

TUESDAY, JULY 26

Tue-08:45-P-01, Chemistry Building, Room 1720.....Presentation

Tue 8:45-9:30 AM

Toys of Chemistry

Jo King, jking@canyonisd.net, and Jeff Hepburn

Toys can demonstrate chemistry concepts and grab the students' attention and convince them that chemistry is relevant and exciting!

Tue-08:45-P-03, Chemistry Building, Room 2851..... Exhibitor Presentation

Tue 8:45-9:30 AM

Chemistry In-the-Bag Inquiry Activities

Melissa Jones, mdjchem@yahoo.com, and Shelley Abernathy

Learn how to easily incorporate fun and exciting inquiry activities into your classroom. These easy-to-perform demonstrations are designed to engage your students and then incorporate guided inquiry exercises so they can further explore and understand the concept. Participants will learn how to perform three different In-the-Bag inquiry demonstrations.

Tue-08:45-P-04, Rood Hall, Room 1110Presentation

Tue 8:45-9:30 AM

Interactive Technology in the Chemistry Classroom

MaryJac Reed, mreed@fairfield.k12.ct.us

If I see, I remember. If I do, I understand... (Chinese proverb) Experience the technology I use daily in my Chemistry classroom; see for yourself if "clickers" (student response systems) and interactive whiteboards would make a positive difference with your chemistry students.

Tue-08:45-P-05, Rood Hall, Room 1118Presentation

Tue 8:45-9:30 AM

The development of adaptive supplemental instruction for enhancing scale literacy of introductory chemistry students

Karrie Gerlach, ander225@uwm.edu

The development of students' scale literacy is an important component of the students' science literacy. Two instruments have been developed to assess scale literacy of students in general chemistry. Additionally, adaptive supplemental instruction has been developed to increase the students' scale literacy as it applies to general chemistry.

Tue-08:45-P-07, Wood Hall, Room 1301Presentation

Tue 8:45-9:30 AM

Finally! Practical Lessons on Brain-Based Chemistry Curriculum

Michael Rourke, mrourke@armadaschools.org

Brain-based learning is not new. This session will focus on taking what we know about the brain and learning, and directly applying those concepts to real lesson plans.

Tue-08:45-P-08, Wood Hall, Room 1710 Presentation

Tue 8:45-9:30 AM

Periodic Fun

Dr. Al Hazari, ahazari@utk.edu

This talk will focus on a fun and educational display and discussion of at least 60 different periodic tables of the chemical elements.

Tue-08:45-P-09, Wood Hall, Room 1718 Exhibitor Workshop

Tue 8:45-9:30 AM

Make Safety a Habit! Flinn Scientific Workshop

Irene Cesa, ktheesfeld@flinnsci.com

Simple, practical, effective solutions to increase safety awareness and improve safety in the science classroom! If you have questions about how to get students to comply with safety rules--or how to get action from your administrator--this workshop will help you with your safety problems. Issues to be discussed include the right-to-know laws and teacher liability; lab ventilation; purchase, storage, and disposal of chemicals; chemical inventory; spill control, and more.

Tue-08:45-W-01, Chemistry Building, Room 1831 Workshop

Tue 8:45-10:15 AM

Visible Spectroscopy - the Next Level. Learning About Electrons and Following Reactions

Gordon Bain, gordon.bain@thermofisher.com, and Sally Mitchell

AP isn't just college prep. It's college credit. Come and learn the material your students need in order to understand spectroscopic measurements. Try out two simple experiments that you students can do to understand analytical spectroscopy in action. Includes complete notes and lab materials.

Tue-08:45-W-02, Chemistry Building, Room 2211 Workshop

Tue 8:45-10:15 AM

\$40

Make your own Rainbow Tie-dye Coat

John Mauch, mauch1312@aol.com, and Linda Weber

Learn how to make a beautiful tie-dye rainbow coat (or other design) John has hand-made over 2000 of these wonderful lab coats. Written instructions will be provided as well as individual help to make a great looking coat. Please specify size on registration as small, medium, large, extra-large, or double extra large.

Tue-08:45-W-03, Chemistry Building, Room 3851 Exhibitor Workshop

Tue 8:45-10:15 AM

"Finding Solutions" for your Chemistry Labs with Carolina's New Inquiries in Science(TM) Chemistry Series

Bruce Wilson, brucewilson@carolina.com

Increase student understanding of difficult concepts such as solubility, freezing point, boiling point, molar mass and pressure by using a guided-inquiry approach. Carolina's Inquiries in Science chemistry units provide hands-on activities and supplies that make teaching challenging topics effortless. Free teacher materials and door prizes.

Tue-08:45-W-04, Rood Hall, Room 1104..... Exhibitor Workshop

Tue 8:45-10:15 AM

The ChemCollective, Tutors and Scenario-based Learning for Introductory Chemistry

David Yaron, yaron@cmu.edu, and Michael Karabinos

In this workshop, teachers will receive a "hands on" demonstration of the ChemCollective's free online chemistry materials including our stoichiometry course, our Virtual Laboratory and our collection of tutorials and scenario activities. We will demonstrate classroom uses, authoring activities and our murder mystery scenario, Mixed Reception.

Tue-08:45-W-05, Chemistry Building, Room 1871 Workshop

Tue 8:45-10:30 AM

Inquiry Problem Based Laboratory Experiments

Jesse D Bernstein, bernsteinj@miamicountryday.org, Jeffrey Bracken and Paul Price

Here's a lab manual that expects students to think before they experiment? No more "What is the right answer" questions. Our lab manual is NOT a cookbook. This workshop allows you to experience a number of labs. In addition, the manual (available for purchase) contains detailed teacher notes, setup pictures, and a fully editable manual on cd. Please bring goggles and a lab coat/apron if possible.

Tue-08:45-W-06, Wood Hall, Room 1001..... Exhibitor Workshop

Tue 8:45-9:30 AM

Integrating Math & Science using Blood Spatter

Kathy Mirakovits, laurie_enos@vwreducation.com

By using simulated blood, participants will interpret and understand the flow and velocity of blood spatter. This workshop is a great introduction into the Forensic sciences.

Tue-09:45-W-07, Wood Hall, Room 2908..... Exhibitor Workshop

Tue 8:45-10:15 AM

Periodic Quest: An Engaging, Entertaining and Exciting way of Exploring the Elements and the Periodic Table

Dr. Ravindran Pulyassary, ravindran.pulyassary@periodicquest.com

PeriodicQuest is an award winning card and board game consists of 118 element cards and Periodic Table as the game board. PeriodicQuest brings Periodic Table out of class rooms to kitchen tables and social gatherings and promote group participation and group discussion through game based learning and PeriodicQuest Championship Tournaments

Tue-09:45-P-01, Chemistry Building, Room 2260..... Exhibitor Workshop

Tue 9:45-10:30 AM

Atom Building, Isotopes, and Average Atomic Mass

Debbie Carlisle, dcarlisle@crocker.com, and John Allen

This will be an unforgettable way to teach the structure of the atom.

Tue-09:45-P-02, Chemistry Building, Room 2851.....Presentation

Tue 9:45-10:30 AM

It's All In the Tube

Christine Diehl, cdiehlm23@att.net

This presentation will explain several demonstrations that can be done with one long glass tube. From acid - base reactions, giant bunsen burners, and exothermic reactions; see how you can use a tube to set up several quick and easy demonstrations. Presentation tubes will be given away.

Tue-09:45-P-03, Rood Hall, Room 1110Presentation

Tue 9:45-10:30 AM

Using Google Docs in the Chemistry Classroom

Ellena Bethea, me@msbethea.com

Bring your laptop, and explore ways to use Google Docs to facilitate collaboration, paperless assignments, and lab reports in the chemistry classroom.

Tue-09:45-P-04, Rood Hall, Room 1118Presentation

Tue 9:45-10:30 AM

WebAssign for Organic Chemistry

Christine Hermann, chermann@radford.edu

In the fall of 2010, I made the switch to WebAssign for all homework and many of the lab reports for my Organic Chemistry classes. I will demonstrate the versatility of the WebAssign program, discuss the positive features, a few drawbacks, and review the many on-line problems that I have written.

Tue-09:45-P-05, Wood Hall, Room 1001Presentation

Tue 9:45-10:30 AM

Stoichiometry - A Multi-tiered Approach

Harvey Gendreau, hgendreau@rcn.com, and Bette Bridges

Stoichiometry can be a stumbling block to learning chemistry. High school students vary in their ability to conceptualize this basic construct. The authors (with over a combined 70 years of HS chemistry experience) will present some of their ideas on teaching stoichiometry to various types of learners.

Tue-09:45-P-06, Wood Hall, Room 1301Presentation

Tue 9:45-10:30 AM

The Brain-Friendly Classroom: Practical Strategies for Student Success

Carrie Dummer, dummer@hope.edu

This session will share numerous simple strategies and classroom activities to help your students succeed in Chemistry and other content areas. Brain research scientifically validates the best practices that excellent teachers use intuitively. Learn how to make your classroom brain-friendly!

Tue-09:45-P-08, Wood Hall, Room 1718Workshop

Tue 9:45-10:30 AM

Exploring Chemistry with NASA

Todd Morstein, morsteint@sd5.k12.mt.us

Learn to keep the astronauts alive with a STEM activity were your students explore the electrolysis of water and extrapolate to determine equipment needed on the ISS.

Tue-09:45-W-01, Chemistry Building, Room 1720Workshop

Tue 9:45-11:15 AM

\$65 with notes, \$0 without notes

Teaching Chemistry with Pyrotechnic Flair

Paul Smith, psmith4@purdue.edu

This workshop will focus on several aspects of pyrotechnics that can be incorporated into teaching chemistry. The workshop starts with 2 hours of lecture on safety and these five key aspects. Then the group will move to a lab and do hands on testing of pyrotechnic formulary.

Tue-09:45-W-02, Chemistry Building, Room 3871Workshop

Tue 9:45-11:15 AM

\$25

Teaching Combustion in the High School Classroom

Brian Rohrig, blrohrig@columbus.rr.com

Learn numerous safe yet spectacular ways to teach combustion in the high school classroom. Numerous demos and activities will be performed that will teach basic principles of combustion, including forensic techniques. All participants will receive a bound manual of activities, as well as other materials. Cost \$25.00

Tue-09:45-W-03, Sangren Hall, Room 1107 Exhibitor Workshop

Tue 9:45-11:15 AM

Teaching Chemistry with Moodle: Create Your Own Course and Resources

Linda Fanis, Infanis@wisc.edu, and Lynn Diener

Learn how to create online homework assignments and interactive web pages with integrated JMol molecules and video/images in your own Moodle course with content and resources from the ChemEd DL.

Tue-09:45-W-04, Wood Hall, Room 1107 Exhibitor Workshop

Tue 9:45-11:15 AM

A World of Titrations with Vernier

Melissa Hill, mhill@vernier.com

Join us for a fascinating look at titrations. In this workshop, you'll have the chance to practice the classic acid-base titration as well as the exotic oxidation-reduction titration and other interesting variations on this time-honored laboratory technique.

Tue-09:45-W-05, Wood Hall, Room 1127 Workshop

Tue 9:45-11:15 AM

Up 'N Atom

Sue Bober, sbober@d211.org

Get "up 'n atom" with several kinesthetic models to engage your students in chemistry! Get every student actively involved with nomenclature, periodic trends, states of matter, and polymerization! Most of these activities originated from ChemEd presentations from the last 20 years! Come experience some fun "hands-on/feet-on" teaching models!

Tue-09:45-W-06, Kohrman Hall, Room 2308 Exhibitor Workshop

Tue 9:45-11:15 AM

Molecular Modeling in the Science Classroom

Jurgen Schnitker, sales@wavefun.com, and Paul Price

Would you like to teach more effectively with the help of molecular simulations that are scientifically sound? Attendees of this hands-on workshop will learn how to set up both demonstrations and student labs using state-of-the-art molecular modeling software. Examples will be taken from the standard curriculum for high school chemistry and AP chemistry. Find out how to truly engage your students!

Tue-09:45-W-07, Chemistry Buiding, Room 2271 Exhibitor Workshop

Tue, 9:45-11:15 AM

Determination of the Rate of Reaction and its Order

Tom Loschiavo, most@pasco.com

Get hands-on experience in AP Chemistry with PASCO's SPARKscience, a probeware-based modern approach to science teaching. By performing one recommended AP lab with SPARKscience, you will discover how your students can gain deeper understanding of required content.

Tue-10:45-P-01, Rood Hall, Room 1110Presentation

Tue 10:45-11:30 AM

Using Cell Phones, Facebook, and Google Calendar in the Classroom

Lauri McDonald, laurimccormick@yahoo.com

Free ways to use phones, Facebook, and Google calendar! Facebook functions in the classroom as an information conduit or an effective communication tool. Cell phones can be used in lieu of clickers to take polls and conduct mini-quizzes. Google calendar is a great way to share class syllabi and schedules.

Tue-10:45-P-02, Rood Hall, Room 1118Presentation

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Tue-10:45-P-05, Wood Hall, Room 1710Presentation

Tue 10:45-11:30 AM

Chemistry in Comics

Dr. Al Hazari, ahazari@utk.edu

A variety of chemistry comics will be presented, and the classroom learning situations into which they best fit will be discussed.

Tue-11:45-MichLect-4

Bernhard Center, Room 157-60

Michigan Lecture

Tue 11:45 a.m. – 12:45 p.m.

Developments in Plastics and Polymers

Erik Lokensgard, elokensga@emich.edu, Eastern Michigan University

Discussion of recent developments in plastics materials/processes and polymer compounding/chemistry. Particular attention to nano-composites and biomedical applications.

Tue-11:45-MichLect-5

Bernhard Center, Room 208-10

Michigan Lecture

Tue 11:45 a.m. – 12:45 p.m.

Integration of Research and Education in the Macatawa Watershed Project

Graham Peaslee, peaslee@hope.edu, Hope College [and](#) Jen Soukhome, Zeeland (MI) High School

Over the past five years we have been engaged in a collaborative research project to study Lake Macatawa and its watershed. This hypereutrophic lake suffers from excessive sedimentation and high phosphate levels that result from non-point sources. While this type of pollution is common in the mid-western US, it is a complex research problem that has involved lots of basic science in chemistry, biology, and earth science together with land use policy and interactions with local governmental and non-governmental organizations. College students and some high-school students have been involved in research projects centered on the Macatawa watershed for years, and while this is an exciting way to educate students in basic field and laboratory research skills, we have recently developed an inquiry-based curriculum that brings portions of the research project into the high-school classroom. We have also co-authored a textbook on the laboratory experiments associated with this high-school curriculum. This integration of research and formal secondary education brings interesting and locally relevant science into the classroom, which serves both to increase student interest in science and awareness of their environment. A summary of our approach will be presented with particular attention to those activities that could be adapted to any watershed.