p.m.	3:15 p.m.	General	Earth Science Teachers Share-A-Thon	Earth Science
Thur.	2:30 p.m.	3:15 p.m.	General	Monarchs in the Classroom: Creating Citizen Scientists	Ecology/Environment
Thur.	2:30 p.m.	3:15 p.m.	General	Fusing Science and Art	Ecology/Environment
Fri.	8:30 a.m.	9:15 a.m.	General	How the NSTA Learning Center Can Make Teaching Easier	Science Education
Fri.	8:30 a.m.	9:15 a.m.	General	Integrate iPad® and BYOD with Vernier Technology	Interdisciplinary
Fri.	8:30 a.m.	9:15 a.m.	General	Educator Licensing and Evaluation-Question and Answers	Interdisciplinary
Fri.	8:30 a.m.	9:15 a.m.	General	Why Go Wi-Fi	Science Education
Fri.	8:30 a.m.	9:15 a.m.	General	Don't Call It the Vomit Comet: Weightless Wonders with NASA	Science Education
Fri.	8:30 a.m.	9:15 a.m.	General	If I Could Only Read Their Minds	Science Education
Fri.	8:30 a.m.	9:15 a.m.	General	Environmental Literacy - What It Is, How to Include It, and Why It's Important!	Interdisciplinary
Fri.	8:30 a.m.	9:15 a.m.	General	Science Olympiad: A Standards-Based Curriculum	Science/Technology/Society
Fri.	8:30 a.m.	10:15 a.m.	General	IESTA Annual Rock Raffle	Earth Science
Fri.	8:30 a.m.	9:15 a.m.	General	Composting with Worms – Make a Worm Bin	Ecology/Environment
Fri.	8:30 a.m.	9:15 a.m.	General	Inquiry and Creativity	Interdisciplinary
Fri.	9:30 a.m.	10:15 a.m.	General	Earning Money for your Classroom Through Grant Writing	Science Education
Fri.	9:30 a.m.	10:15 a.m.	General	Medical Explorer - Making Real World Connections with Medical Case Studies	Life Science
Fri.	9:30 a.m.	10:15 a.m.	General	Integrate iPad® and other Mobile Devices with Vernier Technology	Interdisciplinary
Fri.	9:30 a.m.	10:15 a.m.	General	Create a Digital Wi-Fi Classroom	Science Education
Fri.	9:30 a.m.	10:15 a.m.	General	Creating An Environment for Academic Success for All in the Science Classroom	Science Education
Fri.	9:30 a.m.	10:15 a.m.	General	How to Fund Science Projects through Successfully Writing Grant Requests	Science Education
Fri.	9:30 a.m.	10:15 a.m.	General	ULTIMATE Project-Based Learning: Changing the World!	Interdisciplinary
Fri.	9:30 a.m.	10:15 a.m.	General	FIRST Lego League	Science/Technology/Society
Fri.	9:30 a.m.	10:15 a.m.	General	Game On: Video Games as Tools for Teaching STEM	Science Education
Fri.	9:30 a.m.	10:15 a.m.	General	When Does the Gender Pipeline Start to Leak?	Science Education
Fri.	9:30 a.m.	10:15 a.m.	General	Meteor Impacts: What Can We Do About/With Them?	Earth Science
Fri.	9:30 a.m.	10:15 a.m.	General	Urban Green: The Next Generation	Ecology/Environment
Fri.	9:30 a.m.	10:15 a.m.	General	Earth Partnership for Schools	Ecology/Environment
Fri.	9:30 a.m.	10:15 a.m.	General	Foldable Projects - Let's Push the "Envelope"	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	General	The NSTA Learning Center - An Amazing Resource for Teachers	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	General	No Note Taker Left Behind - Scrolling Powerpoint Notes	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	General	Income Tax for Teachers	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	General	Next Generation Science Standards/ K12 Science Framework: An Introduction, Overview, and Where Indiana Stands for Implementation	Science Education
Fri.	12:30 p.m.	1:15 p.m.	General	Teaching Simple Machines, Force and Motion and a Little Energy Using LEGO	Science Education
Fri.	12:30 p.m.	1:15 p.m.	General	Attention, Meaning, and Primacy-Recency: Making the Connection	Interdisciplinary
Fri.	12:30 p.m.	1:15 p.m.	General	Technology Activities 101 and More	Science Education
Fri.	12:30 p.m.	1:15 p.m.	General	Meeting NGSS through Permaculture, Resiliency, and Biodynamics	Ecology/Environment
Fri.	12:30 p.m.	1:15 p.m.	General	The Dynamics of Climate: A Toolkit for Teacher Professional Development	Ecology/Environment
Fri.	12:30 p.m.	1:15 p.m.	General	Starting a STEAM School	Interdisciplinary
Fri.	1:30 p.m.	2:15 p.m.	General	The Effect of Learner-Directed Scientific Investigations on Students' Questionings and Their Nature of Science Views	Science Education
Fri.	1:30 p.m.	2:15 p.m.	General	Science Education, Literacy and Equity: Perfect Partners!	Science Education
Fri.	2:30 p.m.	3:15 p.m.	General	30 Ideals in 30 minutes: An Action Packed Classroom!	Science Education
Fri.	2:30 p.m.	3:15 p.m.	General	Using Lego Robotics to Support Math and Science Self-Efficacy in K-8 Learners	Science/Technology/Society
Fri.	2:30 p.m.	3:15 p.m.	General	Labs for Understanding the Impacts of Global Warming: Designed for Climate Change Deniers	Science/Technology/Society

2014 HASTI CONFERENCE STRANDS

To help you make the most of this professional development opportunity, the 2014 HASTI Conference features five strands, enabling you to focus on a specific area of interest or need. The Conference Committee has identified sessions that are relevant to each of the five strands and that fit together to provide a cohesive, multi-session experience. These sessions are listed below and will also be identified by icons in the program listing. Plan your attendance around the strands to meet your individual professional growth plan and to justify to your school district the value of attending this professional development conference.

Inquiry Instruction

Wednesday, February 5

Exploring the Moon with NASA- Lunar Rock and Meteorite Certification Workshop	Susan Kohler, 8:00 a.m.
Teaching Physics for the 1st Time	Elaine Winn, 8:00 a.m.
ED2: Earth Day Every Day	Terri Hebert, 8:00 a.m.
Science in Seconds.....	Teri Foltz, 8:00 a.m.
Explore STEM Learning with NASA Ignite!.....	Adrienne Evans Fernandez, 8:00 a.m.
BioBuilder: Ready-to-use Classroom and Lab Curricula that Integrates Engineering Into Biology	Natalie Kuldell, 9:00 a.m.
Bring the Ocean to Your Classroom while Enhancing STEM Instruction - Ocean Waves, Tides, Upwelling, and El Ninos	Kevin Spingler, 1:00 p.m.
Hands-On with Nuclear Science	Micha Kilburn, 1:00 p.m.
Working "in Space" with LEGOs	Loretta Kosloske, 1:00 p.m.

Inquiry Instruction

Thursday, February 6

Filling Young Brains with NeuroscienceFUN = Foods Help to Understand Nutrition.....	Suzanne Cunningham, 8:30 a.m.
STEM is Elementary	Sara Hunter, 8:30 a.m.
Physics First: Building (or rebuilding) a Physics Program at your School	Michael Kelley, 8:30 a.m.
An Energy Efficient Way to Teach Energy	Becky Creech, 8:30 a.m.
Inquiry Learning in the Chemistry Classroom using POGIL.....	Lori White, 8:30 a.m.
The Forces of Learning	John Calhoun, 8:30 a.m.
Engage Students and Bring Inquiry into the Human Body Systems Curriculum	April Albrecht, 8:30 a.m.
Indiana Science Initiative Seventh Grade Roundtable: Physical Science.....	Joseph Bellina, 8:30 a.m.
Outdoor Science	Warren Gartner, 8:30 a.m.
Bring the Ocean to Your Classroom While enhancing STEM Instruction - Wind-Driven Ocean Circulation.....	Kevin Spingler, 8:30 a.m.
Smiling Faces	Suzanne Cunningham, 9:30 a.m.
Using an NSTA Student Chapter to Change Science Education through Hands-On Science Saturdays' Workshops	Kate Baird, 9:30 a.m.
"How do you know?" - The Most Important Question in Science	Joel Bryan, 9:30 a.m.
If You Put a Teacher in the Amazon... ..	Melissa Jordan, 9:30 a.m.
Hawaii Marine Science Seminar	Dennis O'Rourke, 9:30 a.m.
Q & A with Chemistry Modelers	Erica Posthuma-Adams, 9:30 a.m.
Science Express Lessons for Chemistry, Biology, Physics and Earth Science Teachers	Bill Bayley, 9:30 a.m.
Making Sense of Graphs in the ISI FOSS Force and Motion Module	Joseph Bellina, 9:30 a.m.
Indiana Children & Nature	Warren Gartner, 9:30 a.m.
Bring the Ocean into Your Indiana Classroom While enhancing STEM Instruction - Density-Driven Circulation.....	Kevin Spingler, 9:30 a.m.
Density Challenge with Inquiry.....	Amy Resler, 12:30 p.m.
How to Incorporate STEM in Your Outdoor Learning Spaces.....	Dave Shafer, 12:30 p.m.
You're NOT Gonna Believe What We Did in Science Class Today!	Margaret Flack, 12:30 p.m.
Preparing Science Teachers for High Needs High School Students: The Woodrow Wilson Indiana Teaching Fellowship Program at Ball State University	Susan Johnson, 12:30 p.m.
Engineering STEM Success – Building PBL Projects: Warsaw Community Schools/Ball State University MSP Partnership	Tom McConnell, 12:30 p.m.
Incorporating Inquiry Instruction & Statistical Analysis in the Science Classroom	Georgia Everett, 12:30 p.m.
Understanding Enzymes using the Alphabet, Puzzles and LEGOs™	Suzanne Cunningham, 12:30 p.m.
Teaching Electron Configuration Using a Popular Board Game	Jeff Springer, 12:30 p.m.
Neuroscience: The Brain & Beyond	Aimee Lacey, 12:30 p.m.
Making Science Notebooking Manageable.....	Sherri Foster, 12:30 p.m.
What is the Connection Between Science and Engineering?	Deborah Gaff, 12:30 p.m.
Hands-On with Hissers.....	Melissa Jordan, 1:30 p.m.
Walking with Science	Martha Goings, LPG, 1:30 p.m.

2014 HASTI CONFERENCE STRANDS

The International Orangutan Center's Educator Academy – Teacher Professional Development at the Indianapolis Zoo!	Tom McConnell, 1:30 p.m.
The Indiana Modeling Curriculum: New Results for 1st Year Biology and ICP;Future PD Workshops.....	Gordon Berry, 1:30 p.m.
Catch a Wave	Elaine Gwinn, 1:30 p.m.
ISI Middle Level Discussion Pit.....	Jane Hunn, 1:30 p.m.
Inquire Handbook	Shannon Hudson, 1:30 p.m.
Crime Busters: A Mobile Hands-On Chemistry Camp	Linda (Lin) Wozniowski, 2:30 p.m.
Cardboard Regatta - A Great Way to End the School Year!	Chris Ludy, 2:30 p.m.
Innovative Thinking: Inspiring Students to be Innovators	Michael O'Bryan, 2:30 p.m.
Ice Age Animals of Indiana's Karst.....	Rob Houchens, 2:30 p.m.
IABT Quick Hits.....	Darlene Seifert, 2:30 p.m.
Modeling Instruction in the Classroom: Physics	Craig Williams, 2:30 p.m.

Inquiry Instruction

Friday, February 7

Examining the Evidence for Student Learning.....	Jennifer Hicks, 8:30 a.m.
Don't Call It the Vomit Comet: Weightless Wonders with NASA.....	Tracy Conklin, 8:30 a.m.
Science Olympiad: A Standards-Based Curriculum.....	Linda (Lin) Wozniowski, 8:30 a.m.
Problem-Based Learning: Changing the Way a Department Works.....	Lisa Kirkham, 8:30 a.m.
What The Heck Happened?!?!	Ted Beyer, 8:30 a.m.
Working "in Space" with LEGOs	Loretta Kosloske, 8:30 a.m.
Inquiry and Creativity.....	Susan Disch, 8:30 a.m.
Earning Money for your Classroom Through Grant Writing	Kate Baird, 9:30 a.m.
Medical Explorer - Making Real World Connections with Medical Case Studies	Dr. Lance Brand, 9:30 a.m.
Game On: Video Games as Tools for Teaching STEM.....	Sonny Kirkley, 9:30 a.m.
Earth Partnership for Schools.....	Leslie Samelson, 9:30 a.m.
Modeling Chemical Bonds and Reactions with Legos	Craig Williams, 9:30 a.m.
Infusing Real Research into the Science Classroom!	Becky Kehler, 9:30 a.m.
Are Your Students Excited About Science? Technology and the ISI curriculum.....	Gordon Berry, 12:30 p.m.
SCIENCE ON SATURDAYS! C.S.I. ELEMENTARY - An Experience-Based Science Program for 3rd Graders	Mary Jo Wright, 12:30 p.m.
Fat Dogs and Coughing Horses	Joseph Ruhl, 12:30 p.m.
Engineering Projects for Physics	Aaron Ellis, 12:30 p.m.
Inquiry Based Science Teaching and Cross-Curricular Connections.....	Demetrice Smith, 12:30 p.m.
Starting a STEAM School	Susan Disch, 12:30 p.m.
A Blast From the Past.....	Pam Roller, 1:30 p.m.
The Effect of Learner-Directed Scientific Investigations on Students' Questionings and Their Nature of Science Views	Banu Avsar Erumit, 1:30 p.m.
How to Grab a Teenager's Attention.....	Joseph Ruhl, 1:30 p.m.
The Principles of Mechanics from Less than One Second of Data	George Devendorf, 1:30 p.m.
What's so Flipping Exciting about Flipping the Classroom? Lecture-Free Teaching Methods That Engage Students.....	Curt Coffman, 1:30 p.m.
Hawaii Marine Science Seminar	Dennis O'Rourke, 1:30 p.m.
30 Ideals in 30 minutes: An Action Packed Classroom!	Jed Freels, 2:30 p.m.
Using Lego Robotics to Support Math and Science Self-Efficacy in K-8 Learners.....	Kate Baird, 2:30 p.m.
Delegating Lab Work Among Students: Cooperative - Inquiry Lab Teaming.....	John Taylor, 2:30 p.m.
Teaching H.S. Biology to 8th Graders Successfully!	Deb Smith, 2:30 p.m.

2014 HASTI CONFERENCE STRANDS

Assessment for Understanding

Thursday, February 6

Relevant Communication	Jeremy Johnson, 8:30 a.m.
Kinesthetic Activities for High School Classrooms	Shannon Wenning, 8:30 a.m.
Encouraging Student Thinking and Engagement through Effective Questioning	Deb Sachs, 9:30 a.m.
Wearable Science - State Tested and Kid-Approved	Jody Hodges, 9:30 a.m.
The Power of Formative Assessment	William Webb, 12:30 p.m.
An Introduction to Standards-Based Grading in Science.....	Jeremy Horner, 12:30 p.m.
Successful PBL: Design, Momentum and Accountability.....	Susan Becker, 1:30 p.m.
Standards-Based Grading in Science: Management and Implementation	Jeremy Horner, 1:30 p.m.
How to Effectively Increase Student Participation in the Classroom	Dain Kavars, 1:30 p.m.
I Taught It, Did They Learn It?	Deb Vannatter, 2:30 p.m.
Earth Science Teachers Share-A-Thon.....	Vickey Zehringer, 2:30 p.m.
Assessments Made Easy: Find FREE Online Tools for Developing Assessments to Refresh Your Inquiry/PBL Classroom	Lisa Kirkham, 2:30 p.m.
What Every Middle School Teacher Needs.....	Crystal Pryor, 2:30 p.m.

Assessment for Understanding

Friday, February 7

Teach ICP Differently and So Can You!	Dustan Smith, 8:30 a.m.
Introducing Forces First.....	Peter Berg, 8:30 a.m.
When Does the Gender Pipeline Start to Leak?	Micha Kilburn, 9:30 a.m.
21st Century Education	Peter Berg, 9:30 a.m.
Lab Performance Assessments.....	Elizabeth Ernst, 9:30 a.m.
Rube Goldberg Machine Encore.....	Josie Sillampa, 2:30 p.m.

Human Impacts on the Environment

Wednesday, February 5

Project Learning Tree® (PLT) GreenSchools!	Shannon Hudson, 1:00 p.m.
Monarchs in the Classroom: Creating Citizen Scientists.....	Kirsten Carlson, 1:00 p.m.
Climate Change Exploration with NASA.....	Susan Kohler, 1:00 p.m.

Human Impacts on the Environment

Thursday, February 6

Empower Students as Environmental Stewards	Terri Hallesy, 8:30 a.m.
The Science in Soil	Sherry Fulk-Bringman, 8:30 a.m.
Project Passenger Pigeon	Joanna Hahn, 9:30 a.m.
Science Education for Global Citizenship: People, Food, Energy and Sustainability	Meredith McAllister, 9:30 a.m.
The Power of Plants.....	Kristen Poindexter, 12:30 p.m.
Concentrated Animal Feeding Operations (CAFOs) as Potential Incubators Influenza Outbreaks	James Hollenbeck, 12:30 p.m.
Empowering Students to Impact the Environment	Caryn Turrel, 12:30 p.m.
Driving on Sunshine - Cars\$, Co2, and You.....	Dave Wilms, 1:30 p.m.
Sensible Steps for Improving Chemical Management in Schools	Maryann Suero, 1:30 p.m.
Carbon Cycle and Climate Change - How They're Connected	Caryn Turrel, 1:30 p.m.
Monarchs in the Classroom: Creating Citizen Scientists.....	Kirsten Carlson, 2:30 p.m.
Fusing Science and Art.....	Stephanie Dege, 2:30 p.m.
Sustainability in Science in the High School Classroom.....	Megan Ewing, 2:30 p.m.

2014 HASTI CONFERENCE STRANDS

Human Impacts on the Environment

Friday, February 7

Environmental Literacy - What It Is, How to Include It, and Why It's Important!	John Brady, 8:30 a.m.
IESTA Annual Rock Raffle	Gary Potter, 8:30 a.m.
Composting with Worms – Make a Worm Bin	Jennifer Woolson-Helrigel, 8:30 a.m.
Solid Waste Management: Issues and Options	Donna Rogler, 8:30 a.m.
generationOn - Real-World Learning Through Service-Learning	Joan Belschwender, 8:30 a.m.
ULTIMATE Project-Based Learning: Changing the World!	Michael Baer, 9:30 a.m.
Urban Green: The Next Generation	Erin Nolan-Higgins, 9:30 a.m.
Meeting NGSS through Permaculture, Resiliency, and Biodynamics	Teddie Mower, 12:30 p.m.
The Dynamics of Climate: A Toolkit for Teacher Professional Development	Dan Shepardson, 12:30 p.m.
Research Goes to School: Bringing Advanced Research on Biofuels to the High School Classroom	Lisa Kirkham, 12:30 p.m.
Be Green, Learn Green, Earn Green: An EPA-Funded Intensive Summer Program in Sustainability for High School Science Teachers	Carl Lecher, 1:30 p.m.
Endocrine Disruptors and PBDEs and Epigenetics, Oh My...Emerging Issues in Environmental Health	Maryann Suero, 1:30 p.m.
Effective Strategies for Sharing Climate Change Science and Energy Consumption Implications in the Classroom	Steven Smith, 1:30 p.m.
Labs for Understanding the Impacts of Global Warming: Designed for Climate Change Deniers	Dave Wilms, 2:30 p.m.

Incorporation of Literacy into Science Education

Wednesday, February 5

Home and School Science Activities	Bernard Horvath, 8:00 a.m.
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Incorporation of Literacy into Science Education

Thursday, February 6

Improving Student Learning through the Engineering of Compost!	Nikki Rumpler, 8:30 a.m.
Wonderful Weather!	Kristen Poindexter, 8:30 a.m.
Talk to Think, Listen to Understand, Write to Explain	Carrie Sanidas, 8:30 a.m.
Elementary Literacy Framework: Methods for Teaching Literacy in Elementary Science	John Wolf, 9:30 a.m.
Science through the Seasons	Kristen Poindexter, 9:30 a.m.
STEM Initiatives of the United States Air Force Auxiliary-Civil Air Patrol	Darrel Williamson, 9:30 a.m.
Reciprocal Teaching: Using the Fab Four Reading Strategies to Improve Comprehension	Carrie Sanidas, 9:30 a.m.
Notebook Foldables - Not for Novices!	Deb Vannatter, 12:30 p.m.
Using the Science News to Spark Students' Ideas About Civic Participation	Megan Anderson, 12:30 p.m.
The Ups and Downs of Teaching Energy	Heidi Vance, 1:30 p.m.
Introducing Science Notebooking in the Inquiry Classroom	Jennifer Hicks, 1:30 p.m.
Exploring Chemistry Beyond the Classroom-Activities for Science Nights and Outreach Programs	Linda Monroe, 1:30 p.m.
Building Science Vocabulary One Fold at a Time	Nancy Wisker, 1:30 p.m.
Model Student Stewardship Projects to Foster Watershed Protection	Robin Goettel, 1:30 p.m.
Science Fiction to Reach Science and Science Literacy	James Hollenbeck, 1:30 p.m.
Science Notebooking in an Inquiry-Based Classroom	Kelly Masters, 2:30 p.m.

2014 HASTI CONFERENCE STRANDS

Incorporation of Literacy into Science Education

Friday, February 7

Reading, Writing, and Chemistry.....	Lori White, 8:30 a.m.
Bioethics in The Hunger Games: Evaluating the Effects of Genetic Engineering through Popular Fiction	Donna Keller, 8:30 a.m.
Interactions Toward Promoting the Development of Whole-Class Dialogue in a Middle School Science Classroom.....	Matthew Benus, 8:30 a.m.
Creating An Environment for Academic Success for All in the Science Classroom	Deborah Calhoun, 9:30 a.m.
Foldable Projects - Let's Push the "Envelope"	Nancy Wisker, 9:30 a.m.
Secondary Literacy Framework: Methods for Teaching Literacy in Secondary Science	Jill Lyday, 9:30 a.m.
Beyond the Classroom: Challenging your Students with Independent Research	Stacey Summitt-Mann, 9:30 a.m.
Teaching Science as Questions, Claims, and Evidence. An Introduction to the Science Writing Heuristic	Matthew Benus, 12:30 p.m.
Two Birds with One Stone: Including Literacy in Energy Education.....	Caryn Turrel, 12:30 p.m.
Where's the DATA? Media Literacy and the Science Literacy Standards.....	Elizabeth Ernst, 12:30 p.m.
World Food Prize Youth Institute at Purdue.....	Donna Keener, 12:30 p.m.
The Advantages of Using Science Notebooks	Donna Phair, 12:30 p.m.
UIndy Jr-Scientist Program: Using Minds-on Science Activities to Complement Non-Fiction Literature	Mary Gobbett, 1:30 p.m.
Science Education, Literacy and Equity: Perfect Partners!	Leslie Fatum, 1:30 p.m.
Great Reads for Science Book Talk	Deborah Gaff, 1:30 p.m.

Technology Applications in Science Instruction

Wednesday, February 5

Hands-On Experiments Using a Mini Gas Chromatograph	Cheryl Wistrom, 1:00 p.m.
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Technology Applications in Science Instruction

Thursday, February 6

Developing Spatial Skills through Geographic Information Systems (GIS) Technologies	Shireen Desouza, 8:30 a.m.
Going Paperless: Electronic Lab Notebooks in the High School Classroom	Erica Posthuma-Adams, 8:30 a.m.
Collaboration Made Easy: Using Google Apps (and Chromebooks) in High School Classrooms	Rebecca Taylor, 8:30 a.m.
Indiana Science Initiative (ISI) in a 1:1 School.....	Jeff Chicki, 8:30 a.m.
iPad Apps for STEM Activities in the Classroom	Janet Jordan, 9:30 a.m.
Ignite the T in STEM!	Sara Hunter, 9:30 a.m.
Recharge your Teaching Batteries with the Flipped Classroom	Jacob Swartz, 12:30 p.m.
You CAN Get There from Here!	Elaine Gwinn, 12:30 p.m.
Grade 7 Science Teachers—Force and Motion Unit part of the SEPUP Indiana Model Curriculum (Grades 6-8)!.....	Denis Baker, 12:30 p.m.
Active Learning and eLearning.....	Deb Vannatter, 1:30 p.m.
IDOE Office of eLearning: eLearning in Indiana - What's Now, What's New, What's Possible?	Candice Dodson, 1:30 p.m.
"Uration" - It's Not Just a Patriotic Story about the Founding of Our Country.....	Gregory McCurdy, 1:30 p.m.
Mobile Learning - Exploring Energy Systems.....	Bianca McRae, 1:30 p.m.
Grade 6 Science Teachers—Energy Unit part of the SEPUP Indiana Model Curriculum (Grades 6-8)!.....	Denis Baker, 1:30 p.m.
The Evolution of Online Science Education.....	Ron Weiss, 2:30 p.m.
The Psychological Science: Mind, Brain, and Behavior.....	Benjamin Motz, 2:30 p.m.
Making Sense of Data Using Google Forms	Ryan Bruick, 2:30 p.m.
IACET Share-A-Thon	Bill Bayley, 2:30 p.m.
Flinn Activities to Integrate STEM Education.....	Janet Hoekenga, 2:30 p.m.
Blogging Isn't Just for Feelings: Science Blogging in Your Classroom.....	Eric Johnson, 2:30 p.m.
Teaching Engineering Concepts to Harness Future Innovators and Technologists (TECHFIT)	Alka Harriger, 2:30 p.m.
Grade 8 Science Teachers—Chemistry of Materials Unit part of the SEPUP Indiana Model Curriculum (Grades 6-8)!.....	Denis Baker, 2:30 p.m.

2014 HASTI CONFERENCE STRANDS

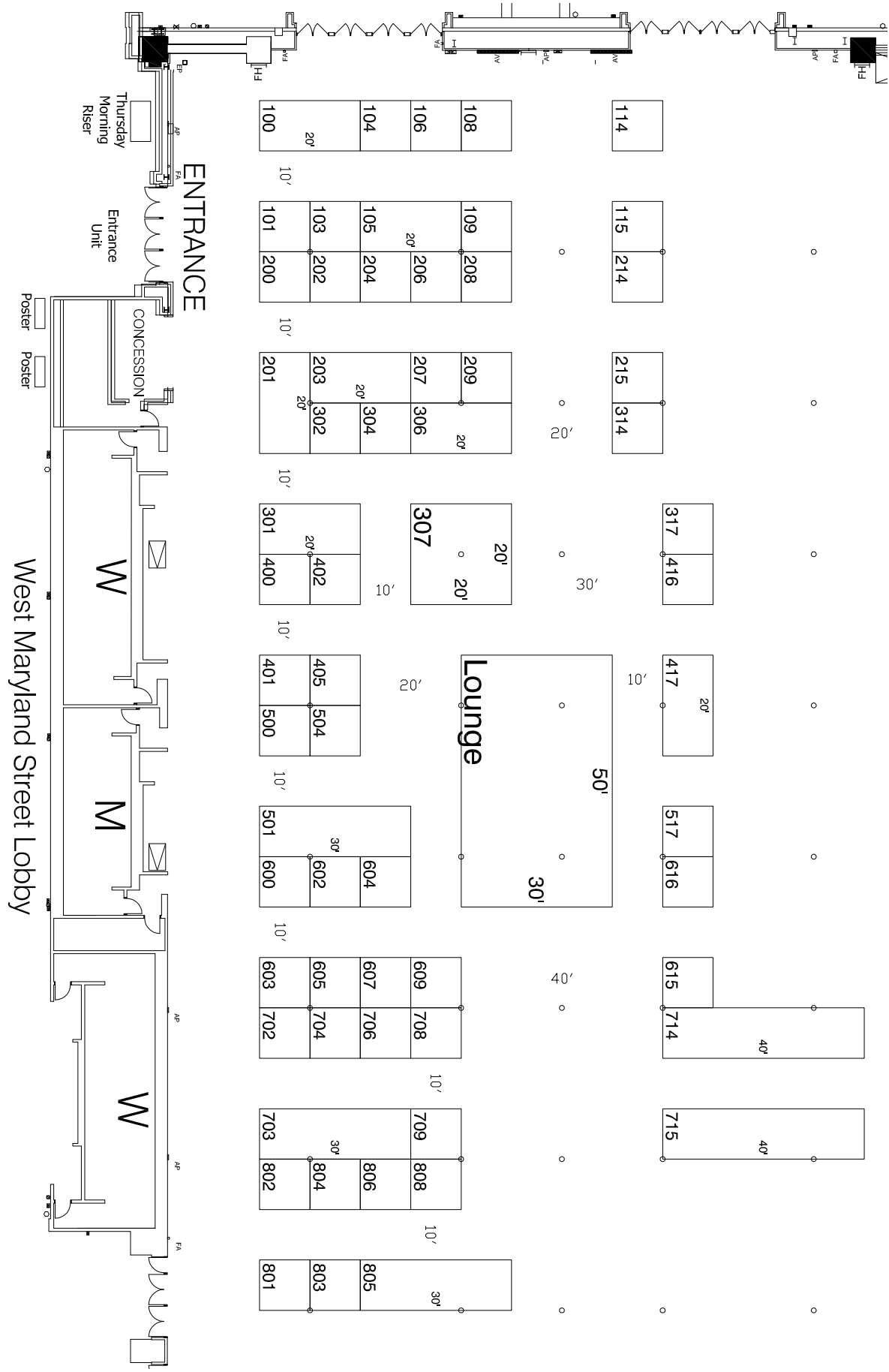
Technology Applications in Science Instruction

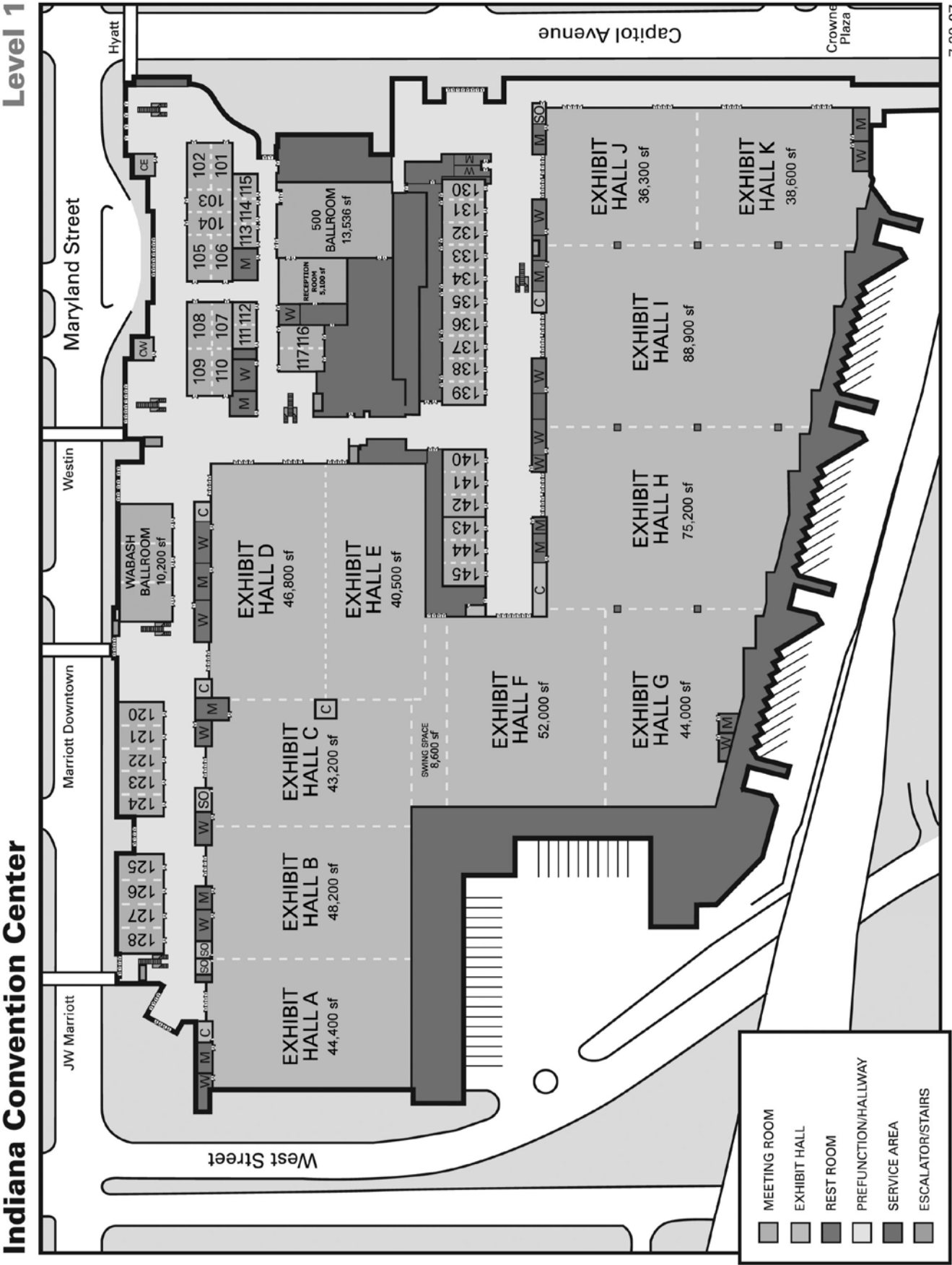
Friday, February 7

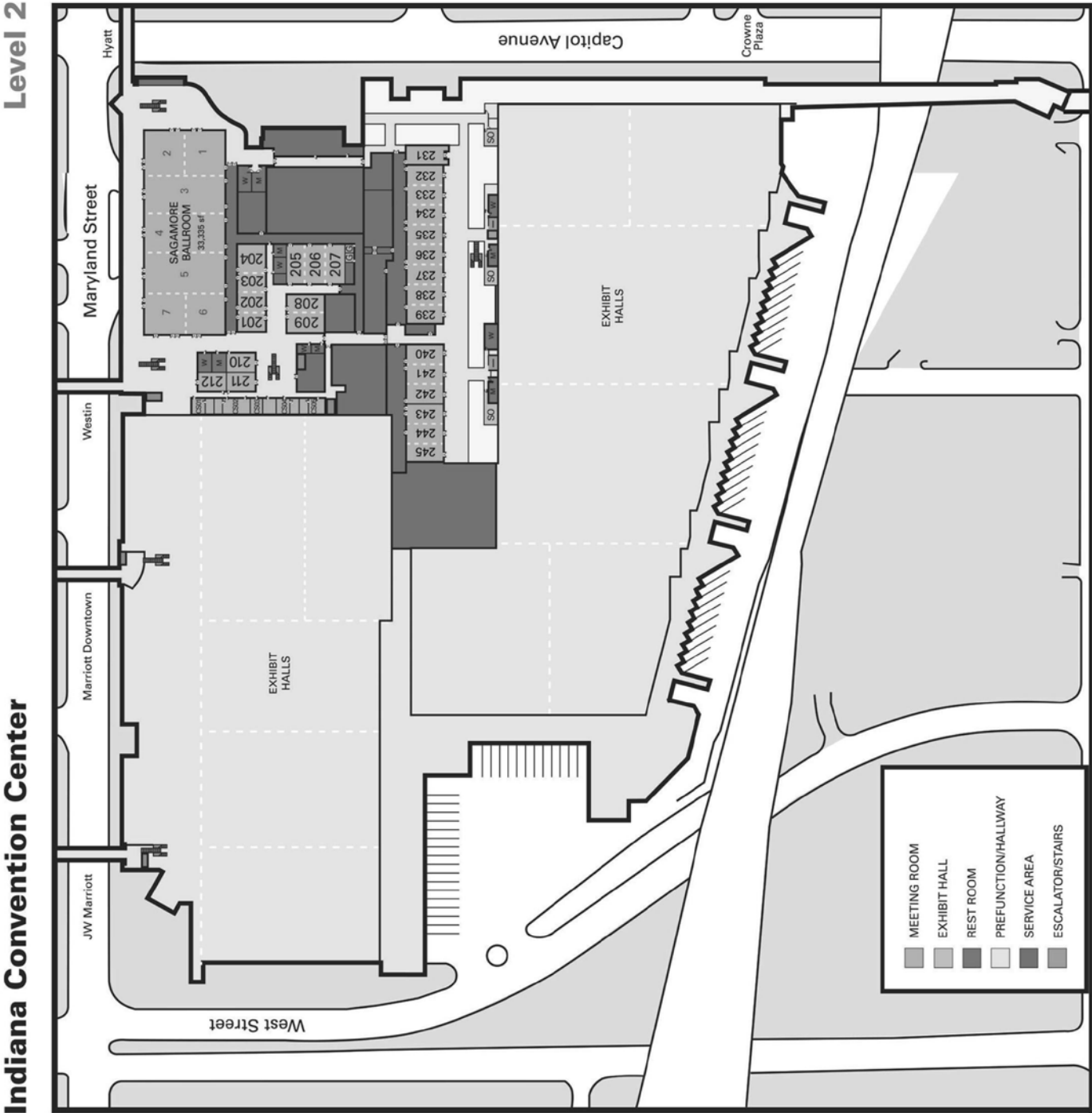
How the NSTA Learning Center Can Make Teaching Easier	Kate Baird, 8:30 a.m.
Integrate iPad® and BYOD with Vernier Technology.....	Angie Harr, 8:30 a.m.
Why Go Wi-Fi	David Doty, 8:30 a.m.
If I Could Only Read Their Minds	Craig Smiley, 8:30 a.m.
Using Technology to Build Student Understanding of the Structure, Properties, and Changes of Matter	David Doherty, 8:30 a.m.
Teaching Science with Engineering Design	Laura O'Shaughnessey, 8:30 a.m.
Thermodynamics with Project Based Learning.....	Kristen Swangin, 8:30 a.m.
Integrate iPad® and other Mobile Devices with Vernier Technology	Angie Harr, 9:30 a.m.
Create a Digital Wi-Fi Classroom	David Doty, 9:30 a.m.
FIRST Lego League	Linda (Lin) Wozniowski, 9:30 a.m.
We have iPads, Now What?.....	Kim Terry, 9:30 a.m.
Individualized Honors Chemistry (iChem).....	Kendal Smith, 9:30 a.m.
Geo Spatial Technologies in Your Classroom	Kathy Kozenski, 12:30 p.m.
Digital Resources and Tools for Science Teachers	Vic Chamness, 12:30 p.m.
Website Tools You Need for Science.....	Sue Keene, 12:30 p.m.
The NSTA Learning Center - An Amazing Resource for Teachers	Tina Harris, 12:30 p.m.
No Note Taker Left Behind - Scrolling Powerpoint Notes	Rick Dubbs, 12:30 p.m.
Teaching Simple Machines, Force and Motion and a Little Energy Using LEGO	Ivery Toussant, Jr., 12:30 p.m.
Technology Activities 101 and More.....	Reena Markstahler, 12:30 p.m.
Measuring and Modeling the Invisible - Leading Edge Particle Physics and Applications for Science, Technology and Mathematics.....	David Sederberg, 12:30 p.m.
Catching a Mystic Tiger by the Tail - High Powered Rocketry in Secondary Education	Melissa McCarthy, 12:30 p.m.
PASCO's SPARKscience for High School Students – Free Sensors for Lucky Attendees!	Dorothy Haggerty, 12:30 p.m.
Microscope Cameras: Why You'll Love Them!	Stacey Summitt-Mann, 12:30 p.m.
Using the iPhone to Record Data in a Physics Classroom	Tim Duman, 1:30 p.m.
Is Paperless Possible?	Timothy Martin, 1:30 p.m.
Day in the Life of a 1:1 Science Teacher	Carissa Prater, 1:30 p.m.
Converting Summer Research into Engaging Classroom Experiences	John Gensic, 1:30 p.m.
Integrating Technology in the Middle School Science Classroom.....	Sue Gnagy, 1:30 p.m.
Biology preconception alert: PHOTOSYNTHESIS & RESPIRATION are Linked!	Denis Baker, 1:30 p.m.
Mastering the Chemical Formula: an Exceptionally Effective Way to Teach Subscripts and Coefficients.....	Denis Baker, 2:30 p.m.

2014 HASTI CONFERENCE LIST OF EXHIBITORS

Anatomy in Clay Learning System	214	Indiana University.....	714-720; 715-721
Arbor Scientific	314	Indianapolis Zoo	416
Ball State University	417, 516	I-STEM Resource Network.....	808
Benz Microscope Optics Center, Inc.....	504	IU Health Neuroscience Center	609
Biozone, International Ltd.....	702	Lab Archives	708
Bitwixt Software Systems	401	Lab-Aids	402
Camp Invention	106	LEGO Education	301, 303
Conner Prairie.....	115	Marian University	306-308
Dinah-Might Adventures	108	McGraw-Hill Education.....	405
Discovery Park/Purdue University	804	Nasco.....	317
Drug & Laboratory Disposal, Inc.....	709	National Geographic Learning/ Cengage Learning	203-205
Educational Innovations, Inc.....	201, 300	National Weather Service.....	202
einstein™ Tablet+	615	NISMEC- The Northern Indiana Science, Mathematics and Engineering Collaborative	500
eScience Labs, LLC	400	NSTA.....	602
ETHOS Science Center	307, 309, 406, 408	PASCO scientific	200
Fisher Science Education.....	604	Pearson.....	101
Fit to a Tee	600	Purdue University.....	805, 807, 809
Flat Rock River YMCA Camp	103	Purdue University College of Agriculture	806
Flinn Scientific, Inc.....	105, 107	Rose-Hulman Institute of Technology's Homework Hotline.....	603
generationOn Indiana	302	School Specialty Science/Delta Education/ CPO Science/Frey Scientific	501-505
Geography Educators' Network of Indiana, Inc.....	704	ScienceWear	209
IDNR-Division of Fish & Wildlife	616	The Children's Museum of Indianapolis	104
IMLEA.....	304	Vernier Software & Technology.....	109
IN DNR Forestry.....	517	Wells Center Molecular Medicine In Action	607
IN Society of American Foresters	206	Western Michigan University MA: Science Education Online.....	215
Indiana Caverns	706	Winkleman Microscope Service.....	100, 102
Indiana Department of Environmental Management	605		
Indiana Geological Survey	703-707		
Indiana Section of the American Association of Physics Teachers	208		
Indiana Tree Farm	204		
Indiana State Museum and Historic Sites	114		







INDEX OF PRESENTERS

A

Adams, Jason	18
Albrecht, April	17
Anderson, Megan	22
Avsar Erumit, Banu	42

B

Baer, Michael	36
Baird, Kate	14, 17, 31, 34, 44
Baker, Denis	20, 23, 27, 43, 44
Baker, Heather	15
Bayley, Bill	18, 21, 24
Becker, Susan	25
Bellina, Joseph	14, 17
Belschwender, Joan	34
Benus, Matthew	32, 39
Berg, Peter	31, 35
Berry, Gordon	24, 40
Berry, Joan	18
Beyer, Ted	31
Brady, John	32
Brand, Dr. Lance	20, 35
Brown, Teresa	28
Bruick, Ryan	28
Bryan, Joel	8, 17

C

Calhoun, Deborah	36
Calhoun, John	16
Carlson, Kirsten	10, 29
Chamness, Vic	35
Chicki, Jeff	15
Coffman, Curt	42
Conklin, Tracy	32
Crawley, Luke	41
Creech, Becky	14
Cunningham, Suzanne	14, 18, 21, 28

D

Dege, Stephanie	30
Desouza, Shireen	16
Devendorf, George	42
Disch, Susan	33, 38
Dodson, Candice	25
Doherty, David	31
Doty, David	32, 36
Dubbs, Rick	38
Duman, Tim	41

E

Ellis, Aaron	38
Eltz, Jeremy	21, 39
Emmert, Charles	14
Ernst, Elizabeth	35, 38
Evans Fernandez, Adrienne	9
Everett, Georgia	20
Ewing, Megan	28

F

Fatum, Leslie	42
Flack, Margaret	23
Folta, Teri	9
Foster, Sherri	22
Freels, Jed	44
Fulk-Bringman, Sherry	16

G

Gaff, Deborah	23, 41
Gartner, Warren	16, 19
Gensic, John	43
Giordano, Ashlee	18
Gnagy, Sue	43
Gobbett, Mary	14, 42
Goettel, Robin	16
Goings, LPG, Martha	26
Gray, Walt	43
Gwaltney, Charles W.	38
Gwinn, Elaine	8, 20, 24

H

Haggerty, Dorothy	39
Hahn, Joanna	19
Hallesy, Terri	16
Harr, Angie	32, 35
Harriger, Alka	29
Harris, Tina	37
Hayes, Carolyn	15
Hebert, Terri	8
Hicks, Jennifer	25, 33
Hodges, Jody	19
Hoekenga, Janet	27
Hollenbeck, James	21, 25
Horner, Jeremy	21, 24
Horvath, Bernard	8
Houchens, Rob	29
Hudson, Shannon	10, 25
Hunn, Jane	24, 27
Hunter, Sara	16, 18

J

Johnson, Eric	29
Johnson, Jeremy	15
Johnson, Susan	22
Jones, Amy	17
Jordan, Janet	19
Jordan, Melissa	19, 25

K

Kavars, Dain	26
Keene, Sue	39
Keener, Donna	40
Kehler, Becky	37
Keller, Donna	33
Kelley, Michael	14
Kilburn, Micha	9, 36
Kirkham, Lisa	29, 33, 40
Kirkley, Sonny	36
Koester, Abby	23, 34
Kohler, Susan	8, 10
Kosloske, Loretta	9, 34
Kozenski, Kathy	40
Kuldell, Natalie	9

L

Lacey, Aimee	21
Lecher, Carl	41
Leonard, Norman	38
Loughran, Thomas	26
Ludy, Chris	27
Lyday, Jill	35

M

Markstahler, Reena	40
Martin, Timothy	42
Masters, Kelly	28
McAllister, Meredith	19
McCarthy, Melissa	38
McConnell, Tom	22, 27
McCormack, Stacy	31
McCurdy, Gregory	24
McRae, Bianca	26
Monroe, Linda	24
Morris, Karen	41
Mottel, Ed	24
Motz, Benjamin	28
Mower, Teddie	40

N

Nolan-Higgins, Erin	36
---------------------------	----

O

O'Bryan, Michael	26
O'Rourke, Dennis	14, 42
O'Shaughnessey, Laura	31
Overley, Marshal	34

P

Perry, Rich	42
Phair, Donna	39
Pilachowski, Catherine	26
Poindexter, Kristen	16, 19, 23
Posthuma-Adams, Erica	15, 17
Potter, Gary	33
Powers, Jeramy	36
Prater, Carissa	43
Pryor, Crystal	28

R

Resler, Amy	20
Rogler, Donna	33
Roller, Pam	43
Ruhl, Joseph	38, 41
Rumpler, Nikki	15
Russo, Katie	34

S

Sachs, Deb	19, 40
Samelson, Leslie	37
Sanidas, Carrie	15, 18
Schemm, Liz	23
Sederberg, David	38
Seifert, Darlene	27, 30
Shafer, Dave	21
Shepardson, Dan	40
Sillampa, Josie	44
Smiley, Craig	32
Smith, Deb	44
Smith, Demetrice	38
Smith, Dustan	31
Smith, Jeff	20
Smith, Kendal	35
Smith, Steven	43
Spingler, Kevin	9, 15, 18
Springer, Jeff	21
Suero, Maryann	24, 42
Summitt-Mann, Stacey	37, 41
Swangin, Kristen	32
Swartz, Jacob	22

T

Taylor, John	44
Taylor, Rebecca	16
Terry, Kim	34
Toussant, Jr., Ivery	39
Turrel, Caryn	23, 26, 41, 43

V

Vance, Heidi	23
Vannatter, Deb	22, 25, 29

W

Webb, William	22
Weiss, Dr. Ron	30
Wenning, Shannon	14
White, Lori	15, 31
Williams, Craig	27, 34
Williamson, Darrel	19
Wilms, Dave	25, 44
Wisker, Nancy	26, 37
Wistrom, Cheryl	10
Wolf, John	18
Woolson-Helrigel, Jennifer	33
Wozniowski, Linda (Lin)	28, 33, 36
Wright, Mary Jo	39

Z

Zehring, Vickey	29
-----------------------	----

GRADUATE LEVEL CREDIT FROM IUPUC

Indiana University-Purdue University Columbus will offer graduate level professional development credits to individuals who attend the 2014 HASTI Conference, "HASTI: The Next Generation," February 5-7, 2014. 1 or 2 Graduate Credit(s) of Pass/ Not Pass credit is available.

To receive 1 credit you must complete the admissions application (the application fee is being waived for this year). Send the application to IUPUC at the address on the application. You will receive a letter from the campus that you have been accepted. That letter will describe how to create your student account and enroll in this section of the course. You will be billed \$394.79 through your student account. In the meantime you must attend HASTI and participating in at least 15 hours of workshops, sessions, field trips, and professional networking in the exhibit hall. You will need to write a short paragraph about each session. This would include what you learned on short courses, in the exhibit hall or in general sessions. Evidence of 15 hours is necessary. Finally you must then complete a 5 page reflective paper about how what you learned at HASTI will be applied into your classroom or other educational setting. This paper should be emailed to me at kabaird@iupuc.edu or submitted via OnCourse by **March 17**.

To receive 2 credits you must complete the admissions application (the application fee is being waived for this year).). Send the application to IUPUC at the address on the application. You will receive a letter from the campus that you have been accepted. That letter will describe how to create your student account and enroll in this section of the course. You will be billed \$732.68 through your student account. In the meantime, you must attend HASTI and participating in at least 15 hours of workshops, sessions, field trips, and professional networking in the exhibit hall. You will need to write a short paragraph about each session. This would include what you learned on short courses, in the exhibit hall or in general sessions. Evidence of 15 hours is necessary. You must then choose one idea to implement in your classroom. Finally you must then complete a 10 page reflective paper about what you applied in your room. Provide evidence of the materials you created, evidence of actual instruction and student success. Ideas for modification or future use may be included as well. This paper should be emailed to me at kabaird@iupuc.edu or submitted via OnCourse by **March 21**.

COLLECT PROFESSIONAL GROWTH PLAN POINTS TOWARD LICENSE RENEWAL FOR HASTI WORKSHOP ATTENDANCE

Educators attend conferences, workshops, participate in curriculum development committees, participate in school improvement plans, and take coursework to stay up-to-date on the latest educational reforms in addition to their classroom responsibilities. The Professional Growth Plan (PGP) is an opportunity for teachers, administrators and school service personnel to control their own professional development and use these experiences towards licensing renewal. One PGP point is given for every contact hour an educator is actively involved in a professional development activity. A total of 90 PGP points is required for submission. PGP activities must be gained since the issue date of the license being renewed.

Educators who hold renewable Bulletin 400, Rules 46-47 and Rules 2002 licenses issued by the Office of Educator Licensing and Development (OELD) may use the Professional Growth Plan to renew those licenses. It is one of three options for renewal for all license holders.

Educators Currently Working in a School Setting

If you are currently working in a school setting, your PGP must be verified by your Building Level Administrator, Superintendent, Director or Supervisor. Your Administrator will verify your 90 PGP points through LVIS. Once your PGP has been verified, you may then submit and pay for your renewal application(s) through your LVIS account. A total of 90 PGP points are required for submission. The professional growth experience points shall be calculated with (1) clock hour qualifying for (1) professional growth experience point

Educators Currently NOT in a School Setting or renewing from Out of State

Educators that are currently NOT working in a school setting or renewing from Out of State will need to complete their PGP and submit it to the OELD for evaluation through LVIS. Once your PGP has been verified, you may then submit and pay for your renewal application(s) through your LVIS account. A total of 90 PGP points are required for submission. The professional growth experience points shall be calculated with (1) clock hour qualifying for (1) professional growth experience point based on

More Information

If you have additional questions regarding this license renewal option or process, please contact the IDOE at licensinghelp@doe.in.gov for general licensing questions. For questions about the Professional Growth Plan, contact langston@doe.in.gov or krusso@doe.in.gov. For more information, please visit the IDOE website, <http://www.doe.in.gov/licensing/professional-growth-plan-pgp>.

*Information source: IDOE website, <http://www.doe.in.gov/licensing/professional-growth-plan-pgp>

PROFESSIONAL GROWTH PLAN POINTS/GRADUATE CREDIT TRACKER

Name: _____

Address (include city, state and zip code): _____

1. Session Name: _____

Presenter's Signature: _____

Date: _____

2. Session Name: _____

Presenter's Signature: _____

Date: _____

3. Session Name: _____

Presenter's Signature: _____

Date: _____

4. Session Name: _____

Presenter's Signature: _____

Date: _____

5. Session Name: _____

Presenter's Signature: _____

Date: _____

6. Session Name: _____

Presenter's Signature: _____

Date: _____

7. Session Name: _____

Presenter's Signature: _____

Date: _____

PROFESSIONAL GROWTH PLAN POINTS/GRADUATE CREDIT TRACKER (CONTINUED)

8. Session Name: _____
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Date: _____

9. Session Name: _____
Presenter's Signature: _____
Date: _____

10. Session Name: _____
Presenter's Signature: _____
Date: _____

11. Session Name: _____
Presenter's Signature: _____
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12. Session Name: _____
Presenter's Signature: _____
Date: _____

13. Session Name: _____
Presenter's Signature: _____
Date: _____

14. Session Name: _____
Presenter's Signature: _____
Date: _____



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YOUR 2014 CONFERENCE PLANNER

THURSDAY, FEBRUARY 6

7:30 a.m.		
8:00 a.m.		
8:30 a.m.		
9:30 a.m.		
10:30 a.m.	General Session Tyler DeWitt, <i>"Generations Merge: How to Incorporate Next Generation Tools, Technology and Methods into Classic, Transformative, Quality Teaching"</i>	Sagamore 3
12:30 p.m.		
1:30 p.m.		
2:30 p.m.		
3:30 p.m.	Association Meetings IN-AAPT, IACT, IABT, IESTA, Middle School Conversaion Pit	
4:30 - 6:30 p.m.	<i>HASTI Social</i>	<i>IUPUI School of Science</i>

FRIDAY, FEBRUARY 7

7:30 a.m.		
8:00 a.m.		
8:30 a.m.		
9:30 a.m.		
10:30 a.m.	General Session Ted Willard, NSTA, <i>"Standards for the Next Generation"</i>	Sagamore 3
12:30 p.m.		
1:30 p.m.		
2:30 p.m.		
3:30 p.m.		

Mark Your Calendars!

FEBRUARY

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February 11-13

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