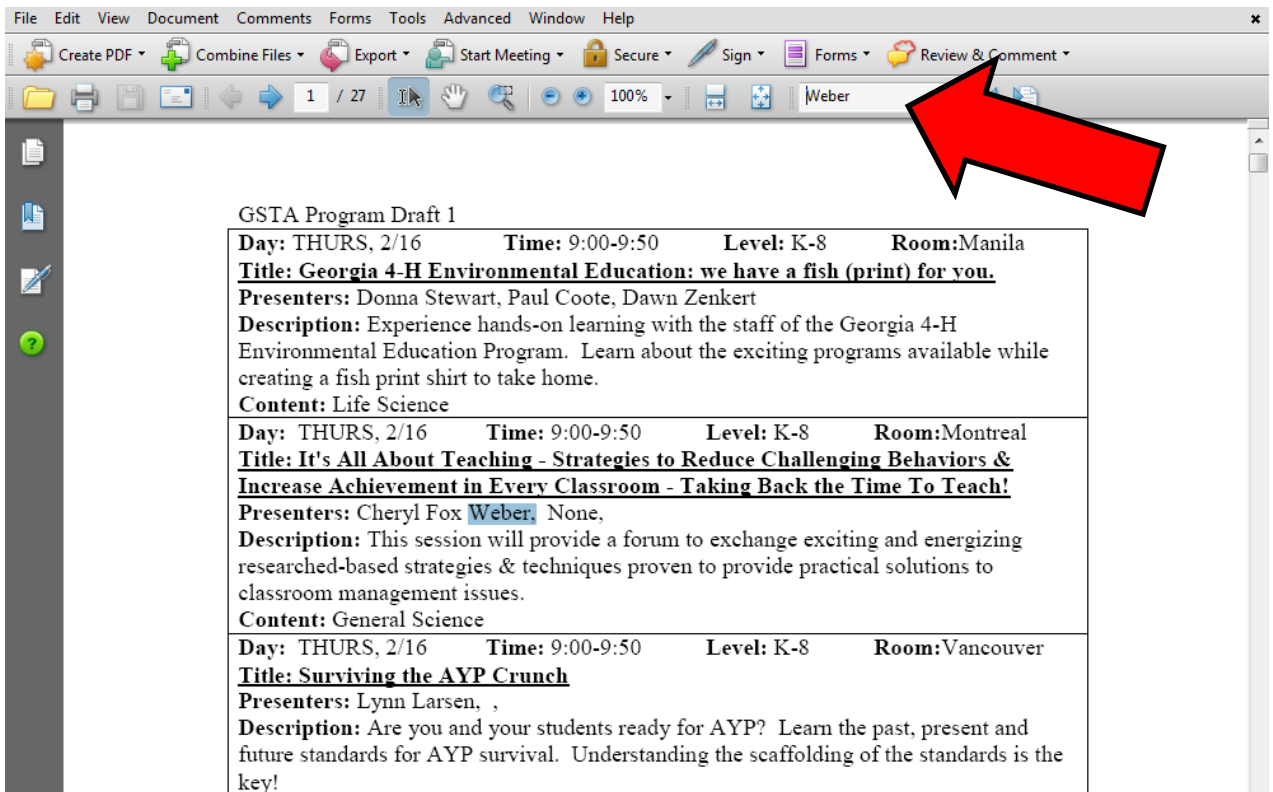



- The following pages are a draft of the final program that will be printed and shared at the GSTA Conference.
- You may search for your session by using the “Find” box in Adobe. See example below.





- If you notice errors or problems with the program please e-mail Sally Creel – [sally.creel@gmail.com](mailto:sally.creel@gmail.com). In your e-mail please be specific about the date, time, title, and presenters of the sessions and exactly what needs to be corrected.
- Revised versions of the program will be posted at later dates.


Thursday – 9:00-9:50 Sessions				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 9:00-9:50	<b>Level:</b> K-8	<b>Room:</b> Montreal	
<b><u>Title: Science matters: Materials, Assessments, Techniques, Technology, Experiences, Research, Strategies with GYSTC</u></b>				
<b>Presenters:</b> Julia Celebi, Angela Guilford, Steve Rainey				
<b>Description:</b> The regional coordinators of 13 GYSTC's will present a wide range of best practices activities in all areas of K-8 science. Activities, materials, and pedagogical strategies will be modeled.				
<b>Content:</b> General Science				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 9:00-9:50	<b>Level:</b> K-8	<b>Room:</b> Manila	
<b><u>Title: Georgia 4-H Environmental Education: we have a fish (print) for you.</u></b>				
<b>Presenters:</b> Donna Stewart, Paul Coote, Dawn Zenkert				
<b>Description:</b> Experience hands-on learning with the staff of the Georgia 4-H Environmental Education Program. Learn about the exciting programs available while creating a fish print shirt to take home.				
<b>Content:</b> Life Science				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 9:00-9:50	<b>Level:</b> 6-12	<b>Room:</b> Grand Hall East B	
<b><u>Title: Forensics on a Shoe String Budget</u></b>				
<b>Presenters:</b> Anthony Bertino, Patricia Bertino				
<b>Description:</b> Increase interest/knowledge in math, science, literacy, technology. Topics: evidence, fingerprinting, impressions and making a comparison microscope. Receive presenters' textbook Forensic Science: Fundamentals & Investigations and free CD of resources.				
<b>Content:</b> Interdisciplinary				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 9:00-9:50	<b>Level:</b> K-8	<b>Room:</b> Singapore	
<b><u>Title: It's All About Teaching - Strategies to Reduce Challenging Behaviors &amp; Increase Achievement in Every Classroom - Taking Back the Time To Teach!</u></b>				
<b>Presenters:</b> Cheryl Fox Weber				
<b>Description:</b> This session will provide a forum to exchange exciting and energizing researched-based strategies & techniques proven to provide practical solutions to classroom management issues.				
<b>Content:</b> General Science				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> 6-12	<b>Room:</b> Hong Kong	
<b><u>Title: Infusing engineering concepts into the national science curriculum to improve student understanding and applications</u></b>				
<b>Presenters:</b> Randy Emert				
<b>Description:</b> We transform the world around us by the use of machines. You can teach your students to program manufacturing machines using computer numerical control software downloaded for free.				
<b>Content:</b> General/Engineering				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 9:00-9:50	<b>Level:</b> K-8	<b>Room:</b> Vancouver	
<b><u>Title: Surviving the AYP Crunch</u></b>				
<b>Presenters:</b> Lynn Larsen				
<b>Description:</b> Are you and your students ready for AYP? Learn the past, present and future standards for AYP survival. Understanding the scaffolding of the standards is the key!				
<b>Content:</b> General Science				

<b>Day:</b> THURS, 2/16 <b>Time:</b> 9:00-9:50 <b>Level:</b> High <b>Room:</b> Cairo <b>Title:</b> <u>Centers in High School Science? Yes, They Can Work!</u> <b>Presenters:</b> Jo-ne Bourassa <b>Description:</b> Using different centers or stations of learning in the high school science classroom can increase student engagement and increase student learning. This presentation will give participants some tried and true techniques for rotating students through different learning centers and will model various management strategies. <b>Content:</b> General Science
<b>Day:</b> THURS, 2/16 <b>Time:</b> 9:00-9:50 <b>Level:</b> High <b>Room:</b> Inman <b>Title:</b> <u>Surviving in a Standards-Based High School Science Classroom</u> <b>Presenters:</b> Pamela Crawford, Michael Owens <b>Description:</b> Using concept attainment, differentiated instruction, flexible grouping, and self-assessment strategies to assess student mastery in a standards-based high school science classroom. <b>Content:</b> Interdisciplinary
<b>Day:</b> THURS, 2/16 <b>Time:</b> 9:00-9:50 <b>Level:</b> 6-12 <b>Room:</b> Roswell <b>Title:</b> <u>The Madison County STEM Program - Soil and Water Quality Projects</u> <b>Presenters:</b> Andy Felt, Cindy Jones <b>Description:</b> The Madison County STEM Program uses soil and water quality projects for interdisciplinary teaching. Participants will use probeware devices to engage in hands-on activities that demonstrate student work. <b>Content:</b> Interdisciplinary
<b>Day:</b> THURS, 2/16 <b>Time:</b> 9:00-9:50 <b>Level:</b> 6-12 <b>Room:</b> University <b>Title:</b> <u>Exploring Exploring: Lessons in Mission Design</u> <b>Presenters:</b> Annette Pearson <b>Description:</b> Make a model of "MESSENGER," NASA's Mercury mission, and experience the "Mission Design" module, which integrates solar system science with STEM activities, exploring the process of mission design. Free materials. <b>Content:</b> Earth/Space Science
<b>Day:</b> THURS, 2/16 <b>Time:</b> 9:00-9:50 <b>Level:</b> K-12 <b>Room:</b> Spring <b>Title:</b> <u>Teaching Writing in the Science Class</u> <b>Presenters:</b> Ollie Manley <b>Description:</b> Teachers teach science to students who struggle with writing. This workshop will focus on differentiated instruction with emphasis on writing. <b>Content:</b> General Science
<b>Day:</b> THURS, 2/16 <b>Time:</b> 9:00-9:50 <b>Level:</b> 6-12 <b>Room:</b> Grand Hall East A <b>Title:</b> <u>Distance Learning at the Georgia Sea Turtle Center</u> <b>Presenters:</b> Teddy Ivey <b>Description:</b> The Georgia Sea Turtle Center is extending our "flippers" beyond the coast! Come learn how we can bring sea turtles into YOUR classroom through our NEW distance learning programs! <b>Content:</b> Life Science
<b>Day:</b> THURS, 2/16 <b>Time:</b> 9:00-9:50 <b>Level:</b> Middle <b>Room:</b> Piedmont


<b>Title: <u>Interdisciplinary Marine Science Instruction through Student Centered Service Learning Projects</u></b>			
<b>Presenters:</b> Timothy Goodale			
<b>Description:</b> This paper presentation provides formative findings of a United States Department of Education funded project aimed at broadening in-service teacher content knowledge in marine sciences and environmental sustainability through curricular design and K-8 classroom application of meaningful service-learning projects (S-L).			
<b>Content:</b> Interdisciplinary			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 9:00-9:50	<b>Level:</b> HS	<b>Room:</b> International Ballroom
<b>Title: <u>Skull Evolution</u></b>			
<b>Presenters:</b> Norm Thompson			
<b>Description:</b> Come join a group of teachers interested in teaching human evolution using replica skulls and lots of other lessons to share.			
<b>Content:</b> Biology			
<b>Thursday – 10:00-10:50 Sessions</b>			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 10:00-10:50	<b>Level:</b> K-12	<b>Room:</b> Montreal
<b>Title: <u>Technology Performance Learning Tasks - K-12</u></b>			
<b>Presenters:</b> Todd Nickelsen			
<b>Description:</b> Teachers will gain an understanding of a variety of technology applications that can be used to enhance science teaching and learning.			
<b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 10:00-10:50	<b>Level:</b> Elementary	<b>Room:</b> Manila
<b>Title: <u>Creative Writing in Science</u></b>			
<b>Presenters:</b> Kristen Lyle, Andrea Post			
<b>Description:</b> Join us for writing in science. Learn strategies for teaching creative writing within the science curriculum. Leave the presentation with writing topics, writing rubrics, and writing organizers			
<b>Content:</b> Interdisciplinary			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 10:00-10:50	<b>Level:</b> K-8	<b>Room:</b> Montreal
<b>Title: <u>Effective Vocabulary Activities to Get Kids Talking Science</u></b>			
<b>Presenters:</b> Julie Celebi			
<b>Description:</b> Session will feature a variety of research based effective strategies to help in the development and increased literacy of students in the science classroom through interactive activities.			
<b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 10:00-10:50	<b>Level:</b> 6-12	<b>Room:</b> Vancouver
<b>Title: <u>Science &amp; The Common Core</u></b>			
<b>Presenters:</b> Sally Creel			
<b>Description:</b> Explore the role science plays in the roll out of the new Common Core standards during this session. See concrete examples of how the Literacy standards for the CCGPS can easily be incorporated into everyday instruction.			
<b>Content:</b> General Science/Interdisciplinary			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 10:00-10:50	<b>Level:</b> K-5	<b>Room:</b> Singapore
<b>Title: <u>Rocket Science – It’s Elementary!</u></b>			





<b>Presenters:</b> Pepper Misinco, Pam Googe, Melanie Peterson, Lisa Whelan, Tammy Shiflett <b>Description:</b> Participants will be involved in 4 rotations experiencing hands-on activities designed to enhance earth science space standards in Kindergarten through 5 <sup>th</sup> grade. <b>Content:</b> Earth Science			
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>Power Tools for Powerful Teachers - SLDS</u> <b>Presenters:</b> Hubert Bennett <b>Description:</b> Would you like to know the strengths and weaknesses of every student on your Roster? Find out how use the Statewide Longitudinal Data System (SLDS) to UNLOCK every child's potential. Now at your fingertips, you will find up to six years worth of information on your students (Assessment, Enrollment, Attendance, Previous Class Grades, Instructional Programs, etc...). <b>Content:</b> General Science	<b>Time:</b> 10:00-10:50 	<b>Level:</b> K-12	<b>Room:</b> Hong Kong
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>Technology With Science</u> <b>Presenters:</b> Michelle Moday, Scott Monroe, Erin Harris <b>Description:</b> Do you want to integrate technology and science? Join this presentation to learn more about teaching with technology and integrating technology in your elementary science classroom. <b>Content:</b> General	<b>Time:</b> 10:00-10:50	<b>Level:</b> K-5	<b>Room:</b> Grand Hall East D
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>Cheap and Easy Field Research: DiscoverLife.org</u> <b>Presenters:</b> Jonathan Lochamy <b>Description:</b> Nothing in the classroom can replace authentic field research. See how photographing, uploading, and identifying GA wildlife can both teach your students real science and help serious environmental research. <b>Content:</b> Biology (Life Science)	<b>Time:</b> 10:00-10:50	<b>Level:</b> 6-12	<b>Room:</b> Cairo
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>Using Hip Hop Music to Contextualize the Science Experiences of Urban Elementary School Students</u> <b>Presenters:</b> Neporcha Cone, Charlease Kelly-Jackson <b>Description:</b> The purpose of this session is to present teachers with a strategy, e.g., hip hop music, that can be used as a vehicle to enhance the science experiences of urban youth. <b>Content:</b> General Science	<b>Time:</b> 10:00-10:50	<b>Level:</b> K-5	<b>Room:</b> Roswell
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>Forensic Science - Going beyond textbook science</u> <b>Presenters:</b> Rebecca Austin <b>Description:</b> Teaching Forensic Science enables a teacher to show students the true applicability of science concepts previously studied. Handouts! Freebies! Door prizes! <b>Content:</b> Interdisciplinary	<b>Time:</b> 10:00-10:50	<b>Level:</b> High	<b>Room:</b> Inman
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>Learning and teaching mineral properties using a self-guided STEM mineral kit</u> <b>Presenters:</b> Dion Stewart	<b>Time:</b> 10:00-10:50	<b>Level:</b> 6-12	<b>Room:</b> University

<b>Description:</b> Using STEM generated mineral kits, participants will learn a teaching method integrating a mineral ID flow chart with a crossword puzzle to teach mineral properties <b>Content:</b> Earth/Space Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 10:00-10:50	<b>Level:</b> Middle	<b>Room:</b> Techwood
<b>Title:</b> <u><b>Making the Most of the Periodic Table</b></u> <b>Presenters:</b> Betsy Sanford, Dianne Hough <b>Description:</b> Teachers will participate in differentiated lessons with visual organizers and inquiry labs that help 8th grade students understand the Periodic Table of the Elements. <b>Content:</b> Physical Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 10:00-10:50	<b>Level:</b> K-8	<b>Room:</b> Grand Hall East A
<b>Title:</b> <u><b>Hands-On Science with Classroom Critters</b></u> <b>Presenters:</b> Carolina Teaching Partner <b>Description:</b> Bring excitement and interest into your classroom by using live organisms! Participate in fun, simple hands-on activities with termites, isopods, and beetles. Free samples provided. <b>Content:</b> Life Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 10:00-10:50	<b>Level:</b> K-12	<b>Room:</b> Grand Hall East B
<b>Title:</b> <u><b>Exciting news from Project Learning Tree!!</b></u> <b>Presenters:</b> Jan Kent <b>Description:</b> New Module...FOCUS ON FORESTS!! This new secondary module is filled with new activities of discovery about our natural resources. <b>Content:</b> Life Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 10:00-10:50	<b>Level:</b> High	<b>Room:</b> Grand Hall East D
<b>Title:</b> <u><b>Incorporating Nanotechnology into the existing science curriculum</b></u> <b>Presenters:</b> Steven Thedford <b>Description:</b> Overall, the NanoTeach presentation will demonstrate to high school science teachers how to integrate nanotechnology into their classrooms in a way that will deepen student understanding of science concepts. of the Georgia Performance Standards <b>Content:</b> General Science			
<b>Thursday – 10:00-11:50 Sessions</b>			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 10:00-11:50	<b>Level:</b> K-12	<b>Room:</b> International Ballroom
<b>Title:</b> <u><b>Science Trifecta: Effectively Combining Foldables®, Children’s Literature, and Science Curriculum Stanards</b></u> <b>Presenters:</b> Nancy Wisker <b>Description:</b> Participants will learn by doing in this fast-paced workshop aimed at teaching science curriculum via children’s literature and 3-D graphic organizers (Foldables®). Cut, fold, and more as you make & take. <b>Content:</b> General Science			
<b>Thursday – 11:00-10:50 Sessions</b>			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 11:00-11:50	<b>Level:</b> Elementary	<b>Room:</b> Manila
<b>Title:</b> <u><b>Don't Fear! Young Learners + Hands On = Success!</b></u> <b>Presenters:</b> Jessie Kelly			

<b>Description:</b> Learn strategies for using inquiry-based, hands-on science with even the youngest elementary students in a budget friendly, safe, content rich, and enormously successful way! <b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>Connecting Science with the Whole Curriculum</u> <b>Presenters:</b> Karol Stephens <b>Description:</b> Use integrating experiences to connect science content to standards across the curriculum and teach in a meaningful way that excites students and provides for more retention of skills and content. <b>Content:</b> General Science/Interdisciplinary	<b>Time:</b> 11:00-11:50 <b>Level:</b> K-5	<b>Room:</b> Vancouver	
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>The Missing Link: Inquiry Helps Resistant Students Study Evolution!</u> <b>Presenters:</b> Lee Meadows <b>Description:</b> You're teaching in a public school where religious students object to evolution. Hear an approach that engages them in understanding the evidence, but minimizes conflict. <b>Content:</b> Biology	<b>Time:</b> 11:00-11:50 <b>Level:</b> K-12	<b>Room:</b> Inman	
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>GYSTC AIMS to Please!</u> <b>Presenters:</b> Paula Chambers, Debbie Stuckey <b>Description:</b> Implement AIMS activities in your classroom and master multiple standards. Minimize your efforts and maximize your effectiveness by choosing AIMS with GYSTC. Remember, GYSTC AIMS to please! <b>Content:</b> General Science	<b>Time:</b> 11:00-11:50 <b>Level:</b> K-5	<b>Room:</b> Montreal	
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>Teaching Fish</u> <b>Presenters:</b> Amy Warnock, Kim Morris-Zarneke, <b>Description:</b> Informal "science cafe" discussion of whale shark and manta ray training with a Georgia Aquarium biologist. <b>Content:</b> General Science	<b>Time:</b> 11:00-11:50 <b>Level:</b> K-12	<b>Room:</b> Hong Kong	
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>Supermarket Science: Investigating genetically modified organisms</u> <b>Presenters:</b> Samantha Andrews <b>Description:</b> This activity will explore and identify commonly consumed genetically modified plants using a mock gel electrophoresis exercise. <b>Content:</b> Life Science	<b>Time:</b> 11:00-11:50 <b>Level:</b> High	<b>Room:</b> Cairo	
<b>Day:</b> THURS, 2/16 <b>Title:</b> <u>Enhancing Science Understanding Through Literacy Strategies</u> <b>Presenters:</b> Rachael Parr, Ruth Collins, Jennifer Cox <b>Description:</b> This presentation will show you how to embed literacy strategies to increase your students' understanding of science, improve their critical thinking skills, foster motivation, and create stronger readers, writers, and speakers.	<b>Time:</b> 11:00-11:50 <b>Level:</b> Middle	<b>Room:</b> Singapore	



<b>Content:</b> Interdisciplinary			
<b>THURS, 2/16</b>	<b>Time:</b> 11:00-11:50	<b>Level:</b> High	<b>Room:</b> Spring
<b><u>Title: Transitioning to the New AP Biology Curriculum</u></b> <b>Presenters:</b> Jeremy Peacock <b>Description:</b> Learn about an evolution-based approach to the new curriculum and a technology-based unit on genetic disorders and protein function. Come prepared to share your ideas. <b>Content:</b> Life Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 11:00-11:50	<b>Level:</b> 6-12	<b>Room:</b> Grand Hall East A
<b><u>Title: STEM and the Next Generation Framework</u></b> <b>Presenters:</b> Carolina Teaching Partner <b>Description:</b> Come experience hands on activities that integrate STEM and language arts to invigorate your classroom. <b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 11:00-11:50	<b>Level:</b> 6-12	<b>Room:</b> Grand Hall East B
<b><u>Title: Scholar Chemistry: We've got chemistry in the bag!</u></b> <b>Presenters:</b> George Stickel <b>Description:</b> Feel the heat and join the fun in our chemistry lab with fast, easy, and safe chemical reactions in a ziplock bag. Perform hands-on thermochemistry and chemical stoichiometry lab activities. <b>Content:</b> Chemistry			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 11:00-11:50	<b>Level:</b> K-8	<b>Room:</b> Grand Hall East C
<b><u>Title: Animal Adaptation</u></b> <b>Presenters:</b> Linda Bishop, Tom Kopp <b>Description:</b> How animals have adapted to their environment and the importance of these adaptations to the ecosystem. <b>Content:</b> Biology (Life Science)			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 11:00-11:50	<b>Level:</b> K-5	<b>Room:</b> Grand Hall East D
<b><u>Title: Pandamonium: Teaching with black &amp; white bears</u></b> <b>Presenters:</b> Francine Gebus, Erin Delahunty, Lani Schoedler <b>Description:</b> Are you wild about pandas? This is the workshop for you. Teachers will discover great lesson plans and activities for the classroom that will make your students panda fans. <b>Content:</b> Life Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 11:00-11:50	<b>Level:</b> High	<b>Room:</b> Techwood
<b><u>Title: Differentiation in the Science Classroom</u></b> <b>Presenters:</b> Donna Barrett <b>Description:</b> This session will outline recommended differentiation strategies based on differentiating the content, process, and product through formative assessments, RAFTs, tiered tasks, centers and stations. A focus of the session will include strategies to manage the differentiated classroom. <b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 11:00-12:50	<b>Level:</b> Middle	<b>Room:</b> University
<b><u>Title: NASA Lunar Certification</u></b>			

**Presenters:** Lester Morales

**Description:** NASA Lunar samples can be shared with teachers across the nation. This is an official NASA session with a certification to borrow samples at the end. Bring the Apollo lunar samples into your classroom.

**Content:** Earth /Space Science

### Thursday – 12:00-12:50 Sessions

**Day:** THURS, 2/16

**Time:** 12:00-12:50

**Level:** K-5

**Room:** Vancouver

**Title:** Making Meaning With the Nouns and Verbs of Science

**Presenters:** Lisa Alexander

**Description:** Participants will learn how to improve instructional strategies and hands on activities by examining and highlighting the nouns and verbs of science.

**Content:** Interdisciplinary



**Day:** THURS, 2/16

**Time:** 12:00-12:50

**Level:** K-2

**Room:** Montreal

**Title:** Teaching Science with Children's Literature K-2

**Presenters:** Angela Guilford, Cindy Green

**Description:** This session will focus on primary grades with particular applications for grade two standards. Resources will include a variety of science trade books and the Picture Perfect teacher resource books.

**Content:** General Science



**Day:** THURS, 2/16

**Time:** 12:00-12:50

**Level:** K-8

**Room:** Grand Hall East C

**Title:** Building Effective Classroom Chemistry - It's All About the Elements!

**Presenters:** Cheryl Fox Weber

**Description:** Build knowledge of effective researched-based classroom management strategies, which immediately empowers your classroom to increase academic performance, decrease discipline challenges, and gain parental support! Take back the Time To Teach!

**Content:** Interdisciplinary

**Day:** THURS, 2/16

**Time:** 12:00-12:50

**Level:** 6-12

**Room:** Spring

**Title:** Best Practices: Implementing a "Flipped" Science Classroom

**Presenters:** Jennifer Douglass, Jennifer Hulan, Meredith Wood

**Description:** We will discuss the 'best practices' we have developed for implementing and managing a 'flipped' classroom – including managing a self-paced classroom, online discussion boards, online testing, and content videos.

**Content:** General

**Day:** THURS, 2/16

**Time:** 12:00-12:50

**Level:** Elementary

**Room:** Manila

**Title:** Who Polluted the Chattahoochee?

**Presenters:** Jamie Lattimore, Catherine Leftwich

**Description:** How do you help students to understand how the actions of just a few can affect the lives of many? In this interactive session we will share a hands on demonstration about river pollution and give a variety of assessment and extension options to connect this science topic to a variety of other subject areas.

**Content:** Interdisciplinary

<b>Day:</b> THURS, 2/16	<b>Time:</b> 12:00-12:50	<b>Level:</b> High	<b>Room:</b> Cairo
<b><u>Title: Using Inquiry to Demonstrate Enzyme Function in Potato</u></b>			
<b>Presenters:</b> Amy Slack			
<b>Description:</b> Come see an inquiry twist on the old potato and hydrogen peroxide lab! We will conduct a lab to demonstrate enzyme function and design experiments. Great for CP biology.			
<b>Content:</b> Biology (Life Science)			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 12:00-12:50	<b>Level:</b> Middle	<b>Room:</b> Singapore
<b><u>Title: Utilizing a garden to enhance science and math learning</u></b>			
<b>Presenters:</b> Julie Self, Myffy Hopkins, Rachel Ammirati			
<b>Description:</b> Discover how science and math learning can be enhanced with garden-themed, problem-based learning methods. Garden-learning is a practical yet exciting way to stimulate student interest while teaching core academic standards.			
<b>Content:</b> Interdisciplinary			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 12:00-12:50	<b>Level:</b> High	<b>Room:</b> Inman
<b><u>Title: Using student led show-and-tell for engagement in chemistry</u></b>			
<b>Presenters:</b> Becky Bundy			
<b>Description:</b> Learn how to use the “Minute of Chemistry” to get your students to start class while you take roll, come to class on-time, be excited, and remain engaged!			
<b>Content:</b> Chemistry			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 12:00-12:50	<b>Level:</b> High	<b>Room:</b> Roswell
<b><u>Title: Light’s Properties Using Your Own Eye</u></b>			
<b>Presenters:</b> Ann Robinson, Sharon Kirby, Dave Todd			
<b>Description:</b> Seeing light’s properties such as reflection, refraction, dispersion, absorption, polarization and scattering in your own eye makes this presentation personal, fun, and exciting for students.			
<b>Content:</b> Physical Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 12:00-12:50	<b>Level:</b> Elementary	<b>Room:</b> Grand Hall East A
<b><u>Title: Family Science Nights (grades K-5)</u></b>			
<b>Presenters:</b> Stephanie Shultz			
<b>Description:</b> You will learn how to set up a successful Family Science Night for your classroom, school or system. Participants will have the opportunity to make and take a couple of standards-based games and			
<b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 12:00-12:50	<b>Level:</b> K-12	<b>Room:</b> Grand Hall East B
<b><u>Title: The Naturalist’s Journal: Teaching Tool to Study the Environment</u></b>			
<b>Presenters:</b> Tom Howick			
<b>Description:</b> This hands-on session for teachers will demonstrate how to use the naturalist’s journal as a teaching tool in your classroom.			
<b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 12:00-12:50	<b>Level:</b> High	<b>Room:</b> Piedmont
<b><u>Title: Trivial pursuit, or large picture Biology?</u></b>			
<b>Presenters:</b> Marion Reeves, Jennifer Lance			
<b>Description:</b> Teaching biology conceptually allows students to connect the terminology to their learning.			

Come consider ways of structuring a biology course around student experiences that lead to conceptual understanding.

**Content:** Biology (Life Science)

**Day:** THURS, 2/16      **Time:** 12:00-12:50      **Level:** Elementary      **Room:** Techwood

**Title:** Science with Toys

**Presenters:** Frank Mann, Carl Davis

**Description:** This workshop focuses on the use of toys to demonstrate scientific concepts such as magnetism, motion, sound, electrostatics, Newton's laws and air pressure.

**Content:** General Science

**Day:** THURS, 2/16      **Time:** 12:00-12:50      **Level:** Middle      **Room:** International Ballroom

**Title:** All Aboard! Come Along on the Interactive Science Voyage

**Presenters:** Audrelyn Watkins, Antione Ford, Julie Hodges

**Description:** Come join us in our interactive world of 8th grade Physical Science where we will create sunsets, generate power in a house, and explore sports.

**Content:** Physical Science

**Day:** THURS, 2/16      **Time:** 12:00-12:50      **Level:** K-8      **Room:** Grand Hall East D

**Title:** Differentiate for exceptional students

**Presenters:** Felicia Poole

**Description:** Differentiate instructions to middle grade science students. Explain how to reach students that are SEBD and learning disabilities

**Content:** General Science

### Thursday – 1:00-1:50 Sessions

**Day:** THURS, 2/16      **Time:** 1:00-1:50      **Level:** High      **Room:** Vancouver

**Title:** Simple Methods for Improving Student Performance and Motivation

**Presenters:** Donald White

**Description:** Discover some simple, low cost/no cost methods for improving student performance and motivation in the science classroom.

**Content:** General Science



**Day:** THURS, 2/16      **Time:** 1:00-1:50      **Level:** 3-5      **Room:** Montreal

**Title:** Teaching Science with Children's Literature 3-5

**Presenters:** Suzanne Bellflower, Elaine Whitten

**Description:** Resources for this session will include a variety of science trade books and the Picture Perfect teacher resource books. Hands on activities will be paired with books to meet state and national standards.

**Content:** General Science



**Day:** THURS, 2/16      **Time:** 1:00-1:50      **Level:** 6-12      **Room:** Piedmont

**Title:** Introducing Public Health Education

**Presenters:** Esther Shisoka

**Description:** Epidemiology, the basic science of public health, provides a compelling and relevant context for teaching science and mathematics. The integration of epidemiologic applications in existing frameworks for math and science teaching both fosters an opportunity for multidisciplinary learning



around specific problems and is an avenue for enabling students to grasp the relevance of the real-world application of mathematics and science. This session will demonstrate how to integrate public health science education into the middle and high school curriculum. We will explore CDC's public health education programs, resources and activities.

**Content:** Life Science

**Day:** THURS, 2/16      **Time:** 1:00-1:50      **Level:** 6-12      **Room:** Hong Kong

**Title:** Literacy and Science Success: What is the Connection?

**Presenters:** Brian Butler, Lisa Thompson

**Description:** Do you have struggling readers in your classroom? We have proven tactics to help your struggling readers comprehend science content. You will leave with easy to follow time-saving strategies!

**Content:** General

**Day:** THURS, 2/16      **Time:** 1:00-1:50      **Level:** 6-12      **Room:** Grand Hall East A

**Title:** Scholar Chemistry: We've got chemistry in the bag!

**Presenters:** George Stickel

**Description:** Feel the heat and join the fun in our chemistry lab with fast, easy, and safe chemical reactions in a ziplock bag. Perform hands-on thermochemistry and chemical stoichiometry lab activities.

**Content:** Chemistry

**Day:** THURS, 2/16      **Time:** 1:00-1:50      **Level:** 6-12      **Room:** Cairo

**Title:** Using red algae as a model organism to enhance mastery of the Georgia Performance Biology Standards

**Presenters:** Dr. Alan Gorlin, Jenny Hedges

**Description:** Teachers will learn how to grow the unicellular red algae *Porphyridium cruentum* and use it to design inquiry experiments that will enhance mastery of all the GPS Biology State Standards.

**Content:** Biotechnology

**Day:** THURS, 2/16      **Time:** 1:00-1:50      **Level:** 6-12      **Room:** Singapore

**Title:** Creative Science Journaling

**Presenters:** Jane Metty, Joan Baldrige

**Description:** No more boring science lab journals. Participants will be shown several examples of creative journal entries that clearly convey student understanding and allow students to become vested in their work

**Content:** General Science

**Day:** THURS, 2/16      **Time:** 1:00-1:50      **Level:** 6-12      **Room:** Roswell

**Title:** Electricity-Circuitry In Action

**Presenters:** Laura Hendrix, Lori Hughes

**Description:** Presenting demonstrations and engaging circuitry laboratories that promote inquiry and discovery, while allowing for differentiation. Misconceptions are dispelled, while confronting confusing concepts

**Content:** Physical Science

**Day:** THURS, 2/16      **Time:** 1:00-1:50      **Level:** K-5      **Room:** University

**Title:** Science "Literacy" Matters: Enriching Science through Literacy Integration

<b>Presenters:</b> Charlease Kelly-Jackson, Maria Shaheen <b>Description:</b> This session will provide an alternative approach to teaching elementary science. Presenters will offer sample inquiry-based, GPS aligned science lessons that integrate children's literature. <b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 1:00-1:50	<b>Level:</b> High	<b>Room:</b> Techwood
<b>Title:</b> <u>Edible electronics: Using nanotechnology to fabricate integrated circuits</u> <b>Presenters:</b> Samantha Andrews, Joyce Allen, Nancy Healy <b>Description:</b> Participants will learn about the process of photolithography and use it to fabricate an edible integrated circuit. <b>Content:</b> Physical Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 1:00-1:50	<b>Level:</b> K-5	<b>Room:</b> Spring
<b>Title:</b> <u>Applying for the Presidential Award</u> <b>Presenters:</b> Juan-Carlos Aguilar, Amanda Buice <b>Description:</b> This year K-6 teachers can win the Nation's highest honor for science teaching, including a trip to Washington and \$10,000. Get tips and have a Q & A with past awardees. <b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 1:00-1:50	<b>Level:</b> K-5	<b>Room:</b> Grand Hall East B
<b>Title:</b> <u>High Touch High Tech and YOU - Science Made Fun! K-5</u> <b>Presenters:</b> Beverly Graham, Perry Cantrell <b>Description:</b> Find out how the professional instructional staff of High Touch High Tech can enhance your current science curriculum with hands on experiences without ever leaving campus! <b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 1:00-1:50	<b>Level:</b> Elementary	<b>Room:</b> Grand Hall East D
<b>Title:</b> <u>Science Power by World Book Web Classroom</u> <b>Presenters:</b> Katherine Jenkins, Donna Ellers <b>Description:</b> Science Power receives all A's on the Report Card from Internet@Schools (Jan/Feb 2011) for installation, content/features, ease of use, and product support. <b>Content:</b> Interdisciplinary			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 1:00-1:50	<b>Level:</b> K-5	<b>Room:</b> Grand Hall East C
<b>Title:</b> <u>Succession: The Journey</u> <b>Presenters:</b> Carol Potter <b>Description:</b> Learn while they play. This fun board game takes students on a journey from bare rock to climax community. <b>Content:</b> Life Science			
<b>Thursday – 1:00-2:50 Sessions</b>			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 1:00-2:50	<b>Level:</b> 6-12	<b>Room:</b> Inman
<b>Title:</b> <u>Radioactivity and Radiation - Demonstrations for Teachers and Students</u> <b>Presenters:</b> Michael Nichols, Joe Shonka, <b>Description:</b> This workshop providea training and hands-on demonstration material enabling students to distinguish the characteristics and components of radioactivity. <b>Content:</b> Physical Science			



<b>Day:</b> THURS, 2/16	<b>Time:</b> 1:00-2:50	<b>Level:</b> 6-12	<b>Room:</b> International Ballroom	
<b><u>Title: Bugs, Pathogens, and Plants</u></b>				
<b>Presenters:</b> Kisha Shelton, Marianne Schockley,				
<b>Description:</b> Join us to learn how to use insects and plant disease to teach different biological principles.				
<b>Content:</b> Biology (Life Science)				
<b>Thursday – 2:00-2:50 Sessions</b>				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 2:00-2:50	<b>Level:</b> Middle	<b>Room:</b> Vancouver	
<b><u>Title: Using Student Engagement to Make Class Time More Meaningful</u></b>				
<b>Presenters:</b> Jo-ne Bourassa				
<b>Description:</b> What would happen if the teacher spent less time teaching, but the students spent more time learning? This can happen through the use of student engagement activities.				
<b>Content:</b> General Science				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 2:00-2:50	<b>Level:</b> 6-12	<b>Room:</b> Piedmont	
<b><u>Title: Public Health and Public Health Careers</u></b>				
<b>Presenters:</b> Dr. Lynderia Cheevers				
<b>Description:</b> Never has there been a more exciting time to pursue a career in public health. Why? Most experts agree that advances in improvement of health over the next several decades will come from the broader development and application of population-based prevention programs. This session provides an overview of the core disciplines within the field of public health and public health positions with critical workforce shortages. Educators are encouraged to attend this session so that they can provide information to their students about the large variety of enjoyable, rewarding public health careers that confront complex and challenging health issues in our society.				
<b>Content:</b> Interdisciplinary				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 2:00-2:50	<b>Level:</b> Middle	<b>Room:</b> Grand Hall East B	
<b><u>Title: High Touch High Tech and YOU - Science Made Fun! 6-8</u></b>				
<b>Presenters:</b> Beverly Graham, Perry Cantrell				
<b>Description:</b> Find out how High Touch High Tech can easily enhance your science curriculum with hands-on inschool field trips.				
<b>Content:</b> General Science				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 2:00-2:50	<b>Level:</b> K-5	<b>Room:</b> Manila	
<b><u>Title: STEM in Georgia</u></b>				
<b>Presenters:</b> Gilda Lyon, Dr. Juan Carlos Aguilar				
<b>Description:</b> Learn what STEM is & what is going on in Georgia around STEM.				
<b>Content:</b> General Science				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 2:00-2:50	<b>Level:</b> K-5	<b>Room:</b> Montreal	
<b><u>Title: K5 Science Endorsement at Metro RESA</u></b>				
<b>Presenters:</b> Donna Barrett				
<b>Description:</b> This session will provide an overview of the Metro RESA K-5 science endorsement. The endorsement includes 4 courses and an authentic residency. Candidates become certified in K-5 science upon completion.				
<b>Content:</b> Interdisciplinary				



<b>Day:</b> THURS, 2/16 <b>Time:</b> 2:00-2:50 <b>Level:</b> High <b>Room:</b> Cairo <b>Title:</b> <u>Ten Tried and True High School Biology Lessons</u> <b>Presenters:</b> Michael Dias, Wes McCoy <b>Description:</b> 12 Bio-lessons all mapped onto the Benchmarks (AAAS) and Inquiry Features (NRC). Instructional files for implementing these lessons are provided to all participants. Represented GPS include SCSH1&8, SB1b&c, SB2b&c, SB5d. <b>Content:</b> Biology (Life Science)
<b>Day:</b> THURS, 2/16 <b>Time:</b> 2:00-2:50 <b>Level:</b> 6-12 <b>Room:</b> Roswell <b>Title:</b> <u>Acoustics: Do You Hear What I Hear?</u> <b>Presenters:</b> Ann Robinson, David Todd, Sharon Kirby <b>Description:</b> Relating the properties of sound to everyday objects can be exciting and fun. Teachers will get inquiry activities and other resources on resonance, sound waves, musical instruments and the ear. <b>Content:</b> Physical Science
<b>Day:</b> THURS, 2/16 <b>Time:</b> 2:00-2:50 <b>Level:</b> Middle <b>Room:</b> University <b>Title:</b> <u>Impact of a Content Area Practicum Experience on Pre-Service Science Teacher Content and Pedagogical Efficacy</u> <b>Presenters:</b> Timothy Goodale <b>Description:</b> The Content Area Practicum Experience (CAPE) places middle grades science teacher candidates in science organizations and government agencies. This session will outline the framework of this experience, the process of networking and developing partnerships with local organizations and initial outcomes. <b>Content:</b> General Science
<b>Day:</b> THURS, 2/16 <b>Time:</b> 2:00-2:50 <b>Level:</b> K-12 <b>Room:</b> Techwood <b>Title:</b> <u>Rivers to Reefs: the Inside Scoop (and Dip!)</u> <b>Presenters:</b> Kim Morris-Zarneke, Cathy Sakas <b>Description:</b> Get the inside scoop about Rivers to Reefs through video, personal testimonials on the value of professional development experiences, and a hands on watershed activity. <b>Content:</b> Life Science
<b>Day:</b> THURS, 2/16 <b>Time:</b> 2:00-2:50 <b>Level:</b> High <b>Room:</b> Spring <b>Title:</b> <u>Including nanotechnology in you Science Classrooms-Results from a Summer Research Experience</u> <b>Presenters:</b> Nicole Jarper <b>Description:</b> nanotechnology in the high school science classroom. Come learn how teachers spent their summer and how they are using nano in their classes. Find out how you can participate in the summer of 2012 <b>Content:</b> General Science
<b>Day:</b> THURS, 2/16 <b>Time:</b> 2:00-2:50 <b>Level:</b> 6-12 <b>Room:</b> Grand Hall East A <b>Title:</b> <u>Family Science Nights (CSI Style) (grades 6-12)</u> <b>Presenters:</b> Stephanie Shultz <b>Description:</b> In conjunction with a state-wide effort to improve test scores, you will learn how to set up a successful Family Science Night (CSI style) for your classroom, school or system.



**Content:** General Science

### Thursday – 2:00-3:50 Sessions

**Day:** THURS, 2/16      **Time:** 2:00-3:50      **Level:** Middle      **Room:** Singapore

**Title:** Using Food Science as a Learning Tool in Biology

**Presenters:** Joseph Nunn

**Description:** This workshop is being presented by past attendees of the FDA/NSTA Science and our Food Supply Workshop held in Washington D.C. A sampling of hands-on labs will be conducted that illustrate the science behind food safety.

**Content:** Biology (life science)

**Day:** THURS, 2/16      **Time:** 2:00-3:50      **Level:** 6-12      **Room:** Grand Hall East C

**Title:** Initiating, Engaging, and Completing a STEM Unit

**Presenters:** Holly Vida

**Description:** PASCO's STEM Modules guide students through the multi-step engineering design process. Students work individually and in groups to design, build, test, and evaluate their engineering prototype. As you engage in this workshop you will experience the STEM process of inquiry utilizing a pre-designed but open ended format, including quick and easy data collection. Thus ensuring a true STEM experience for each participant. This workshop will address the following GPS standards; SCSh3-9.c and d, which deal with inquiry based learning, analysis skills, and students' ability to quickly address misconceptions.

**Content:** Interdisciplinary

**Day:** THURS, 2/16      **Time:** 2:00-3:50      **Level:** Middle      **Room:** Grand Hall East D

**Title:** Preparing Georgia's Middle School Science Teachers to Integrate Inquiry-based, Hands-on Research Modules in the Classroom

**Presenters:** Chandan Robbins

**Description:** Improving Teacher Quality State Grant focuses on three areas, earth, life, and physical sciences, particularly suitable for incorporating teaching strategies that stimulate student interest in science.

**Content:** Interdisciplinary

**Day:** THURS, 2/16      **Time:** 2:00-3:50      **Level:** 6-12      **Room:** Hong Kong

**Title:** Best Practices: Making Content Videos that are Instructional AND Entertaining

**Presenters:** Jennifer Douglass, Jennifer Hulan, Meredith Wood

**Description:** After a brief "best practices" discussion, participants will be guided through the process (hands-on) of making, editing and producing an instructional and engaging content video of their own.

**Content:** General

### Thursday – 3:00-3:50 Sessions

**Day:** THURS, 2/16      **Time:** 3:00-3:50      **Level:** Middle      **Room:** Vancouver

**Title:** STEM Internships for High School Students

**Presenters:** Donald White

**Description:** Come discover how to answer "Why do I have to learn this?!" while leveraging community resources. Session will describe how to establish STEM internships for HS students.

**Content:** General Science



**Day:** THURS, 2/16      **Time:** 3:00-3:50      **Level:** 6-12      **Room:** Piedmont



<b>Title: <u>Introducing Epidemiology through a Food borne Outbreak Demonstration: Who Ate the Potato Salad?</u></b> <b>Presenters:</b> Dr. Ralph Cordell <b>Description:</b> Outbreaks of listeria and other serious illnesses linked to tainted food are becoming more common, partly because much of what we eat takes a long and winding road from farm to fork. This session demonstrates an activity centered on a mock outbreak of food poisoning. Participants collect, analyze, and interpret data using the same methods used by CDC epidemiologists in conducting these investigations. <b>Content:</b> Interdisciplinary			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 3:00-3:50	<b>Level:</b> K-8	<b>Room:</b> Manila
<b>Title: <u>Teach your Standards with Turtle Activities</u></b> <b>Presenters:</b> Marti Schriver <b>Description:</b> Take the beach to your classroom as teachers use their week long experiences at Jekyll Island and the Georgia Sea Turtle Center for activities you can take back to your classroom. <b>Content:</b> Life Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 3:00-3:50	<b>Level:</b> 6-12	<b>Room:</b> Cairo
<b>Title: <u>7 Billion and Counting: Lessons for Our Planet's Future</u></b> <b>Presenters:</b> Bonita Flournoy <b>Description:</b> Engage in innovative activities to explore connections between human population growth, resource consumption and the changing face of our planet. Free CD-ROM of activities. <b>Content:</b> Life Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 3:00-3:50	<b>Level:</b> High	<b>Room:</b> Roswell
<b>Title: <u>Laser Madness</u></b> <b>Presenters:</b> Lee Wheeler <b>Description:</b> See what students can do with Pangolin software and a Skywriter RGB Laser. <b>Content:</b> Physics			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 3:00-3:50	<b>Level:</b> 6-12	<b>Room:</b> University
<b>Title: <u>Powers of Ten: Scaling the Universe with NASA</u></b> <b>Presenters:</b> Tyson Harty, Ph.D <b>Description:</b> How big is big? How small is small? "Scale the Universe" as we investigate the powers of ten with free NASA materials. <b>Content:</b> Earth/Space Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 3:00-3:50	<b>Level:</b> K-8	<b>Room:</b> Spring
<b>Title: <u>Teaching Engineering Design in Science Classrooms</u></b> <b>Presenters:</b> Donna Governor <b>Description:</b> How are engineering and science alike? How are they different? Discover how to teach the engineering cycle with your students. <b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 3:00-3:50	<b>Level:</b> Elementary	<b>Room:</b> Grand Hall East A
<b>Title: <u>Plastic Awareness Week</u></b> <b>Presenters:</b> Jim Ries, Carter Ries, Olivia Ries <b>Description:</b> The purpose is to provide factual information about the all types of plastic pollution and to			

suggest simple changes students can incorporate into their daily lives which will have an immediate impact on our environment.

**Content:** General Science

**Day:** THURS, 2/16      **Time:** 3:00-3:50      **Level:** K-8      **Room:** Grand Hall East B

**Title:** Bringing Outdoor Science In

**Presenters:** Steve Rich

**Description:** Join NSTA Press bestselling author Steve Rich to discover how to bring the school yard indoors with lessons from the brand new title "Bringing Outdoor Science In - Thrifty Classroom Lessons."

**Content:** Interdisciplinary

### Thursday – 3:00-4:50 Sessions

**Day:** THURS, 2/16      **Time:** 3:00-4:50      **Level:** K-5      **Room:** Montreal

**Title:** Bridging the Gap- Collaborative Strategies for Teaching Third and Fifth Grade Science

**Presenters:** Michelle Bergozza, Phillip Burns

**Description:** A video demonstrating the growth of scientific learning of GPS standards taught in 3rd and 5th grade through teacher collaboration will be shown. The presenters will show how collaborative planning leads to improved student achievement and academic success.

**Content:** General Science

**Day:** THURS, 2/16      **Time:** 3:00-4:50      **Level:** K-5      **Room:** Techwood

**Title:** How to Keep Every Student Engaged In Elementary Science

**Presenters:** Dr. Rita Bailey, Tanisha Johnson

**Description:** This training is designed with engaging the whole student in mind. We will demonstrate how quality questioning, daily assessments, and student reflection, can be used enhance science learning.

**Content:** General Science

**Day:** THURS, 2/16      **Time:** 3:00-4:50      **Level:** High      **Room:** International Ballroom

**Title:** Understanding Atomic Structure & Periodicity

**Presenters:** Jane Metty, Katrina Hammonds

**Description:** This several page foldable makes an excellent artifact demonstrating student understanding as well as keep students engaged while they learn these concepts.

**Content:** Chemistry

### Thursday – 4:00-4:50 Sessions

**Day:** THURS, 2/16      **Time:** 4:00-4:50      **Level:** K-5      **Room:** Vancouver

**Title:** Picture-Perfect Science, Grades 3–5

**Presenters:** Alfred Porter

**Description:** Learn how to use nonfiction books to guide inquiry in the upper elementary classroom.

**Content:** General Science



**Day:** THURS, 2/16      **Time:** 4:00-4:50      **Level:** 6-12      **Room:** Singapore

**Title:** Connecting AYP to the Content in the Classroom

**Presenters:** Michael Mahan

**Description:** A study on the CRCT indicators for Science scores in all grades

<b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 4:00-4:50	<b>Level:</b> High	<b>Room:</b> Inman
<b><u>Title: Chemistry Demos, labs, and Projects</u></b> <b>Presenters:</b> Nancy Brim <b>Description:</b> I will take you through a series of demos, labs, and projects that I do with my high school chemistry students. <b>Content:</b> Chemistry			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 4:00-4:50	<b>Level:</b> Elementary	<b>Room:</b> Manila
<b><u>Title: Easy Elementary STEM Day</u></b> <b>Presenters:</b> Sarah Milligan, Melissa Ladd, Alicia Porras <b>Description:</b> A STEM Day is an easy way to encourage student excitement and exploration. This session will provide low cost/no cost methods for putting on a successful STEM event. Sample schedules, activities, and insight will be shared. <b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 4:00-4:50	<b>Level:</b> 6-12	<b>Room:</b> University
<b><u>Title: Ramping Up Inquiry: 5 Key Questions</u></b> <b>Presenters:</b> Lee Meadows <b>Description:</b> Learn five questions that raise the bar on inquiry-based teaching and develop classrooms where students are engaged, understand science, and see its relevance. <b>Content:</b> General Science			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 4:00-4:50	<b>Level:</b> 6-12	<b>Room:</b> Cairo
<b><u>Title: Pirates of Puerto Rico</u></b> <b>Presenters:</b> Lawrence Harris <b>Description:</b> This is a PBL based on research that i observed this summer in the biochemistry labs at Emory University dealing With Fluorescence. <b>Content:</b> Chemistry			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 4:00-4:50	<b>Level:</b> High	<b>Room:</b> Grand Hall East B
<b><u>Title: Forensics, Flowers and Pollen</u></b> <b>Presenters:</b> Anthony Bertino, Patricia Bertino <b>Description:</b> Increase student interest/knowledge in math, literacy, technology. Discover how pollen solves crime. Participants receive Power Point, activities, 5E, case studies and presenters' textbook, Forensic Science: Fundamentals & Investigations. <b>Content:</b> Interdisciplinary			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 4:00-4:50	<b>Level:</b> High	<b>Room:</b> Roswell
<b><u>Title: Putting the Spark Back into Chemistry: Using Music to Engage Students in Chemistry</u></b> <b>Presenters:</b> Karen Jones <b>Description:</b> During this presentation, the presenter will address using music in Chemistry to engage students. Through the incorporation of music, teachers can keep students interested in Chemistry. <b>Content:</b> Chemistry			
<b>Day:</b> THURS, 2/16	<b>Time:</b> 4:00-4:50	<b>Level:</b> High	<b>Room:</b> Grand Hall East A

**Title:** Photosynthesis and Respiration Shuffle! Teaching for True Conceptual Understanding

**Presenters:** Amy Kezman, Laura Lenz

**Description:** Take home standards-based, hands-on materials that engage students in learning about photosynthesis and cellular respiration.

**Content:** Life Science

## Keynote Speaker

Friday, February 17

12:00-1:15

International Ballroom

### Dr. Stephen Pruitt

Work is progressing to develop the Next Generation Science Standards. This informational session will provide an update on the development of these standards, including process and timeline for release of drafts and final documents, how science educators can be involved, and implications for science teaching.






With private funding from the Carnegie Corporation, the National Research Council (NRC) and Achieve, with support from NSTA and the American Association for the Advancement of Science (AAAS), have embarked on a two-step cooperative process to develop the Next Generation Science Standards. The first step was to develop a conceptual framework that is grounded in current research on science and science learning and identifies the science all K–12 students should know. In July, NRC released *A Framework for K–12 Science Education*, which now serves as the foundation for new K–12 science education standards. The next step will be the development of the standards. That state-led process is being managed by Achieve and will involve scientists, science teachers, policy makers, industry, and other interested parties. The standards are expected to be completed in late 2012



**Bio:** Stephen Pruitt was named Vice President for Content, Research, and Development for Achieve, Inc., in November 2010. He joined Achieve as director of science in July 2010. In addition to his new role, he will continue to lead the development of the Next-Generation Science Education Standards. Stephen began his career as a high school chemistry teacher in Georgia, where he taught for 12 years. In 2003, he joined the Georgia Department of Education as program manager for science. He served in that role for four years before becoming director of academic standards, where he oversaw the continued implementation of the Georgia Performance Standards in all content areas. In 2008 he became the Associate Superintendent of Assessment and Accountability, responsible for directing all state assessments and overseeing the No Child Left Behind accountability process.

In addition to his state-level work, Stephen also served as president of the Council of State Science Supervisors and a member of the writing team for the College Board's Standards for College Success Science Standards. Most recently, he served on the National Academy of Sciences' Committee on Conceptual Framework for New Science Education Standards, which is developing the framework for the Next-Generation Science Education Standards.



Friday - 8:00-10:50				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-10:50	<b>Level:</b> High	<b>Room:</b> Roswell	
<b>Title:</b> <u>Honors Physics Labs that WORK! Build student interest, get results!</u>				
<b>Presenters:</b> Joseph Cox, Dan Miller, Stephen Beall				
<b>Description:</b> It's time for your students to learn by doing! Experience a year's worth of physics labs all in one session. Low tech to high tech it's all here.				
<b>Content:</b> Physics				
Friday - 8:00-8:50 Sessions				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> Elementary	<b>Room:</b> Manila	
<b>Title:</b> <u>A Complete Overview of how NSTA Can Support Your Science Teaching</u>				
<b>Presenters:</b> Edward Rock				
<b>Description:</b> Come learn how the largest science education organization in the world can support your classroom, school, district and state. We'll discuss who the National Science Teachers Association (NSTA) is, how it interfaces with GSTA, and provide a detailed scope of the association and the resources that are available to all science educators. Learn how you can actively engage in the national discussion about science and STEM education. All attendees will receive a FREE copy of NSTA's newest publication, <i>NSTA Reader's Guide to the K-12 Science Education Framework</i> .				
<b>Content:</b> General Science				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-9:50	<b>Level:</b> High	<b>Room:</b> Cairo	
<b>Title:</b> <u>BIOTECH - RNA Interference</u>				
<b>Presenters:</b> Philip Gibson				
<b>Description:</b> RNA interference challenges the Central Dogma of Biology. This session's activity demonstrates how genetically identical organisms can develop into phenotypically distinct populations.				
<b>Content:</b> Biotechnology				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> High	<b>Room:</b> Piedmont	
<b>Title:</b> <u>Flipping Guys</u>				
<b>Presenters:</b>				
<b>Description:</b>				
<b>Content:</b> General				
<b>Day:</b> THURS, 2/16	<b>Time:</b> 8:00-9:50	<b>Level:</b> K-12	<b>Room:</b> Singapore	
<b>Title:</b> <u>Power Tools for Powerful Teachers - SLDS</u>				
<b>Presenters:</b> Hubert Bennett				
<b>Description:</b> Would you like to know the strengths and weaknesses of every student on your Roster? Find out how use the Statewide Longitudinal Data System (SLDS) to UNLOCK every child's potential. Now at your fingertips, you will find up to six years worth of information on your students (Assessment, Enrollment, Attendance, Previous Class Grades, Instructional Programs, etc...).				
<b>Content:</b> General Science				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> Elementary	<b>Room:</b> Montreal	
<b>Title:</b> <u>CAN YOU SEE THE PHASES</u>				
<b>Presenters:</b> Robert Bowman				
<b>Description:</b> Learn better techniques and tricks on how to get your students to learn the phases of the moon. Come join this interactive session!				

<b>Content:</b> Earth/Space Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> K-8	<b>Room:</b> Vancouver
<b><u>Title: Butterflies - Engage and Teach Students with Special Needs</u></b> <b>Presenters:</b> Donna Gast, Dorinda Haley, <b>Description:</b> From collaborative to self-contained classrooms caterpillars and butterflies reach and teach students with special needs. Learn how all students can raise butterflies, tag monarchs, and participate in citizen science. Freebies. <b>Content:</b> Biology (Life Science)			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> K-8	<b>Room:</b> University
<b><u>Title: Storm Chasing - A Classroom Experience</u></b> <b>Presenters:</b> Jim Hinton <b>Description:</b> Turn your classroom into a storm chasing adventure. Participants will be given resources/strategies to engage their students in the study of severe weather through the eyes of a storm chaser. <b>Content:</b> Earth/Space Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> K-8	<b>Room:</b> Techwood
<b><u>Title: Class Museums</u></b> <b>Presenters:</b> Charmagne Quenan <b>Description:</b> Learn how to create a field trip experience in your own as your students become curators of your own class museum. <b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> High	<b>Room:</b> Spring
<b><u>Title: Braking Boundaries: Collaboration between gifted and ESEP (MIOD/MI)</u></b> <b>Presenters:</b> Peter Fischer, Chris Kennedy, Rie Cowan <b>Description:</b> Inquiry methods used within ESEP classes in collaboration with gifted students in Biology/Physical Science, preparing students for GAA and EOCT. <b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> High	<b>Room:</b> Grand Hall East B
<b><u>Title: Life Science Tech Fest: Really Easy Data Collectors</u></b> <b>Presenters:</b> Dr. Janet McManic <b>Description:</b> Celebrate innovation with our Real Easy Data probes, RED! A hands-on technology workshop using our RED data collectors to record and analyze animal behavior and muscle fatigue. <b>Content:</b> Biology (Life Science)			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> Middle	<b>Room:</b> Hong Kong
<b><u>Title: Practical Insights from Outstanding Earth Science Teachers - FERNBANK</u></b> <b>Presenters:</b> Bill Witherspooon <b>Description:</b> 5 recipients of the Outstanding Earth Science Teacher award and 15 other geoscience teachers from middle school through university level came together to share insights in March 2011. Hear and see the ideas brought to the symposium in Wilmington, NC, sponsored by the Southeastern Section of the National Association of Geoscience Teachers. <b>Content:</b> Biology (Life Science)			





<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> K-8	<b>Room:</b> Grand Hall East C
<b><u>Title: Teach Your Standards with turtle Activities</u></b>			
<b>Presenters:</b> Marti Schriver, Karen Chassereau, Breanna Young			
<b>Description:</b> Take the beach to your classroom, teachers will use their week long experiences at Jekyll Island and the Georgia Sea Turtle Center for activities you can take back to your classroom.			
<b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 8:00-8:50	<b>Level:</b> High	<b>Room:</b> Grand Hall East D
<b><u>Title: Biotech Kitchen DNA with a Twist of Inquiry</u></b>			
<b>Presenters:</b> Jennifer Carden, Dr. Neil Lamb, Madelene Loftin			
<b>Description:</b> Tired of cookbook DNA extraction protocols? We present an inquiry based DNA extraction procedure that will have students thinking about cell type, structures and DNA.			
<b>Content:</b> Life Science			
<b>Friday – 9:00-9:50 Sessions</b>			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> High	<b>Room:</b> Piedmont
<b><u>Title: Flipping Guys</u></b>			
<b>Presenters:</b>			
<b>Description:</b>			
<b>Content:</b> General			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> Elementary	<b>Room:</b> Manila
<b><u>Title: e-PD: Fully Utilizing the NSTA Learning Center</u></b>			
<b>Presenters:</b> Edward Rock			
<b>Description:</b> Highly Skilled teachers are critical to student success. Georgia Science Educators and Administrators will enjoy a detailed tour of the NSTA Learning Center, a tool for both online professional development content, PD coordination, and PD documentation. We'll explore the many ways educators are utilizing the tools and resources in the NSTA Learning Center and look at the research supporting the Learning Center's efficacy. Every participant will receive a FREE NSTA Learning Center account and their choice of 2 SciPacks (a \$79.98 value).			
<b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> Elementary	<b>Room:</b> International Ballroom
<b><u>Title: 3<sup>rd</sup> Grade Science MSP Show &amp; Share</u></b>			
<b>Presenters:</b> Marlee Tierce, Sally Creel, Northwest GA MSP 3 <sup>rd</sup> Grade Cohort			
<b>Description:</b> 3 <sup>rd</sup> grade teachers from the Northwest GA MSP will share resources, ideas, and best practice lessons addressing all 3 <sup>rd</sup> grade science GPS standards. Hand-out of each resource will be provided.			
<b>Content:</b> General			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> Elementary	<b>Room:</b> Montreal
<b><u>Title: Matter Activities for K-5 Students with Household Products</u></b>			
<b>Presenters:</b> Amy Cook			
<b>Description:</b> Teachers will participate in several matter activities that will be demonstrated using household products to enhance and encourage students' interest in physical science. The activities involve inquiry based student learning.			



<b>Content:</b> Physical Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> 6-12	<b>Room:</b> Grand Hall B
<b><u>Title: Free Classroom Resources from HHMI for Teaching Evolution</u></b>			
<b>Presenters:</b> Jennifer Bricken			
<b>Description:</b> Discover Howard Hughes Medical Institute classroom-ready lessons, hands-on activities, animations, and video clips to help you teach central and difficult biological concepts in evolution, such as selection, phylogenetic trees, drug resistance, and biodiversity, and the molecular genetics behind them. These free, engaging multimedia resources include inquiry-based investigations, and data collection, analysis, and computation.			
<b>Content:</b> Biology			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> 3-6	<b>Room:</b> Inman
<b><u>Title: Why Does It Matter?</u></b>			
<b>Presenters:</b> Katherine Armstrong, Jane Sharp			
<b>Description:</b> Use formative assessment to better inform teaching practices. Experience Next Step Strategies to help move student learning. Free workshop materials from Delta Education.			
<b>Content:</b> Physical Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> Elementary	<b>Room:</b> Vancouver
<b><u>Title: Big Ideas from the Very Small</u></b>			
<b>Presenters:</b> Joyce Palmer Allen, Katie Hutchison, Samantha Andrews			
<b>Description:</b> Come and have fun exploring how teaching about small scale objects can fit into your science curriculum. Participants will be provided CD containing all lessons.			
<b>Content:</b> General			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> Middle	<b>Room:</b> Singapore
<b><u>Title: Begged, Borrowed, and Stolen ~ We're still finding great ideas!</u></b>			
<b>Presenters:</b> Zoe Evans, Carol Turner, Ann Cook Tina Denney			
<b>Description:</b> Need a great activity to use Monday? No time to search the Internet? If so, come see some of the great ideas and activities we've begged, borrowed, and stolen over the years.			
<b>Content:</b> General			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> High	<b>Room:</b> University
<b><u>Title: Teaching Earth Systems in High School</u></b>			
<b>Presenters:</b> Stephanie Miles, Brandie Freeman			
<b>Description:</b> Teachers will engage in hands-on Earth systems activities, learn about resources available, and take home teaching materials			
<b>Content:</b> Earth/Space Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> High	<b>Room:</b> Grand Hall East A
<b><u>Title: Genetics: A Novel Method for Teaching Gene Expression</u></b>			
<b>Presenters:</b> Amy Kezman, Laura Lenz			
<b>Description:</b> Use standards-based, hands-on activities to teach gene expression and how it relates to the use of genetically modified organisms to address sustainability issues.			
<b>Content:</b> Life Science			

<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> K-8	<b>Room:</b> Grand Hall East C
<b><u>Title: The Butterfly Man</u></b>			
<b>Presenters:</b> Steve Rich			
<b>Description:</b> Join author Steve Rich for a migration journey with the Monarch Butterfly. Incorporate reading, mathematics, and social studies into your science lessons, and consider inviting "The Butterfly Man" to your school.			
<b>Content:</b> Biology (Life Science)			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> Middle	<b>Room:</b> Grand Hall East D
<b><u>Title: Inquiry Matters</u></b>			
<b>Presenters:</b> Katherine Armstrong, Jane Sharp, Steve Jones			
<b>Description:</b> Students learn science by DOING science. Use best practices that include inquiry and literacy that are incorporated in a research-based program. Free workshop materials from Delta Education			
<b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> Middle	<b>Room:</b> Techwood
<b><u>Title: Middle School Edible Science Lessons</u></b>			
<b>Presenters:</b> Tammy Hyder			
<b>Description:</b> Hands on Science at it's best! This workshop will combine not only hands on science activities, but will include a way to every middle schoolers heart...food!			
<b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-9:50	<b>Level:</b> Elementary	<b>Room:</b> Hong Kong
<b><u>Title: The New Horizons space craft to Pluto and the Kuiper Belt- FERNBANK</u></b>			
<b>Presenters:</b> April Whitt			
<b>Description:</b> In 2006, a small space craft was launched on a nine-year journey toward the edges of our solar system. The New Horizons robot probe will arrive at Pluto and the Kuiper Belt in 2015, and will send home the first up-close images of the ice dwarf planets out there. We'll take a look at the latest project information and try some of the related activities that have been developed for teachers and students.			
<b>Content:</b> Biology (Life Science)			
<b>Friday - 9:00-10:50 Sessions</b>			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 9:00-10:50	<b>Level:</b> Middle	<b>Room:</b> Spring
<b><u>Title: Science Tools for Success</u></b>			
<b>Presenters:</b> Deanna Boyd, Priscilla Brown-Flanagan, Nayati Harris			
<b>Description:</b> Teachers will experience a hands-on demonstration of science tools including: interactive notebooks, foldables, vocabulary strategies, and various differentiation techniques. Free materials and information will be distributed!			
<b>Content:</b> Biology (Life Science)			
<b>Friday - 10:00-10:50 Sessions</b>			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 10:00-10:50	<b>Level:</b> High	<b>Room:</b> Piedmont
<b><u>Title: Flipping Guys</u></b>			
<b>Presenters:</b>			
<b>Description:</b>			



**Content: General****Day:** FRI, 2/17      **Time:** 10:00-10:50      **Level:** Elementary      **Room:** Manila**Title:** Facilitating PD with NSTA Press Books**Presenters:** Edward Rock

**Description:** Science Education Administrators, Professional Developers, and science consultants will revel in the research-based classroom practices provided by NSTA Press' professional development books. We'll discuss strategies and share hands-on examples for using these extraordinary tools as anchors for your professional learning communities. Several exemplary NSTA Press titles will be gifted as door prizes at this session

**Content:** General Science**Day:** FRI, 2/17      **Time:** 10:00-10:50      **Level:** High      **Room:** Cairo**Title:** BIOTECH Digital Resources from the HudsonAlpha Institute for Biotechnology**Presenters:** Jennifer Whitney Carden, Dr. Neil Lamb, Madelene Loftin

**Description:** Imagine students using their smart phone to study cells and to see science as a process. During this hands-on workshop teachers will use laptops and tablets to investigate these FREE digital resources

**Content:** Life Science**Day:** FRI, 2/17      **Time:** 10:00-10:50      **Level:** K-5      **Room:** International Ballroom**Title:** Hands On 5<sup>th</sup> Grade All Year Long – Paulding MSP**Presenters:** Sally Creel, Stacey Osborne, 5<sup>th</sup> Grade Cohort

**Description:** Teacher leaders from the Paulding MSP will demonstrate several hands-on experiments to teach 5<sup>th</sup> grade science GPS. Attendees will take away several lessons and receive practical advice on fitting science in an elementary classroom.

**Content:** General**Day:** FRI, 2/17      **Time:** 10:00-10:50      **Level:** K-8      **Room:** Montreal**Title:** Sensing Science**Presenters:** Michaela D'Aquanni

**Description:** Experiences bring science to life. Reconnecting our children to the world around them is the future we can invite them to hold in their hands.

**Content:** General**Day:** FRI, 2/17      **Time:** 10:00-10:50      **Level:** Elementary      **Room:** Hong Kong**Title:** Campus Outdoor Education Development- FERNBANK**Presenters:** Al Tate

**Description:** Essentially, I plan to present a slide show supporting the development and use of school campuses (COED "Campus Outdoor Education Development") and local parks (or other convenient outdoor locations) for academic curriculum in Biology, Ecology, Geology, Physics, and applied mathematics. I plan to present slides with one or two examples, locations and proposals for others, and a discussion period at the end.

**Content:** Biology (Life Science)**Day:** FRI, 2/17      **Time:** 10:00-10:50      **Level:** K-8      **Room:** Vancouver**Title:** Georgia Barrier Islands

<p><b>Presenters:</b> Donna Mullenax</p> <p><b>Description:</b> The Barrier Islands of Georgia will be presented through hands-on activities and discussion. The session will focus on the geology, habitats, geography, and history of the barrier islands.</p> <p><b>Content:</b> Earth/Space Science</p>			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 10:00-10:50	<b>Level:</b> Middle	<b>Room:</b> Singapore
<p><b>Title:</b> <u>Strategies to Promote Reading and Writing in Middle School Science Instruction</u></p> <p><b>Presenters:</b> Joey Nunn, Cary Sell, Brian Lucy</p> <p><b>Description:</b> Workshop will present classroom-tested strategies aimed at improving student's reading and writing abilities as they relate to understanding middle school science topics</p> <p><b>Content:</b> General Science</p>			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 10:00-10:50	<b>Level:</b> 6-12	<b>Room:</b> University
<p><b>Title:</b> <u>Seeing the Invisible Universe with NASA</u></p> <p><b>Presenters:</b> Tyson Harty, Ph.D</p> <p><b>Description:</b> How do we “see” our invisible Universe? Explore the properties of light waves—from radio to gamma—with hands-on activities and free NASA materials.</p> <p><b>Content:</b> Earth/Space Science</p>			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 10:00-10:50	<b>Level:</b> Middle	<b>Room:</b> Techwood
<p><b>Title:</b> <u>Single Gender and Science:What Works Best?</u></p> <p><b>Presenters:</b> Daphne Todd, Robert Wells, Travis Phelps</p> <p><b>Description:</b> Science Showdown: Boys vs Girls in Science Achievement! Join us to learn gender specific strategies to increase student interest in science inquiry and mastery of the Georgia Performance Standards.</p> <p><b>Content:</b> Interdisciplinary</p>			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 10:00-10:50	<b>Level:</b> 6-12	<b>Room:</b> Grand Hall East A
<p><b>Title:</b> <u>Investigating Alternative Energy: Hydrogen and fuel cells</u></p> <p><b>Presenters:</b> AMY KEZMAN, Laura Lenz</p> <p><b>Description:</b> Join us for an overview and two activities from a classroom-tested SEPUP module on hydrogen &amp; fuel cells within the context of current energy &amp; environmental issues related to transportation.</p> <p><b>Content:</b> Earth/Space Science</p>			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 10:00-10:50	<b>Level:</b> Middle	<b>Room:</b> Grand Hall East B
<p><b>Title:</b> <u>Middle School Tech Fest: Really Easy Data Collectors</u></p> <p><b>Presenters:</b> Dr. Janet Mcmanic</p> <p><b>Description:</b> Celebrate innovation with our Real Easy Data probes. Learn how to integrate the RED technology into your classroom with two hands-on activities: Pressure in a Column and Cartesian Diver.</p> <p><b>Content:</b> Physical Science</p>			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 10:00-10:50	<b>Level:</b> 6-12	<b>Room:</b> Grand Hall East C
<p><b>Title:</b> <u>EZ Data Collection with TI</u></p> <p><b>Presenters:</b> Ned Colley</p> <p><b>Description:</b> Ned Colley from Texas Instruments will share innovative activities and resources for your science classroom. Hands-on session using TI and Vernier technology. Take home materials and door</p>			

prizes!

**Content:** General Science

**Day:** FRI, 2/17      **Time:** 10:00-10:50      **Level:** Middle      **Room:** Grand Hall East D

**Title:** Genetics Made Easy with Student Created Creatures

**Presenters:** Donna Gast

**Description:** Students get it – genotypes, phenotypes, chromosomes, genes, meiosis, and much more with these easy and inexpensive activities. Even better, they remember it! Come away with samples and templates.

**Content:** Biology (Life Science)

**Day:** FRI, 2/17      **Time:** 10:00-10:50      **Level:** K-12      **Room:** Inman

**Title:** What is critical thinking How will I recognize it? And how can I get students to think critically?

**Presenters:** George Stickel, PhD.

**Description:** What is critical thinking and how will I recognize it? Moving beyond merely doing science, this workshop will show how students to get students to analyze, apply, and integrate concepts.

**Content:** General

### Friday - 11:00-11:50 Sessions

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** High      **Room:** Piedmont

**Title:** Flipping Guys

**Presenters:**

**Description:**

**Content:** General

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** Elementary      **Room:** Manila

**Title:** Robust Networks that Allow Science Educators to Thrive

**Presenters:** Edward Rock

**Description:** Teachers are lifelong learners. And lifelong learners know that most effective learning takes place during an open and focused conversation with colleagues. Science Educators of all grade ranges, administrators and staff developers will learn about the extraordinary networks, listserves and discussion forums they can engage in through the National Science Teachers Association. We'll share examples of the types of professional discussions and resource sharing that takes place on these lively networking venues. If science matters to you, you'll also have a chance to win a *Science Matters in Georgia* tee-shirt as a door prize.

**Content:** General Science



**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** K-8      **Room:** Montreal

**Title:** Project Based STEM Lessons

**Presenters:** John Payne

**Description:** Presentation includes a discussion of how project based learning can be used to improve student motivation and learning outcomes. Sample projects outlines will be distributed and discussed.

**Content:** Interdisciplinary

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** High      **Room:** Cairo

**Title:** BIOTECH - Proper Pipetting Technique and Maintenance

**Presenters:** Melinda Sheehan



Biotech Strand

**Description:** This session will focus on the importance of proper pipetting technique and the significance of pipette accuracy. Guidelines for proper usage, handling and calibrating of pipettes will be addressed.

**Content:** Biotechnology

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** 6-12      **Room:** Roswell

**Title:** Physics Teaching Strand Co-Sponsored by SACS-AAPT

**Presenters:** Taha Mzoughi

**Description:** Come join fellow physics teachers in an afternoon filled with hands on physics activities. Activities range from simple yet engaging activities, teacher tools, share-a-thon, and more. Related sessions continued in afternoon.

**Content:** Physics



**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** 6-12      **Room:** Vancouver

**Title:** Lively Life Science

**Presenters:** Brown Thomas, 7<sup>th</sup> Grade MSP Participants

**Description:** Who says that Life Science can't be hands-on, exploratory, and exciting? Come and see how these top activities can promote student thinking, curiosity and love for our natural world.

**Content:** Life Science

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** High      **Room:** Inman

**Title:** Using Probeware and Graphing Calculators in an Inquiry-Based Chemistry Classroom

**Presenters:** Andy Felt

**Description:** The purpose of this session will be to demonstrate how graphing calculators and probeware can be used to facilitate an inquiry-based high school chemistry classroom for ninth graders. Participants in the session will use Vernier probeware and a TI-Navigator.

**Content:** Chemistry

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** High      **Room:** University

**Title:** Instructional Strategies for Science Achievement

**Presenters:** Judy Ward, Yolanda Jones, Angie Walker

**Description:** Come learn how to use different types of instructional strategies to enhance and strengthen science literacy.

**Content:** Interdisciplinary

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** High      **Room:** Techwood

**Title:** Web 2.0: A Network of Possibilities

**Presenters:** Blair Inabinet

**Description:** This session will present a rationale for using Web 2.0 tools in Science instruction, while also providing take-with-you information about the most outstanding Web 2.0 tools available.

**Content:** Biology (Life Science)

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** Middle      **Room:** Spring

**Title:** Sense-ational Science

**Presenters:** Donita Legoas, Kristina Istre

**Description:** Sense-ational Science is a hands-on session with many practical and inexpensive ways to motivate your students to enjoy science. Science should engage all of the senses as well as make sense

to the teacher and the students.

**Content:** General Science

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** High      **Room:** Grand Hall East A

**Title:** Teaching toward Change: Preparing for the AP Biology Redesign

**Presenters:** Kristen Dotti

**Description:** Come practice ready-to-use activities and techniques you can implement immediately in your course to increase the level of critical thinking while integrating the desired changes for the AP Biology Redesign.

**Content:** Biology (Life Science)

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** High      **Room:** Grand Hall East B

**Title:** Chemistry and the Atom: Fun With Atom Building Games!

**Presenters:** Chris Neill, Wendy Delano, Alen Brown

**Description:** Experience innovative games and activities that give students with different learning styles opportunities to explore and grasp atomic structure and the periodic table.

**Content:** Chemistry

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** 6-12      **Room:** Grand Hall East C

**Title:** The Impact of Social Media on Science Learning in the Classroom

**Presenters:** Dr. Sherry Crocker

**Description:** This session will demonstrate 21st century communication and collaboration in Science by using Social Networking, Social Media, and Social Media tools to engage students and/or teachers.

**Content:** General Science

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** K-8      **Room:** Grand Hall East D

**Title:** Cross-Curricular Mania (K-8)

**Presenters:** Stephanie Shultz

**Description:** The new Common Core standards encourage greater integration of curriculum areas than ever before. How can you help prepare your students this year for what will come in future .....Find out how!

**Content:** Interdisciplinary

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** 6-12      **Room:** Singapore

**Title:** Science Fair Fun For Kids

**Presenters:** Beverly Klein, Beverly Adams

**Description:** Do you need ways to make sure that your Science Projects are student projects? This is a standards based way to help students through the scientific process successfully by using a planning guide.

**Content:** General Science

**Day:** FRI, 2/17      **Time:** 11:00-11:50      **Level:** K-12      **Room:** Hong Kong

**Title:** Fitting the Human Body into the Science Curriculum- FERNBANK

**Presenters:** Linda Lodgeberg

**Description:** Most teachers believe that students need to understand how the human body works, but many find that the emphasis on improving ELA and math performance presents challenges in accomplishing this. There are only so many hours in a day! But there is hope: the human body is a marvelous tool for learning in almost all science areas. This presentation presents lessons and activities





that meet science standards for elementary and high school yet help educate the future generation of health care consumers and providers about the most important machine of all—the human body.

**Content:** Biology (Life Science)

## General Session –12:00-1:30 International Ballroom

### Friday – 1:30-4:20 Sessions

### Friday – 1:30-2:20 Sessions

**Day:** FRI, 2/17      **Time:** 1:30-2:20      **Level:** K-12      **Room:** International Ballroom

**Title:** Science Updates

**Presenters:** Juan-Carlos Aguilar

**Description:** This session will provide information about current policies coming out of the Georgia Department of Education that affect science instruction throughout the state.

**Content:** General Science



**Day:** FRI, 2/17      **Time:** 1:30-2:20      **Level:**      **Room:** Cairo

**Title:** GABio - BioRAD

**Presenters:** Sherrie Andrews

**Description:**

**Content:** BioTechnology



**Day:** FRI, 2/17      **Time:** 1:30-2:20      **Level:** 6-12      **Room:** Singapore

**Title:** MAT Students

**Presenters:** Rushton Greg

**Description:** Join Kennesaw State University chemistry education faculty and graduate students for this interactive workshop aimed at addressing introductory chemistry GPS concepts at the secondary (middle, high school) level. This session is specifically targeted towards out-of-field, alternatively-certified, or otherwise new teachers who are looking for research-based lessons that are safe, fun, inexpensive, and that target common student misconceptions.

**Content:** Chemistry



**Day:** FRI, 2/17      **Time:** 1:30-2:20      **Level:** K-12      **Room:** Manila

**Title:** Training Teachers to Apply Inquiry in K-12 Science

**Presenters:** Gail Marshall, Sharmistha Dutt

**Description:** This presentation illustrates how several successful programs have helped elementary, middle, and secondary teachers learn to more effectively use inquiry-based instruction in elementary, middle and secondary science and math.

**Content:** Interdisciplinary

**Day:** FRI, 2/17      **Time:** 1:30-2:20      **Level:** Elementary      **Room:** Montreal

**Title:** Baby, You Move Me!

**Presenters:** Sharon Golden, Jenny Hohn

**Description:** Make learning about simple machines, force & motion, and Newton's Laws FUN for your students! Come try a variety of hands-on, inquiry based activities that will enhance your teaching.

**Content:** Physical Science

<b>Day:</b> FRI, 2/17	<b>Time:</b> 1:30-2:20	<b>Level:</b> Elementary	<b>Room:</b> Vancouver
<b><u>Title: Snacking Your Way Through Science *REMIX*</u></b>			
<b>Presenters:</b> Stacey Osborne, Alan Aumann,			
<b>Description:</b> Looking for ways to assess your students through performance based activities? This presentation will provide hands on edible science labs for grades 3-5.			
<b>Content:</b> Earth/Space Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 1:30-2:20	<b>Level:</b> High	<b>Room:</b> University
<b><u>Title: Closing GAPSS in student's achievement.</u></b>			
<b>Presenters:</b> Steve Tester			
<b>Description:</b> This presentation provides an overview of the GAPSS process highlighting key standards used to measure teacher performance.			
<b>Content:</b> Interdisciplinary			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 1:30-2:20	<b>Level:</b> High	<b>Room:</b> Spring
<b><u>Title: Vertical Alignment in Action - Biology &amp; Chemistry</u></b>			
<b>Presenters:</b> Lauren Horton, Tasha Young			
<b>Description:</b> Want to help prepare your students for science across grade levels? Come learn ideas and activities that align biology and chemistry K-12. Packets will be given to first 25 attendees.			
<b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 1:30-2:20	<b>Level:</b> High	<b>Room:</b> Grand Hall East A
<b><u>Title: Learning and Teaching Science from the Inside Out</u></b>			
<b>Presenters:</b> Danielle Armstrong, Shannon Thorne-Brackett			
<b>Description:</b> This session focuses on strategies for engaging non-traditional and at-risk students taking Biology, Physics and Physical Science geared toward maximizing student engagement while increasing rigour.			
<b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 1:30-2:20	<b>Level:</b> High	<b>Room:</b> Grand Hall East B
<b><u>Title: Hands-On Genetics: Crazy Traits and Adaptation Survivor</u></b>			
<b>Presenters:</b> Chris Neill, Wendy Delano, Alen Brown			
<b>Description:</b> How can you predict the traits of offspring when you know the genetic makeup of the parents? Ideas come alive by creating crazy creatures and studying the resulting population.			
<b>Content:</b> Biology (Life Science)			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 1:30-2:20	<b>Level:</b> Elementary	<b>Room:</b> Piedmont
<b><u>Title: Let's Get Graphic</u></b>			
<b>Presenters:</b> Brittany Jamison, Madeline Jones			
<b>Description:</b> Graphic organizers can be a great way to display science. However, creativity and planning can make a dull graphic organizer shine!			
<b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 1:30-2:20	<b>Level:</b> K-8	<b>Room:</b> Hong Kong
<b><u>Title: GENeSis: DNA Basics- FERNBANK</u></b>			
<b>Presenters:</b> Patricia Jenkins			
<b>Description:</b> This program is designed to present DNA fundamentals, teaching strategies,			



demonstrations and labs to assist elementary and middle school teachers.

**Content:** Biology (Life Science)

**Day:** FRI, 2/17      **Time:** 1:30-2:20      **Level:** K-5      **Room:** Hong Kong

**Title:** Elementary Science: How to do it Right!

**Presenters:** Nancy DiPetrillo, Kelly Bodner, Donna Smith

**Description:** Explore the design, structure, and impact of science in a metro-Atlanta elementary school. Teachers and school administrator will share how science labs, outdoor learning areas, and space program have been cultivated.

**Content:** General Science

### Friday – 1:30-3:20 Sessions

**Day:** FRI, 2/17      **Time:** 1:30-3:20      **Level:** High      **Room:** Grand Hall East C

**Title:** STEM Activities Using TI-Nspires

**Presenters:** Jan Nourollahi, Ned Colley

**Description:** STEM Activities will be presented using the new TI-Nspires and Vernier Probeware. Handouts provided for teachers.

**Content:** General Science

**Day:** FRI, 2/17      **Time:** 1:30-3:20      **Level:** Elementary      **Room:** Grand Hall East D

**Title:** Differentiating Science in the Active Classroom (K-5)

**Presenters:** Stephanie Shultz

**Description:** After every HANDS-ON ACTIVITY we will stop to reflect on the process & standards behind each & how to differentiate these tasks between all grade levels. Using a variety of resources, participants

**Content:** General Science

### Friday – 1:30-4:20 Sessions

**Day:** FRI, 2/17      **Time:** 1:30-4:20      **Level:** 6-12      **Room:** Roswell

**Title:** Physics Teaching Strand Co-Sponsored by SACS-AAPT

**Presenters:** Taha Mzoughi

**Description:** Come join fellow physics teachers in an afternoon filled with hands on physics activities. Activities range from simple yet engaging activities, teacher tools, share-a-thon, and more. Session continued from morning.

**Content:** Physics



### Friday – 2:30-3:20 Sessions

**Day:** FRI, 2/17      **Time:** 2:30-3:20      **Level:** High      **Room:** Grand Hall East B

**Title:** Flipping Guys

**Presenters:**

**Description:**

**Content:** General


**Day:** FRI, 2/17      **Time:** 2:30-4:20      **Level:** High      **Room:** Singapore

**Title:** Formative Assessment and Differentiation in Science

**Presenters:** Gilda Lyon

**Description:** Tired of reading about differentiation theory? Come see differentiation in action using formative assessments as the springboard. Hands-on activities that show you how differentiation is done.



<b>Content:</b> General Science				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 2:30-3:20	<b>Level:</b> K-8	<b>Room:</b> Hong Kong	
<b>Title:</b> <u>SAND- FERNBANK</u> <b>Presenters:</b> Nan Huebner <b>Description:</b> Hands on activities using river and beach sand to teach weathering, rocks and minerals, regions, and constructive/destructive processes to upper elementary and middle school students. Materials provided for the first 100 participants. <b>Content:</b> Biology (Life Science)				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 2:30-3:20	<b>Level:</b> High	<b>Room:</b> Manila	
<b>Title:</b> <u>Science is STEM-tastic!</u> <b>Presenters:</b> Patti Grammens, Lilly Turpin <b>Description:</b> Dynamic teachers show you ways to incorporate STEM into your curriculum. We will give you ideas that are easy to implement and don't cost a lot of time or money. <b>Content:</b> Interdisciplinary				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 2:30-3:20	<b>Level:</b> K-12	<b>Room:</b> Montreal	
<b>Title:</b> <u>Student Mentor Magic</u> <b>Presenters:</b> Brittney Cantrell, Lisa Oswald, <b>Description:</b> Increase Elementary Science Engagement with High School Mentors <b>Content:</b> General Science				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 2:30-3:20	<b>Level:</b> K-8	<b>Room:</b> Vancouver	
<b>Title:</b> <u>Making Science Fun</u> <b>Presenters:</b> LaTrina Howell, La'Detra Braswell <b>Description:</b> This session will focus on interactive, innovative, hands-on, "out-of-the box" activities to keep students interested in doing and learning Science. <b>Content:</b> General Science				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 2:30-3:20	<b>Level:</b> High	<b>Room:</b> Spring	
<b>Title:</b> <u>Backward Design for Conceptual Labs for Physical Science</u> <b>Presenters:</b> Sherrie Chovanec, Peter Fischer <b>Description:</b> Do you have favorite labs that need rejuvenation? Use backward design to infuse inquiry for all levels of learners. <b>Content:</b> Physical Science				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 2:30-3:20	<b>Level:</b> Middle	<b>Room:</b> Grand Hall East A	
<b>Title:</b> <u>The Continent Puzzle...what can rearranging the continents tell you about the earth's history?</u> <b>Presenters:</b> Amy Kezman, Peggy Bailey, <b>Description:</b> We will use puzzle pieces representing earth's continents to begin to investigate continental drift. Concepts covered are; an intro to continental drift, fossil evidence, and geological time. <b>Content:</b> Earth/Space Science				
<b>Day:</b> FRI, 2/17	<b>Time:</b> 2:30-3:20	<b>Level:</b> High	<b>Room:</b> Inman	
<b>Title:</b> <u>The Value of Doing Science: A Comparison of Traditional versus Virtual Laboratory Activities in the High School Science Classroom</u>				

**Presenters:** Jorge Diaz

**Description:** Use of virtual technology in the high school chemistry classroom focusing on the benefits and ideas for incorporating virtual labs in chemistry instruction.

**Content:** Chemistry

### Friday – 2:30-4:20 Sessions

**Day:** FRI, 2/17      **Time:** 2:30-4:20      **Level:** Elementary      **Room:** Cairo

**Title:** (GABio Biotech Strand) "DNA is Elementary"

**Presenters:** Michelle Ventura, Dana Brown, Chandan Morris Robinson

**Description:** Georgia State University's Bio-Bus Program is a free science outreach program dedicated to bringing fun and engaging science activities into the K-12 classroom.

**Content:** Life Science



**Day:** FRI, 2/17      **Time:** 2:30-4:20      **Level:** Middle      **Room:** Techwood

**Title:** Journey to the Edge of the Solar System

**Presenters:** Jayma Koval

**Description:** Come learn how you can incorporate space weather topics and NASA missions into your physical science or astronomy class. NASA giveaways are included!

**Content:** Earth/Space Science

**Day:** FRI, 2/17      **Time:** 2:30-4:20      **Level:** High      **Room:** Piedmont

**Title:** Using Higher Order Thinking Activities in Biology

**Presenters:** Kristen Dotti

**Description:** Tired of lectures and handouts? Using games, modeling and simulations, this session will add new activities to your bag of tricks for teaching biology in an engaging and memorable manner.

**Content:** Biology (Life Science)

**Day:** FRI, 2/17      **Time:** 2:30-4:20      **Level:** K-12      **Room:** International Ballroom

**Title:** Out of the Textbook and Into the Fold with Notebook Foldables®

**Presenters:** Nancy Wisker

**Description:** Recharge your students' interactive notebooks and turn on the motivation factor with Notebook Foldables®. Cut, fold, and more in this high-energy, hands-on session.

**Content:** General Science

### Friday – 3:30-4:20 Sessions

**Day:** FRI, 2/17      **Time:** 3:30-4:20      **Level:** High      **Room:** Grand Hall East B

**Title:** Flipping Guys

**Presenters:**

**Description:**

**Content:** General

**Day:** FRI, 2/17      **Time:** 3:30-4:20      **Level:** High      **Room:** Manila

**Title:** Life or death by PowerPoint in the classroom

**Presenters:** Marion Reeves

**Description:** You have technologically advanced students entering your room. Is the use of technology in your class boring them? Can you teach characteristics of science well using electronic presentations and the web?

<b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 3:30-4:20	<b>Level:</b> K-8	<b>Room:</b> Montreal
<b><u>Title: At-Risk Student Success in Science Classrooms</u></b> <b>Presenters:</b> Ginger Harbin <b>Description:</b> This hands-on presentation will provide science educators with the tools needed to make the science classroom accessible and successful for all students. <b>Content:</b> Interdisciplinary			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 3:30-4:20	<b>Level:</b> College	<b>Room:</b> University
<b><u>Title: Identifying and remediating misconceptions</u></b> <b>Presenters:</b> John Payne <b>Description:</b> This presentation will allow for a discussion of misconceptions among higher education science education faculty and preservice students. <b>Content:</b> Interdisciplinary			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 3:30-4:20	<b>Level:</b> High	<b>Room:</b> Inman
<b><u>Title: Differentiation using student shuffle</u></b> <b>Presenters:</b> Sarah Eales <b>Description:</b> Differentiation within one classroom can be tough. Come see how a group of chemistry teachers has made differentiation a department initiative. <b>Content:</b> Chemistry			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 3:30-4:20	<b>Level:</b> High	<b>Room:</b> Spring
<b><u>Title: Using Journal Clubs in High School to Improve Scientific Literacy</u></b> <b>Presenters:</b> Amanda Baskett <b>Description:</b> Learn how to set up a journal club within the high school classroom to support student understanding of current scientific literature. <b>Content:</b> General Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 3:30-4:20	<b>Level:</b> High	<b>Room:</b> Grand Hall East A
<b><u>Title: Springs and Swings: Harmonic Motion and Hooke's Law</u></b> <b>Presenters:</b> Chris Neill, Wendy Delano, Alen Brown <b>Description:</b> Make observations, measurements, and predictions in hands-on investigations exploring the concepts of harmonic motion, oscillation, natural frequency, resonance, and Hooke's Law. <b>Content:</b> Physics			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 3:30-4:20	<b>Level:</b> 6-12	<b>Room:</b> Grand Hall East C
<b><u>Title: AUTOPSY: Forensic Dissection Featuring Carolina's Perfect Solution® Pigs</u></b> <b>Presenters:</b> Carolina Teaching Partner <b>Description:</b> Engage students and revitalize your instruction of mammalian structure and function with a "real" autopsy! Participants dissect a pig using human autopsy protocols. Free materials. <b>Content:</b> Life Science			
<b>Day:</b> FRI, 2/17	<b>Time:</b> 3:30-4:20	<b>Level:</b> High	<b>Room:</b> Hong Kong
<b><u>Title: Flipping Using Edmodo: Trials and Triumphs &amp; Other Tech Tools for Teaching Science</u></b> <b>Presenters:</b> Timmi Shawler			

**Description:** The session will include my experiences using Edmodo to flip my biology classrooms. The second part of the session will be tech tools that can be incorporated in the process.

**Content:** Life Science

**Day:** FRI, 2/17

**Time:** 3:30-4:20

**Level:** 3-5

**Room:** Hong Kong

**Title:** Excitable Science: Hands on for 3rd, 4th & 5th grade - FERNBANK

**Presenters:** Nathaniel Haack

**Description:** Teaching today is challenging. Come see some simple, fun, demonstrations that will spice up your classroom for all students in grades 3-5.

**Content:** Biology (Life Science)



**Day:** FRI, 2/17

**Time:** 3:30-4:20

**Level:** High

**Room:** Vancouver

**Title:** Notable Notebooks

**Presenters:** Sarah Holcomb, Jenifer McLendon, Elizabeth Petrie

**Description:** This presentation will demonstrate the use of notebooks in various science classes. The notebook is not only used to increase learning but also as an organizational strategy.

**Content:** General Science

Saturday

Saturday – 8:30-9:20 Sessions			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 8:30-9:20	<b>Level:</b> 6-12	<b>Room:</b> Manila
<b>Title:</b> <u>Standards Based Assessment for Inquiry Based Classrooms</u>			
<b>Presenters:</b> Amy Beavers			
<b>Description:</b> Meaningful assessment that supports inquiry based science instruction is challenging. This session presents creative ways to integrate standards-based assessments to enhance student learning outcomes.			
<b>Content:</b> General Science			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 8:30-9:20	<b>Level:</b> K-8	<b>Room:</b> Montreal
<b>Title:</b> <u>Brain Boosters - Science Extension Activities for the Classroom</u>			
<b>Presenters:</b> Jennifer Gates			
<b>Description:</b> Scientific learning doesn't have to end when the lesson does... the excitement of science lives on in extension menus. Take away activities and lessons to extend learning and engage students in higher order and critical thinking.			
<b>Content:</b> General Science			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 8:30-9:20	<b>Level:</b> High	<b>Room:</b> Cairo
<b>Title:</b> <u>Teaching Physics with Angry Birds</u>			
<b>Presenters:</b> Rebecca Howell			
<b>Description:</b> How to use free software to screen capture and analyze video of Angry Birds in order to teach/reinforce mechanics principles: kinematics, energy and momentum.			
<b>Content:</b> Physics			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 8:30-9:20	<b>Level:</b> Middle	<b>Room:</b> Roswell
<b>Title:</b> <u>Exploring Science Through Inquiry</u>			
<b>Presenters:</b> Enosa Erhunmwunsee, Oneisha Young,			
<b>Description:</b> Come along on a journey and investigate Inquiry Based Teaching. Participants will learn the jargon, the philosophy behind the approach and practical ways to incorporate it into today's science classes.			
<b>Content:</b> Interdisciplinary			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 8:30-9:20	<b>Level:</b> K-8	<b>Room:</b> Techwood
<b>Title:</b> <u>Effectiveness and Use of a Weather Science and Safety Workshop for K-8 Teachers</u>			
<b>Presenters:</b> Alan Stewart			
<b>Description:</b> This presentation reports on the progress of an NSF-Funded Weather Science and Safety Workshop For Georgia Teachers. Bibb County teachers who attended the workshop will share their experiences.			
<b>Content:</b> Earth/Space Science			
Saturday – 9:30-10:20 Sessions			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 9:30-10:20	<b>Level:</b> 6-12	<b>Room:</b> Manila
<b>Title:</b> <u>"Georgia Barrier Islands, Rivers, and Swamps: Using local resources to reach students"</u>			
<b>Presenters:</b> Missy Bennett, Nancy Deal, Brian Burruss			
<b>Description:</b> This presentation describes how teachers can use local resources such as Georgia's barrier			





### Saturday – 9:30-11:20 Sessions

**Day:** SAT, 2/18      **Time:** 9:30-11:20      **Level:** Middle      **Room:** University

**Title:** Differentiation in the Science Classroom

**Presenters:** Gilda Lyon

**Description:** Experience a differentiated classroom complete with formative assessments.

**Content:** General Science



**Day:** SAT, 2/18      **Time:** 9:30-11:20      **Level:** High      **Room:** Spring

**Title:** Labs using the Wii

**Presenters:** Donna Mullenax

**Description:** We will perform several experiments using Wii controllers and balance to collect motion data. The Wii accessories will be bluetooth interfaced with laptops.

**Content:** Physics

### Saturday – 10:30-11:20 Sessions

**Day:** SAT, 2/18      **Time:** 10:30-11:20      **Level:** Middle      **Room:** Manila

**Title:** Vocab Motion Potion!

**Presenters:** Jamila Bowser, Lynda Byrne

**Description:** Discover a way to increase science literacy by engaging your students in tactile learning. Participants will be exposed to a drill-based strategy that increases vocabulary knowledge and understanding.

**Content:** General Science

**Day:** SAT, 2/18      **Time:** 10:30-11:20      **Level:** 2-8      **Room:** Piedmont

**Title:** Interactive Science Notebooks

**Presenters:** Sally Creel

**Description:** Come and learn how to use interactive notebooks as an ongoing assessment and feedback tool. Interactive notebooks assist students in developing higher order thinking and reasoning skills. It is the perfect tool to integrate language arts, particularly writing, and mathematics. During the session you'll see sample student science journals and even create a few entries in your very own journal!

**Content:** General

**Day:** SAT, 2/18      **Time:** 10:30-11:20      **Level:** K-12      **Room:** Montreal

**Title:** Bridging the Gap with Family Science Night

**Presenters:** Zoe Evans and Carol Turner

**Description:** Would you like to increase your science scores? Are you stumped by ways to increase parent and community involvement? Are you looking for "fun" ways to engage your students? The answers to these questions can be found in planning and conducting a family science night. Come find out how you can truly create a learning community with this event.

**Content:** General

**Day:** SAT, 2/18      **Time:** 10:30-11:20      **Level:** Elementary      **Room:** Cairo

**Title:** Science Tales: Elementary School Children co-Authoring a Science Story

**Presenters:** Sumitra Himangshu, Randall Spaid

**Description:** In this session we will share the process preservice teachers used to brainstorm and create a children's science storybook about habitats, ecosystems, or force and motion using concept maps.

**Content:** General Science

<b>Day:</b> SAT, 2/18	<b>Time:</b> 10:30-11:20	<b>Level:</b> High	<b>Room:</b> Singapore
<b><u>Title: Using modeling strategies in physics and chemistry to facilitate student learning.</u></b>			
<b>Presenters:</b> Frank Lock			
<b>Description:</b> This presentation will introduce participants to the strategies used in the modeling pedagogy to develop mathematical models (equations) that enable students to make scientific predictions.			
<b>Content:</b> Physical Science			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 10:30-11:20	<b>Level:</b> High	<b>Room:</b> Roswell
<b><u>Title: Physics &amp; the iPad</u></b>			
<b>Presenters:</b> Jaclyn Murray			
<b>Description:</b> Use the iPad to present physics concepts.			
<b>Content:</b> Physics			
<b>Saturday – 10:30-12:20 Sessions</b>			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 10:30-12:20	<b>Level:</b> Middle	<b>Room:</b> Vancouver
<b><u>Title: Energy: Sun to Atmosphere to Earth</u></b>			
<b>Presenters:</b> Jamie Akin, ,			
<b>Description:</b> We will do different experiments to determine how energy is transformed as it comes from the sun through the atmosphere to Earth. Hand outs provided and some give-aways! Grades 6 - 12			
<b>Content:</b> Earth/Space Science			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 10:30-12:20	<b>Level:</b> 6-12	<b>Room:</b> Techwood
<b><u>Title: Utilizing the FDA/NSTA Collaborative Food Safety Curriculum in Science Courses</u></b>			
<b>Presenters:</b> Rebecca Austin, ,			
<b>Description:</b> This session will provide applicants with the complete curriculum developed by the FDA in collaboration with the NSTA and will highlight ways to implement the curriculum into a variety of high school science courses.			
<b>Content:</b> Interdisciplinary			
<b>Saturday – 11:30-12:20 Sessions</b>			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 11:30-12:20	<b>Level:</b> K-8	<b>Room:</b> Montreal
<b><u>Title: Effective Strategies for Whiteboarding in Large Classes</u></b>			
<b>Presenters:</b> Rebecca Howell			
<b>Description:</b> How to use whiteboarding in large science classes. No more handouts and collecting assignments! Let students collect and analyze data, share and discuss results.			
<b>Content:</b> General Science			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 11:30-12:20	<b>Level:</b> 6-12	<b>Room:</b> Manila
<b><u>Title: The STEM Initiative at Georgia Perimeter College</u></b>			
<b>Presenters:</b> Pamela Gore, Kouok Law, Pamela Leggett-Robinson			
<b>Description:</b> This session will provide information on the grants that GPC recently received, which are designed to increase the number of students majoring in STEM subjects.			
<b>Content:</b> Interdisciplinary			
<b>Day:</b> SAT, 2/18	<b>Time:</b> 11:30-12:20	<b>Level:</b> 6-12	<b>Room:</b> Singapore

**Title: Teaching Science Through Song**

**Presenters:** Donna Governor

**Description:** Learn what makes a good song for teaching science concepts and how to use it effectively in the classroom.

**Content:** Interdisciplinary

**Day:** SAT, 2/18

**Time:** 11:30-12:20

**Level:** High

**Room:** Roswell

**Title: Molecular Biology: Feasible, affordable & standards-aligned**

**Presenters:** Laura Regassa, Donna Hammonds, Kelly Dabney

**Description:** Wondering how to bring the excitement of molecular biology into your high school classroom? This workshop will provide hands-on experience, teaching materials, and standards alignment.

**Content:** Life Science

**Day:** SAT, 2/18

**Time:** 11:30-12:20

**Level:** Middle

**Room:** University

**Title: Case Studies of Problem Based Learning**

**Presenters:** Larry Hampton, Lucy Guillory, Jamila Segure

**Description:** This presentation will explain and demonstrate the use of Problem Based Learning as a tool for teaching the GPS in life science and physical science classrooms.

**Content:** Physical Science