STEMulate LEARNING

SCIENCE TECHNOLOGY ENGINEERING MATH

Georgia Science Teachers Association

Georgia Science Teachers Association

2014 Annual Conference

@

Macon Marriott City Center

February 6-8, 2014

www.georgiascienceteacher.org

Conference Sponsors

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GSTA Conference Leadership Team

Dr. Sally Creel, Conference Director
Cobb County Schools

Dr. Donna Governor, Conference Program Chair
Forsyth County Schools

Brian Butler, Local Arrangements Chair
Bibb County Schools

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Exhibits	*Registration*	*Awards*	*Field Trips*	*Volunteer Coordinators*
Dr. Sharon Boyer	Dr. Kelly Price	Dr. Sally Creel	Brian Butler	LaTrina Howell & Moneak McCrary

GSTA Executive Board 2013-14

Director	Dr. Sally Creel
President	Zoe Evans
President-Elect	Dr. Donna Governor
Vice-President	Dr. Jeremy Peacock
Secretary	Joey Nunn
Executive Secretary/Treasurer	Karol Stephens
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Middle School Representative	Nathan Watson
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District IX Director	Donita Legoas
District X Director	Patricia DuBose
District XI Director	Michelle Bergozza
District XII Director	Bronwyn Hogan

GSTA Presidents

Name	Years of Service	Conference Location
Zoe Evans	2013-2014	Macon
Sally Creel	2012-2013	Atlanta – NSTA Regional
Kelly Price	2011-2012	Atlanta
Chris Kennedy	2010-2011	Atlanta
Ann Collins	2009-2010	Savannah
Wendy Joiner	2008-2009	Savannah
Gail Sinkule	2007-2008	Athens
Marion Reeves	2006-2007	Athens
Steve Rich	2005-2006	Columbus
Gail Marshall	2004-2005	Columbus
Venetia Butler	2003-2004	Atlanta – NSTA National
Karol Stephens	2002-2003	Jekyll Island
Judy Godfrey	2001-2002	Jekyll Island
Ellen Roach	2000-2001	Macon
Mary Atwater	1999-2000	Macon
Mark Stallings	1998-1999	Atlanta
Sharon Boyer	1997-1998	Atlanta
Bob Moore	1996-1997	Augusta
Joe Moore	1995-1996	Augusta
Francis Gardner	1994-1995	Savannah
Mary Wilde	1993-1994	Savannah
Ellen Averill	1992-1993	Atlanta Airport
Linda Bostick	1991-1992	Atlanta Airport
Melody Hall	1990-1991	Columbus
Margaret Eidson	1989-1990	Atlanta – NSTA National
Linda Mitchell	1988-1989	Savannah
Daisy Waldrep	1987-1988	Savannah
John Finley	1986-1987	Peachtree City
Kathy O'Neil	1985-1986	Peachtree City
Don Berkowitz	1984-1985	Rock Eagle
Judy Dennison	1983-1984	Rock Eagle
Carol Rutland	1982-1983	Rock Eagle
Jaunita Chitwood	1981-1982	Callaway Gardens
Jaunita Chitwood	1980-1981	Callaway Gardens
Betty Higgins	1979-1980	Woodward Academy
Kathryn Garrard	1978-1979	NSTA Regional
William Barrow	1977-1978	Athens History Village
James Coleman	1976-1977	Holiday Inn Locust Grove
Odell Owens, Jr.	1975-1976	NSTA Regional
Connie McNeil	1974-1975	Macon
Wayne Edwards	1973-1974	Savannah
Willis Brown, Jr.	1972-1973	Lonnie Love 1971-1972
Richard Johnson	1970-1971	Lucy Smith 1969-1970
Helen Carter	1968-1969	Tully Pennington 1967-1968
Montine Wilson	1966-1967	Charles Coleman 1965-1966
H.V. Bullock	1964-1965	Al Woodard 1963-1964
Bill Leach	1962-1963	Dallas Stewart 1961-1962
Cora Middleton	1960-1961	Betty Cheek 1959-1960
Liley Calhoun	1958-1959	

Georgia Presidential Awardees for Excellence in Science Education

2012	Christy Garvin, Powder Springs (K-6)	
2011	Kelly Stewart, Fulton County (7-12)	
2010	Amanda McGehee, DeKalb (K-6)	
2009	Rachael Parr, Jefferson (7-12)	
2008	Halley Page, Athens (K-6)	
2007	Donna Governor, Forsyth County (7-12)	
2006	Pamela Krohne-Googe, Dallas (K-6)	
2005	Zoe Evans, Carrollton (7-12)	
2004	Vicki Jacobs, Morrow (K-6)	
2003	Janice Hudson, Columbus (7-12	
2002	Terrie Kielborn, Carrollton (K-6)	Wynn Mott, Woody Gap (7-12)
2001	Clelia Scott, Brunswick (K-6)	Steve Rich, Douglasville (7-12)
2000	Jane Moore, Gwinnett (K-6)	Tina Cross, Columbus (7-12)
1999	Amanda Buice, Barnesville (K-6)	Amy Denty, Jesup (7-12)
1998	Marlee Tierce, Conyers (K-6)	Sandra Eidson, Oakwood (7-12)
1997	Rhonda Toon, Barnesville (K-6)	Marsha Hood. College Park (7-12)
1996	Sylvia Dee Shore, Columbus (K-6)	Roger Wesley McCoy, Kennessaw (7-12)
1995	Rita VanFleit, Lithonia (K-6)	Barbara Cornelius, Winder (7-12)
1994	Teresa Jordan Gruendl, Savannah (K-6)	Phyllis Rump, Woodstock (7-12)
1993	Betty Ann Ingram Smith, Newnan (K-6)	Thomas E. Hall, Moultrie (7-12)
1992	Barbara G. Piper, Austell (K-6)	Lynda H. Peterson, Marietta (7-12)
1991	Cathy Rich Robinson, Savannah (K-6)	Trissa Luftig, Norcross (7-12)
1990	Carol Burbilis, Winder (K-6)	Sandra J. Rhoades, Kennessaw (7-12)
1989	Michael Edmondson, Columbus (7-12)	
1988	Jeffrey D. Cramer, Atlanta (7-12)	
1987	Daniela M. Taylor, Norcross (7-12)	
1986	Beverly S. Lang, Newnan (7-12)	
1985	Lila Kathryn McGahee, Adair (7-12)	
1984	Annie Laura Pace, Athens (7-12)	
1983	Richard R. Bell, Lithia Springs (7-12)	

The Presidential Award for Excellence in Science Teaching is the Nation's highest honor for teachers of science and mathematics. It is awarded annually by the White House and administered by the National Science Foundation. One Georgian is honored annually in Washington, DC during a week-long celebration featuring visits to the White House and a State Dinner. More information is available at www.paemst.org. In Georgia, the award is administered through the Georgia Department of Education.

Teachers of the Year

Georgia Science Teachers Association

Tracey Rivers
Gwinnett County Schools

Dr. Andrew Kutcher
Cobb County Schools

Christine Lauer
Cherokee County Schools

Dr. David Rosengrant
Kennesaw State University

Teachers of Promise

High School

Brianna Bryant
Carroll County Schools

High School

Heather Carter
Bartow County Schools

ScienceQuest Teacher Scholarship

Brandie Freeman
Bartow County Schools
American Wilderness Leadership School Program Summer 2014

Stephanie Miles
Carroll County Schools
American Wilderness Leadership School Program Summer 2014

Administrator Of The Year

Dr. Judith Geter
Wilkinson County Schools

Conference Grant

Sharon Golden
Cobb County Schools

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MINI-GRANT WINNERS

Lindsay Arnold
Foundations for the Future

"We're Just Marble-ous!": Engineering Marble Rollercoasters in Grades 2-4

Paul Blais
Walton County Schools

STEM Circuits: Engineering Student Understanding in Physics

LaDetra Braswell
Washington County Schools

"Cells, Cells, Everywhere"

Paige Carithers
Stephens County Schools

"Preservation of Our Reservation: Reducing Solid Waste Through Composting"

Brandie Freeman
Bartow County Schools

"Spark"ing Student Interest in Renewable Energy

Debi Goodman
Cobb County Schools

"What's a Beebot?"

Joannah Shoushtarian
Cobb County Schools

"Beebots for STEM"

Angie Tuten
Foundations for the Future

"Every Drop Counts": Engineering a Rain Barrel to Water our School Garden

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The Hay House

One of Georgia's most distinguished structures, the Johnston-Felton-Hay House in Macon is an engineering marvel of the 1800s!

Ocmulgee National Monument

Native American mounds and historic site dating back to 900 CE.

Macon Museum of Arts & Sciences

As Georgia's largest museum devoted to the arts and sciences, the Museum seeks to engage visitors, evoke wonder, and open minds to new worlds of discovery.

Independent Field Trips

Guided Architectural Tour

This 2.5 hour guided tour will take you by bus to some of Macon's most interesting architectural buildings.

2:30-5:00 PM

$10

Macon Hospitality

The Macon trolley will be available to take you from the Marriott downtown dining and shopping during the following hours:

Thursday

Lunch 11-2 PM & Dinner 5-10 PM

Friday

Lunch 11-2 PM & Dinner 5-11 PM

Conference at a Glance

STEMulate LEARNING
SCIENCE TECHNOLOGY ENGINEERING MATH

Wednesday, February 5, 2014

6:00-8:00 PM	Registration

Thursday, February 6, 2014

7:00 AM – 5:00 PM	Registration
8:00 AM – 5:00 PM	Exhibit Hall Open
8:00 AM – 5:00 PM	Field Trips
8:00 AM – 5:00 PM	Concurrent Sessions/Workshops
11:00 AM – 12:00 PM	Featured Speaker: Dr. Sharon Schleigh
5:00 PM – 5:30PM	Meet Your District Directors @ Registration Area

Friday, February 7, 2014

7:00 AM – 5:00 PM	Registration
8:00 AM – 5:00 PM	Exhibit Hall Open
8:00 AM – 5:00 PM	Field Trips
8:00 AM – 5:00 PM	Concurrent Sessions/Workshops
11:00 PM – 12:30 PM	General Session, GSTA Annual Meeting Introduction of Candidates for GSTA Office **Keynote Speaker Dr. Jeff Matthews**, STEM Administrator Gwinnett County & Gwinnett School of Math, Science, and Technology
5:00 PM – 5:30 PM	Exhibit Hall Door Prize Drawings
6:30 PM – 10:00 PM	Awards Banquet The Armory Ballroom - *Tickets Required*

Saturday, February 8, 2014

8:03 AM – 9:30 AM	Registration
8:30 AM – 11:50 PM	Concurrent Sessions/Workshops

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Presentation Strands

STEM

All sessions held in Ballroom A

STEM programs are appearing in K--12 schools across Georgia, bringing together interdisciplinary connections in authentic learning experiences. What does it look like in YOUR school or classroom? Sessions identified for this strand include ideas that share successful strategies for STEM education at the K--16 level.

NEXT GENERATION SCIENCE STANDARDS / GEORGIA PERFORMANCE STANDARDS

All sessions held in Ballroom C

The NGSS will provide the foundation for the next revision of the Georgia Performance Standards (GPS) in science. These new standard were developed based on research and merge content with science & engineering practices and cross--cutting concepts. How can we begin to move toward the vision of the NGSS standards in our classrooms to fully engage learners? These sessions focus on bringing together the practices and cross--cutting concepts identified in the NGSS with the disciplinary core ideas already included in the GPS.

environmental strand

Indoors or out, learning about the environment is critical for all students, who must become mindful stewards of our planet and its resources. What are some of the successful strategies and resources you've used with students to help them better understand environmental and ecological issues? Sessions in this strand share exemplary ideas for environmental education.

All sessions held in Ballroom B

Thursday 2/6/14

9:00
Hands on Physical Science Inquiry Activities
Sherrie Chovanec, Peter Fischer, Chris Kennedy

10:00
Using PBL to teach NGSS
Dawn Hudson, Erin Anderson

12:00
Literacy in Middle Grades
Whitney Patterson

1:00
Practicing Argumentation in the Biology Classroom
Jeremy Peacock, Chelsea Sexton

2:00
3 R's -- Relax Relate Release Classroom Instructional
Strategies - Dawn Phillips, Yolanda Jones, Angela Walker, Lezettra Saunders

3:00
Motivating All Students Through Assessment
Tracy Robinson, Kim Greeson, Wendy Dauphinee

4:00
Writing about Science
Kenneth Linsley

NEXT GENERATION SCIENCE STANDARDS / GEORGIA PERFORMANCE STANDARDS

Ballroom C

Friday 2/7/14

8:00
Following the Lead of Next Generation Science Standards: All Standards, All Students - Cherry Brewton

9:00
Connecting With NGSS in Life Science
Betty Cordel

10:00
Guided Inquiry, Experimental Design, and the NGSS
Francis Gardner

12:30
Implementing Modeling Strategies in Chemistry
Karen Pompeo, Frank Lock

1:30
Merging Scientific Argumentation and Inquiry in AP Biology
Jennifer Forsyth

2:30
Applying a 5E Framework to PhET Computer Simulations
Benjamin Campbell, Ryan Nixon, Shannon Dubois, Julie Luft

3:30
NGSS Middle School Science Inquiry Activities
Frank Lock

NEXT GENERATION SCIENCE STANDARDS

GEORGIA PERFORMANCE STANDARDS

Ballroom C

8:00
Using NGSS "Systems" to improve student learning at all levels
George Stickel

Saturday 2/8/14

9:00
The Yellowstone Teacher Project meets the Next Gen. Science Standards -Charlease Kelly-Jackson, Kim Loomis, Hope Smith

10:00
Demystifying the Practices in the Next Generation Science Standards
Zoe Evans

11:00
Introduction to Modeling for Biology
Jennifer Forsyth

STEM Strand
Ballroom A

Thursday 2/6/14

9:00
STEAM! Arts In STEM – Jennifer Gates

10:00
Hands-On Standards STEM in Action PK-2 – Stephanie Shultz

12:00
Real STEM: Scientific Research in 4 Rural Southeast Georgia Schools

1:00
Project-based Instruction Activities – Jan Nourollahi

2:00
"Go Fly A Kite" – An Introductory STEM Unit – Diane Goldsberry

3:00
Stemilluminescence: How Cool Light Reactions Can Help Students See Connections Between STEM - Tom Brown

4:00
Getting Started with STEM at the Elementary Level – Colleen Cauffiel

Friday 2/7/14

8:00
Life Jackets & Density – Donna Barrett & Terri George

9:00
Solar House, a Hands-On STEM Challenge! – Kelly Bodner

10:00
Making Energy Fun for the Littlest Ones! – Jessie Kelly

12:30
STEM-sational Science! – Donita Legoas & Kristina Istre

1:30
Vertical Teaming for STEM Education? – Maria Thurmond, Gayle Adkinson, Beth Feustel, Laura Kohnke, Jennifer Peace, Robin Tillotson

2:30
S.T.E.M…Can I Do It? – Jane Sharp, Kathy Armstrong, Darrick Wood

4:00
STEM Sharathon – Betsy Green

Saturday 2/8/14

8:00
Building Blocks for Elementary STEM: A Unique Partnership – Maria Shaheen, Shelia Garland, Charlease Kelly-Jackson

10:00
STEMulating Science Beyond the Classroom Walls – Gail Marshall & Judy Cox

11:00
Engineering – Its Elementary, My Dear – Katie Thompson

environmental strand

Ballroom B

Thursday 2/6/14	
9:00	Social Media in Environmental Education - Lesley Carter
10:00	Secrets in the Garden - Rachael Parr
12:00	What's Bugging You? - Carla Bryan--Sheard
1:00	Island Time Inquiry - Missy Bennett, Heather Scott, Megan Troutt, Christine Jackson
2:00	Loggerhead Sea Turtles help bring Classroom Science to Life - Susan Collins, Kim Cannon, Summer Overstreet, Brooke Elsner
3:00	Serving with Science: Teaching Environmental Science Through Service Learning - Kristina Cummings
4:00	Connecting Teachers to Aquatic Environments - Kim Morris--Zarneke, Michael Mahan
Friday 2/7/14	
8:00	Understanding The Impacts Of An Informal Environmental Education Experience - Michael Dentzau
9:00	Outdoor Science - Steve Rich
10:00	Exploring Environmental Issues with Games and Picture Books - Barbara Salyer
12:30	Sea Turtle Ecology - Marti Schriver, Karen Chassereau
1:30	Active--Learning Strategies for Teaching Environmental Science - Caralyn Zehnder, Kalina Manoylov, Sam Mutiti, Allison Vandevoort
2:30	Advanced Training for Environmental Education in Georgia - Kim Morris--Zarneke, Amanda Buice, Venetia Butler and Heather Brasell
3:30	Teaching About Habitats Using Georgia State Parks' Junior Ranger Program - Cindy Reittinger, Kim Harrison
Saturday 2/8/14	
8:00	Going Green: Environmental Hands on Projects for Grades K--4 Meets Common Core - Serena Muhammad
9:00	Taking Wing: Teaching Science through Birds - Deb Jenkins, Nikki Belmonte
10:00	Butterflies! Engage students, teach GPS, do real science - Donna Gast
11:00	Empowering Students through Environmental Project--Based Learning - Karan Wood, Leesa Carter

Thursday February 6

Exhibit Hall Grand Opening: 8:00 a.m.

Exhibit Hall Open – Visit our wonderful vendors!

Several of our wonderful vendors have donated door prizes to be given away. To be included in the prize drawing, pick up your GSTA Vendor Passport in the Exhibit Hall.

- As you visit with the various vendors, have them give your passport a stamp.
- Once you have at least 15 stamps, drop your passport in the door prize box at the Exhibit Hall Registration Desk, by 4:00 PM on Friday.
- Door Prize drawing will be held on Friday, Feb. 7 @ 5:10 in the Exhibit Hall.

Must be present to win.

Special Session: Thursday 8:30

Day: Thursday **Time:** 8:30 - 9:00 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***First Timer's Session***
Presenters: Marlee Tierce
Description: Is this your first time at a GSTA conference? If so come find out tips for getting the most out of the conference!
Level: ALL **Content:**

Concurrent Session 1: Thursday 9:00 – 9:50

Day: Thursday **Time:** 9:00 - 9:50 **Room:** 303 Convention Center
Title: ***STEM into H2O***
Presenters: Tammy Shiflett, Bonita Fallon, Pepper Misinco, Melanie Peterson
Description: Dive into STEMulating learning integrating earth science and physical science to the common core. Float through 4 ELEMENTARY K-5 hands-on stations relating to water.
Level: Elementary **Content:** Earth/Physical

Day: Thursday **Time:** 9:00 - 9:50 **Room:** 306 Convention Center
Title: ***Put the "E" in STEM with TeacherGeek engineering challenges***
Presenters: Joe Iacono
Description: This workshop will show you how to teach engineering practices with fun, hands-on, inquiry based competitive challenges using TeacherGeek by Ward's proprietary engineering kits.
Level: **Content:** Engineering

Day: Thursday **Time:** 9:00 - 9:50 **Room:** 308 Convention Center
Title: ***Building Blocks for Understanding Nanoscale Science and Engineering Through Physical Science***
Presenters: Joyce Allen
Description: This hands-on session will provide lessons that connect nanoscale science with physical science GPSs and NG SS. Teachers will be provided lessons on CD.
Level: **Content:** Physical

Concurrent Session 1: Thursday 9:00 – 9:50

Day: Thursday **Time:** 9:00 - 9:50 **Room:** 309 Convention Center
Title: ***Equip your iPad for Science with SPARKvue – A full Featured Science Application for the iPad***
Presenters: Carla Johnson
Description: Explore PASCO's SPARKvue HD app, which offers data display and analytical tools within an integrated learning environment. SPARKlabs® content with journaling and assessments is included.
Level: All **Content:** All **Vendor**

Day: Thursday **Time:** 9:00 - 9:50 **Room:** 310 Convention Center
Title: ***Smart Phones in the Physics Classroom***
Presenters: Kelly Burke
Description: Lab ideas will be shared that utilize the default apps of the SmartPhone. These ideas have been successfully implemented in AP and on-level physics courses.
Level: **Content:** Physics

Day: Thursday **Time:** 9:00 - 9:50 **Room:** 312 Convention Center
Title: ***Differentiation through Computer Based Learning***
Presenters: Michael Kelly
Description: Learn tips, techniques and resources for creating engaging, easy to develop differentiated learning experiences for students on the computer.
Level: **Content:**

Day: Thursday **Time:** 9:00 - 9:50 **Room:** 313 Convention Center
Title: ***Science Outdoors: One Lesson at a Time***
Presenters: Mary Brown
Description: Take one lesson grades K-5 outdoors. Once you add the outdoor environment to your science lessons the students will ask for more. One quick science inquiry lesson for grades K-5 will be presented.
Level: Elementary **Content:**

Day: Thursday **Time:** 9:00 - 9:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***STEAM! Arts in STEM***
Presenters: Jennifer Gates
Description: Give your STEM an A for Arts! Add art and design to STEM for elementary - an overview.
Level: Elementary **Content:**

Day: Thursday **Time:** 9:00 - 9:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Social Media in Environmental Education***
Presenters: Lesley Carter
Description: A walk-through of popular social media platforms and ideas on how to utilize them in environmental education.
Level: High **Content:** Environment

Day: Thursday **Time:** 9:00 - 9:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Hands on Physical Science Inquiry Activities***
Presenters: Sherrie Chovanec, Peter Fischer, Chris Kennedy
Description: A series of Physical Science activities aligned with NGSS. These activities may be used in high school and middle school settings.
Level: Middle/High **Content:** Physical

Concurrent Session 1: Thursday 9:00 – 9:50

Day: Thursday **Time:** 9:00 - 9:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Dem Bones: Making Natural and Cultural Connections***
Presenters: Naomi Thompson, Susan Meyers
Description: Learn how bones can improve observation and science understanding while making natural and cultural connections. Explore the possibilities and craft a skull in the process.
Level: **Content:**

Day: Thursday **Time:** 9:00 - 9:50 **Room:** Grand Salon - Marriott
Title: ***Guided Inquiry Labs and Activities***
Presenters: Ann Baxley, Pat Harvey
Description: A number of Guided Inquiry Labs and Activities geared for on-level chemistry students.
Level: High **Content:** Chemistry

Day: Thursday **Time:** 9:00 - 9:50 **Room:** Magnolia A - Marriott
Title: ***Fun with Equilibrium and Kinetics!!***
Presenters: Jamie Akin
Description: Participate in a hands on activity that will clearly demonstrate to students the relationship between kinetics and equilibrium. Hand outs available.
Level: AP **Content:** Physical/Physics

Day: Thursday **Time:** 9:00 - 9:50 **Room:** Magnolia B - Marriott
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! Samples. Lesson plans.
Level: **Content:** Life/Biology

Day: Thursday **Time:** 9:00 - 9:50 **Room:** Magnolia C/D - Marriott
Title: ***Writing to Learn***
Presenters: Rhonne Goodson, Alex Alvarez, Anna McCall, Donna Williams
Description: Using Writing to Win strategies in Science
Level: Middle **Content:** Earth/Life/Physical

Concurrent Session 2: Thursday 10:00 – 10:50

Day: Thursday **Time:** 10:00 - 10:50 **Room:** 303 Convention Center
Title: ***STEM in elementary? Who has time?***
Presenters: Denise Webb
Description: Learn how every student from Kindergarten through fifth grade participates weekly in STEM labs and investigations that support both the science standards and common core!
Level: Elementary **Content:**

Day: Thursday **Time:** 10:00 - 10:50 **Room:** 306 Convention Center
Title: ***Turning impossible into STEMpossible***
Presenters: Jane Sharp, Kathy Armstrong, Darrick Wood
Description: Can a science lesson really satisfy every part of STEM? Take home a content-based, hands-on lesson that really gets the job done.
Level: **Content:** **Vendor**

Concurrent Session 2: Thursday 10:00 – 10:50

Day: Thursday **Time:** 10:00 - 10:50 **Room:** 308 Convention Center
Title: ***Physical Science Show-and-Share***
Facilitator: Tom Brown
Description: Come and see our favorite Physical Science activities for igniting interest and building understanding of key concepts.
Level: **Content:** Physical

Day: Thursday **Time:** 10:00 - 10:50 **Room:** 309 Convention Center
Title: ***Engaging Students in Scientific and Engineering Practices***
Presenters: Carla Johnson
Description: This workshop will teach you how 21st century tools, such as probeware, are used to actively involve students in these new practices.
Level: All **Content:** All **Vendor**

Day: Thursday **Time:** 10:00 - 10:50 **Room:** 310 Convention Center
Title: ***iSTEM: Teachers' Perspectives on iPads in the STEM Classroom***
Presenters: Paul Blais, Jeremy Peacock, Seteria Abdulai, April Bentley, Jess Bush, Amanda Foley, Jennifer Mansour
Description: Science, math, and CTAE teachers provide their perspectives and practical advice based on a one-to-one iPad initiative.
Level: High **Content:**

Day: Thursday **Time:** 10:00 - 10:50 **Room:** 312 Convention Center
Title: ***Digital Informational Texts: Integrating Science, Technology, and Literacy***
Presenters: Charlease Kelly-Jackson, Abby Hernandez
Description: This session will demonstrate how digital informational texts can be created and how they can encourage creativity and self-expression while reinforcing science academic language and literacy skills.
Level: Elementary **Content:**

Day: Thursday **Time:** 10:00 - 10:50 **Room:** 313 Convention Center
Title: ***Warnings, Warnings, Warnings--When Is Enough Enough?***
Presenters: Tim Shaffer
Description: Avoid repeated requests and second warnings, and eliminate 80-90% of low level disciplinary problems. How to get back 5-9 hours of classroom time every week.
Level: Administrators **Content:**

Day: Thursday **Time:** 10:00 - 10:50 **Room:** 324 Convention Center
Title: ***Personalized Learning In Science***
Presenters: Judy Ward
Description: Research shows that students who use personalized learning and technology strategies show increased motivation, increased learning, and decreased discipline issues. Ready-made lessons, projects, and assessments will be presented and handouts will be available.
Level: **Content:**

Day: Thursday **Time:** 10:00 - 10:50 **Room:** Magnolia C/D - Marriott
Title: ***How To Run a Successful Robotics Program to promote STEM***
Presenters: Deborah Kauffman
Description: Developing robotics in a high school setting.
Level: High **Content:**

Concurrent Session 2: Thursday 10:00 – 10:50

Day: Thursday **Time:** 10:00 - 10:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***Hands-On Standards STEM in Action PK-2***
Presenters: Stephanie Shultz
Description: Your team has been challenged to design a ramp for a… SKATEBOARDING ARMADILLO? This task will bring slopes, surfaces, graphs and problem solving to life. Door prizes will be given.
Level: Elementary **Content:** **Vendor**

Day: Thursday **Time:** 10:00 - 10:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Secrets in the Garden***
Presenters: Rachael Parr
Description: This interactive session will provide teachers with ideas and resources for using raised-bed gardeing to increase environmental literacy.
Level: **Content:** Environment

Day: Thursday **Time:** 10:00 - 10:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Using PBL to teach NGSS***
Presenters: Dawn Hudson, Erin Anderson
Description: Experience an interactive example of project based learning and receive many resources and examples for use in your classroom.
Level: **Content:**

Day: Thursday **Time:** 10:00 - 10:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Quit Teaching! Start Facilitating!***
Presenters: Dana Niblett, Miranda Simmons, Erin Anderson
Description: Renew your energy by facilitating students as they engage in inquiry-based learning. By fostering a student-centered learning environment, you will gain energy and your students will succeed!
Level: **Content:**

Day: Thursday **Time:** 10:00 - 10:50 **Room:** Grand Salon - Marriott
Title: ***Chem-a-Thon***
Presenters: Frank Lock
Description: Participants will receive information about the Chem-a-Thon competition.
Level: AP **Content:** Chemistry

Day: Thursday **Time:** 10:00 - 10:50 **Room:** Magnolia A - Marriott
Title: ***Using STEM to evaluate student data and increase student achievement.***
Presenters: Trinna Johnson, Allison Ingram
Description: This program will describe how to revolutionize your science courses by adding technology to increase engagement and enhance development of critical thinking by students.
Level: AP **Content:**

Day: Thursday **Time:** 10:00 - 10:50 **Room:** Magnolia B - Marriott
Title: ***Life Science Labs on a Budget***
Presenters: Donna Gast
Description: Quality, engaging labs do not have to cost an arm and a leg! Get tips and instructions for biology labs that cost next to nothing.
Level: Middle **Content:** Life/Biology

Featured Speaker: Thursday 11:00 – 11:50 - Exhibition Hall B

Featured Speaker: NSTA Author Dr. Sharon Price Schleigh
The Role of Argumentation in the Efforts to Reform STEM Education

This talk will provide an overview of the ways we have taught and learned science and where we stand now in terms of progress toward science education reform. The emphasis of the talk will include an overview of the research behind the focus of argumentation in science education and provide a clear presentation of how the role of argumentation aligns to teaching from the NGSS.

Dr. Sharon Price Schleigh is a co-author of the NSTA book titled: *Scientific Argumentation in Biology: 30 Classroom Activities.* She has also has been an educator for over 20 years, teaching all ages from pre-school to university in a wide variety of educational environments. She received her doctoral degree from Arizona State University and is currently an Assistant Professor at Purdue University and was nominated as ASTE Outstanding Science Teacher Mentor in 2011 and 2012. Her research interests include understanding how people think about and engage in science. Dr. Schleigh has been a leader within science education, including many disciplines of science and with a strong focus in content related to astronomy & physics education. She initiated the Research Engaged Science Teacher Education Program to improve STEM, funded by NASA and the NC Space Gran, working with pre-service teachers.

Dr. Schleigh will also be presenting the following sessions:	Thursday	Friday
Workshop 1: Developing A Safe Environment for Argumentation in the Science Classroom	Ballroom D/E 2:00	Ballroom D/E 12:30
Workshop 2: Embedding the Learning of Science Content through Argumentation Strategies	Ballroom D/E 3:00	Ballroom D/E 1:30
Workshop 3: Assessing the Argument and Aligning to Common Core Standards	Ballroom D/E 4:00	Ballroom D/E 2:30

Dr. Schleigh's book, *Scientific Argumentation in Biology* is available online thorough the NSTA Press store at: http://www.nsta.org/publications/press/

- Be sure to follow our Twitter account (@GSTANews)
- Use hashtag #GSTA14 for conference-related tweets

Conference Newsfeed

Concurrent Session 3: Thursday 12:00 – 12:50

Day: Thursday **Time:** 12:00 - 12:50 **Room:** 303 Convention Center
Title: ***STEM-ulating Students on a Budget!***
Presenters: LaTrina Howell, LaDetra Braswell
Description: Is your budget limited? This workshop explores ways to STEM-ulate your students in a low-cost and effective way! This interactive session will provide simple, creative activities. (Handouts)
Level: Elementary **Content:** Earth/Life/Physical

Day: Thursday **Time:** 12:00 - 12:50 **Room:** 306 Convention Center
Title: ***An Engineering Design Competition Model to Engage Students in the Next Generation Science Standards***
Presenters: Amanda Baskett
Description: This session presents a pilot program designed in collaboration with Georgia Tech to address the engineering design component of NGSS.
Level: **Content:** Engineering

Day: Thursday **Time:** 12:00 - 12:50 **Room:** 308 Convention Center
Title: ***Hands-on Physics Activities to Build Conceptual and Mathematical Understanding***
Presenters: Chris Kennedy, Peter Fischer, Jason Goodman
Description: A series of inquiry-based physics activities that allow students to explore concepts and provide opportunity for quantitative practice.
Level: High **Content:** Physics

Day: Thursday **Time:** 12:00 - 12:50 **Room:** 310 Convention Center
Title: ***The Mathematics Science Partnership Grant: STEMulating Professional Learning***
Presenters: Amanda Buice
Description: State MSP Program Specialist will provide an overview of the requirements for applying for this Title II B, federally funded grant. The MSP Grant partners STEM faculty from IHEs with K-12 schools.
Level: **Content:**

Day: Thursday **Time:** 12:00 - 12:50 **Room:** 312 Convention Center
Title: ***A Case to Study***
Presenters: Michelle Judson, Joyce Range
Description: Using case studies to expand thinking skills
Level: Elementary/Middle **Content:**

Day: Thursday **Time:** 12:00 - 12:50 **Room:** 313 Convention Center
Title: ***BYOT: A Beginner's Guide***
Presenters: Nick Zomer
Description: A session designed for teachers who are wanting to begin BYOT in their classroom but are unsure where to begin.
Level: K-12 **Content:** Technology

Georgia Science Teachers Association

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Concurrent Session 3: Thursday 12:00 – 12:50

Day: Thursday **Time:** 12:00 - 12:50 **Room:** 324 Convention Center
Title: ***Doing Science in the Age of Technology***
Presenters: Marion Reeves, Karol Stephens
Description: Students' experience of science in the classroom could be enhanced with integration of technology. How do we merge the S and T of STEM?
Level: K-12 **Content:** Technology

Day: Thursday **Time:** 12:00 - 12:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***Real STEM: Scientific Research in 4 Rural, Southeast Georgia High Schools***
Presenters: Deborah Walker, Robert Mayes, Raushanah Oglesby
Description: This is the story of creating a STEM research experience for high school students in 4 rural high schools in Southeast Georgia.
Level: High **Content:**

Day: Thursday **Time:** 12:00 - 12:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***What's Bugging You?: A Way to Align Forensic and Environmental Sciences***
Presenters: Carla Bryan-Sheard
Description: A modeled lesson of the application of the concepts of ecological succession to a crime scene investigation through the STEM Career of Forensic Entomologist.
Level: **Content:** Environment

Day: Thursday **Time:** 12:00 - 12:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Literacy in Middle Grades***
Presenters: Whitney Patterson
Description: Explore different literacy strategies to implement into middle grade science classrooms
Level: Middle **Content:**

Day: Thursday **Time:** 12:00 - 12:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***"What is STEM, anyways?"***
Presenters: Jane Sharp, Kathy Armstrong, Darrick Wood
Description: Participate in hands-on activities that identify how STEM really works in the classroom, and how to make sure your lessons have all the necessary components.
Level: **Content:** **Vendor**

Day: Thursday **Time:** 12:00 - 12:50 **Room:** Magnolia A - Marriott
Title: ***From The Crime Scene To The Classroom: Blood Spatter***
Presenters: Benji Wooten
Description: Hands-on forensics from The Mystery of Lyle & Louise. Explore types of blood spatter and how to interpret its presence at a crime scene.
Level: **Content:** Forensics **Vendor**

Day: Thursday **Time:** 12:00 - 12:50 **Room:** Magnolia B - Marriott
Title: ***Being WHALE Aware of Our Coastal Connections***
Presenters: Chantal Audran, Beth Palmer
Description: Participants learn about the biology, behavior, and conservation of the North Atlantic right whale through our interactive Whale Tale presentation. Various artifacts engage participants as they investigage whale baleen, vertebrae, and fossils.
Level: **Content:**

Concurrent Session 3: Thursday 12:00 – 12:50

Day: Thursday **Time:** 12:00 - 12:50 **Room:** Magnolia C/D - Marriott
Title: ***Save Time and Beat the Paper Monster***
Presenters: Louisa McDonald, Julie Willis
Description: Using student notebooks to organize student work and minimize time spent grading.
Level: **Content:**

Concurrent Session 4: Thursday 1:00 – 1:50

Day: Thursday **Time:** 1:00 - 1:50 **Room:** 303 Convention Center
Title: ***Science Learning in the Digital Age: Tablet-Based Scientific Discovery Tools***
Presenters: Kenneth Linsley, Ashley Potter
Description: Interested in students collecting real data in real-time? Join Oconee River GYSTC to see the einstein™ Science Learning Platform, and try it yourself!
Level: Elementary/Middle **Content:** Tech Integration

Day: Thursday **Time:** 1:00 - 1:50 **Room:** 306 Convention Center
Title: ***Engineering Practices in Science Classrooms: Preparing for NGSS***
Presenters: George Stickel
Description: Making Engineering practices and Crosscutting Concepts of NGSS easy, to promote student learning, excitement, and success in STEM. A how-to workshop.
Level: All **Content:** Engineering

Day: Thursday **Time:** 1:00 - 1:50 **Room:** 308 Convention Center
Title: ***Using Graphs To Introduce Motion***
Presenters: Donna Mullenax
Description: Use graphs to introduce displacement, velocity, and acceleration at all levels. Will also integrate writing in the activities.
Level: **Content:** Physics/Physical

Day: Thursday **Time:** 1:00 - 1:50 **Room:** 309 Convention Center
Title: ***Weathering and Erosion***
Presenters: Jonathan Hendrix, Cathleen Westall
Description: In this session you will see two simple and effective ways for students to demonstrate the processes of weathering and erosion.
Level: **Content:** Earth

Day: Thursday **Time:** 1:00 - 1:50 **Room:** 310 Convention Center
Title: ***Outbreak! Partnering Scientists with Science Teachers***
Presenters: Kelly Cordeira, Ralph Cordell
Description: Solve an outbreak with the CDC! Through an interactive presentation, learn about outbreak strategies and how to create interactive lessons that incorporate public health content.
Level: **Content:** **Vendor**

Concurrent Session 4: Thursday 1:00 – 1:50

Day: Thursday **Time:** 1:00 - 1:50 **Room:** 313 Convention Center
Title: ***Motivating the 21st Century STEM Learner***
Presenters: Donald White
Description: It's not you, it's them. Come find out why your students are the way they are and what you can do to better motivate them. Simple, low cost/no cost methods will be shared.
Level: K-12 **Content:**

Day: Thursday **Time:** 1:00 - 1:50 **Room:** 324 Convention Center
Title: ***SLO Share-a-Thon***
Facilitator: Jennifer Gates
Description: SLOs are sweeping the state! Join representatives from the GA DoE at the SLO Share-a-thon. We'll share info, ideas, report out and collaborate. Please bring SLO examples, samples and plans to fully participate. All grades & levels welcome.
Level: **Content:**

Day: Thursday **Time:** 1:00 - 1:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***Project-based Instruction Activities***
Presenters: Jan Nourollahi
Description: Project-based Learning activities will be presented that address the Common Core STEM standards. Topics will include planning, scheduling, teaching, and assessing PBL activities. Handouts will be provided.
Level: Middle/High **Content:**

Day: Thursday **Time:** 1:00 - 1:50 **Room:** Ballrom B - Convention Center - Lower Level
Title: ***Island Time Inquiry***
Presenters: Missy Bennett, Heather Scott, Megan Troutt, Christine Jackson
Description: Learn more about "Blue Bloods and Red Knots of Sapelo Island: An investigation into inquiry" and how to implement inquiry activities in your classroom.
Level: Middle/High **Content:** Environment

Day: Thursday **Time:** 1:00 - 1:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Practicing Argumentation in the Biology Classroom***
Presenters: Jeremy Peacock, Chelsea Sexton
Description: Engage in scientific argumentation and learn how this approach can support your students' learning relative to the NGSS, GPS, AP curriculum, and literacy standards.
Level: Middle/High **Content:** Life/Biology

Day: Thursday **Time:** 1:00 - 1:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Ship a Chip - A "Real World" STEM Activity***
Presenters: Annette Simpson
Description: An engaging and relevant STEM activity. Teachers learn how collaborative teams can engineer a container for a single potato chip to be shipped, first class mail, so the chip arrives intact.
Level: Elementary/Middle **Content:**

Concurrent Session 4: Thursday 1:00 – 1:50

Day: Thursday **Time:** 1:00 - 1:50 **Room:** Grand Salon - Marriott
Title: ***Get your students to think like scientists!***
Presenters: Cheree Vaughn
Description: You can get your students to learn how to read journal articles, communicate through writing, and think critically through these strategies.
Level: High **Content:** Chemistry

Day: Thursday **Time:** 1:00 - 1:50 **Room:** Magnolia A - Marriott
Title: ***Family Science Nights: CSI-Style (Grades 3-8)***
Presenters: Stephanie Shultz
Description: CALLING ALL DETECTIVES! Come learn how to set up a successful Family Science Night (CSI style) for your classroom, school or system.
Level: Elementary/Middle **Content:**

Day: Thursday **Time:** 1:00 - 1:50 **Room:** Magnolia C/D - Marriott
Title: ***Stop Putting the Cart Before the Horse!***
Presenters: Dr. Denise Richardson
Description: Do we really know how to teach science, recognize good methodology, or effectively lead successful science programs? Surveys say.... YES! Now let's put we know into action...
Level: Administrators, Instructors **Content:**

Concurrent Session 5: Thursday 2:00 – 2:50

Day: Thursday **Time:** 2:00 - 2:50 **Room:** Exhibit Hall B
Title: ***News from the front line: A Dino Diggers report***
Guest Speaker: Cary Woodruff
Description: Want to know the latest news & analyses from the world of dinosaur paleontology? Well join us for a great session from Cary Woodruff, Montana State University, our contact on the front line of dino discovery and research. Go back to work Monday knowing more about dinos than your kiddos!
Level: **Content:**

Day: Thursday **Time:** 2:00 - 2:50 **Room:** 303 Convention Center
Title: ***Learning Gardens: Making Outdoor Education Irresistible, Relevant and Resilient***
Presenters: Catherine Padgett, Kyla VanDeusen
Description: Try out inquiry investigations and engineering challenges from standards-based Learning Gardens lessons and discover how to use and sustain gardens as effective outdoor learning labs
Level: Elementary **Content:** Environment

Day: Thursday **Time:** 2:00 - 2:50 **Room:** 306 Convention Center
Title: ***Crowd-sourcing: Engage your students and getting them thinking outside of the classroom***
Presenters: Brett Dooley
Description: Do you wish you could get your students to think about a topic outside of school? For students within the age group possessing mobile technology, crowd-sourcing can be an exciting option. See examples of student use and learn how to adapt this tool to your classroom.
Level: Middle/High/Higher Ed. **Content:** Technology

Concurrent Session 5: Thursday 2:00 – 2:50

Day: Thursday **Time:** 2:00 - 2:50 **Room:** 308 Convention Center
Title: ***Physics is Phun***
Presenters: Jamie Akin
Description: Demonstrations and lessons for physics, conceptual physics and physical science. Give aways & handouts!!
Level: Middle/High **Content:** Physics/Physical

Day: Thursday **Time:** 2:00 - 2:50 **Room:** 309 Convention Center
Title: ***Teaching Science Through Interest-Based Learning Communitities***
Presenters: Rachael Parr, Heidi Hill, Tiffany Barnett, Heather Duren
Description: Learn how to empower your students to be active participants in their own learning through the establishment of interest-based learning communities: STEM, Applied Arts and Fine Arts.
Level: **Content:**

Day: Thursday **Time:** 2:00 - 2:50 **Room:** 310 Convention Center
Title: ***Breathe Easy with hands on environmental science.***
Presenters: Joey Giunta, Lesley Carter
Description: Middle school students take the lead in engaging their school community with real-world environmental science issues. Great for classes or clubs!
Level: Middle **Content:** Environment

Day: Thursday **Time:** 2:00 - 2:50 **Room:** 312 Convention Center
Title: ***No More Darn Volcanoes!***
Presenters: Michael Murray
Description: Science Fair Do's and Don'ts for parents and students
Level: **Content:**

Day: Thursday **Time:** 2:00 - 2:50 **Room:** 313 Convention Center
Title: ***No homework for ME or you!***
Presenters: Polly Baron
Description: How to get it done in school! No more homework for teacher!
Level: **Content:**

Day: Thursday **Time:** 2:00 - 2:50 **Room:** 324 Convention Center
Title: ***NASA remote Sensing Technology applications***
Presenters: Lester Morales
Description: Remote Sensing Technolgy applications in the field
Level: **Content:** Earth/Space

Day: Thursday **Time:** 2:00 - 2:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***"Go Fly a Kite" – An Introductory STEM Unit***
Presenters: Diane Goldsberry
Description: Start your STEM year off with this tetrahedron kite lesson! Participants will create a simple tetrahedron kite to exploring the science, engineering, and mathematics behind its flight.

Level: Middle **Content:**

Concurrent Session 5: Thursday 2:00 – 2:50

Day: Thursday **Time:** 2:00 - 2:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Loggerhead Sea Turtles help bring Classroom Science to Life***
Presenters: Susan Collins, Kim Cannon, Summer Overstreet, Brooke Elsner
Description: Pre-service teachers will share observations and their non-fiction books about Loggerhead Sea Turtles. Teacher materials will let you share these life-altering experiences with your students.
Level: **Content:** Environment

Day: Thursday **Time:** 2:00 - 2:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***3 R's - Relax Relate Release - Classroom Instructional Strategies***
Presenters: Dawn Phillips, Yolanda Jones, Angela Walker, Lezettra Saunders
Description: Strategies to help you with differentiation, and quick formative assessments
Level: **Content:**

Day: Thursday **Time:** 2:00 - 2:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Developing A Safe Environment for Argumentation in the Science Classroom***
Presenters: Sharon Schleigh
Description: Starting a class in an activity that promotes argumentation is not simply a matter of providing the materials and the student directions. Students are sometimes resistant and classroom environments may interfere with the ability to effectively implement the strategies that promote scientific argumentation. This workshop will place participants in a position of the student to experience how a classroom environment can be molded to support scientific arguments.
Level: **Content:**

Day: Thursday **Time:** 2:00 - 2:50 **Room:** Grand Salon - Marriott
Title: ***The Gas Laws - a unit for Chemistry***
Presenters: Nancy Brim
Description: Here is a full unit of gas law demos and labs as well as the unit sequence.
Level: High **Content:** Chemistry

Day: Thursday **Time:** 2:00 - 2:50 **Room:** Magnolia A - Marriott
Title: ***Inherently Differentiated: Using PBL to Engage Secondary Science Students***
Presenters: Malaika Jordan, Larry Harris, Candice Henry, Yolanda McKee
Description: This session will provide participants with the opportunity to explore PBL, a learner-centered instructional strategy designed to engage students in active scientific inquiry.
Level: Middle/High **Content:**

Day: Thursday **Time:** 2:00 - 2:50 **Room:** Magnolia B - Marriott
Title: ***Science in Georgia 2014***
Presenters: Juan-Carlos Aguilar
Description: Provides updates on science initiatives in Georgia
Level: **Content:**

Day: Thursday **Time:** 2:00 - 2:50 **Room:** Magnolia C/D - Marriott
Title: ***Integration made easy.***
Presenters: Tresa Snow
Description: Time is valuable! Use these strategies to help get it all done effectively and efficiently.
Level: K - 5 **Content:** Integrated

Concurrent Session 6: Thursday 3:00 – 3:50

Day: Thursday **Time:** 3:00 - 3:50 **Room:** 306 Convention Center
Title: ***Bridging Magic and Science***
Presenters: Sue Watters
Description: Science is magical; learn how to incorporating these simple, inexpensive magic tricks into your classroom and engage students in discussions of scientific principles and concepts.
Level: Middle **Content:**

Day: Thursday **Time:** 3:00 - 3:50 **Room:** 310 Convention Center
Title: ***Get There Green Transportation Challenge***
Presenters: Joey Giunta, Lesley Carter
Description: Apply real-world transportation planning issues to your environmental science class or club in this free high school competition.
Level: High **Content:** Environment

Day: Thursday **Time:** 3:00 - 3:50 **Room:** 312 Convention Center
Title: ***Teach to Learn: Supporting Early-Career Science Teachers Through a District-University Partnership***
Presenters: Amy Peacock
Description: Learn how Clarke County partnered with UGA to support and retain early-career science teachers through a triad model including teacher coaches and graduate student residents.
Level: Administrators **Content:**

Day: Thursday **Time:** 3:00 - 3:50 **Room:** 313 Convention Center
Title: ***Get Your STEM Grant On!***
Presenters: Jennifer Gates
Description: What if you could spend someone else's money to make your STEM dreams come true? It's easy! Learn how to write a grant & get spending!
Level: Administrators **Content:**

Day: Thursday **Time:** 3:00 - 3:50 **Room:** 324 Convention Center
Title: ***A Family That STEMs Together***
Presenters: D'Anna Muhammad, Carla Bryan-Sheard, Aaron Sims
Description: A how-to guide on planning your own high school family STEM night, beginning to end.
Level: **Content:**

Day: Thursday **Time:** 3:00 - 3:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***STEMilluminescence: How cool light reactions can help students see the connections between STEM disciplines.***
Presenters: Tom Brown
Description: Come explore how our knowledge of bioluminescence has helped us to engineer new applications in chemistry, genetics, ecology and medicine. Seeing is believing.
Level: **Content:**

Concurrent Session 6: Thursday 3:00 – 3:50

Day: Thursday **Time:** 3:00 - 3:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Serving with Science: Teaching Environmental Science Through Service Learning***
Presenters: Kristina Cummings
Description: Use service learning to teach real-life applications of environmental science standards. Receive details of activities, community partnership/grant leads, and logistical items to get you started.

Level: **Content:** Environment

Day: Thursday **Time:** 3:00 - 3:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Motivating All Students Through Assessment***
Presenters: Tracy Robinson, Kim Greeson, Wendy Dauphinee
Description: Differentiate grades and have a fluid grade book by using standard based checks, student contracts, and other opportunities for all students, whether gifted or struggling, to show mastery.

Level: **Content:**

Day: Thursday **Time:** 3:00 - 3:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Embedding the Learning of Science Content through Argumentation Strategies***
Presenters: Sharon Schleigh
Description: This workshop provides a hands-on experience in content specific material through the argumentation-driven inquiry approach. Participants will experience this as students and discuss alternatives to support varied classroom and curriculum implementation. This workshop focuses on the materials published in the NSTA book: Argumentation in Biology: 30 Classroom Activities however, materials from other disciplines (ie: engineering, astronomy, physics) may be presented.
Level: **Content:**

Day: Thursday **Time:** 3:00 - 3:50 **Room:** Grand Salon - Marriott
Title: ***Edmodo for the classroom***
Presenters: Kim Kammerdiener
Description: How I utilize the Edmodo website for my Chemistry and Environmental Science classrooms
Level: High **Content:** Chemistry

Day: Thursday **Time:** 3:00 - 3:50 **Room:** Magnolia A - Marriott
Title: ***Using Investigation Packs to Foster Student Collaboration***
Presenters: Cynthia Holley
Description: Using Investigation Packs to Foster Student Collaboration
Level: **Content:** **Vendor**

Day: Thursday **Time:** 3:00 - 3:50 **Room:** Magnolia B - Marriott
Title: ***Metric Mastery***
Presenters: Jeff Miller, Debbie Amodeo
Description: Using the metric mastry event from Science Olympiad to teach about the metric system
Level: **Content:**

Concurrent Session 7: Thursday 3:00 – 4:50 (Double Session)

Day: Thursday **Time:** 3:00 - 4:50 **Room:** 303 Convention Center
Title: ***Teaching STEM Outdoors!***
Presenters: Karen Garland
Description: The environment is a compelling context to teach STEM, as it provides real-world challenges across disciplines. Discover connections with hands-on activities that inspire natural curiosity.
Level: **Content:** Environment

Day: Thursday **Time:** 3:00 - 4:50 **Room:** 308 Convention Center
Title: ***Using Learning Stations in Science***
Presenters: Stacy Clark, Katrina Hammonds
Description: Get your students engaged in learning through a multi-sensory interactive approach
Level: Middle/High **Content:** Physical

Day: Thursday **Time:** 3:00 - 4:50 **Room:** 309 Convention Center
Title: ***Water water Everywhere - RCSS I.D.E.A. Program***
Presenters: Dawn Phillips, Yolanda Jones, Angela Walker
Description: Brief description of RCSS Summer STEM program and activities
Level: **Content:** Earth/Environment

Day: Thursday **Time:** 3:00 - 4:50 **Room:** Magnolia C/D - Marriott
Title: ***Water Quality & Inquiry in Science***
Presenters: Catherine Teare Ketter, Julie Anthony, Samantha Askin, Olivia Fine, Alexandra Fuller, Gi Jeong, Grady Kirby, Morgan Mahaffey, Eliza Nixon, Justin Witte
Description: This session will focus on the use of water quality test kits and the ways these can be used in earth, physical, environmental science courses
Level: **Content:**

Concurrent Session 8: Thursday 4:00 – 4:50

Day: Thursday **Time:** 4:00 - 4:50 **Room:** 306 Convention Center
Title: ***Learning Their Way: Interest-Based Learning Communities***
Presenters: Rachael Parr, Heidi Hill, Tiffany Barnett, Heather Duren
Description: Building Leadership, Character and Performance in the Science Classroom through an interest-based model approach to learning.
Level: Middle **Content:**

Day: Thursday **Time:** 4:00 - 4:50 **Room:** 310 Convention Center
Title: ***A Gravediggers Touch: Success Of Performance Assessment For Career Readiness In STEM Forensic Classroom***
Presenters: April Bentley
Description: The use of a real world simulation of from crime scene to classroom to provide high school students real world practice using forensic techniques while assessing student knowledge and proficiency
Level: High **Content:** Forensics

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Concurrent Session 8: Thursday 4:00 – 4:50

Day: Thursday **Time:** 4:00 - 4:50 **Room:** 312 Convention Center
Title: ***Exploring Vocabulary in the Science Classroom***
Presenters: Amy Peacock, Jeremy Peacock, Amy Rejmer
Description: Which comes first? Vocabulary or understanding? The presenters will use the 5-E model to demonstrate how explorations and context support student understanding and vocabulary development.
Level: **Content:**

Day: Thursday **Time:** 4:00 - 4:50 **Room:** 324 Convention Center
Title: ***Using Technology to Support Differentiation in Science***
Presenters: Aaron Sims, Nichelle Williams
Description: Facilitators will present a session on ideas for providing differentiated instruction on laboratory skills. Explicit instruction, inquiry and hands-on activities are incorporated to address students'
Level: **Content:**

Day: Thursday **Time:** 4:00 - 4:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***Getting Started with STEM at the Elementary Level***
Presenters: Colleen Cauffiel
Description: STEM is the new buzzword in elementary schools. This session will introduce you to STEM and show you how to implement STEM practices into your classroom.
Level: Elementary **Content:**

Day: Thursday **Time:** 4:00 - 4:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Connecting Teachers to Aquatic Environments***
Presenters: Kim Morris-Zarneke, Michael Mahan
Description: Through immersive learning experiences, such as the Rivers to Reefs Educator Workshop, teachers are able to build their content knowledge and science self efficacy.
Level: **Content:** Environment

Day: Thursday **Time:** 4:00 - 4:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Writing about Science***
Presenters: Kenneth Linsley
Description: Get students writing about science! Come learn how to use discrepant events to get students using the NGSS science practices and crosscutting concepts in writing.
Level: Elementary **Content:** Lang Arts/General Sci

Day: Thursday **Time:** 4:00 - 4:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Assessing the Argument and Aligning to Common Core Standards***
Presenters: Sharon Schleigh
Description: This workshop focuses on assessing the work of students in an argumentation-driven inquiry activity. Like other forms of alternative assessments, identifying student knowledge and skills is not merely a matter of providing a worksheet or a test. This workshop will provide tools and opportunities to learn how to recognize a strong argument and quickly evaluate students' content knowledge and abilities within both NGSS and Common Core Standards.
Level: **Content:**

Concurrent Session 8: Thursday 4:00 – 4:50
Day: Thursday **Time:** 4:00 - 4:50 **Room:** Grand Salon - Marriott **Title:** ***Chemistry Classroom Discourse*** **Presenters:** Sarah Eales, Erica Peddy, Jordan Tidrick **Description:** Come see how a group of chemistry teachers implements classroom discussions into their everday lessons. **Level:** High **Content:** Chemistry
Day: Thursday **Time:** 4:00 - 4:50 **Room:** Magnolia A - Marriott **Title:** ***From Hypothesizing to ABC*** **Presenters:** Sarida Hoy **Description:** Is there room for LDC in science? This hands-on activity will use eight miniature crime scenes to model how LDC and science can coexist. **Level:** High **Content:** Forensics
Day: Thursday **Time:** 4:00 - 4:50 **Room:** Magnolia B - Marriott **Title:** ***Untangling Science and Engineering*** **Presenters:** Ann Robinson, Sharon Kirby, David Todd **Description:** Presentation will engage teachers in exploring engineering design and compare it with scientific inquiry through the use of activities. **Level:** **Content:** Engineering

District Meet & Greet Social

This is a great informal opportunity to meet your district director, network with others from your district and grab a snack.

Thursday @ 5:00 PM In Registration Area

District 1: Erin Anderson	**District 7:** Latrina Howell
District 2: Nick Zomer	**District 8:** Heather Scott
District 3: Tonya Pugh	**District 9:** Donita Legoas
District 4: Steven King	**District 10:** Patricia DuBose
District 5: Dr. Katie Thompson	**District 11:** Michelle Bergozza
District 6: Dr. Kimberly Shaw	**District 12:** Bronwyn Hogan

GSTA Districts

GSTA District Meet & Greet
Network with educators from your area.

Thursday @ 5:00 in Registration Area

District I: Bartow, Bremen City, Calhoun City, Cartersville City, Catoosa, Chattooga, Chickamauga City, Dade, Dalton City, Floyd, Gordon, Haralson, Murray, Paulding, Polk, Rome City, Trion City, Walker and Whitfield.

District II: Banks, Cherokee, Dawson, Fannin, Forsyth, Franklin, Gainesville City, Gilmer, Hall, Habersham, Hart, Lumpkin, Pickens, Rabun, Stephens, Towns, Union and White.

District III: Atlanta City, Clayton, Cobb, Douglas, Fulton, and Marietta City.

District IV: Barrow, Clarke, Commerce City, Elbert, Greene, Jackson, Jasper, Jefferson City, Lincoln, Madison, Morgan, Oconee, Oglethorpe, Putnam, Social Circle City, Taliaferro, Walton, and Wilkes.

District V: Butts, Carroll, Carrollton City, Coweta, Fayette, Heard, Henry, Lamar, Meriwether, Pike, Spalding, Thomaston-Upson, and Troup.

District VI: Chattahoochee, Clay, Harris, Macon, Marion, Muscogee, Quitman, Randolph, Schley, Stewart, Sumter, Talbot, Taylor, and Webster.

District VII: Baldwin, Bibb, Bleckley, Crawford, Dodge, Dooly, Dublin City, Houston, Jones, Laurens, Monroe, Montgomery, Peach, Pulaski, Telfair, Treutlen, Twiggs, Wheeler, Wilcox, and Wilkinson.

District VIII: Appling, Bryan, Bulloch, Candler, Chatham, Effingham, Evans, Jeff Davis, Liberty, Long, McIntosh, Tattnall, Toombs, Vidalia City, and Wayne.

District IX: Burke, Columbia, Emanuel, Glascock, Hancock, Jefferson, Jenkins, Johnson, McDuffie, Richmond, Screven, Warren, and Washington.

District X: Atkinson, Bacon, Brantley, Camden, Charlton, Clinch, Coffee, Glynn, Pierce, and Ware.

District XI: Baker, Ben Hill, Berrien, Brooks, Calhoun, Colquitt, Cook, Crisp, Decatur, Dougherty, Early, Echols, Grady, Irwin, Lanier, Lee, Lowndes, Miller, Mitchell, Pelham City, Terrell, Thomas, Thomasville City, Tift, Turner, Seminole, Valdosta City, and Worth.

District XII: Buford City, Decatur City, DeKalb, Gwinnett, Newton, and Rockdale

GSTA is divided into twelve (12) districts. The purpose of organizing into districts is to promote membership in the Association and to provide more and better services to individual members. The District Director represents the interests of district membership on the GSTA Board. **District Membership. District membership is determined by the location of the educator's work place, not his/her personal residence.**

Friday February 7

Exhibit Hall Reopening: 8:00 a.m.

Exhibit Hall Open – Visit our wonderful vendors!

Several of our wonderful vendors have donated door prizes to be given away. To be included in the prize drawing, pick up your GSTA Vendor Passport in the Exhibit Hall.

- As you visit with the various vendors, have them give your passport a stamp.
- Once you have at least 15 stamps, drop your passport in the door prize box at the Exhibit Hall Registration Desk, by 4:30 PM on Friday.
- Door Prize drawing will be held on Friday, Feb. 7 @ 5:10 in the Exhibit Hall.

Must be present to win.

Concurrent Session 9: Friday 8:00 – 8:50

Day: Friday **Time:** 8:00 - 8:50 **Room:** 303 Convention Center
Title: ***STEM for Social Change: The Story of Kwame's Sound***
Presenters: Neporcha Cone
Description: With a focus on STEM literacy, teachers will use Kwame's story as a vehicle to foster an environment that allows students become agents of social change within their communities
Level: **Content:**

Day: Friday **Time:** 8:00 - 8:50 **Room:** 306 Convention Center
Title: ***Create a Stemtastic Science Classroom!***
Presenters: Patti Grammens, Lilly Turpin
Description: Dynamic teachers share ideas to make STEM a prominent part of your classroom.
Level: **Content:**

Day: Friday **Time:** 8:00 - 8:50 **Room:** 308 Convention Center
Title: ***Hands-On Newton's Laws of Motion with NASA***
Presenters: Tyson Harty, Ph.D.
Description: Help your students discover Newton's Laws of Motion with hands-on activities using everyday objects. Free NASA posters and instructions for immediate setup in your classroom!
Level: Middle/High **Content:** Physical

Day: Friday **Time:** 8:00 - 8:50 **Room:** 309 Convention Center
Title: ***Integrating Science into ELA***
Presenters: Heidi Morea, Heather Hayes
Description: Come learn about quick and easy ways to integrate science into your ELA block
Level: **Content:**

Concurrent Session 9: Friday 8:00 – 8:50

Day: Friday **Time:** 8:00 - 8:50 **Room:** 310 Convention Center
Title: ***Biology GPS for Every Reading Level***
Presenters: Sue Burrell
Description: Success for every student regardless of their reading level. Co-teachers designed engaging learning activities for all students.
Level: High **Content:** Biology

Day: Friday **Time:** 8:00 - 8:50 **Room:** 312 Convention Center
Title: ***Literacy Matters in Science and Mathematics***
Presenters: Gladys Hamilton
Description: Where are literacy opppurtunies in the CCGPS Science and Mathematics Standards? Lets Dig into the standards and discovery the oppurtunies .
Level: Middle **Content:** Science/Math

Day: Friday **Time:** 8:00 - 8:50 **Room:** 313 Convention Center
Title: ***Strengthening Vocabulary in Science: Grow What They Know!***
Presenters: Melinda Roberson
Description: Mastering science vocabulary is comparable to learning a foreign language! Help your students develop a stronger relationship with science vocabulary with these innovative strategies.
Level: **Content:**

Day: Friday **Time:** 8:00 - 8:50 **Room:** 324 Convention Center
Title: ***Collaboration and Co-Teaching: Improving Education For All***
Presenters: Sherrie Chovanec, Peter Fischer, Chris Kennedy
Description: Collaboration and co-teaching between special education and science teachers is not an option, but necessary. See activities that meet the needs of all students.
Level: **Content:**

Day: Friday **Time:** 8:00 - 8:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***Life Jackets & Density***
Presenters: Donna Barrett, Terri George
Description: How is a life jacket related to density? In this integrated STEM lesson, life jackets will be constructed for toy soldiers to see how increasing V lowers D.
Level: **Content:**

Day: Friday **Time:** 8:00 - 8:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Understanding the impacts of an informal environmental education experience: A picture is work a thousand words***
Presenters: Michael Dentzau
Description: Discusses the impacts of an informal environmental education program for 4th grade students using drawings and interviews.
Level: Elementary **Content:** Environment

Concurrent Session 9: Friday 8:00 – 8:50

Day: Friday **Time:** 8:00 - 8:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Following the Lead of Next Generation Science Standards: All Standards, All Students***
Presenters: Cherry Brewton
Description: NGSS supports access to high quality science education for all students. How? Let's open up the NGSS Appendix D and the case studies and find out how equity is addressed!

NGSS/GPS

Level: **Content:**

Day: Friday **Time:** 8:00 - 8:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Whiteboarding in AP Biology***
Presenters: Jennifer Forsyth
Description: Whiteboarding is a easy and effective instructional strategy that incorporates both the Essential Knowledge and Science Practices with a focus on student-centered problem-solving.
Level: AP **Content:** Biology

Day: Friday **Time:** 8:00 - 8:50 **Room:** Magnolia A - Marriott
Title: ***Incorporating modeling in the classroom***
Presenters: Amanda Edwards, Jennice Ozment, Lynn Dombrowski
Description: Learn how to use modeling in lecture, activities, and assessments.
Level: **Content:**

Day: Friday **Time:** 8:00 - 8:50 **Room:** Magnolia B - Marriott
Title: ***Engaging Openings***
Presenters: Voneeta Holloman, Jennifer Edwards, Cordarial Holloway
Description: Have you ever been in need of a great opening, but just couldn't think of one? Join us to get great, engaging hooks for your lessons.
Level: Middle **Content:**

Day: Friday **Time:** 8:00 - 8:50 **Room:** Magnolia C/D - Marriott
Title: ***Lost In Lunar Translation: Fuel Cells***
Presenters: Benji Wooten
Description: Stranded astronauts must construct a makeshift fuel cell. With energy output severely limited, they must conserve power by choosing the most optimum route home.
Level: **Content:** **Vendor**

Concurrent Session 10: Friday 9:00 – 9:50

Day: Friday **Time:** 9:00 - 9:50 **Room:** 303 Convention Center
Title: ***Early Elementary Science and Literature Backpacks***
Presenters: Beth Rothermel
Description: An introduction to Stone Mountain's new free resource, using literature and hands on activities to introduce K Plants and 1st Grade Animals. Great ideas for your classroom with ready to use materials!
Level: Elementary **Content:** Environment

Concurrent Session 10: Friday 9:00 – 9:50

Day: Friday **Time:** 9:00 - 9:50 **Room:** 306 Convention Center
Title: ***Pasta, Start Your Engines***
Presenters: Theresa Pinilla, Cliff Roberts
Description: We. will share a hands on STEM lab in which students build and race pasta cars.
Level: **Content:**

Day: Friday **Time:** 9:00 - 9:50 **Room:** 308 Convention Center
Title: ***Baby, You Move Me!***
Presenters: Sharon Golden, Kara Holshauser
Description: Your students will enjoy learning about force and motion with these fun & exciting hands-on activities. Come try them for yourself!
Level: **Content:** Physical

Day: Friday **Time:** 9:00 - 9:50 **Room:** 309 Convention Center
Title: ***STEM in the Science Classroom***
Presenters: Jane Sharp, Kathy Armstrong, Darrick Wood
Description: Come with your concerns about how STEM should be taught, and leave with examples of how it can be done in your classroom.
Level: **Content:** **Vendor**

Day: Friday **Time:** 9:00 - 9:50 **Room:** 310 Convention Center
Title: ***CDC Resources for Teachers***
Presenters: Ralph Cordell, Kelly Cordeira
Description: Overview of CDC physical and electronic resources for educators
Level: **Content:** Life/Biology **Vendor**

Day: Friday **Time:** 9:00 - 9:50 **Room:** 312 Convention Center
Title: ***Peer tutoring to support STEM education***
Presenters: Candice Little
Description: Learn about how to connect with area colleges and industry through the use of peer tutoring to enhance STEM education in high school and middle school classrooms.
Level: Middle/High **Content:**

Day: Friday **Time:** 9:00 - 9:50 **Room:** 313 Convention Center
Title: ***Cladograms and Phylogeny through Yeast***
Presenters: Janet Standeven
Description: An inquiry model to teach how cladograms are developed. Simple and inexpensive lab that will make the abstract concrete.
Level: Middle/High **Content:** Life/Biology

Day: Friday **Time:** 9:00 - 9:50 **Room:** 324 Convention Center
Title: ***Earth Science Sure Fire Winners***
Presenters: Stephanie Miles, Brandie Freeman
Description: Come see and take away a collection of hands on activities for your MS and HS classes!
Level: Middle/High **Content:** Earth

Concurrent Session 10: Friday 9:00 – 9:50

Day: Friday **Time:** 9:00 - 9:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***Solar House, a Hands-On STEM Challenge!***
Presenters: Kelly Bodner
Description: This session introduces a STEM activity designed to meet science and engineering standards while integrating meaningful mathematics and developing critical problem-solving skills.

Level: Elementary **Content:** **Vendor**

Day: Friday **Time:** 9:00 - 9:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Outdoor Science***
Presenters: Steve Rich
Description: Use your school yard effectively for standards based science lessons from the author of NSTA Press' Outdoor Science: A Practical Guide. Free seeds.

Level: Elementary/Middle **Content:** Environment

Day: Friday **Time:** 9:00 - 9:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Connecting With NGSS in Life Science***
Presenters: Betty Cordel
Description: Experience first hand how Life Science activities that align to the GPS connect to the Crosscutting Concepts and Practices found in the NGSS.

Level: Elementary **Content:** Life/Biology **Vendor**

Day: Friday **Time:** 9:00 - 9:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Middle School Share-a-Thon***
Facilitator: Nathan Watson
Description: Middle school teachers are encouraged to bring and share quick activities and ideas.
Level: Middle **Content:**

Day: Friday **Time:** 9:00 - 9:50 **Room:** Grand Salon - Marriott
Title: ***Introduce Stoichiometry with ZnS demos***
Presenters: Sarah Eales, Christine Wahl, Kevin Cameron
Description: Get students hooked before you begin stoichiometry through class discussion and demos.
Level: High **Content:** Chemistry

Day: Friday **Time:** 9:00 - 9:50 **Room:** Magnolia A - Marriott
Title: ***Do You Edmodo and Chomp?***
Presenters: Karen Heiges, Lori Maffe
Description: introduction to use of Edmodo and associated technological applications
Level: **Content:**

Day: Friday **Time:** 9:00 - 9:50 **Room:** Magnolia B - Marriott
Title: ***Here Come the Hex Bugs!***
Presenters: Melanie Buchanan-Tillman
Description: An excellent way to accelerate things using technological toys.
Level: **Content:**

Concurrent Session 10: Friday 9:00 – 9:50

Day: Friday **Time:** 9:00 - 9:50 **Room:** Magnolia C/D - Marriott
Title: ***Writing in STEM for secondary students***
Presenters: Victoria Deneroff, Nikki Grimes, Sharon Hood, Lauren Parton, Marquita Clayton, Tynisha Harris, Rosalie Richards
Description: How do you scaffold students' writing, STEM learning, and develop their self-motivation as inquirers all within your short school day? Our workshop may offer some ideas.
Level: **Content:**

Concurrent Session 11: Friday 10:00 – 10:50

Day: Friday **Time:** 10:00 - 10:50 **Room:** 303 Convention Center
Title: ***Splishing and Splashing Science Lessons – The Water Cycle***
Presenters: Annette Simpson, Ginny Buttram
Description: Engaging hands on water activities for 4th Grade. Students will really understand all the ways water can move through the water cycle. Learn creative ways to integrate literacy into your science lessons.
Level: Elementary **Content:** Earth

Day: Friday **Time:** 10:00 - 10:50 **Room:** 306 Convention Center
Title: ***Formative Assessment in the AP Science Classroom***
Presenters: Tasha Young, Lauren Horton
Description: Looking for fun ways to include formative assessment in your AP science classroom? Look no further, help is here!
Level: AP **Content:** **Vendor**

Day: Friday **Time:** 10:00 - 10:50 **Room:** 308 Convention Center
Title: ***And The Tide Comes In ...***
Presenters: Venetia Butler
Description: Learn about GCE-LTER and a new science literacy book written by a UGA marine scientist, with a cadre of teachers from the Schoolyard program which takes place on Sapelo Island each summer.
Level: **Content:** Environment

Day: Friday **Time:** 10:00 - 10:50 **Room:** 309 Convention Center
Title: ***Taking STEM Science Outdoors for Grades K-6***
Presenters: Jane Sharp, Kathy Armstrong, Darrick Wood
Description: Discover how stem-ulating it is to experience science beyond the classroom and into your schoolyard and local environment. Take away ideas, resources, workshop materials usable tomorrow.
Level: Elementary **Content:**

Day: Friday **Time:** 10:00 - 10:50 **Room:** 310 Convention Center
Title: ***Applying for the Presidential Award***
Presenters: Juan-Carlos Aguilar
Description: Find out how you can apply to 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.
Level: **Content:**

Concurrent Session 11: Friday 10:00 – 10:50

Day: Friday **Time:** 10:00 - 10:50 **Room:** 312 Convention Center
Title: ***FastForward: STEM video from Georgia Public Broadcasting***
Presenters: Wes McCoy, Dave Drabik, Karen Oberman
Description: Celebrate STEM careers in Georgia with Fast Forward, the GPB series focused on students and their professional future. Learn about 32 organizations in Georgia using STEM skills every day!
Level: **Content:**

Day: Friday **Time:** 10:00 - 10:50 **Room:** 324 Convention Center
Title: ***Easy Demos For Hard-to-Teach Atmospheric Science***
Presenters: Brandie Freeman, Stephanie Miles
Description: For Grades 6-12- Go through a set-by-step progression of how to introduce the Coriolis Effect, global atmospheric currents and El Nino.
Level: Middle/High **Content:** Earth

Day: Friday **Time:** 10:00 - 10:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***Making Engineering Fun for the Littlest Ones!***
Presenters: Jessie Kelly
Description: Engineering tasks, rubrics, and activities using objects that are budget friendly and safe for our youngest learners.
Level: Elementary **Content:**

Day: Friday **Time:** 10:00 - 10:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Exploring Environmental Issues with Games and Picture Books***
Presenters: Barbara Salyer
Description: We will use the award-winning picture book Common Ground as a springboard for playing a simple game about human use of common resources.
Level: **Content:** Environment

Day: Friday **Time:** 10:00 - 10:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Guided Inquiry, Experimental Design, and the NGSS***
Presenters: Francis Gardner
Description: Using Guided Inquiry to teach statistical hypothesis formulation and testing to meet NGSS's.
Level: K-12 **Content:** Nature of Sci

Day: Friday **Time:** 10:00 - 10:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Virtual Field Trips: When You Can't Bring the Students to the Mountain… Use an iPad***
Presenters: Alton Dooley, Brett Dooley
Description: See two virtual field trips (for iPads) that have been implemented in a classroom when place-based field trips are impractical or impossible.
Level: Middle/High/Higher Ed **Content:** Earth/Technology

Day: Friday **Time:** 10:00 - 10:50 **Room:** Grand Salon - Marriott
Title: ***Problem-Based Learning in Stoichiometry***
Presenters: Sarah Eales, Christine Wahl, Kevin Cameron
Description: Students engage in a PBL which involves using manipulatives and doing calculations.
Level: High **Content:** Chemistry

Concurrent Session 11: Friday 10:00 – 10:50
Day: Friday **Time:** 10:00 - 10:50 **Room:** Magnolia A - Marriott **Title:** ***Interactive Notebooks for Success in the Middle*** **Presenters:** Darlene Duncan, Robin Oglesby, Brequeia Yarbrough, Allene Veazey **Description:** Teachers successfully using Interactive Science Notebooks share tips and tricks to get you started. **Level:** Middle **Content:**
Day: Friday **Time:** 10:00 - 10:50 **Room:** Magnolia B - Marriott **Title:** ***Family Engineering Night Kits*** **Presenters:** Stacey Duffy **Description:** Tired of the same old Science Night Kits? These kits are a way to get your families and students involved with hands-on STEM activities. **Level:** Administrators **Content:** Engineering
Day: Friday **Time:** 10:00 - 10:50 **Room:** Magnolia C/D - Marriott **Title:** ***Biology Share-a-Thon*** **Facilitator:** Jennifer Forsyth **Description:** Biology and Life Science teachers are encouraged to bring and share quick activities and ideas. **Level:** Middle/High **Content:** Life/Biology

GSTA Annual Business Meeting: 11:00 – 11:30 – Exhibition Hall B

Keynote Address

Friday, February 7
11:30-12:30
Exhibit Hall B

The Journey of Advancing A STEM Experience

Dr. Jeff Mathews

The journey toward a building a STEM experience takes more than a program. It is a true paradigm shift for any group involved. This talk will take you on a journey which has helped advance STEM though designing a focused experience, specifically at the Gwinnett School of Mathematics, Science, and Technology. It will provide history and accentuate what was done well and highlight those decisions that did not turn out so smoothly. The Georgia STEM Certification process will be discussed and scalability of multiple practices will be visited. The talk will also touch on best practices in a STEM classroom and suggestions on how to get started on the STEM journey.

Dr. Jeff Mathews, current principal of Peachtree Ridge High School, very recently served as the principal of The Gwinnett School of Mathematics, Science, and Technology (GSMST) for six years. Dr. Mathews is instrumental in leading committed educators to advance STEM experiences on multiple platforms. The experiences elevate innovation, creativity, as well as nurture the talents of students through a unique, challenging and integrated curriculum. His experiences include working with advanced STEM studies and internships with business, industry, and university level leaders. GSMST was the first high school to receive STEM School Certification from the GA Department of Education and the STEM Education Award for GA high schools from the Technology Association of GA. The Washington Post and U.S. News and World Report both named GSMST as the #1 high school in GA and the U.S. News and World Report also ranked GSMST as the #3 public high school in the nation for 2013. Dr. Mathews is additionally involved in the vertical alignment of a STEM experience for the Peachtree Ridge Cluster consisting of four elementary schools, two middle schools, and Peachtree Ridge HS.

Dr. Mathews received his undergraduate degree in biochemistry from Berry College where he also played baseball. He holds a M.Ed. in science education from the University of Georgia, and a Ph.D. in teaching and learning from Georgia State University. Dr. Mathews began his teaching career as a science teacher. He has been a High School Teacher of the Year and a district finalist as well as an Air Force Association State Teacher of the Year. He and his wife, Cristy, have two children, Witt (11 yrs. old) & Madeline (10 yrs. old).

STEMulate LEARNING
SCIENCE TECHNOLOGY ENGINEERING MATH

Concurrent Session 12: Friday 12:30 – 1:20

Day: Friday **Time:** 12:30 - 1:20 **Room:** 303 Convention Center
Title: ***You've Been Stemmed (Grades 3-6)***
Presenters: Jane Sharp, Kathy Armstrong, Darrick Wood
Description: Experience a research based curriculum that includes STEM and Common Core that is stimulating for students. Take away ideas, resources, workshop materials usable tomorrow.
Level: Intermediate **Content:** **Vendor**

Day: Friday **Time:** 12:30 - 1:20 **Room:** 306 Convention Center
Title: ***STEM-u-LATING Science***
Presenters: Debbie Stuckey, Erin Youmans
Description: "STEM-u-LATING" Science will add new tools to your STEM toolbox!
Level: Elementary **Content:**

Day: Friday **Time:** 12:30 - 1:20 **Room:** 308 Convention Center
Title: ***Learning Power - Energy Efficiency for the Next Generation***
Presenters: Mickey Daniell, Cedric Sheffield, Kim Weaver
Description: Join us for a dynamic Learning Power "in-class field trip," Georgia Power's new approach to teaching students about energy and energy efficiency.
Level: Elementary **Content:**

Day: Friday **Time:** 12:30 - 1:20 **Room:** 309 Convention Center
Title: ***Energy for Elementary***
Presenters: Deborah Kauffman
Description: Lesson ideas clarifying what energy is and how it relates to matter and forces.
Level: Elementary **Content:**

Day: Friday **Time:** 12:30 - 1:20 **Room:** 310 Convention Center
Title: ***Begged, Borrowed, and Stolen! Some of the best activities we've ever come across.***
Presenters: Zoe Evans, Ann Cook, Tina Denney, Billy Fountain
Description: Central Middle School teachers are still begging, borrowing, and stealing great ideas that we love to use in our classrooms.
Level: Middle **Content:**

Day: Friday **Time:** 12:30 - 1:20 **Room:** 312 Convention Center
Title: ***Differentiation Strategies in Science***
Presenters: Greg Moss
Description: Simple strategies to differientiate lessons in your science classroom.
Level: **Content:**

Day: Friday **Time:** 12:30 - 1:20 **Room:** 313 Convention Center
Title: ***The use of animation for learning and teaching complex Biological Concepts***
Presenters: Alan Gorlin, Mary Goodwin, Katrina Toledo
Description: Students learn better when science instruction is supported by animations. Participants will learn how to effectively integrate dynamic animations together with instructional support in biology.
Level: **Content:** Life/Biology

Concurrent Session 12: Friday 12:30 – 1:20

Day: Friday **Time:** 12:30 - 1:20 **Room:** 324 Convention Center
Title: ***ION/Teach: Curriculum and Authentic Science with The Institute On Neuroscience for High School Students and Teachers***
Presenters: Kathryn Mullen, Judy Ward, Chris Goode, Emily Hardy, Kyle Frantz
Description: Join an active session demonstrating curriculum modules and units on neuroscience concepts and the scientific method. Lesson plans and ION/teach program applications available.
Level: High **Content:** Biology

Day: Friday **Time:** 12:30 - 1:20 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***STEM-sational Science!***
Presenters: Donita Legoas, Kristina Istre
Description: Cheap and easy ways to teach your science and STEM lessons while integrating a variety of the senses.
Level: Elementary/Middle **Content:** General

Day: Friday **Time:** 12:30 - 1:20 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Sea Turtle Ecology***
Presenters: Marti Schriver, Karen Chassereau
Description: Teachers will present activities they have developed related to barrier islands and seaturtle ecology.
Level: **Content:** Environment

Day: Friday **Time:** 12:30 - 1:20 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Implementing Modeling Strategies in Chemistry***
Presenters: Karen Pompeo, Frank Lock
Description: Participants will take part in modeling activities aligned with the science and engineering practices of the Next Generation Science Standards.
Level: **Content:** Chemistry

Day: Friday **Time:** 12:30 - 1:20 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Developing A Safe Environment for Argumentation in the Science Classroom***
Presenters: Sharon Schleigh
Description: Starting a class in an activity that promotes argumentation is not simply a matter of providing the materials and the student directions. Students are sometimes resistant and classroom environments may interfere with the ability to effectively implement the strategies that promote scientific argumentation. This workshop will place participants in a position of the student to experience how a classroom environment can be molded to support scientific arguments.
Level: **Content:**

Day: Friday **Time:** 12:30 - 1:20 **Room:** Grand Salon - Marriott
Title: ***Teaching Ionic Formulas Using the Ibar***
Presenters: Sarah Eales, Christine Wahl, Kevin Cameron
Description: Students often struggle with writing neutral ionic formulas. The IBar provides students with a structure to make this task less difficult.
Level: High **Content:** Chemistry

Concurrent Session 12: Friday 12:30 – 1:20

Day: Friday **Time:** 12:30 - 1:20 **Room:** Magnolia A - Marriott
Title: ***IMB Integrating Math and Biology***
Presenters: Christine Lauer, Lorretta Cameron
Description: How to implement Biomath Modules from DIMACS
Level: AP **Content:** STEM

Day: Friday **Time:** 12:30 - 1:20 **Room:** Magnolia B - Marriott
Title: ***The Art of Argumentation Using a Heat Investigation***
Presenters: Terri George, Donna Barrett
Description: This session combines a lab investigation using heat and temperature to incorporated the CCGPS argumentation skills. Grades 3-12
Level: **Content:**

Day: Friday **Time:** 12:30 - 1:20 **Room:** Magnolia C/D - Marriott
Title: ***Tour Georgia's Geology with the authors of Roadside Geology of Georgia***
Presenters: Pamela Gore, Bill Witherspoon
Description: Enrich your understanding of your school's surroundings using the new book, Roadside Geology of Georgia. Examine common rocks from around the state.
Level: **Content:** Earth

Concurrent Session 13: Friday 1:30 – 2:20

Day: Friday **Time:** 1:30 - 2:20 **Room:** 303 Convention Center
Title: ***Big Ideas About Tiny Thing and How They Connect to Your Curriculum***
Presenters: Joyce Allen
Description: This hands-on session will provide lessons that connect nanoscale science with ELA, science, and math standards in grades 2-5. Lessons will be provided on CD.
Level: Elementary **Content:**

Day: Friday **Time:** 1:30 - 2:20 **Room:** 306 Convention Center
Title: ***Exploring the 7E model and cross-cutting ideas in earth and life science***
Presenters: Travis Erickson, Robin Estevan, Lisa Head-Walker, Donna Barrett
Description: This session will engage participants in cross-cutting activities such as change over time, matter and energy that integrate earth and life science for middle school teachers. 7E lessons will be shared.
Level: Middle **Content:** Earth/Life

Day: Friday **Time:** 1:30 - 2:20 **Room:** 308 Convention Center
Title: ***Show me what you've learned***
Presenters: Sue Burrell
Description: Use of inexpensive manipulatives to check for student learning during class.
Level: High **Content:** Bio/Anatomy

Day: Friday **Time:** 1:30 - 2:20 **Room:** 309 Convention Center
Title: ***New teacher Mentor Programs***
Presenters: Tiffany Lester
Description: How can we reduce new teacher turnover rate
Level: Administrators **Content:**

Concurrent Session 13: Friday 1:30 – 2:20

Day: Friday **Time:** 1:30 - 2:20 **Room:** 310 Convention Center
Title: ***Poster Session: Teaching Earth Systems in Middle and High School: An Investigative Approach!***
Presenters: Judy Cox, Stephanie Miles
Description: Teacher Quality Grant Participants Present Posters
Level: Middle/High **Content:** Earth

Day: Friday **Time:** 1:30 - 2:20 **Room:** 312 Convention Center
Title: ***Science Literacy Strategies***
Presenters: Steve Rich, Dean Laskey
Description: Find strategies for addressing science literacy in your classroom including reading, writing, and resources.
Level: Elementary/Middle **Content:**

Day: Friday **Time:** 1:30 - 2:20 **Room:** 313 Convention Center
Title: ***Kindergarten STEM***
Presenters: Debi Goodman
Description: Wondering what STEM looks like in a Kindergarten classroom? Come and see all the amazing STEM projects our students have been doing all year long. Resources, sample lessons, student work and more will be shared.
Level: Primary **Content:**

Day: Friday **Time:** 1:30 - 2:20 **Room:** 324 Convention Center
Title: ***Trout in the Augusta Canal?***
Presenters: Carl Hammond-Beyer, Leesa Lykes
Description: An elementary and high school teamed together to hatch and rear baby rainbow trout. These trout were moved to the Augusta Canal and kept in containers to continue to grow.
Level: K-12 **Content:** Cross Curricular

Day: Friday **Time:** 1:30 - 2:20 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***Vertical Teaming for STEM Education***
Presenters: Maria Thurmond, Gayle Adkinson, Beth Feustel, Laura Kohnke, Jennifer Peace, Robin Tillotson
Description: STEM education is best accomplished with vertical teaming. A panel of educators will discuss how this is being done in conjunction with local business partners.
Level: AP **Content:**

Day: Friday **Time:** 1:30 - 2:20 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Active-Learning Strategies for Teaching Environmental Science***
Presenters: Caralyn Zehnder, Kalina Manoylov, Christine Mutiti, Sam Mutiti, Allison Vandevoort
Description: Participants will discuss and develop tools, techniques and strategies to help students learn environmental science with a focus on using civic issues and current events.
Level: High / AP **Content:** Environment

Concurrent Session 13: Friday 1:30 – 2:20

Day: Friday **Time:** 1:30 - 2:20 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Merging Scientific Argumentation and Inquiry in AP Biology***
Presenters: Jennifer Forsyth
Description: Claim – Evidence – Justify – what this means in the context of the new AP Biology framework and the focus on inquiry.
Level: AP **Content:** Biology

NGSS/GPS

Day: Friday **Time:** 1:30 - 2:20 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Embedding the Learning of Science Content through Argumentation Strategies***
Presenters: Sharon Schleigh
Description: This workshop provides a hands-on experience in content specific material through the argumentation-driven inquiry approach. Participants will experience this as students and discuss alternatives to support varied classroom and curriculum implementation. This workshop focuses on the materials published in the NSTA book: Argumentation in Biology: 30 Classroom Activities however, materials from other disciplines (ie: engineering, astronomy, physics) may be presented.
Level: **Content:**

Day: Friday **Time:** 1:30 - 2:20 **Room:** Grand Salon - Marriott
Title: ***A Learning Sequence on Atomic Structure using guided inquiry and PhET simulations***
Presenters: Lyric Portwood
Description: This session will provide an overview of a series of guided-inquiry activities centered around PhET simulations to enhance chemistry students' understandings of atomic structure.
Level: High **Content:** Chemistry

Day: Friday **Time:** 1:30 - 2:20 **Room:** Magnolia A - Marriott
Title: ***Investigating Changing Matter***
Presenters: Pat Costa, April Mobley
Description: Matter is changing everyday. Explore matter as molecules and design investigations to learn more about chemical changes.
Level: Elementary/Middle **Content:** Chemistry

Day: Friday **Time:** 1:30 - 2:20 **Room:** Magnolia B - Marriott
Title: ***Branching Out with STEM***
Presenters: Jan Forrest Kent, Lauren Johnson
Description: Branch out of the classroom; Branch out of the curriculum; Branch out with Project Learning Tree!
Level: **Content:** Environment

Day: Friday **Time:** 1:30 - 2:20 **Room:** Magnolia C/D - Marriott
Title: ***Earth & Environmental Science Share-a-Thon***
Facilitator: Donna Governor
Description: Earth and Environmental Science teachers are encouraged to bring and share quick activities and ideas.
Level: Middle/High **Content:**

Concurrent Session 14: Friday 2:30 – 3:20

Day: Friday **Time:** 2:30 - 3:20 **Room:** 303 Convention Center
Title: ***Third Grade Earth Science Rocks!!***
Presenters: Steven King
Description: Exciting Inquiry-Based Activities for Rocks, Soils, and Fossils
Level: Elementary **Content:** Earth

Day: Friday **Time:** 2:30 - 3:20 **Room:** 306 Convention Center
Title: ***STEM Certification***
Presenters: Gilda Lyon
Description: Learn how your school can become STEM Certified
Level: Administrators **Content:**

Day: Friday **Time:** 2:30 - 3:20 **Room:** 308 Convention Center
Title: ***Far Out Fossils***
Presenters: Freda Gaither, Kiersten Hoeflinger, Abby Sandlin
Description: Students will play the role of a paleontologist and simulate a fossil dig as well as create models of different kinds of fossils.
Level: Elementary **Content:** Earth

Day: Friday **Time:** 2:30 - 3:20 **Room:** 309 Convention Center
Title: ***Link Science & Literacy and Watch Test Scores Skyrocket***
Presenters: Alfred Porter
Description: Participant will learn the importance of literacy to implementing effective inquiry – based experiments.
Level: **Content:**

Day: Friday **Time:** 2:30 - 3:20 **Room:** 310 Convention Center
Title: ***iGEM, the International Genetically Engineered Machine Competition***
Presenters: Janet Standeven
Description: What is it? Who benefits from it? How do I get one? Come and find out, Get engineering in the life science classes.
Level: **Content:** Life/Engineering

Day: Friday **Time:** 2:30 - 3:20 **Room:** 312 Convention Center
Title: ***Georgia: From The Barrier Islands To The Mountains***
Presenters: Donna Mullenax
Description: Georgia is so geologically diverse and a rich history. Come and explore the state as seen through two Teacher Quality funded workshops
Level: **Content:**

Day: Friday **Time:** 2:30 - 3:20 **Room:** 313 Convention Center
Title: ***Science Literacy: Where ACRONYMS End and Writing Begins***
Presenters: Joan Graham
Description: In this session, particpants will discuss how to fuse CCGPS Writing Standards with GPS, NGSS, and STEM activities.
Level: High **Content:**

Concurrent Session 14: Friday 2:30 – 3:20

Day: Friday **Time:** 2:30 - 3:20 **Room:** 324 Convention Center
Title: ***Shake, Rattle and Roll***
Presenters: Kim Kranzlein, Debbie Kauffman
Description: Constructive and Destructive Forces with an emphasis on Literacy and Interactive Notebooks
Level: Elementary **Content:** Earth

Day: Friday **Time:** 2:30 - 3:20 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***S.T.E.M…Can I do it?***
Presenters: Jane Sharp, Kathy Armstrong, Darrick Wood
Description: Learn techniques for taking a science activity into a STEM lesson AND leave with ideas, resources, and workshop materials that can be used tomorrow.
Level: **Content:** **Vendor**

Day: Friday **Time:** 2:30 - 3:20 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Advanced Training for Environmental Education in Georgia, a Certification Program for Georgia's Educators***
Presenters: Kim Morris-Zarneke, Amanda Buice, Venetia Butler and Heather Brasell
Description: ATEEG is a nationally accredited program that provides environmental education training for educators. Through a panel discussion, an overview of the ATEEG Program will be provided.
Level: **Content:** Environment

Day: Friday **Time:** 2:30 - 3:20 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Applying a 5E Framework to PhET Computer Simulations***
Presenters: Benjamin Campbell, Ryan Nixon, Shannon Dubois, Julie Luft
Description: In this session, we demonstrate how to craft 5E lessons with a PhET computer simulation, which has modules for all content areas and grade levels. Bring a laptop/tablet if possible.
Level: **Content:**

Day: Friday **Time:** 2:30 - 3:20 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Assessing the Argument and Aligning to Common Core Standards***
Presenters: Sharon Schleigh
Description: This workshop focuses on assessing the work of students in an argumentation-driven inquiry activity. Like other forms of alternative assessments, identifying student knowledge and skills is not merely a matter of providing a worksheet or a test. This workshop will provide tools and opportunities to learn how to recognize a strong argument and quickly evaluate students' content knowledge and abilities within both NGSS and Common Core Standards.
Level: **Content:**

Georgia Science Teachers Association

Stop by the GSTA Store - located in the Exhibit Hall

- Your one stop shop for conference t-shirts, lab coats, and science toys for all science teachers.

Concurrent Session 14: Friday 2:30 – 3:20

Day: Friday **Time:** 2:00 - 2:50 **Room:** Exhibit Hall B
Title: ***How can we "Walk with the Dinosaurs?"***
Guest Speaker: Cary Woodruff
Description: Every child in the world grows up completely fascinated by dinosaurs. These towering, gigantic, and bizarre behemoths captivate us because they were real monsters. All that remains of them today are their fossilized bones, and while we can examine and study these remnants, a part of the dinosaur allure remains in the mystique and intangible awe of these near fabricated beasts. While all children are near professionally versed in dinosaur knowledge, most reflect back on that time of their life as simply a hobby, interest, or fascination. But, as we all know, there are people who do study dinosaurs for a living. So how does someone take that childhood passion and turn it into a serious career? And why on Earth would anyone want to make a career out of dinosaurs?
Level: **Content:**

Day: Friday **Time:** 2:30 - 3:20 **Room:** Magnolia A - Marriott
Title: ***The Art of Science***
Presenters: Miriam Jordan
Description: Engage students! Integrate the Science and Engineering Practices, from A Framework for K-12 Science Education, into your lessons, using non-linguistics (art, photography & other representations).
Level: **Content:**

Day: Friday **Time:** 2:30 - 3:20 **Room:** Magnolia C/D - Marriott
Title: ***Effects of a Sustained Federally Funded Professional Development On Elementary Teachers Who Teach Science***
Presenters: Sally Creel
Description: This session will explore the results of a two-year study investigating how participation in a MSP professional development influences the practices and efficacy of elementary science teachers.
Level: Elementary **Content:**

Concurrent Session 15: Friday 3:30 – 5:00 (Extended Session)

Day: Friday **Time:** 3:30 - 5:00 **Room:** 303 Convention Center
Title: ***Elementary Share-a-Thon***
Facilitator: Jennifer Gates
Description: Elementary teachers are encouraged to bring and share quick activities and ideas.
Level: Elementary **Content:**

Day: Friday **Time:** 3:30 - 5:00 **Room:** 306 Convention Center
Title: ***The Math and Science of Music - a STEM Unit***
Presenters: Laura Whitlock, Elizabeth Truelove
Description: We will investigate music as a wave, and use the relevant science and math to generate it with everything from pipes to cups to soda bottles. Whether you prefer classical, pop, or rap, it is all about the right amplitude and wavelength. Join us as we weave together music, math, science, & more!
Level: Middle/High **Content:** Physics/Physical

Concurrent Session 15: Friday 3:30 – 5:00 (Extended Session)

Day: Friday **Time:** 3:30 - 5:00 **Room:** 308 Convention Center
Title: ***Animals Across the Curriculum***
Presenters: Francine Gebus, Erin Delahunty
Description: Meet live education animals and learn about conservation. Uncover ways to bring STEM and Bio Inspired Design activities to your classroom.
Level: **Content:**

Day: Friday **Time:** 3:30 - 5:00 **Room:** 309 Convention Center
Title: ***Small Group Science Activities for Pre-K students***
Presenters: John Payne, Kimberly Smith
Description: Participants will engage in a number of standards based problem solving science activities. The discussion will center around the process of connecting activities with increasing levels of rigor.
Level: Elementary **Content:**

Day: Friday **Time:** 3:30 - 5:00 **Room:** 310 Convention Center
Title: ***KSU 8th Grade MSP Meeting***
Presenters: Tom Brown
Description: This meeting is for KSU 8th Grade MSP teachers to meet and collaborate
Level: Middle **Content:**

Day: Friday **Time:** 3:30 - 5:00 **Room:** 313 Convention Center
Title: ***Using Computer Based Interactive Case Studies in the Biology Classroom***
Presenters: Georgia Hodges, David Ducrest, Tom Robertson, Pam Perry, Jessica Holden, Steve Oliver, Suzanne Eason
Description: Come learn how to use interactive case studies in your secondary classroom. Cases address fundamental biological processes that align with NGSS practices and crosscutting concepts.
Level: Middle/High **Content:**

Day: Friday **Time:** 3:30 - 5:00 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***STEM Sharathon***
Facilitator: Betsy Green, GYSTC Regional Coordinators
Description: Regional coordinators from Georgia Youth Science & Technology Centers from all across Georgia will come together to present classroom ready STEM activities.
Level: Elementary/Middle (4-8) **Content:**

Day: Friday **Time:** 3:30 - 5:00 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Teaching About Habitats Using Georgia State Parks' Junior Ranger Program***
Presenters: Cindy Reittinger, Kim Harrison
Description: Students can discover nature in their schoolyard and earn a Junior Ranger badge from Georgia State Parks as part of their study of habitats.
Level: **Content:** Environment

Day: Friday **Time:** 3:30 - 5:00 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***NGSS middle School Science Inquiry Activities***
Presenters: Frank Lock
Description: Participants will complete middle school activities designed to be consistent with Next Generation Science Standards.
Level: Middle **Content:**

Concurrent Session 15: Friday 3:30 – 5:00 (Extended Session)
Day: Friday **Time:** 3:30 - 5:00 **Room:** Ballroom D/E - Convention Center - Lower Level **Title:** ***Blazing an Environmental Pathway through the Next Generation Science Standards*** **Presenters:** Karan Wood (Captain Planet Fdn) **Description:** Explore an engaging environmental pathway through the next gen science standards (revised GPS). Some schools will be selected to evaluate free professional development, supplies, and competency-based curriculum. **Level:** K-12 **Content:** NGSS, Environmental
Day: Friday **Time:** 3:30 - 5:00 **Room:** Grand Salon - Marriott **Title:** ***Chemistry Share-A-Thon*** **Facilitators:** Penney Sconzo **Description:** ALL teachers are encouraged to bring and share classroom tips, demonstrations, quick labs, etc, that can be USED before the end of the school year. **Level:** High **Content:** Chemistry
Day: Friday **Time:** 3:30 - 5:00 **Room:** Magnolia A - Marriott **Title:** ***Using the climate debate to teach chemistry*** **Presenters:** Julia Metzker, Catrena Lisse, Rosalie Richards, Chavonda Mills, Kimberly Cossey **Description:** Using conceptual frameworks from Wiggins and McTighe, this workshop will provide a roadmap for transforming the chemistry classroom using climate issues to engage students. **Level:** High/AP **Content:** Chemistry/Environmental
Day: Friday **Time:** 3:30 - 5:00 **Room:** Magnolia B - Marriott **Title:** ***NASA Lunar and Meteorite Certification class*** **Presenters:** Lester Morales **Description:** Moon rocks certification **Level:** **Content:**
Day: Friday **Time:** 3:30 - 5:00 **Room:** Magnolia C/D - Marriott **Title:** ***Mining Earth Science for Fun & Engagement*** **Presenters:** Donna Governor **Description:** Explore hands-on activities that can engage and motivate your middle and high school Earth Science students that connect to GPS ESS standards. **Level:** Middle/High **Content:** Earth

Guest Speaker: Cary Woodruff

Thursday 2:00 – Exhibit Hall B: News from the front line: A Dino Diggers report

Friday 2:00 – Exhibit Hall B: How can we "Walk with the Dinosaurs?"

Cary Woodruff grew up in rural central Virginia, graduated from Louisa County High School (class of 2005), received a BS in Earth sciences with an emphasis in paleontology from Montana State University, and is currently working on an MS in geobiology at Montana State University under famed paleontologist Dr. Jack Horner. Cary was invited as only one of 10 international graduate students to present at the 2nd International Workshop on Sauropod Biology and Gigantism in Bonn, Germany in 2011. He has had several papers published ranging from the first burrowing dinosaur *Oryctodromeus cubicularis* to the majority being dedicated to sauropod dinosaurs and their growth. Cary described and named a new sauropod dinosaur *Rugocaudia cooneyi,* which is the northernmost sauropod ever found in North America to date. In addition Cary has given several presentations at professional conferences, working groups, and organizations worldwide.

GSTA Board Elections

Attention GSTA Members

- Meet the candidates at the conference. Look for signs in front of the exhibit hall. Come to the first general session to put a face with the name.

- Members may vote at the conference near the Registration area.

Exhibit Hall Closing & Door Prize Giveaway

Friday, 7 February @ 5:00pm

Exhibitors providing door prizes:

AIMS Education Foundation
American Book Company
Bridgeview Educational Resources
Capital Microscope Services
Carolina Curriculum
Clean Air Campaign
CPO Science
Delta Education
Dinah-Might Adventures
Earthshine Discovery Center
ETA hand2mind
ExploreLearning
Flinn Scientific, Inc.
Frey Scientific
GA Tech NNIN
Georgia Farm Bureau Ag in the Classroom
Georgia Mineral Society
Georgia Project Learning Tree
Georgia Southern University College of Education
Lab-Aids
McWane Science Center
National Geographic Learning/Cengage Learning
NSTA/Teacher Created Materials
Spark Point Innovations
Stone Mountain Memorial Association
The EDMAT Company, Inc.
Triumph Learning
Tybee Island Marine Science Center
Virginia Museum of Natural History Palentology Dept.
Ward's Science
Western Governors University

Awards Ceremony & Banquet: Friday 7:00

This year's awards banquet will be held at the Armory Ballroom
484 First Street, Macon, GA
Reception from 6:30-7:00; Dinner & Ceremony begin at 7:00
Tickets available at Registration $26.00

Southern Menu
Catered by Moonhanger Group
Arugula salad with gouda, nuts & peppers
Buttermilk & Pecan Encrusted Chicken
Green beans
Southern Style Mac & cheese

Special Thanks to Our Award Sponsors

Saturday February 8

Concurrent Session 16: Saturday 8:00 – 8:50

Day: Saturday **Time:** 8:00 - 8:50 **Room:** 309 Convention Center
Title: ***From The Crime Scene To The Classroom: Blood Spatter***
Presenters: Benji Wooten
Description: Hands-on forensics from The Mystery of Lyle & Louise. Explore types of blood spatter and how to interpret its presence at a crime scene.
Level: **Content:** Forensics **Vendor**

Day: Saturday **Time:** 8:00 - 8:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***Building Blocks for Elementary STEM: A Unique University/Elementary School STEM Partnership***
Presenters: Maria Shaheen, Danyell Ballou, Charlease Kelly-Jackson
Description: This session will highlight a unique university/elementary school STEM partnership. Participants will see several recent STEM projects done with the interns, teachers, and K-6 students.

Level: Elementary **Content:**

Day: Saturday **Time:** 8:00 - 8:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Going Green: Environmental Hands on Projects for Grades K-4 Meets Common Core***
Presenters: Serena Muhammad
Description: In this workshop I will teach elementary grade level teachers a variety of ways to teach green environmental related classes.

Level: **Content:** Environment

Day: Saturday **Time:** 8:00 - 8:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Using NGSS "Systems" to improve student learning at all levels***
Presenters: George Stickel
Description: Systems thinking is an easy way for students to think about and remember science lessons. All levels, walk away with immediate ideas, applications.

Level: All **Content:**

Day: Saturday **Time:** 8:00 - 9:50 **Room:** Magnolia C/D - Marriott
Title: ***Discover the Evolution Resources from Biointeractive***
Presenters: Jennifer Forsyth
Description: In this session, teachers will be introduced to the new HHMI Biointeractive Website. Ideas on how to search the website for videos, activities, and Click & Learns will be presented, as well as how to incorporate them into your existing lessons - including ideas on how to use these resources to "flip" or "tip" your classroom.Especially useful for AP Biology teachers, but all are welcome!
Level: **Content:**

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Concurrent Session 17: Saturday 8:00 – 9:50 (Double Session)

Day: Saturday **Time:** 8:00 - 9:50 **Room:** 306 Convention Center
Title: ***Geology of Georgia: Hands-on Learning Stations***
Presenters: Olga Jarrett, Robert E. Jarrett
Description: Following a brief PowerPoint on the regions of Georgia, participants will rotate through hands-on geology learning stations. Receive a handout and a few rock samples.
Level: **Content:** Earth

Day: Saturday **Time:** 8:00 - 9:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Chocolate Choices: An Interdisciplinary Elementary/Middle Role-play on Fair-Trade Chocolates***
Presenters: Katie Brkich
Description: This experiential session leads participants through an interdisciplinary role-playing lesson where students must negotiate whether to sell free or fair-trade chocolate for a school fundraiser.
Level: Elementary/Middle **Content:**

Day: Saturday **Time:** 8:00 - 9:50 **Room:** Magnolia B - Marriott
Title: ***Got CSI? Crime Scene Investigation***
Presenters: Linnell Burton
Description: This workshop will demonstrate several of investigative techniques for properly collecting, processing, and preserving physical evidence from a crime scene.
Level: Middle/High **Content:** Forensics

Day: Saturday **Time:** 8:00 - 9:50 **Room:** Magnolia A - Marriott
Title: ***STEM & MBI: ideas, innovation, expertise & resources***
Presenters: Laura Regassa, Missy Bennett, Yvonne Arnsdorff, Cynthia Dean, Laura Ike, Ashlin Reid, Alicia Reigel, and Alyncia Robinson
Description: Join Molecular Biology Initiative staff and teachers for a highly interactive, hands-on session exploring STEM resources (including biotechnology).
Level: High school **Content:** Bio/Chem/Phys/Env/For

Concurrent Session 18: Saturday 9:00 – 9:50

Day: Saturday **Time:** 9:00 - 9:50 **Room:** 303 Convention Center
Title: ***Science and Engineering as a Special***
Presenters: Denise Webb
Description: STEM in elementary? Who has time? Come check out the creative way our school provides every student kindergarten through fifth grade, STEM labs and investigations!
Level: Elementary **Content:** Engineering

Day: Saturday **Time:** 9:00 - 9:50 **Room:** 309 Convention Center
Title: ***Inquiry and Scientific Practices: Keys to Getting Students to Think***
Presenters: Alfred Porter
Description: Inquiry and scientific practices continue to be a central element of science teaching.
Level: **Content:**

Day: Saturday **Time:** 9:00 - 9:50 **Room:** 310 Convention Center
Title: ***Argumentation: True Science Literacy***
Presenters: Brian Butler
Description: Who says science teachers don't teach literacy? We did before it was mandated, we just call it something else: Collaboration--often via argumentation.
Level: Middle/High **Content:**

Concurrent Session 18: Saturday 9:00 – 9:50

Day: Saturday **Time:** 9:00 - 9:50 **Room:** 312 Convention Center
Title: ***Microspheres as a localized drug delivery technique. Applications of high tech science to the high school classroom.***
Presenters: Carl Hammond-Beyer
Description: Science and Medicine are advancing at a tremendous pace. Data will be presented from summer work in a medical research lab and the applications of that for AP and General Biology will be discussed.
Level: AP **Content:** Biology/Anatomy

Day: Saturday **Time:** 9:00 - 9:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Taking Wing: Teaching Science through Birds***
Presenters: Deb Jenkins, Nikki Belmonte
Description: Connect students with science and the environment by presenting science concepts through birds.
Level: Middle/High **Content:** Environment

Day: Saturday **Time:** 9:00 - 9:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***The Yellowstone Teacher Project meets the Next Generation Science Standards***
Presenters: Charlease Kelly-Jackson, Kim Loomis, Hope Smith
Description: Presentation will share how Yellowstone National Park impacted teachers' content and pedagogical content knowledge. Presenters will discuss how park issues can prepare informed, engaged learners.
Level: **Content:**

Day: Saturday **Time:** 9:00 - 9:50 **Room:** Grand Salon - Marriott
Title: ***Science for ELL's***
Presenters: Consuelo Weaver
Description: This is designed to help teachers understand how to teach science to a student who is learning the English Language.
Level: High **Content:** Chemistry

Concurrent Session 19: Saturday 10:00 – 10:50

Day: Saturday **Time:** 10:00 - 10:50 **Room:** 303 Convention Center
Title: ***STEM (Science with Toys and Economical Materials)***
Presenters: Carl Davis, Frank Mann
Description: New science standards call for more meaningful hands-on learning, at a time when science budgets are facing increasing pressure to do more with less. This session will discuss ways to engage students in science using toys and common household items.
Level: Elementary/Middle **Content:** Earth,Life, Physical

Day: Saturday **Time:** 10:00 - 10:50 **Room:** 308 Convention Center
Title: ***Investigating Electricity Using Common Household Items***
Presenters: Susannah Lomant
Description: Participants will build capacitors and Leyden Jars. Take what you build home with you! Free materials and lesson plans.
Level: High/College **Content:** Physics/Physical

Concurrent Session 19: Saturday 10:00 – 10:50

Day: Saturday **Time:** 10:00 - 10:50 **Room:** 309 Convention Center
Title: ***New View of Earth Systems Pre-Post Test***
Presenters: Walter Les Tofte
Description: Share an example of a standard driven, hands-on assessment for high school Earth Systems. Encourage discussion and collaboration with session participants.
Level: High **Content:** Earth

Day: Saturday **Time:** 10:00 - 10:50 **Room:** 310 Convention Center
Title: ***How to effectively reach every type of learner in Earth science***
Presenters: Sarah Clark
Description: I'll share activities that help each type of learner: auditory, visual and kinesthetic. I'll share vocabulary practices, lab ideas and free technology resources that will cover the entire curriculum.
Level: Middle **Content:** Earth

Day: Saturday **Time:** 10:00 - 10:50 **Room:** 312 Convention Center
Title: ***College Readiness***
Presenters: Steve Lazowski
Description: Participants will receive valuable training, information and insight into how a student with a strong foundation in Science coursework, can benefit in the college admissions process.
Level: **Content:**

Day: Saturday **Time:** 10:00 - 10:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***STEMulating Science Beyond the Classroom Walls***
Presenters: Gail Marshall, Judy Cox
Description: Description of STEM related investigations that appropriately use more than the indoor classroom environment.
Level: Elementary **Content:**

Day: Saturday **Time:** 10:00 - 10:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Butterflies! Engage students, teach GPS, do real science***
Presenters: Donna Gast
Description: Engage students with butterflies and caterpillars! Learn about monarch tagging, citizen science, GPS activities, tips for inexpensively attracting and raising butterflies. Lesson plans. Freebies.
Level: **Content:** Environment

Day: Saturday **Time:** 10:00 - 10:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Demystifying the Practices in the Next Generation Science Standards***
Presenters: Zoe Evans
Description: Join a member of the Next Generation Science Standards Writing Team as I help you demystify the practices and show you ways to incorporate them into your daily instruction.
Level: **Content:**

Concurrent Session 19: Saturday 10:00 – 10:50

Day: Saturday **Time:** 10:00 - 10:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***Eco-Tech for Tinkerers and Teachers***
Presenters: Karan Wood (Captain Planet Fdn)
Description: Explore exciting new learning opportunities at the intersection of STEM, the Maker / Tinker movement, and Environmental Ed. Try out engaging standards-based projects. Apply for Eco-Tech grants.
Level: K-12 **Content:** Environmental, Technology, NGSS

Day: Saturday **Time:** 10:00 - 10:50 **Room:** Grand Salon - Marriott
Title: ***New Ideas for a new curriculum in AP Chemistry***
Presenters: Amanda Edwards
Description: Ideas for incorporating the new curriculum in AP Chemistry
Level: AP **Content:** Chemistry

Concurrent Session 20: Saturday 11:00 – 11:50

Day: Saturday **Time:** 11:00 - 11:50 **Room:** 303 Convention Center
Title: ***Greening STEM in Grades 3-5***
Presenters: Brenda McDaniel, Mandy Mullins, Tracey Rivers, Shabina Serajee
Description: Participants will learn STEM strategies, receive environmental standards based lesson plans (grades 3-5) and participate in a STEM activity.
Level: Elementary **Content:** STEM/Environment

Day: Saturday **Time:** 11:00 - 11:50 **Room:** 308 Convention Center
Title: ***Lost In Lunar Translation: Fuel Cells***
Presenters: Benji Wooten
Description: Stranded astronauts must construct a makeshift fuel cell. With energy output severely limited, they must conserve power by choosing the most optimum route home.
Level: **Content:** **Vendor**

Day: Saturday **Time:** 11:00 - 11:50 **Room:** 309 Convention Center
Title: ***Tour Georgia's Geology with the authors of Roadside Geology of Georgia***
Presenters: Pamela Gore, Bill Witherspoon
Description: Enrich your understanding of your school's surroundings using the new book, Roadside Geology of Georgia. Examine common rocks from around the state.
Level: **Content:** Earth

Day: Saturday **Time:** 11:00 - 11:50 **Room:** Ballroom A - Convention Center - Lower Level
Title: ***Engineering—Its Elementary, My Dear***
Presenters: Katie Thompson
Description: Join us for this awesome workshop that provides elementary educators with detailed information about the basics of engineering and why it is so important at the elementary level.
Level: Elementary **Content:**

Concurrent Session 20: Saturday 11:00 – 11:50

Day: Saturday **Time:** 11:00 - 11:50 **Room:** Ballroom B - Convention Center - Lower Level
Title: ***Engaging Students in 4 Exciting Environmental Stewardship Projects***
Presenters: Karan Wood, Leesa Carter
Description: Engage students in real-world environmental projects that make STEM and NGSS standards come alive. Free DVD with lesson plans and film of teachers and students completing the projects.

ENVIRO

Level: K-12, AP **Content:** Environment, STEM, NGSS

Day: Saturday **Time:** 11:00 - 11:50 **Room:** Ballroom C - Convention Center - Lower Level
Title: ***Introduction to Modeling for Biology***
Presenters: Jennifer Forsyth
Description: Modeling is now in the forefront of science education - in the NGSS and AP Curriculum Framework. This session will focus on an introduction to modeling activities.

NGSS/GPS

Level: AP **Content:** Biology

Day: Saturday **Time:** 11:00 - 11:50 **Room:** Ballroom D/E - Convention Center - Lower Level
Title: ***STEM--rrific! (Grades K-2)***
Presenters: Jane Sharp, Kathy Armstrong, Darrick Wood
Description: What does a STEM lesson look like? Experience one that folds in literacy and Common Core. Take away ideas, resources, workshop materials usable tomorrow.
Level: **Content:** **Vendor**

Day: Saturday **Time:** 11:00 - 11:50 **Room:** Grand Salon - Marriott
Title: ***Guided Inquiry Activites for High School Chemistry***
Presenters: Kimberley Sherman, Kendall Burrus, Greg Rushton
Description: Incorporating guided inquiry using technology
Level: High School **Content:** Chemistry

Day: Saturday **Time:** 11:00 - 11:50 **Room:** Magnolia A - Marriott
Title: ***Plastic and Recycling Awareness***
Presenters: Jim Ries
Description: Our weeklong Plastic and Recycling Awareness Curriculum has been written to match the latest National and State Standards of Science with Math, Literacy and Art
Level: K-6 **Content:**

- Be sure to follow our Twitter account (@GSTANews)
- Use hashtag #GSTA14 for conference-related tweets

Conference Newsfeed

Hungry?

Try the restaurants in the Marriott or take the Trolley downtown.

** denote bar

#1 Bearfood Tavern (American)**	**#4 Michael's on Mulberry** (American)**	**#7 Tokyo Alley** (Asian)	**#10 Downtown Grill** (Upscale)**
#2 Rookery (American)**	**#5 Greek Corner Deli** (Greek)	**#8 Ninja** (Asian)**	**#11 Dovetail** (Upscale)**
#3 Market City Cafe (American)	**#6 Acapulco** (Mexican)**	**#9 Lemongrass Thai Bistro** (Asian)	**Oriental Express** (Mandarin/Cantonese/ Szechuan)

Downtown Map

Macon Hospitality

The Macon trolley will be available to take you from the Marriott downtown dining and shopping during the following hours:

Thursday

Lunch 11-2 PM & Dinner 5-10 PM

Friday

Lunch 11-2 PM & Dinner 5-11 PM

Session Feedback Surveys Use the URL or QR Image to provide feedback for the sessions you attended		
DAY	URL Short Code	QR image
Thursday 2/6/14	http://tinyurl.com/GSTA26	
Friday 2/7/14	http://tinyurl.com/GSTA27	
Saturday 2/8/14	http://tinyurl.com/GSTA28	

Be sure to take a few minutes to complete a survey for each session you attend. Your feedback can help us plan next year's conference, scheduled for February 2015!

2014 GSTA EXHIBITORS

Booth#	Exhibitor	Website
1105	AIMS Education Foundation	www.aimsedu.org
1007	American Book Company	www.americanbookcompany.com
603	Blue Ridge Outdoor Education Center	www.blueridgeoec.com
1106	Bridgeview Educational Resources	
1000	Capital Microscope Services	www.microscopesandmore.com
1008	Carolina Curriculum	www.carolina.com
907	Central Georgia Technical College	http://acadweb.centralgatech.edu/programs/biotechnology
809	Clean Air Campaign	www.cleanaircampaign.org/schools
1102-1103	CPO Science	www.cposcience.com
1107	Crosscutting Concepts	www.crosscuttingconcepts.com
1100-1101	Delta Education	www.deltaeducation.schoolspecialty.com
1009	Dinah-Might Adventures	www.dinah.com
905	Driftwood Education Center	www.driftwoodee.org
906	Earthshine Discovery Center	www.earthshinediscovery.com
900-901	ETA hand2mind	www.hand2mind.com
1002	ExploreLearning	www.explorelearning.com
800	Flinn Scientific, Inc.	www.flinnsci.com
1104	Frey Scientific	www.freyscientific.com
804	GA Project Wild - Charlie Elliott Wildlife Center	www.charlieelliott.org
1003	GA Tech NNIN	www.mirc.gatech.edu www.nnin.org
803	Georgia Department of Natural Resources - Environmental Education	www.eeingeorgia.org
908	Georgia Farm Bureau Ag in the Classroom	www.gfb.org
909	Georgia Mineral Society	www.gamineral.org
1001	Georgia Power	www.georgiapower.com/learningpower
801	Georgia Project Learning Tree	www.georgiaplt.org

Booth#	Exhibitor	Website
1118	Georgia Southern University College of Education	http://coe.georgiasouthern.edu/MAT.html
808	Go Fish Education Center	www.gofisheducationcenter.com
103-104	GSTA Store	www.georgiascienceteacher.org
807	Invent Now, Inc.	www.campinvention.org
600	Lab-Aids	www.lab-aids.com
601	LEGO Education	www.legoeducation.com
704	Logical Choice Technologies	www.logicalchoice.com
1109-1110	MacNan Enterprises, LLC dba Online Science Mall	www.onlinesciencemall.com
802	McWane Science Center	www.mcwane.org
903	Museum of Arts and Sciences	www.masmacon.org
1006	National Geographic Learning/Cengage Learning	www.ngl.cengage.com
101-102	NSTA/Teacher Created Materials	www.nsta.org
604	Odum School of Ecology, UGA	www.ecology.uga.edu
1004	PASCO scientific	www.pasco.com
701	ScienceFirst/Starlab	www.sciencefirst.com www.starlab.com
703	Southern Teacher Agency	www.SouthernTeachers.com
702	Spark Point Innovations	www.sparkpointinnovations.com
902	Stone Mountain Memorial Association	www.stonemountainpark.org
1005	The EDMAT Company, Inc.	www.edmatcompany.com
100	Triumph Learning	www.triumphlearning.com
806	Tybee Island Marine Science Center	www.tybeemarinescience.org
605	UGA-Georgia 4-H Environmental Education	www.georgia4h.org/ee
705-706	Virginia Museum of Natural History Paleontology Dept.	www.vmnhpaleontology.wordpress.com
700	Ward's Science	www.wardsci.com
602	Western Governors University	www.wgu.edu
805	Zoo Atlanta	www.zooatlanta.org

GEORGIA SCIENCE TEACHERS ASSOCIATION

FEBRUARY 6-8, 2013

MACON CENTREPLEX
EXHIBITION HALL A
MACON, GEORGIA

Stop by the GSTA Store - located in the Exhibit Hall

- Your one stop shop for conference t-shirts, lab coats, and science toys for all science teachers.

MAPS & LAYOUT

Convention Center:

Marriott Conference Rooms

GSTA 2014 PERSONAL CONFERENCE SCHEDULE

THURSDAY PLANNER

Time	Room	Session
8:00	**Exhibit Hall**	Exhibit Hall Opens – No Sessions
9:00		
10:00		
11:00	**Exhibit Hall B**	Featured Speaker: Dr. Sharon Schleigh
12:00		
1:00		
2:00		
3:00		
4:00		
5:00	**Lobby**	Meet Your District Director

FRIDAY PLANNER

Time	Room	Session
8:00		
9:00		
10:00		
11:00	**Exhibit Hall B**	General Session
11:30	**Exhibit Hall B**	Keynote Speaker
12:30		
1:30		
2:30		
3:30		
5:00	**Exhibit Hall**	Exhibit Hall Door Prizes – Must be Present to Win!
7:00	**Armory Ballroom**	Awards Banquet – Ticket Required

SATURDAY PLANNER

Time	Room	Session
8:00		
9:00		
10:00		
11:00		